

DICTIONARY OF AGRICULTURAL ENGINEERING

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About the Author



Alexis T. Belonio is a Professional Agricultural Engineer. Presently, he is an Associate Professor and Chairman of the Department of Agricultural Engineering and Environmental Management, College of Agriculture, Central Philippine University, Iloilo City. He finished his Bachelor of Science in Agricultural Engineering and Master of Science degrees from Central Luzon State University, Muñoz, Nueva Ecija. He has been deeply involved in teaching, research, project development, and entrepreneurial activity on various agricultural engineering projects since 1983.

He was awarded by the Philippine Society of Agricultural Engineers (PSAE) as Most Outstanding Agricultural Engineer in the Field of Farm Power and Machinery and by the Professional Regulation Commission (PRC) as Outstanding Professional in the Field of Agricultural Engineering in 1993. In 1997, he was awarded by the TOYM Foundation and the Jerry Roxas Foundation as the Outstanding Young Filipinos (TOYF) in the Field of Agricultural Engineering. He is presently a PSAE Fellow Member.

As a dedicated professional, he serves as technical consultant to various agricultural machinery manufacturers in Region VI. He also serves as a Reviewer of the TGIM Foundation Review Center on the field of Agricultural Machinery and Allied Subjects, and Agricultural Processing and Allied Subjects since 1998. He has written and published several research and technical papers.

Other Books Available

Agricultural Engineering Design Data Handbook
Agricultural Engineering Formula
Problems and Solutions in Agricultural Engineering
Agricultural Engineering Reviewer Volume I
Agricultural Engineering Reviewer Volume II
Rice Husk Gas Stove Handbook
Small Farm Irrigation Windpump Handbook

A

Abandoned Well [Soil & Water] A kind of well that has been treated to eliminate the potential for contamination of aquifer.

Abattoir [Ag Struc] A slaughterhouse.

Aboiteaux [Soil & Water] Dike and drainage structure protecting marshlands; Outlet structure with flap gate which permits outflow of fresh water, but prevents inflow of tidal salt water.

Abomasum [Gen Agri] The fourth compartment of a ruminant.

Abortion [Gen Agri] Expulsion of dead fetus before the end of the gestation period.

Abrasion [Gen Agri] The physical weathering of a rock surface by running water, glaciers or wind laden with fine particles.

Abrasion Process [Gen Agri] Is a bran removal process that uses a rough surface, which is an abrasive stone, to break and peel the bran off the grain.

Abrasive Polisher [Ag Proc] A whitening machine used to remove the bran from the paddy kernel, using abrasive action between the kernel and the emery stone.

Abscissic Acid [Gen Agri] A plant growth regulator or hormone that affects dormancy; it acts as a growth inhibitor.

Abscission [Gen Agri] Is the natural separation of leaves, flowers, and fruits or buds from the stems or other plant parts by the formation of a special layer of thin-walled cells.

Absolute Humidity or Vapor Density [Irrig & Drain] Is the mass of water vapor per unit volume of air.

Absolute Pressure [Irrig & Drain] Is the measure of pressure above zero.

Absolute Temperature [Gen Eng] Is the number of degrees above absolute zero expressed in Kelvins or Rankine.

Absorption [Gen Eng] The adherence of gas, liquid, or dissolved materials to the surface of solids through physical and or electrochemical attachment.

Absorption, Net [Ag Proc] The amount of preservative retained in the wood immediately after completion of the treating operation.

Absorption Refrigeration [Ag Proc] Is a heat-operated unit, which uses a refrigerant that, is alternately absorbed and liberated by the absorbent.

Absorptivity of a Surface [Ag Proc] Is the ratio of rate at which a given surface absorbs radiation to the rate of radiation of a black body at the same temperature.

AC [Gen Eng] Alternating Current.

ACA [Ag Struc] Abbreviation for ammoniacal copper arsenate, a waterborne wood preservative.

Acequia [Irrig & Drain] An irrigation ditch or canal.

Accelerated Erosion [Soil & Water] Erosion which is much more rapid than normal, natural, or geological erosion, primarily as a result of the influence of the activities of man or in some cases, of animals.

Acceptance Test [Ag Mach] Test carried out on samples selected from a lot for the purpose of acceptance of the lot.

Accessory [Ag Power] a part of mechanism that may be added to a functional powered unit, not utilizing its mechanical power, for the purpose of enhancing the performance of that unit.

Accumulated average cost [Ag Mach] total cost for the accumulated use of a machine divided by the number of accumulated time units.

Accumulation [Soil & Water] The build-up or increase of one or more constituents in the soil at a given position as a result of translocation. The build-up may be a residue due to the translocation of material out of the horizon or may be due to an addition of material.

Accumulator [Ag Mach] A device used for storing liquid under pressure (sometimes used to smooth out pressure surges in a hydraulic system).

Accuracy [Gen Eng] the extent to which the readings of a measurement approach the true values of a single measured quantity.

Acid Mine Drainage [Irrig & Drain] Water draining from areas that have been mine for coal or other mineral ores.

Acid Rain [Irrig & Drain] Precipitation that has a low pH (less than 5.6, which is normal for "natural" precipitation).

Acid Rock [Irrig & Drain] An igneous rock that contains more than 60 per cent silica and free quartz.

Acid Soil [Soil & Water] Is a soil with a pH below 7.0.

Acre-foot [Soil & Water] Refers to the volume of water that would cover one acre to a depth of one foot.

Activated Sludge Process [Ag Struc] A biological wastewater treatment process in which a mixture of wastewater and biological solids or activated sludge is agitated and aerated. The activated sludge is subsequently separated from the treated wastewater (mixed liquor) by sedimentation and wasted and returned to the process as needed.

Active Ingredient [Gen Agri] Any substance or group of structurally similar substances that will prevent, destroy, repel, or mitigate any pest or that functions as a plant regulator, desiccant, or defoliant.

Active Ingredient Deposit Rate [Gen Agri] The amount of active ingredient deposited per unit area.

Active Ingredient Rate [Gen Agri] The amount of active ingredient applied per unit treated, expressed in terms of mass per relevant unit treated (for area treatment; kg/ha, lb/acre, or oz/1000 ft of row; for space application; mg/m³, or oz/1000 ft³; for individual units Mg/plant or animal.

Actual [Ag Mach] Change in value of a machine.

Actual Capacity [Ag Mach] The weight of the threshed grain collected from the main grain outlet per unit time.

Actual Loads [Ag Elec] Refer to the total load for all watts which will be required at any overtime.

Actual Load Value [Ag Elec] This is also called the maximum demand.

Actuator [Ag Mach] A device which uses fluid power to produce mechanical force and motion.

Acute [Ag Elec] Generally characterized by a short and often sever course.

Adapter [Irrig & Drain] A coupler fabricated for attachment of hose, threaded pipe, or other devices to irrigation pipe, or for connecting irrigation pipes of different sizes.

Addendum [Ag Mach] The radial distance between the addendum circle and the pitch circle of a gear.

Addendum Circle [Ag Mach] Circle that bounds the outer ends of the teeth.

Addendum Diameter [Ag Mach] Diameter of the addendum circle.

Additive [Ag Mach] A matter which is added to improve fuel.

Additive [Ag Mach] Any compound added to the fuel to modify its properties.

Additive, Soil [Gen Agri] Foreign materials, other than seeds, which are added to and/or incorporated in soil for directly influencing the soil condition or environment. (These include pesticides, fertilizers, mulches, or conditioners, but not foreign bodies such as drain tiles, which have an indirect influence).

Adenosine diphosphate (ADP) [Gen Agri] A high-energy phosphate compound. This is converted to ATP by the addition of phosphate, which is attached to the ADP molecule by a high-energy bond.

Adenosine triphosphate (ATP) [Gen Agri] Is a high-energy molecule that is the major source of usable chemical energy for cellular work.

ADG Average Daily Gain.

Adhered Soil Bodies [Ag Mach] Masses of soil (may be stationary or in a relatively slow motion) which adheres on soil-working surfaces and act as a part of the tool.

Adjustable Orifice [Irrig & Drain] A metering device used on gravity flow granular applicators that regulates flow rate.

Ad libitum [Gen Agri] Free choice; allowing animals to eat all they want.

Admixture It is a material other than portland cement aggregate. Or water added to concrete to modify its properties.

Adsorption [Ag Proc] The adherence of dissolved, colloidal or finely divided solids on the surfaces of solid bodies with which they are brought into contact.

Ad Libitum [Gen Agri] At pleasure; Availability of feeds to animals on free-choice basis.

Advance Time [Irrig & Drain] Time required for a given stream of irrigation water to move from the upper end to the lower end of a field.

Aerated Static Pile [Soil & Water] Composting system using controlled aeration from a series of perforated pipes running underneath each pile and connected to a pump that draws or blows air through the piles.

Aeration [Ag Proc] The moving of air through stored grain at low airflow rates (generally between 0.07 - 28 m³/ minute per ton) for purposes other than drying, to maintain or improve its quality; [FS] A process of causing intimate contact between air and a liquid by one or more of the following methods: spraying the liquid in the air; bubbling air through the liquid, and agitating the liquid to promote absorption of oxygen through the air liquid interface.

Aeration Unit [Ag Struc] A tank or lagoon in which sludge, wastewater or other liquid is aerated.

Aerators [Ag Struc] A device which brings about aeration of liquid and highly manure for the purpose of accelerating aerobic decomposition.

Aerial Roots [Gen Agri] Are roots that arise from the stem above the ground.

Aerobic [Agri Waste] A term usually applied to microorganisms that require oxygen to live and reproduce.

Aerobic Bacteria [Ag Waste] Bacteria that require free elemental oxygen for their growth.

Aerobic Decomposition [Soil & Water] The decay organic matter by microorganisms in the presence of oxygen.

Aerobic Lagoon [Ag Struc] See lagoon and oxidation pond.

Aerobic Organism [Agri Waste] A term usually applied to microorganisms that require oxygen to live and reproduce.

Aerosol [Ag Mach] A system of colloidal particles dispersed into air or gas, e.g., smoke or fog.

Aerosols [Ag Mach] Distribution of droplets with $Dv_{0.5} \leq 50 \mu\text{m}$.

Aerosol Generator (Foggers) [Ag Mach] Any mechanical or thermal device that produces a liquid dispersion having a volume median diameter less than 50 μm .

Aflatoxin [Gen Agri] Is a group of highly poisonous and carcinogenic compounds, which are, produced by molds or fungi *Aspergillus flavus* on suitable substrates such as corn, peanuts, coconuts, oilseeds, cassava, etc. Aflatoxin content is expressed in parts per billion (ppb).

A-frame [Soil & Water] A structural cross section resembling the capital letter A, which consists of two rigid members together at the bottom and usually braced in the middle.

Afterbirth [Gen Agri] The placenta and allied membrane with which the fetus is connected. It is expelled following delivery.

Agalactia [Gen Agri] A failure to secrete milk following parturition.

Age Hardening (Precipitation Hardening) [Ag Mach] It occurs in some metals, notably certain stainless steel, aluminum, and copper alloys, at ambient temperature after solution heat treatment, the process being one of a constituent precipitating from solid solution.

Aggregates [Ag Struc] The materials held together by the paste formed of cement and water are the aggregates. It is inert materials natural sand, crushed stone, pebbles, cinders, and slag.

Aggregation [Ag Struc] The process by which particles formed naturally or artificially and including such particles as crumbs, granules, clods, faecal pellets, fragments of faecal pellets and concretions.

Agitation [Ag Proc] The turbulent mixing of liquid and solids.

Agribusiness [Gen Agri] Producers and manufacturers of agricultural goods and services, such as fertilizer and farm equipment makers, food and fiber processors, wholesalers, transporters, and retail food and fiber outlets.

Agricultural Alarm System [Ag Struc] A fixed installation alarm system that is utilized in an agricultural structure.

Agricultural Building [Ag Struc] A shelter from farm animals, or crops; or when incidental to agricultural production, a shelter from processing or storing products of farm, animals, or crops, or storing or repairing agricultural implements.

Agricultural Climatology [Irrig & Drain] In general, climatology as applied to the effect of climate on crops.

Agricultural Equipment [Ag Mach] Agricultural tractors, self-propelled machines, implements, and combinations thereof designed primarily for agricultural operations.

Agricultural Field Equipment [Ag Mach] Agricultural tractors, self-propelled machines, implements, and combinations thereof designed primarily for agricultural field operations.

Agricultural Implement [Ag Mach] Agricultural field equipment that is not self-propelled, used in agricultural operations for the production of food and fiber.

Agricultural Irrigation [Irrig & Drain] Water distribution systems and practices in agriculture.

Agricultural Machines [Ag Mach] Consists of agricultural tractors, self-propelled and pedestrian-operated machines, implements, and combinations thereof primarily used for agricultural operations.

Agricultural Residue [Agri Waste] A term normally associated with the production and processing of food and fiber on farms, feedlots, ranches and forests which may include animal manure and crop residue.

Agricultural Structure [Ag Struc] A shelter for farm animals or crops; or when incidental to agricultural production, a shelter for processing or storing

ring products of farm animals or crops, or for storing or repairing agricultural equipment.

Agricultural Tractor [Ag Mach] A traction machine designed and advertised primarily to supply power to agricultural implements and farmstead equipment.

Agricultural Wastes [Agri Waste] Waste normally associated with the production and processing of food and fiber on farms, feedlots, ranches, and forests which may include animal manure, crop residues, and dead animals; Also agricultural chemicals, fertilizers and pesticides which may find their way into surface and subsurface water.

Agroforestry [Gen Agri] Is a practical adaptation of reforestation whereby the species planted have economic value, such as mango, pili and so on..

Air Bleeder [Ag Mach] A device used to remove air from a hydraulic system. Types include a needle valve, capillary tubing to the reservoir, and a bleed plug.

Air Blast Nozzle [Ag Mach] A pneumatic atomizer which utilizes a relatively large volume of high-speed, low-pressure air. (The term is occasionally used to designate the entire class of pneumatic atomizers).

Airborne Drift Deposits [Ag Mach] The deposition of chemical particles outside the intended target area. The dispersion of chemical particles to the atmosphere outside the intended target area.

Air Capacity of Soils [Soil & Water] Is defined as the quantity of air in the soil which remains after the soil has been saturated with water to the point of absolute water capacity.

Air change ratio [Ag Struc] Ratio of the volume of air that enters a room to the volume of air of the empty room.

Air Circulation [Ag Struc] The process of moving or mixing air within a greenhouse to control temperature, humidity and carbon dioxide distribution.

Air Conditioning [Ag Struc] Is the simultaneous control of temperature, humidity, air motion, air distribution, ventilation and purity of atmosphere in a confined space.

Air-cooled (direct cooling system) [Ag Struc] System wherein air is used to remove heat from the engine through metal fins or shrouds which are located around the cylinder thus creating the flow of air to the engine body in order to maintain its operating temperature.

Air Counter Flow [Soil & Water] Upward movement of air through the soil during downward flow (percolation) water.

Air Diffusers [Ag mach] A submerged porous diffuser or air nozzle whose action results in direct air entrainment.

Air Distribution or Circulation [Ag Struc] Pattern of air movement in a livestock building.

Air Drainage [Soil & Water] Renewal of soil by air diffusion.

Air Dried [Ag Struc] A condition of dryness of lumber or other wood products that have been dried by exposure to prevailing atmospheric conditions, outdoors or in an unheated shed.

Air Duct [Gen Eng] Pipe, tube or passageway for conveying air.

Airfoil [Gen Eng] The cross section profile of the leeward side of a wind generator blade. Designed to give a low drag and good lift. Also found on an airplane wing.

Airflow Meter [Ag Proc] An instrument for measuring the flow rate of air, usually in liters per minute or cubic per minute.

Air Flow Rate [Ag Proc] The flow rate of air, expressed in volume per relevant unit (m^3/s , $m^3/tree$, ft^3/min); The volume of air delivered to the grain mass per unit time.

Air/Fuel Ratio [Ag Power] The ratio (by weight or by volume) between air and fuel.

Air Gap [Gen Eng] In a permanent magnet alternator, it is the distance between the magnets and the laminates.

Air Heat Exchange [Ag Mach] Colling method, involving no water loss, during which a fan blows air past finned tubes carrying recirculating cooling water.

Air Inlet [Ag Mach] Opening designed to supply fresh air to a facility.

Air Lift Pump [Ag Mach] An apparatus for lifting water by using the buoyancy of injected air.

Air Outlet [Ag Mach] Opening through which exhaust air leaves a facility.

Air Pressure Manure Transfer System [Ag Struc] A manure transfer system utilizes a collection tank which is pressurized after filling, causing the collected manure to move into and through the pipeline.

Air Relief Valve [Soil & Water] Device that releases air from a pipeline automatically without permitting loss of water.

Air Seeders [Ag Mach] Machine with points of seed deposition which are behind multiple shovel or sweep tillage tools of a chisel plow or field cultivator.

Air Sprayer [Ag Mach] An apparatus consisting of a pressure source and controls for the spray liquid and a blower with suitable ducts to produce an air jet in which spray nozzles are located. Air from the blower carries the spray for a distance for deposition on the target being treated.

Air Vacuum, Air Relief Valve [Soil & Water] Device that releases from a pipeline automatically without permitting loss of water or admits air automatically if the internal pressure becomes less than atmospheric.

Ageing [Ag Mach] Term applied to change in physical and mechanical properties of low carbon steel that occur with the passage of time and adversely affect formability.

Ageotropic [Gen Agri] Lacking a geotropic response, as in stolons, rhizomes, and lateral roots which grow either erect or downward.

Agitation [Ag Struc] The turbulent mixing of liquid and solids.

Agitation Equipment [Ag Struc] Slurry and thin slurry manure handling equipment whose primary purpose is to agitate manure in storage and convert it into a homogeneous slurry.

Agitation pumps [Ag Struc] Manure pump which agitate by recirculating manure slurry, pumping it back into the manure storage either above or under the manure surface.

Agitator [Ag Mach] A rotating device located inside the hopper of gravity flow applicators and broadcast spreaders that enhances delivery of granules to the adjustable orifice. Some agitators may prevent granule flow when operation stops.

Aggregate [Ag Stuc] Refers to the inert material, which is mixed with portland cement and water to produce concrete.

Agricultural Credit [Gen Agri] Includes all loans and/or advances granted to borrowers to finance activities relating to agriculture and the processing, marketing, storage, and distribution of products.

Agricultural Economics/Farm Economics [Gen Agri] Is concerned with the farmer as a member of society, deals with the farms as a group and determines the principles governing not only the farm business but also the general welfare on a national and international level.

Agricultural Field Equipment [Ag Mach] These are equipment designed primarily for agricultural field operations. This includes agricultural tractors, self-propelled machines, implements, and their combinations

Agricultural Implement [Ag Mach] An implements that are designed to perform agricultural operations.

Agricultural Machinery and Equipment [Ag Mach] A field of study which deals with the application, use, and management of various agricultural machines, tools, and equipment used for production and post production operation.

Agricultural Machines [Ag Mach] Consists of agricultural tractors, self-propelled and pedestrian-operated machines, implement and combinations thereof primarily used for agricultural operation.

Agricultural Mechanization [Ag Mach] It is the development, manufacture, and extension of appropriate agricultural tools, implements, and machinery using animal, human, mechanical, electrical, and other renewable sources of energy for agricultural production and development and postharvest operation.

Agricultural Mowing [Ag Mach] Mowing agricultural areas such as pasture clipping, crop residue shredding and disposal, heavy brush cutting for land cleaning or waterways, or right-of-way maintenance along power or gas lines.

Agricultural Tractor [Ag Mach] A self-propelled, wheeled, track-laying or semi track-laying machine primarily designed to pull, push or carry and/or operate trailers or provide power to implements and machines used for agricultural, forestry and other related works.

Agricultural Trailer [Ag Mach] A transport machine used in agriculture which is suitable and intended for coupling to an agricultural tractor or self-propelled machine.

Agronomy [Gen Agri] Is the science of crop production and soil management or field management.

Air-assist nozzle [Ag Mach] An atomizer in which pressurized air is utilized to enhance the atomization produced by pressurized liquid.

Airblast nozzle [Ag Mach] A pneumatic atomizer which utilizes a relatively large volume of high-speed, or low-pressure air.

Airborne Drift [Ag Mach] The dispersion of chemical particles to the atmosphere outside the intended target area.

Air-Cooled (Direct Cooling System) [Ag Mach] System wherein air is used to remove excess heat from the engine through metal fins or shrouds which are located around the cylinder thus creating the flow of air to the engine body in order to maintain its operating temperature.

Air Dry [Gen Agri] Is somewhat variable and is not available to plants. The moisture dryness is held with a force of 1000 atm.

Air Pressure Manure Transfer System [Ag Struc] A manure transfer system which utilizes a collection tank which is pressurized after filling, causing the collected manure to move into and through the pipeline.

Air Sprayer [Ag Mach] An apparatus consisting of a pressure source and controls for the spray liquid and a blower with suitable ducts to produce an air jet which spray nozzles are located.

Air Velocity [Ag Mach] The time rate of air motion along a directional vector.

Alarm System [Ag Mach] An organized group of equipment including a control console to monitor sensors, sensors to detect alarm conditions, a power source to provide power and usually an auxiliary alarm device remotely located from the console which provides an audible and/or visual indication of an alarm state.

Albinism [Gen Agri] A congenital absence of pigment in the skin, hair, and eyes.

Alfalfa [Gen Agri] A valuable leguminous crop for forage or hay used in livestock feeding.

Alfalfa Valve [Soil & Water] An outlet valve attached to the top of a riser with an opening equal in diameter to the inside diameter of the riser pipe and an adjustable lid or cover to control the flow of water.

Algae [Gen Agri] Primitive plants, one- or many-celled, usually aquatic, and capable of synthesizing their foodstuff by photosynthesis.

Algaecide [Gen Agri] Any substance that will kill or control algal growth.

Algal Bloom [Gen Agri] Large, visible, masses of algae that develop in bodies of water during warm weather.

Alkalinity [Gen Agri] The capacity of water to neutralize acids, a property imparted by the water's content of carbonates, bicarbonates, hydroxides, and occasionally borates, silicates and phosphates.

Alkaline Soil [Gen Agri] Is a soil usually above pH 8.5, containing alkali salts in quantities that usually are deleterious to crop production.

Alkali Soil [Gen Agri] Soil containing sufficient exchangeable sodium to interfere with water penetration and the growth of most crops.

Alkalinity [Gen Agri] The capacity of water to neutralize acids.

Allelopathy [Gen Agri] The suppression of growth of one plant species by another due to the release of toxic substances.

Allergen [Gen Agri] Is any substance that gives rise to the formation of antibodies and the resultant allergic reaction. Also called an antigen.

Allergy [Gen Agri] A severe reaction that occurs in some individual following the introduction of antigens into their bodies.

All-in, All-out System [Ag Struc] Management system in which room is filled or emptied of livestock all at once.

Allowable Stress [Ag Struc] It is the maximum unit stress considered desirable for design calculations, considering the characteristics of the material, the type of structure, the degree of exposure to deterioration, etc.

Allowance [Ag Mach] Is an intentional difference between the maximum materials limits of mating parts.

Alloy [Ag Mach] A mixture of two or more different metals, usually to produce improve characteristics.

Alluvial Pan or Alluvial Cone [Gen Agri] Sediments deposited in a characteristic fan or cone shape by a mountain stream as it flows on to a plain or flat open valley.

Alluvial Plain [Gen Agri] A flat area built up of alluvium.

Alluvial Soil [Gen Agri] A general term for those soils developed on a fairly recent alluvium.

Alluvium [Gen Agri] A sediment deposited by streams and varying widely in particle size. The stones and boulders when present are round or sub-rounded. Some of the most fertile soils are derived from alluvium of medium or fine texture.

Alopecia [Gen Agri] The loss of hair.

Alternate Set Irrigation [Irrig & Drain] A method of managing irrigation whereby, at every other irrigation, alternate furrows are irrigated, or sprinklers are placed midway between their locations during the previous irrigation.

Alternate Side Irrigation [Irrig & Drain] The practice of furrow irrigating one side of a crop row (for row crops or orchards) and then, at about half the irrigation time irrigating the other side.

Alternating Current (AC) [Gen Eng] An electric current that changes polarity.

Alternator [Gen Eng] An electromechanical device which produces AC current.

Alternators [Gen Eng] A device for converting mechanical energy into electrical energy in the form of alternating current.

Alternative Farming [Gen Agri] Production method other than energy and chemical intensive one-crop (monoculture) farming. Alternatives include using animal and green manure rather than chemical fertilizers, integrated pest management instead of chemical pesticides, reduced tillage, crop rotation, alternative crops, or diversification of the farm enterprise.

Aluminum [Gen Eng] Is the next best choice by manufacturers of electric wire and cable. Is lighter in weight than copper.

Aluminum and Aluminum Alloy Plate [Gen Eng] Rolled rectangular section of thickness greater than 6.0 mm with either sheared or sawn edges.

Aluminum and Aluminum Alloy Sheet [Gen Eng] Rolled rectangular section of thickness over 0.15 mm up to 6.0 mm, with sheared, slit or sawn edges.

Aluminum Sheets [Gen Eng] Can be purchased in various degrees of hardness such as 2S, 3S, etc., where 3S is harder than 2S. Sheets 24" x 72" and in gauges from 30, 28, 26, 24, 22, 20 and 18 will meet the requirements of most shop projects such as trays, bowls and lamps.

Ambient [Ag Mach] Lying around, surrounding, encompassing. With respect to a stove, ambient temperature means the temperature in its neighborhood.

Ambient Temperature [Ag Mach] Surrounding air temperature.

Ambrosia Beetles [Gen Agri] Small cylindrical beetles which have symbiotic relationship with a fungus called ambrosia.

Amendment (Soil) [Gen Agri] A material that is added to soil to improve chemical or physical characteristics or as a means of treating a waste material.

Amino Acid [Gen Agri] Is an organic acid which one or more of the hydrogen atoms has been replaced by the amino group (-NH₂). It is the building blocks in the formation of proteins.

Ammeter [Gen Eng] A device used to measure current; An instrument used to measure the rate of current flow in Amperes.

Ammonia (NH₃) [Gen Agri] An irritating, non-toxic gas resulting from manure degradation.

Ammonia Fixation [Gen Agri] Adsorption of ammonium ions by clay minerals, rendering them insoluble and non-exchangeable.

Ammonification [Ag Struc] The biochemical process whereby ammoniacal nitrogen is released from nitrogen-containing organic compounds.

Ampacity [Gen Eng] Is the current in amperes that a conductor can carry continuously under the conditions of use without exceeding its temperature rating.

Amperage [Gen Eng] A unit of electrical current, equal to Coulombs per second. This is the flow rate of electrons moving through a circuit, very roughly analogous to gallons per minute flowing from a faucet.

Ampere [Gen Eng] Base unit of current (coulomb per second). A unit of measurement defined as the current that one volt can send through one ohm resistance.

Ampere-Hour [Gen Eng] Unit used to show energy storage capacity of cell or battery.

Ampere-Hour Capacity [Gen Eng] A measurement of the battery capacity to deliver a specified current over a specified length of time.

Ampere-Turn per Meter [Gen Agri] Base unit of magnetic field strength.

Anabolic [Gen Agri] Refers to the productivity/synthesis of complex materials of living tissue.

Anabolism [Gen Agri] Any constructive process by which simple substances are converted by living cells into more complex compounds.

Anaerobic [Gen Agri] Conditions that are free of molecular oxygen. In soils, this is usually caused by excessive wetness.

Anaerobic Bacteria [Agri Waste] Bacteria not requiring the presence of free or dissolved oxygen.

Anaerobic Decomposition [Ag Struc] The decay of organism matter by microorganisms in the absence of oxygen.

Anaerobic Digestion [Ag Struc] Conversion of organic matter in the absence of oxygen under controlled conditions to gases such as methane and carbon dioxide.

Anaerobic Organism [Agri Waste] A microorganism that normally does not require oxygen to live and reproduce.

Anchorage [Ag Struc] A device for anchoring a building or object subjected to uplift force.

Anchor End [Ag Mach] The closed end of the cylinder.

Anchoring [Ag Mach] Tillage to partially bury and thereby prevent movement of materials such as residues or artificial mulches.

Anemometer [Gen Eng] A device that measures wind speed.

Anestrous [Gen Agri] Period of time when the female is not in estrus; the nonbreeding season.

Angiosperm [Gen Agri] Is a plant in which the female gamete is protected within an enclosed ovary.

Angle of Approach [Ag Mach] The angle between the supporting surface and that section of track between the front bogie wheel and the front idler or sprocket.

Angle of Attack [Gen Eng] The angle of relative air flow to the blade chord.

Angle of Departure [Ag Mach] The angle between the supporting surface and that section of track between the rear bogie wheel and the rear idler of sprocket.

Angle of Repose [Ag Proc] The acute angle formed between a horizontal surface and the slope of a pile of granules at equilibrium after being poured from a fixed overhead point; [AME] Application rate of many granular applicators varies inversely with the angle of repose.

Angular Bars [Ag Mach] Are bar materials which are at right angles and are useful as bench legs, for reinforcing corners and for making projects of all kinds. Mild steel and aluminum angles can be purchased in common sizes or $1/16 \times 1/2 \times 1/2$, $1/16 \times 3/4 \times 3/4$, $1/8 \times 1 \times 1$, $1/8 \times 1 \times 1/2$ x $1 \times 1/2$ inches.

Animal Breeding [Gen Agri] Is the art and Science of the genetic improvement of farm animals.

Animal Unit [Ag Power] A standard measure based on feed requirements, used to combine various classes of livestock according to size, weight, age, and use.

Anion [Gen Agri] An ion having a negative charge.

Anion Exchange Capacity [Gen Agri] The total amount of anions that a soil can adsorb, usually expressed as meg kg-1 soil.

Anisotropy [Ag Proc] Refers to the characteristics of exhibiting different properties when tested in different directions (as tensile strength "with the grain" or "across the grain").

Anisotropic [Gen Agri] (1) Possessing different physical properties in different directions, (2) having physical properties that depend on direction, (3) Minerals or part of soils: alternately bright and dark between crossed polars when the microscope stage is rotated. The bright position is due to the formation of interference colors.

Anisotropic Soils [Soil & Water] Soils not having the same physical properties when the direction of measurement is changed.

Anneal [Ag Mach] To toughen metals by heating then cooling.

Annealing [Gen Eng] It is a heating and slow cooling of a solid metal, usually done to soften it.

Annelid [Gen Agri] Red blooded worm such as an earthworm.

Annual [Gen Agri] A plant that completes its life cycle from seed in one year or less.

Annual Plant [Gen Agri] A plant that completes its life cycle within one year.

Anorexia [Gen Agri] Lack or loss of appetite for food.

Antibiotic [Gen Agri] Is a substance used in the treatment of bacterial (as distinct from viral) infectious diseases in humans, animals or plants.

Antidynamic Tube [Ag Proc] A vertical conduit, generally at the center of a bin, with the bottom of the tube placed directly over an orifice through which grain can be unloaded.

Anti-Plugging [Ag Mach] A circuit or installation that prevents the motor from being reversed without first allowing the motor to stop, or that will not allow the motor winding to be utilized for braking.

Antiserum [Gen Agri] A serum that contains an antibody or antibodies; it gives temporary protection against a certain infectious disease.

Anti-Stain Chemical [Gen Agri] A chemical applied to lumber and other wood products in order to prevent chemical and/or fungus stain development.

Anther [Gen Agri] The part of the stamen that contains the pollen.

Anthocyanin [Gen Agri] Is a water-soluble plant pigment that produces many of the red, blue, and purple colors in plants.

Aperture Size [Ag Proc] Dimension defining an opening.

Apical Dominance [Gen Agri] Is the suppression of the development of lateral buds by high concentration of auxins in the shoot apex.

Apogeotropic [Gen Agri] Is the turning upward in response to a stimulus opposed to the force of gravity.

Apomixis [Gen Agri] Is a type of asexual production of seed (as in Kentucky blue grass).

Apparent Flow Velocity (Porous Media Flow) [Soil & Water] Flow rate of water passing through a unit cross section of porous media.

Apparent Modulus of Elasticity [Gen Eng] When a material is inelastic (bone) loading and unloading the material several times within the linear limit may produce loading and unloading curves that may give different values for the modulus of elasticity.

Apparent Specific Gravity [Gen Agri] It is the ratio of the weight of a given volume of dry soil, air space included, to the weight of an equal volume of water.

Applicable Work [Ag Mach] Range of operations that could be performed by the machine as specified by the manufacturer.

Application Efficiency [Irrig & Drain] The ratio of the average depth of irrigation water infiltrated and stored in the root zone to the average depth of irrigation water applied, expressed as a percent.

Application Rate [Soil & Water] Rate that water is applied to a given area. Usually expressed in units of depth per time; [Ag Mach] The flow rate of air in a jet.[ASAE] the amount of any material applied per unit treated.

Appurtenances [Ag Struc] Valves, piping, pumps, liquid-level-sight-gage, metering device or any devices connected to a storage container that come in contact with the product of the container.

Apron [Soil & Water] Floor lining extending downstream from a hydraulic structure to protect the structure from erosion and scour; [FS] Extension (which is not necessarily attached structurally) of a grade-level floor (usually concrete) beyond the face of a building, feedbunk, or waterer.

Apron Slope [Ag Struc] The slope of the apron or alley expressed away from the bunk.

Aquaculture [Gen Agri] The production of aquatic plants or animals in a controlled environment, such as ponds, raceways, tanks, or cages, for all part of their life cycle.

Aquatic plant [Gen Agri] Is a plant that lives in water.

Aquiclude [Soil & Water] Underground geologic formation that neither yields nor allows the passage of an appreciable quantity of water, although it may be saturated with water itself.

Aquifer [Soil & Water] An underground formation that contains sufficient saturated permeable material to yield significant quantities of water; A geologic formation that hold and yield useable amount of water.

Aquitard [Soil & Water] Underground geologic formation that is slightly permeable and yields inappreciable amounts of water when compared to an aquifer.

Arch [Ag Struc] This type is used where high rise and floor spaces free of obstruction are desired. Its more frequent use on frames is to provide large hay-storage space over dairy stables and storage space in machinery sheds and similar structures. In two-story construction, the arch may be supported on the wall plate at the second floor level, or it may be continuous from crown to foundation wall with the arch ribs serving as studding in the sidewalls.

Arched Dam [Soil & Water] Curved masonry concrete dam, convex upstream, that depends to arch action for its stability.

Arch Roof [Ag Struc] Is also known as gothic roof. Prefabrication of laminated arched rafters has made the construction of arched roofs simple and easy. Its uses are the same as for the gambrel roof.

Ard Foot [Ag Struc] Is a unit of measure used in the computation of lumber. One ard foot is equivalent to 144 cubic inches or one square foot of lumber that is one m. thick.

Area of a Circle [Gen Eng] Pi multiplied by the radius squared.

Arid A term applied to a region or climate in which precipitation is too low to support crop production.

Arid Climates [Soil & Water] Climate characterized by low rainfall and high evaporation potential.

Arithmetic Mean [Irrig & Drain] This involves the averaging arithmetically all the rain amounts measured by the rain gauges within the area.

Armature [Ag Elec] The movable part of a relay, regulator, or horn or the rotating part of a generator or starter.

Arm Type Mower [Ag Mach] Mowers which are intended to be used frequently with the cutter portion not adjacent or parallel to the ground.

Armored Cable (Type A C or ACT) [Ag Elec] It can withstand more mechanical abuse than nonmetallic. It may be embedded in plaster finish or on brick or masonry.

Arrow [Gen Agri] The inflorescence of sugarcane plant.

Artesian Aquifer [Soil & Water] Aquifer that contains water under pressure as a result of hydrostatic head.

Artificial Insemination [Gen Agri] It is the introduction of semen into the female reproductive tract (usually the cervix or uterus) by a technique other than natural service.

Artificial Vagina [Gen Agri] Is a device used to collect semen from a male when he mounts in a normal manner to copulate. The male ejaculates into this device, which stimulates the vagina of the female in pressure, temperature, and sensation to the penis.

A.S.A. [Ag Mach] Stands for American Standards Association.

A.S.A.E. [Ag Mach] Stands for American Society of Agricultural Engineers.

Asbestos [Ag Struc] A heat-resistant and non-burning organic mineral.

Asepsis [Gen Agri] Condition that describes the freedom of plant materials, culture medium, confines of the culture vessel from contaminating microorganisms.

Asexual [Gen Agri] Is used in reference to reproduction by any method in which sexual fertilization is absent, or not completed.

Asexual Reproduction [Gen Agri] A form of reproduction which does not require the sex organ to facilitate the perpetuation of the species.

As fed [Gen Agri] Refers to feeding feeds that contain their normal amount of moisture.

Ash [Agri Waste] The inorganic matter remaining after complete combustion of wood or charcoal.

A.S.M.E. [Ag Mach] Stands for American Society of Mechanical Engineers.

Aspect ratio [Soil & Water] The aspect ratio of a rectangular orifice is the ratio of the length of the longer sides to the length of the shorter sides.

Aspirate [Ag Power] To breath (to draw out gas by suction). [AFPE] To circulate air continuously across or through an object.

Asphalt [Ag Struc] A brown-black bituminous substance found naturally or as a residue in petroleum refining.

Aspirator [Ag Proc] Cleaner that uses air to separate lower density material from the product.

Aspiration [Ag Proc] A process of cleaning by moving large volumes of air through a thin layer of grain, to separate the particles lighter in weight than the grain itself.

Assets [Gen Agri] Are economic resources (things of value) owned by a business, which are expected to benefit future operations.

Assimilative Capacity [Soil & Water] Natural ability of soil, air or water to accept and/or degrade potential pollutants without harmful effects to the environment.

Assortative Mating [Gen Agri] Is a form of non-random mating wherein individuals that are more phenotypically similar tend to mate more often.

A.S.T.M. [Ag Mach] Stands for American Society for Testing Materials.

Atmosphere [Gen Agri] The layer of gases surrounding the earth and composed of considerable amounts of nitrogen, hydrogen, and oxygen.

Atmospheric Moisture [Gen Agri] The water vapor component of the mixture of gases of the atmosphere.

Atmospheric Water [Gen Agri] Water present in the atmosphere either as a solid (snow, hail), liquid (rain) or gas (fog, mist).

Attaching Pins [Ag Mach] Removable pins provided in the yokes for attaching the cylinder to the implement.[ASAE] fixed trunion pins located on the body end and a loose pin on the reciprocating end of the device for attachment of device to tractor attachments or implements.

Attachment [Ag Mach] Any machine or implement which is connected to a powered unit for the purpose of accomplishing work such as mowing, plowing, etc.

Attachment Drive [Ag Mach] The pulleys, belts, chains, shafts, universal joints, connectors and fasteners provided with the attachment to transmit rotational power from the PTO of the powered unit to the first driven component on the attachment, such as a gear set, pulley, sprocket, or flywheel.

Auger [Ag Proc] A conveyor with screw type flighting in a tubular shaped enclosure with auxiliary accessories, to be usable in conveying

recommended materials by rotating the flighting in relation to the enclosure; Helical screw type device used to convey materials.

Auger Conveyor {Ag Proc] A rotating screw, usually in a trough or cylindrical tube used to move free flowing materials.

Auger Feed-handling System [Ag Proc] An organized group of equipment for conveying and distributing feed using augers.

AUM (Animal Unit Month) [Gen Agri] The amount of forage required by a mature cow (or other grazing animal) and her calf for one month.

Automatically Controlled [Ag Mach] Operated by the action of its mechanism being initiated by some impersonal influence, such as being controlled by low-level and high-level indicators.

Automatic Controller [Ag Mach] A motor starter that may be used to control a motor automatically.

Autotrophic [Gen Agri] Capable of producing food from non-food materials.

Auxiliary Alarm Device [Ag Mach] A component usually, but not necessarily, remotely located from the console which provides an audible and/or visual indication of an alarm state.

Auxiliary Conductors [Ag Mach] Those conductors used to carry current to devices that are not required for the movement of the machine.

Auxiliary Panels [Ag Mach] Enclosed assemblies of auxiliary control devices for the machine, such as motor controllers, relays, switches, and transformers, but not including the main controller or main start and stop function switches.

Auxiliary Power Take-Off [Ag Mach] An external shaft on an agricultural tractors, other than the rear PTO, to provide power to implements that are usually front or side mounted.

Auxiliary Pump [Soil & Water] Any pump designed to perform a service to the main pump or power unit, such as a cooling water or a standby pump to supplement the system for peaking requirements.

Auxiliary Spillway [Soil & Water] Dam spillway built to carry runoff in excess of that carried by the principal spillway. This is sometimes called emergency spillway.

Auxins [Gen Agri] Are organic substances that cause stem elongation.

Available Differential Pressure [Ag Mach] The steady state difference in hydraulic pressure between two male couplers connected to a coupler pair.

Available Moisture [Gen Agri] It is the difference in moisture content of the soil between field capacity and the permanent wilting point.

Available Soil Water [Soil & Water] The portion of water in a soil that can be readily absorbed by plant roots. It is the amount of water released between in situ field capacity and the permanent wilting point.

Available Water [Gen Agri] Refers to that part of the water in the soil that can be taken up by plant roots.

Available Water Capacity [Soil & Water] The weight percentage of water which a soil can store in a form available to plants. It is equal to the moisture content at field capacity minus that at the wilting point.

Avian [Gen Agri] Pertaining to all species of birds, including domestic fowl.

Axial Alternator [Gen Eng] An alternator design where a flat disc carrying magnets on the face (the armature) rotates and is attached to the blades and hub. Also called a rotor.

Axial Flow Fans [Ag Mach] Type of fan where propeller-type fan blades rotate in a plane that is at a right angle to airflow.

Axial Flow Pump [Soil & Water] Type of pump which develop most of the suction and discharge head by propelling or lifting action of the impeller vanes on the water; A rotary pump that develops head mostly by the propelling or lifting action of the vanes on water, commonly referred to as a propeller pump.

Axial Flow Thresher [Ag Mach] Throw-in type of thresher which allows the cut plants to move in helical manner around the threshing cylinder with a net effect of moving the material axially between the feeding and discharge outlets.

Axial or Other Rotary Separating Grates [Ag Proc] The rear or final portion of these grates are designed to separate grain from the material-other-than-grain.

Axis [Gen Eng] The centerline of a rotating object's movement.

Axle [Ag Mach] Portion of undercarriage support to which wheels are attached.

Azimuth [Soil & Water] The horizontal angle in degrees measured from due south in the northern hemisphere (due north in the southern hemisphere).

B

Baby Chicks [Gen Agri] Are newly hatched young chicken that are 1 to 10 days old.

Back Angle [Ag Proc] The angle between an element of the back cone and the plane of rotation.

Back Cone [Ag Proc] The angle of a cone whose elements are tangent to a sphere containing a trace of a pitch circle.

Back Cone Distance [Ag Proc] The distance along an element of the back cone from the apex to the pitch circle.

Backcross [Gen Agri] Refers to the crossing of an F1 generation hybrid with one of the parental types (breed). The offspring are referred to as the backcross generation.

Backfill [Ag Struc] Layer of compacted soil and gravel to support the digester wall.

Backfilling (Drainage) [Soil & Water] The replacement of the excavated material after drain replacement and blinding, or envelope installation.

Backflow Prevention Device [Ag Struc] A safety device used to prevent water pollution or contamination by preventing flow of a mixture of water and/or chemicals in the opposite direction of that intended.

Backfurrow [Ag Mach] A ridge formed by a plow when soil is moved together or on top of undistributed soil; Raised ridge left at the center of the strip of land, when plowing is started from center to side.

Background Level [Gen Agri] Is the amount of a substance expected to occur naturally in the environment.

Backhoe [Ag Mach] An excavator that pulls a bucket mounted on an arm toward the power unit to lift and carry spoil to the side of the trench or excavation.

Backlash [Ag Mach] The tooth space minus the tooth thickness of a gear.

Back-out Stall [Ag Struc] Type of stall where animals must back up to exit the stall.

Backpressure [Soil & Water] Increase of pressure in the downstream piping system above the supply pressure at the point of consideration which would cause, or tend to cause, a reversal of the normal direction of flow.

Backslope [Soil & Water] Land area on the downhill side of a terrace ridge or earth embankment.

Backwash [Ag Struc] A procedure that flushes clean water through a filter tank in reverse direction to the normal operating direction so as to remove captured organic and inorganic particulate from the filter media.

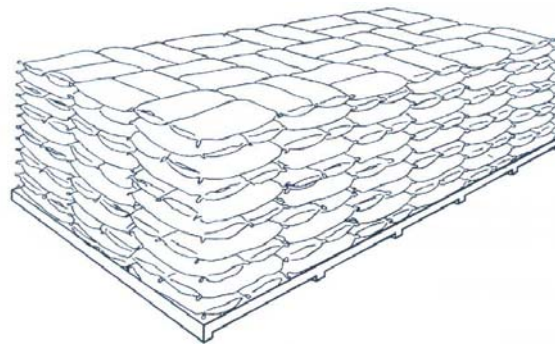
Bacteria [Gen Agri] A group of universally distributed, rigid, essentially unicellular prokaryotic microorganisms.

Bactericidal [Gen Agri] Capable of destroying/killing bacteria.

Bacteriostasis [Gen Agri] It is the retardation of the life processes of bacteria without killing them.

Baffle [Ag Struc] Usually flat plate for deflecting, retarding or regulating the flow of fluids or light, as in an adjustable ventilation air inlet; [SWE] Vanes, guides, grids, grating, or similar devices placed in a conduit to regulate water flow, uniform distribution reduce pressure or create mixing.

Baffle [Ag Struc] redistribute heat, to exhaust gases so better used. They the form of a mound the tunnel.



effect a more of velocities, losses, deflect

Used to redirect flow of they can be are usually in or a step in

Baffle Board [Ag Struc] Division in the digester that prevent the slurry from premature exit into the sludge/outlet tank.

Bagasse [Agri Waste] Is a fibrous by-product of sugarcane processing that is used in the manufacture of some types of paper products.

Bag Storage [Ag Proc] Storing of paddy or other produce in bags, usually made of jute (gunny) or polyethylene.

Balance Budget [Gen Agri] When a firm breaks even in income and expenses.

Balanced Design [Ag Struc] Is a design for reinforced concrete beam that will cause the limiting stresses in the concrete and steel bars to be reached simultaneously, causing them to fail at the same time.

Balance of Payment {Gen Agri] When dollars receive equal dollars paid.

Balance of Trade [Gen Agri] When exports equal imports.

Balance Ration [Gen Agri] The daily food allowance of livestock or fowl, mixed to include suitable proportions of nutrients required for normal health, growth production and well-being.

Balance Sheet or Farm Inventory [Gen Agri] Is a statement of what an enterprise owns and what it owes as of a particular date.

Balancing [Gen Eng] With wind turbine blades, it refers to adjusting their weight and weight distribution through 2 axes so that all blades are the same. Unbalanced blades create damaging vibration.

Ballast [Ag Mach] Mass that can be added or removed for the purpose of changing total load distribution.

Ball Bearing [Ag Mach] A bearing using steel balls as its rolling element between the inner and outer ring (race).

Balloon Type [Ag Struc] Plant consisting of a heat-sealed plastic or rubber bag (balloon), combining digester and gasholder.

Ballustrade [Ag Struc] A series or row of balusters joined by a handrail or a coping as the parapet of a balcony.

Baluster [Ag Struc] Is a small post supporting the handrail or a coping.

Banded Application [Gen Agri] Distribution of a chemical in parallel bands leaving the area between the bands free of chemical.

Banding fertilizer [Gen Agri] Is a type of localized fertilizer applied in bands or strips on one or both sides of the rows of drilled seeds on growing plants.

Band Saw [Ag Mach] Is a power tool with saw teeth on a continuous blade or band. It can cut different materials in a straight or curved line.

Bands on Disc Opener [Ag Mach] Exchangeable bands on one or both sides of coulter and single or double-disc blade furrow openers.

Bank Storage [Soil & Water] Water leaving a stream channel during rising stages of stream flow, most of which returns to stream flow during falling stages.

Bark [Gen Agri] Refers to all tissues outside the wood (xylem) cylinder.

Barn [Ag Struc] Is an enclosed covered building for the keeping and care of livestock and/or storage of roughage.

Barnyard [Ag Struc] Outdoor pen area adjoining the barn used for livestock.

Barrel Checking [Ag Struc] Checks that originate from the pith towards the bark portion found in logs and lumber which develop into a v-shaped split.

Barrow [Gen Agri] Refers to a male pig castrated before reaching sexual maturity.

Basal [Gen Agri] A diet common to all of experimental animals to which the experimental substance is added.

Basal Application [Gen Agri] An application of a chemical over an entire area of a field.

Base Acreage [Gen Agri] A farm's crop-specific acreage of wheat, feed grains, upland cotton, or rice eligible to enroll in commodity programs under previous legislation. Base acreage equals land planted for

harvest to the crop, plus any land enrolled in acreage reduction programs, plus land considered planted to the crop in 0,50/85-92 or under permitted normal flex or optional flex acreage shifts during a specified period of time.

Base Area [Soil & Water] (1) The cross-sectional area of the base of a cone penetrometer, (2) Contact area of a dam with original surface.

Base circle [Soil & Water] Circle of an involute cylindrical gear, the "base circle" of the involutes forming the tooth profile.

Base Flow [Soil & Water] Water in a stream that results from ground-water inflow i.e., that which is not affected by surface inflow.

Base Line [Soil & Water] (1) A preference line from which measurements are taken, (2) A parallel of latitude for public land surveys.

Base Mix [Gen Agri] Contains all ingredients used to fortify a grain-protein supplemental feed mix.

Base Plane [Ag Mach] Datum elevation for horizontal shaft pumps, the distance from the level of water source to the center line of the pump shaft.

Base Pressure [Soil & Water] Pressure measured at a point on the riser with a distance of at least five times the nominal sprinkler inlet diameter from the last upstream direction change or change in pipe cross-sectional area.

Base Saturation [Gen Agri] The extent to which a material is saturated with exchangeable cations other than hydrogen, expressed as a percentage of the cation-exchange capacity.

Base Time (t_b) [Gen Agri] Is the total of time to peak and recession time; $(t_b) = (t_p) + (t_r)$

Basic Commodities [Gen Agri] Six crops (corn, cotton, peanuts, rice, tobacco, and wheat) that are covered by parity-based price support provisions, provisions which have been suspended for the 1996 through 2002 crops of each commodities.

Basic Hydrograph [Soil & Water] Assumes that all hydrographs from all small watersheds (in the US) have similar forms. It is plotted over 100 arbitrary units of flow and 100 arbitrary units of time.

Basin [Soil & Water] 1) (hydrology) Area drained by a river and its tributaries, 2) (irrigation or recharge) Level plot or field, surrounded by dikes which may be Hooded.

Basin Irrigation [Soil & Water] Irrigation by flooding areas of level land surrounded by dikes.

Basket Roller [Ag Mach] A wide cylindrical wheel unit of various dimensions with an open grid pattern at the circumference formed by

various arrangements of straight or curved rods or bars for clod pulverization and firming or smoothing loosed soil in the row area.

Bastard Sawn [Ag Struc] Lumber (primarily hardwoods) in which the annual growth rings make angles of 30-60 in the surface of the piece.

Barn [Ag Struc] Roofed shelter for livestock (usually with at least one wall closed).

Barnyard [Ag Struc] Outdoor pen area adjoining the barn used for livestock.

Barren [Gen Agri] Not capable of producing offspring.

Barrier [Ag Struc] A guard such as a rail, fence, frame, or the like.

Barrow [Gen Agri] A male pig which is castrated while young or a castrated pig that is unsexed before the secondary sex characters have developed.

Batch [Ag Mach] Quantity of fuel from which samples are drawn for the engine test.

Batch Composting [Gen Agri] All material is processed at the same time, without introducing new feedstock once composting has begun; windrow systems are batch systems.

Batch-Type, Mechanical Grain Dryer [Ag Proc] A mechanical grain dryer wherein the grain is fixed volume is held in the drying chamber in batches until the grain reaches the desired moisture content; A type of mechanical dryer wherein grains are placed in a drying bin and hot air is forced through the stationary grain mass until the desired moisture level is reached.

Batter Board [Soil & Water] One of a series of horizontal boards set across or to one side of a trench line to indicate a desired elevation or reference grade from which trench bottom elevations are determined.

Battery [Ag Elec]] Two or more cells electrically connected together: [AS] A series of pens, cages, etc.

Battery Bank [Gen Eng] An array of batteries connected in series, parallel, or both.

Batt Insulation [Ag Struc] Fibrous insulation material packaged in bales and sized to fit between building framing members.

Bay [Ag Struc] One of the intervals or spaces into which a building is divided by main frames, columns, piers or cross partitions.

Beacon [Ag Mach] An amber oscillating or rotating warning lamp, commonly located on operator cabs of heavy equipment.

Beam [Ag Struc] A large, long piece of timber or other material placed horizontally to provide vertical support in a building.

Beam and post [Ag Struc] This type of framing is suitable for multistory poultry houses and other types of dwellings. The essential beams and

post members may have to be supplemented with diagonal bracing members. Where low construction cost is important, a variation known as the pole frame is used. In it, the concrete pedestal is omitted and the post or "pole" is extended directly into the ground.

Bearing [Ag Mach] The contacting surface on which a revolving part rests; [Ag Struc] The point of support on a post, beam, wall, or other structural member.

Bearing Clearance [Ag Mach] The distance between the shaft and the bearing surface.

Bearing Stress [Gen Eng] Is a contact pressure between separate bodies.

Bedded Area [Ag Struc] Livestock resting area which is covered with bedding- a dry absorptive material.

Bedder-Ridger [Ag Mach] A primary tillage implement or a secondary tillage implement for seedbed forming. They are either moldboard lister bottoms which simultaneously throw soil in the both right-hand and left-hand directions, or short disk gangs with two or more disks of equal or varying diameters.

Bedding [Ag Mach] Tillage which forms a ridge and furrow soil configuration.

Bedding [Soil & Water] A surface drainage method accomplished by plowing land to form a series of low narrow ridges separated by parallel dead furrows.

Bedding Angle [Soil & Water] The acute angle of a V-groove in the bottom of a trench for support of pipe drains.

Bedding Boards [Ag Struc] Material embedded part way into the stall base directly under and parallel to the stall partition.

Bedding Ditch [Soil & Water] A dead furrow used as a surface drainage ditch in a bedding system.

Bedding Keeper [Ag Struc] A board or pipe along the rear of the stall to help retain bedding in the stall.

Bed Load [Soil & Water] Coarse sediment or material moving on or near the bottom of a flowing channel by rolling, sliding or bouncing.

Bedrock [Gen Agri] The solid rock at the surface of the earth or at some depth beneath the soil and superficial deposits.

Bed Seeding [Ag Mach] A method of seeding in which two or more rows are planted on an elevated level bed. Beds are separated by furrows or ditches

Bed Shaper [Ag Mach] A soil-handling implement which forms uniform ridges of soil to predetermined shapes.

Beds-in-basins [Soil & Water] Are ridges raised above the ponded water surface of a level basin, with channels between (dead level furrows or basin furrows).

Beef [Gen Agri] Meat products of a cattle, one year or over.

Beehive [Soil & Water] Dome-shaped grating placed on surface inlets to subsurface drains to exclude trash.

Belt [Ag Mach] The plies of cord material under the tread area of a tire having the cords nearly parallel to the centerline of the tire.

Belt Length [Ag Mach] The length of belt at the level of its pitch.

Belt Pitch [Ag Mach] The region of the belt that keeps the same length when the belt is bent perpendicularly to its base.

Belt Pressure Roller (Belt Press) [Ag Mach] A roller and belt device whereby two concentrically running belts are used to squeeze the manure as it is deposited between the belts.

Belt Speed [Ag Mach] The linear speed of belt at the level of the pulley pitch diameter.

Bench Flume [Soil & Water] A water conducting channel built on constructed terraces along hillsides or around mountain slopes when the ground is too rough, steep, or rocky to permit an excavated canal.

Bench Terrace [Soil & Water] Level terraces built in stair-step fashion with a level top and a steep, vertical embankment between successive terraces, used to improve distribution of rainfall or irrigation water.

Bench Scale Reactor [Gen Agri] A laboratory system to model the composting process, usually using water baths to mimic large pile conditions.

Bending [Gen Eng] The metal is stressed in both tension and compression at values below the ultimate strength of the materials without appreciable change in its thickness.

Bending Moment [Gen Eng] It is the tendency or a measure of tendency, to produce motion, especially around a point or an axis. It is a measure of the stresses acting on the beam.

Berm [Soil & Water] Strip or area of land, usually level, between the edge of spoil bank and edge of a ditch or canal.

Best Management Practice (BMP) [Gen Agri] A structural or nonstructural method, activity, maintenance procedure, or other management practice used singularly or in combination to reduce nonpoint source inputs to receiving waters in order to achieve water quality protection goals.

Bevel Gear [Ag Mach] Gears which are used to transmit motion and power to shafts having intersecting axes.

Bethel Process [Gen Eng] See full-cell process.

Betz Coefficient [Gen Eng] 59.3%. This is the theoretical maximum efficiency at which a wind generator can operate, by slowing the wind down.

B horizon [Gen Agri] Is the subsoil layer in which certain leached substances are deposited.

Biennial [Gen Agri] Of two year's duration, a plant germinating one season and producing seed the next.

Biennial [Gen Agri] A crop which produces vegetative growth during the first years and the seed on the second year.

Billy Goat or Buck [Gen Agri] A male goat of any age.

Bimetallic Strip [Gen Eng] Sandwich of two metals with different coefficient of expansion.

Bin [Ag Proc] A container with a height to diameter ratio greater than 0.5.

Bin Diameter [Ag Proc] The diameter of the bin measured from the centerline of neutral axis of the corrugated sidewalls, or the inside diameter of a smooth-walled bin.

Bioaccumulation [Gen Agri] A general term describing a process by which chemical substances are consumed and retained by organisms, either from the environment directly or by eating food containing the chemicals.

Bioassay [Gen Agri] A laboratory assay (test) using a biological test organism.

Bioavailable [Gen Agri] Available for biological uptake.

Biochemical Oxygen Demand (BOD) [Ag Struc] The quantity of oxygen used in the biochemical oxidation of organic matter in a specified time, at a specified temperature, and under specified conditions.

Biodegradability [Gen Agri] The potential of an organic component for conversion into simpler structures by enzymatic activity.

Biodegradation [Soil & Water] Breaking down of natural or synthetic organic materials by microorganisms in soils, natural bodies of water, wastewater treatment systems.

Bioengineering [Gen Eng] Is another term for genetic engineering.

Biogas [Ag Struc] Gaseous product of anaerobic digestion that consists primarily of methane and carbon dioxide.

Biogas, Fixed Type [Ag Struc] A biogas plant with closed digester with an immovable, rigid gas chamber and a displacement pit.

Biogas, Floating Type [Ag Struc] A biogas plant consisting of digester and a moving, floating gas holder that either float directly in the fermenting slurry or in a separate water jacket.

Biogas, Integrated Plant [Ag Struc] A biogas plant where the digester and gas chamber form one unit.

Biogas, Multi-Digester Plant [Ag Struc] A biogas plant with series of digesters.

Biogas Plant [Ag Struc] Plant used to process animal waste or manure to produce biogas and sludge consisting of an inlet/mixing tank, digester, gas chamber and outlet/sludge tank.

Biogas, Split-Type Plant [Ag Struc] A digester and gas chamber form separate units.

Biogenic Waste [Ag Waste] The separated organic fraction of household waste; consists of yard and food waste.

Biological Control [Gen Agri] Controlling plants, diseases, and animal pests using natural enemies; or inhibiting the reproduction of pests by methods that result in the laying of infertile eggs, etc.

Biological Control of Pests [Gen Agri] Control, but not total eradication, of insect pests achieved by using natural enemies, either indigenous or imported, or diseases to which the pest is susceptible. It includes such nontoxic pesticides, as bacillus thuringiensis (Bt).

Biological Diversity [Gen Agri] Richness and abundance of species, and variety of natural communities. Both the number of species and the number of individuals within each species are important in considering the extent of biological diversity in an area. Also referred to as biodiversity.

Biological Oxidation [Ag Struc] The process whereby living organisms convert organic matter into a less complex or a mineral form.

Biological Oxygen Demand (BOD) [Gen Agri] Is the amount of oxygen used in the biochemical oxidation of organic matter; an indication of compost maturity and a tool for studying the composting process.

Biological Wastewater Treatment [Ag Struc] Forms of wastewater treatment in which bacterial or biochemical action is intensified to stabilize or oxidize the unstable organic matter present.

Biologics [Gen Agri] Immunization materials made from living or "killed" organisms and their products used for the detection and prevention of diseases; includes serums, vaccines, bacterins, antigens, and antitoxins.

Biomass [Ag Power] Any organic matter used for energy, broadly classified into plant matters and animal residues; A term used to describe organic matter which has been grown by photosynthetic conversion of solar energy.

Bioprospecting [Gen Agri] Refers to the search for plant and animal species from which medicinal drugs and other commercially compounds can be obtained.

Biopsy [Gen Agri] The microscopic or chemicals analysis of tissues removed from living body.

Biosolids [Gen Agri] Are primarily organic solid products produced by the wastewater treatment process that can be beneficially recycled.

Biosphere [Gen Agri] That transition zone between earth and atmosphere within which most of terrestrial life are commonly found.

Bird Screen [Ag Struc] Mesh (usually wire) placed over a building opening to prevent bird access.

Bitch [Gen Agri] A female dog.

Black Body [Gen Agri] Is a hypothetical body capable of absorbing all radiation at the maximum rate for a given temperature.

Black Iron Sheets (BI) [Ag Mach] Are black annealed sheets with standard sizes of gauges, which are 24, 26, 28, 30 and 36 inches wide, and with lengths of 72, 84, 96, 100 and 120 inches. The sheets are not protected from rusting. These are used primarily for work that would be finished with paint.

Black Offal [Gen Agri] Digestive tract of swine such as a stomach, or the intestines which still contain fecal matter.

Black Soil [Gen Agri] Is a soil color generally caused by the presence of organic matter.

Black Water [Ag Struc] Water containing liquid and solid human body waste generated through toilet usage.

Blade [Ag Mach] A soil-working tool, consisting of an edge and a surface, which is primarily designed to cut through soil. (e.g. rotary tiller blades, anhydrous ammonia knife).

Blanket Insulation [Ag Struc] Fibrous insulation material packaged in rolls and sized to fit between framing members.

Blanking [Ag Mach] The operation of cutting out flat area to some desired shape.

Bleeding [Gen Agri] Removal of blood from the carcass.

Blemish [Gen Agri] Is any defect on the body of the animal, which does not affect the health and working ability, but renders its appearances unsightly or less attractive.

Blind Drain [Soil & Water] Type of drain consisting of an excavated trench, refilled with pervious materials such as coarse sand, gravel, or crushed stones, through whose voids water percolates and flows toward an outlet. Also called a French drain.

Blinding [Soil & Water] Material placed on top of and around a drain tile or conduit to improve the flow of water to the drain and to prevent displacement during backfilling of the trench.

Blinding [Ag Proc] Obstruction of the apertures of a sieving medium by particles of material being sieved.

Blind Inlet [Soil & Water] Surface water inlet to a drain in which water enters by percolation rather than through open flow conduits.

Bloat [Gen Agri] A disorder of ruminants characterized by an accumulation of gas in the rumen.

Block Body [Ag Struc] Hypothetical body capable of absorbing all radiation at the maximum rate for a given temperature.

Blocking Gate [Ag Struc] Gate in which chute to stop and/or control traffic animal.

Block-rate Pricing [Gen Agri] A method of charging on the basis of the volume of water used.

Blocky [Gen Agri] Term applied to meat producing animals and draft horses.

Blower [Ag Proc] A low-pressure air pump, usually of one rotary or centrifugal type; A device for producing a movement of air often referred to as a fan.

Blower Loss [Ag Proc] Ratio of the weight of grains blown with the chaff by the thresher fan, to the weight of the total grain input in the thresher, expressed in percent.

Blow Off Valve [Soil & Water] Controlled pipeline outlet used to discharge water.

Blowout [Soil & Water] A rupture in a pip drain usually attributed to hydraulic pressure from within the line and resulting in displacement of pipe and in washout of supporting and covering earth materials. Also "break troughs" or ruptures in embankments caused by piping.

Boar [Gen Agri] A male pig of any age.[PAES] refers to a male breeding swine which is at least 8 months old.

Board [Ag Struc] Lumber that is less than two inches thick and one or more than two inches wide; board less than six inches wide are sometimes called strips.

Boardbase [Ag Struc] Constructed so agricultural machinery may be operated safely on the entire cross section.

Board Foot (bd. ft) [Ag Struc] It is the unit of measurement of lumber. It is one foot long, 12 inches wide, and one inch thick, or its equivalent. The formula for determining board feet in a board is:

Thickness (in inches) x Width (in inches) x Length (in feet)

BOD [Ag Waste] Biological Oxygen Demand

Body Conformation [Gen Agri] Is the general or physical traits of an animal; its shape and arrangement of parts.

Body End [Ag Mach] The end containing the means of powering the device.

Bog [Gen Agri] Type of wetland that accumulates appreciable peat deposits. They depend primarily on precipitation for their water source, and are usually acidic and rich in plant matter with a conspicuous mat or living green moss.

Boiler [Ag Power] An enclosed vessel to heat water for the purpose of developing hot water or steam under pressure.

Bole [Gen Agri] Refers to the trunk or stem of a tree, large enough for conversion into timber.

Boll [Gen Agri] Refers to the rounded seed pod of cotton or flax.

Bolt [Ag Mach] An externally threaded fastener designed for insertion through holes in assembled parts, and normally tightened or released by torquing a nut.

Bonded [Gen Eng] A reliable connection to assure the required electrical conductivity between metal parts required to be electrically connected.

Bonding [Gen Eng] The permanent electrical joining of metallic parts to form a conductive path which will assure electrical continuity with the capacity to conduct safely any current likely to be imposed.

Bonding Jumper [Gen Eng] A reliable conductor to assure the electrical conductivity between metal parts.

Book Value of An Asset [Gen Agri] Refers to the value of the asset after subtracting depreciation; the depreciated value of an asset as reflected in the company's books; also called carrying value.

Boom Sprayer [Ag Mach] A sprayer apparatus consisting of a pressure source and controls, and employing a boom with atomizers (hydraulic rotary or other).

Booster Pump [Ag Mach] A pump that takes suction from a public service main or private-use water system for the purpose of increasing the effective water pressure.

Border Dike [Irrig & Drain] Earth ridge or small levee built to guide or to hold irrigation or recharge water in a field.

Border Ditch [Irrig & Drain] Small excavation used as a border of an irrigated strip or plot with water being spread from one or both sides.

Border Irrigation [Irrig & Drain] Irrigation by flooding strips of land, rectangular in shape and cross leveled, bordered by dikes.

Border Price [Gen Agri] Is the unit price of a traded good at a country's border. For exports, the FOB price; for imports, the CIF price.

Bore [Ag Mach] Diameter of the cylinder; A cylinder hole or the inside diameter of the cylinder block of an engine.

Bore Diameter [Ag Mach] the diameter of a hole of a cylinder.

Boring Tools [Ag Mach] Are tools used to make holes or change the size or shape of holes (i.e. drillbits, cutters, drivers).

Boss Cows [Gen Agri] Cows which, due to their temperament, tend to become dominant in the herd. They can interrupt the feeding of other cows and cause trouble by butting other cows.

Botany [Gen Agri] Is the science of plant life.

Bottom Rail Height [Ag Struc] The vertical distance from the top of the curb to the lowest horizontal member of the partition.

Bourdon Gage [Ag Proc] Consists essentially of a curved tube, fixed at open end used to measure pressure.

Bovine [Gen Agri] Pertaining to an ox or cow.

Bow/Hoop [Ag Struc] Pipe or tubing framework shape used to support the glazing.

Bow [Ag Struc] The distortion in a board that deviates from flatness lengthwise but not across its faces.

Boxed Heart [Ag Struc] The term used when the pith falls entirely within the four faces of a piece of wood anywhere in its length. Also called boxed pith.

Box Type [Ag Struc] A device with a horizontal floor, vertical side walls, or vertical or slanted front or rear wall.

Boyle's Law [Gen Eng] States that the absolute pressure which a given quantity of gas at constant temperature exerts against the walls of the containing vessel and is inversely proportional to the volume occupied.

Boxed Beef [Gen Agri] Cuts of beef put in boxes for shipping from packing plant to retailers. These primal and subprimal cuts are intermediate cuts between the carcass and retail cuts.

Box Stall [Ag Struc] Relatively large enclosed space which permits full movement of livestock; often used with horses.

Braces or Bracing [Ag Struc] Angular, interior wall and roof framing members which provide rigidity and strength to a building framework.

Brace Root [Gen Agri] Is an aerial root that functions to brace the plant as in corn.

Brakedrum Windmill [Gen Eng] A home-built wind generator design by Hugh Piggott of Scotland.

Brake Horsepower (BHP) [Ag Power] The usable power delivered by the engine.

Brake Mean Effective Pressure (BMEP) [Ag Power] Mean effective pressure acting on the piston which would result in the given brake horsepower output, if there were no losses due to friction, cooling, and exhaustion.

Brake Temperature [Ag Power] A temperature measuring system shall have $\pm 2\%$ accuracy.

Braking Control Input Force [Ag Power] The sum of all forces applied by the operator to the braking system control, as measured at point of force application.

Braking System [Ag Power] A device used to slow a wind turbine's shaft speed down to safe levels electrically or mechanically.

Braking System Fluid Pressure [Ag Power] A means of measuring braking system fluid pressure with an accuracy of $\pm 5\%$.

Bran [Ag Proc] Outer layer of the brown rice consisting of the aleurone cells covering the endosperm of the rice grain.

Branch Circuit [Ag Elec] The portion of an electrical circuit beyond the final over current device.

Bran Removal [Ag Proc] Removing all parts of the bran layer from the grain to produce polished rice.

Brass Sheets [Ag Proc] Come in variety of sizes and gauges. The width varies from 12 to 36 inches, and the length from 96 to 120 inches. The gauge is measured by the B&S system.

Brazing [Ag Mach] The fastening of two pieces of metal together by heating the edges and then melting brass or bronze in the area.

Breakdown Torque [Ag Power] Is the maximum value of torque produced by the motor during overload without stalling.

Break-Even Point [Ag Mach] The level of operation at which all investment cost are covered by the benefits derived from such investment

Break Grade [Soil & Water] To change the slope of a pipe drain, ditch or field.

Break Thermal Efficiency [Ag Power] The ratio of power output in the form of brake horsepower to equivalent power input in the form of heat from fuel.

Bred [Gen Agri] Female has been mated to the male. Usually implies the female is pregnant.

Bred Gilt [Gen Agri] Pregnant female pig before first farrowing.

Breed [Gen Agri] Is a group of animals, which possesses certain characteristics that are common to individuals within that group of animals within the same species.

Breed Out [Gen Agri] To eliminate undesirable characteristics.

Breeding Crate [Ag Struc] Device for holding sow used to facilitate mating.

Breeding Gestation Unit [Ag Struc] Housing livestock during breeding and pregnancy (usually swine).

Breeding Stock [Gen Agri] Refers to a sexually mature male and female livestock that are retained to produce offspring.

Breeding Track [Ag Struc] Device to support the weight of the front half of a large adult male animal when breeding smaller female.

Breed True [Gen Agri] To have the ability to transmit a characteristic uniformly to offspring.

Breed Type [Gen Agri] A particular type or form characterizing a breed. It includes special breed features in head, ears, color, or other traits common to a particular breed.

Brewers [Ag Proc] Are small pieces or particles of grains that pass through a sieve having round perforations 1.4 millimeters in diameter. This is also known as "binlid" or "chips".

Brewer's Rice "Binlid" [Ag Proc] Small pieces or particles of grains that pass through a sieve having round perforations of 1.4 millimeters in diameter.

Bridge Rectifier [Gen Eng] An array of diodes used to convert alternating current to direct current. Single-phase bridge rectifiers use 4 diodes, 3-phase bridge rectifiers use 6 diodes.

Bridging [Ag Struc] Is the process of connecting one joint to another.

Brinell Hardness [Gen Eng] The surface hardness of a metal, alloy, or similar material according to J.A. Brinell's method of measurement.

Brittleness [Gen Eng] The property of a material that permits it to be only slightly deformed without rupture.

British Thermal Unit (BTU) [Gen Eng] The amount of heat required to raise one pound of water one degree Fahrenheit.

Broadbase [Soil & Water] A terrace structure constructed so that agricultural machinery may be operated safely on the entire cross section, usually not steeper than 5:1 (horizontal to vertical).

Broadbase Terrace [Soil & Water] A type of terrace constructed so that crops can be planted and machinery safely operated on the entire cross section.

Broadcast Application [Ag Mach] Application of the chemical over the entire area to be treated.

Broadcast Method [Ag Mach] Is a fertilizer application method in which the fertilizer is applied uniformly over the entire area before planting or while the crops are already growing.

Broadcast Spreader [Ag Mach] An apparatus which consists of a hopper, a metering unit, and a distribution device that uses either gravity (drop), centrifugal force (rotary), or pendulum action to spread granules onto the surface of the entire area to be treated.

Broadcast Tillage (Overall Tillage) [Ag Mach] Tillage of an entire area as contrasted to a partial tillage as in band or strips.

Broad-Crested Weir [Soil & Water] Weir for water measurement having a rounded or wide crest in the direction of the stream.

Broiler [Gen Agri] Any young bird, grown usually for 6 weeks in order that it may weigh 1 kg after that period.

Brokens [Ag Proc] Are pieces of grains smaller than $8/10^{\text{th}}$ of the average length of the unbroken grain.

Broken, Grain [Ag Proc] Piece of rice kernel that are less than $3/4$ the size of the full kernel.

Broken-out Section [Ag Proc] Partial section on an exterior view to show an interior detail without a full section.

Broken Rice [Ag Proc] This is milled rice whose size ranges less than $3/4$ to $1/4$ of a whole grain.

Brood [Gen Agri] A group of baby chickens.

Brood Animal [Gen Agri] Is an animal reserved for breeding and raising of young.

Brooder [Gen Agri] Heated enclosure or hood for young livestock.

Brooder Guard [Ag Mach] Materials that are placed around the brooder stoves to prevent the chicks from straying too far away from the heat supply until they learn the source of heat.

Broodiness [Gen Agri] Desire of birds to set in a nest on eggs for the purpose of hatching. It is the natural behavior for hatching and rearing young.

Brooding [Gen Agri] A process of subjecting young animals to heat and warmth in order to increase their chances of survival.

Brood Mare [Gen Agri] Is a term used to indicate the use of the mare for breeding purpose.

Brown Rice [Ag Proc] Dehulled paddy (husk/hull removed) with the bran layer still intact.

Browse [Gen Agri] Leaves, buds, and woody stems used as food by deer and other animals.

Brucellosis [Gen Agri] A contagious disease in beef and dairy cattle, which causes abortion. Same disease in humans is known as undulant fever.

Brush [Gen Agri] Commonly refers to undesirable shrubs and small trees.

Brush Dam [Irrig & Drain] A dam constructed of brush , in gullies or small channels, to retard flow of water and sediment.

Brush Drain [Irrig & Drain] Covered field drain consisting of a trench, the lower part of each section being filled with brush to form the drainage channel.

Brushes [Gen Eng] Devices for transferring power to or from a rotating object. Usually made of carbon-graphite.

Brushed Screen/Roller Press [Ag Proc] A rectangular container with four vertical sides and a bottom consisting of two half cylindrical screens lying side by side which-provide two stages of separation.

BST (Bovine Somatotropin) [Gen Agri] Commonly referred to as growth hormone. Produced naturally by the cow, stimulates metabolic functions related to growth and milk production.

BTU (British Thermal Unit) [Ag Power] The amount of heat required to raise the temperature of one pound of water, one degree Fahrenheit. 1 Btu = 252 calories.

Bubble Coulter [Ag Mach] A circular disc blade with sharpened circumference and various lateral offsets from the flat surface.

Bubbler Gage [Irrig & Drain] Records the pressure required to maintain a small flow of gas from an orifice submerged in the stream.

Bubbler Irrigation [Irrig & Drain] The application of water to the soil surface as a small stream or fountain, where the discharge rates for point-source bubbler emitters are greater than for drip or subsurface emitters but generally less than 225 L/h (60gal/h).

Buck [Gen Agri] Mature male goat.

Bucket Pump Sprayer [Ag Mach] A sprayer apparatus consisting of a manually operated pump which may be held or mounted in a bucket containing the spray solution.

Bucking [Gen Agri] It is the process of cutting down the trunk or branches of a tree into sections.

Budding [Gen Agri] A form of grafting in which a vegetative bud from one plant is transferred to stem tissue of another plant.

Budgeting [Gen Agri] Is the process of determining requirements, allocating of resources and estimating the returns for the different activities of the farm.

Buffer [Gen Agri] Is a substance that prevents a rapid change in pH when acids or alkalis are added to the soil, these include clay, humus and carbonates.

Buffer Stock [Ag Proc] Amount of stored commodities adequate to meet the demand for a certain period of time in case of emergency (e.g.,

low production, late harvest, or calamity). It can be used to stabilize prices of commodities.

Buffer Strip [Irrig & Drain] A strip of grass or other close-growing perennial vegetation, usually grass, that separates a watercourse from an intensive land-use area to prevent sediment entry to drainage channels.

Buffing [Ag Mach] A final operation to improve the polish of a metal and to bring out the maximum cluster.

Bulb [Gen Agri] A leaf with fleshy scales, usually subterranean.

Building [Ag Struc] Roofed and walled structure constructed for permanent use.

Building Code [Ag Struc] Guidelines/specifications written and published by inter-industry group that is adopted by local government for minimum safety and adequacy of buildings constructed in their jurisdiction.

Building Diaphragm Stiffness [Ag Struc] The stiffness of the entire roof diaphragm assembly.

Bulk or Bin Storage [Ag Proc] Storing of paddy or rice in loose form in a large solid container, without the use of bags.

Bulk Density [Ag Proc] Ratio of granular material mass to unit of volume (kg/m^3 , lb/ft^3). [Soil & Water] The mass of dry soil per unit bulk volume.

Bulking Agent [Ag Proc] Material, usually carbonaceous such as sawdust or woodchips, added to a compost system to maintain airflow by preventing settlement and compaction of the waste.

Bull [Gen Agri] A male bovine of any age used for breeding.

Bull Calf [Gen Agri] A young male cattle under one year of age.

Bulldozing [Ag Mach] The pushing or rolling of soil by a steeply inclined blade.

Bullet (Drainage) [Irrig & Drain] Round-nosed cylindrical point of a mole drain plow which forms a cavity as the plow is drawn through the soil.

Bull Milk Tank [Ag Proc] Sanitary container used to cool and/or store milk.

Bullock [Gen Agri] Usually a stag used for draft purposes.

Bull Yard [Gen Agri] Exercise enclosure for bulls.

Bunch Type [Gen Agri] Is the growth habit of grasses that do not spread by rhizomes or stolons.

Bunker (horizontal) Silo [Ag Proc] A storage facility for silage with the floor at ground level and walls on two or three sides to retain silage material which is compacted with a tractor or other heavy vehicle.

Bunny [Gen Agri] A young rabbit.

Burl [Gen Agri] Twist in the grain of wood which usually occurs near a knot but does not contain a knot.

Burlap [Ag Proc] Coarse cloth made of jute, flax or hemp.

Burner Efficiency [Ag Power] Ratio of the heat released by the fuel, to the theoretical heat available from the fuel.

Bushing [Ag Mach] A metallic or synthetic lining for a hole which reduces or prevents abrasion between components.

Butons [Gen Agri] May refer to cartilage or dorsal processes of the thoracic vertebrae.

Butt - joint [Ag Mach] Type of riveted joint wherein the plates being joined are in same plane and are joined by means of a cover plate or butt strap which is riveted to both plates by one or more rows of rivets.

Bypass Ditch [Irrig & Drain] A waterway for carrying water from a drainage area directly to a gravity outlet, bypassing any pumping plants.

Bypass Filter [Ag Mach] An oil filter that only filters a portion of the oil flowing through the engine lubrication system..

Bypass Nozzle (Flow - back Nozzle, Recirculating Nozzle, Return-flow Nozzle, Spill Nozzle) [Ag Mach] A swirl chamber atomizer containing bypass orifice(s) or port(s) through which part of the inlet liquid may be withdrawn from the swirl chamber and returned to the supply tank. The discharge flow is controlled by regulating the pressure in the bypass line.

Bypass Valve [Ag Mach] A valve that opens when the set pressure is exceeded. This allows the fluid to pass through an alternative channel.

By-product [Gen Agri] Is a product of considerably less value than the major product.

By-product recovery [Ag Proc] Ratio of the weight of by-products, to the total weight of corn kernel input, expressed in percent.

C

Cablegation [Irrig & Drain] A method of surface irrigation that uses gated pipe to both transmit and distribute water to furrows or border strips.

Cage [Ag Struc] An enclosure mounted on siderails of a fixed ladder or fastened to the structure wall to enclose the climbing space in order to safe guard persons climbing the ladder.

Calcareous Soil [Gen Agri] An alkaline soil containing sufficient calcium and Mg carbonate to cause visible efflorescence when treated with hydrochloric acid.

Calcification [Gen Agri] Used by some to refer the processes of calcium carbonate accumulation.

Calcitonin or Thyrocalcitonin [Gen Agri] Is a hormone that lowers calcium level in the blood, thus, has an opposite effect tot hat of parathormone, which increases calcium level in the blood.

Calf [Gen Agri] Young cattle of either sex under one year of age.

Calf Crop [Gen Agri] Calves produced by a herd of cattle in one season.

Calibration [Ag Mach] Affixing a volumetric or mass equivalent to the graduations on the gauge rod or surface gauge.

Calorie [Ag Power] Amount of heat required to raise the temperature of one gram of water one degree centigrade.

Calorific Value [Ag Power] The amount of heat produced by burning one pound fuel.

Calve [Gen Agri] To give birth to a calf. Same as parturition.

Calving [Gen Agri] Refers to the parturition of carabao.

Calving Barn [Ag Struc] Barn for cows just before, during and for a time after calving.

Calving Interval [Gen Agri] The amount of time (days or months) between the birth of a calf and the birth of a subsequent calf, both from the same cow.

Cam [Ag Mach] A rotating component of irregular shape. It is used to change the direction of the motion of another part moving against it, e.g. rotary into reciprocating or variable motion.

Cambium [Gen Agri] The one-cell-thick layer of tissue between the bark and wood that repeatedly subdivides to form new wood and bark cells.

Cam Follower (Valve Lifter) [Ag Mach] A part which is held in contract with the cam and to which the cam motion is imparted and transmitted to the pushrod.

Cam-Ground [Ag Mach] A piston that is ground slightly oval but becomes round when heated.

Camshaft [Ag Mach] A shaft with cam lobes.

Candling [Gen Agri] It is the process of subjecting eggs to light to check fertility.

Cannibalism [Gen Agri] A habit of some fowl of pecking at other fowls.

Canola [Gen Agri] Is an oil rapeseed, processed for use as a cooking oil. A crop that has been a target of genetic engineering.

Canopy [Soil & Water] Vegetative cover over the land surface of a catchment area.

Canopy Inlet [Soil & Water] Entrance to a closed conduit that has been covered or shielded to induce priming aluminum submergence.

Canter [Gen Agri] A slow, easy gallop.

Cantilever Test [Ag Struc] A load test arrangement for a diaphragm in which the diaphragm is supported along one edge and the shear load is applied at a corner of the opposite edge and in the direction parallel to the direction of the line of action of the supports.

Capacitance [Gen Eng] Ability to store energy in the form of electrical energy.

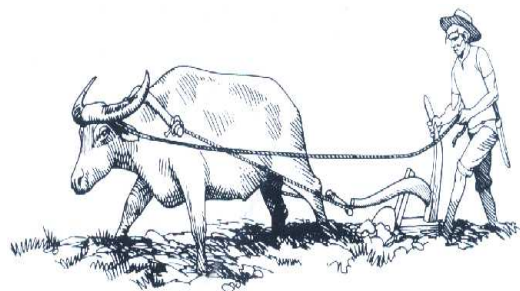
Capacitor [Gen Eng] An electrical component that possesses capacitance.

Capacity [Ag Proc] The rate of flow of liquid measure per unit of time, usually gallons per minute (gpm) or liters per minute (lpm).

Capillarity [Gen Agri] Is the process by which moisture moves in any direction through the fine pore spaces and as films around particles.

Capillary Fringe [Soil & Water] A zone in the soil just above the water table that remains saturated or almost unsaturated.

Capillary Moisture [Soil & Water] Is that amount of water that is capable of movement after the soil has drained. It is held by adhesion and surface tension as films around particles and in the finer pore spaces.



Capillary Pressure [Soil & Water] (Preferred term is Soil-water pressure).

Capillary Pressure Head [Soil & Water] Height water will rise by surface tension above a free water surface in the soil, expressed as length unit of water. Sometimes called “capillary rise.”

Capillary Water [Soil & Water] Is held by the surface tension forces as a continuous film around the particles and in the capillary spaces.

Capillary Soil Moisture [Soil & Water] (Preferred term is soil-water potential).

Capillary Zone [Soil & Water] (Preferred term is Capillary fringe).

Capital [Ag Mach] Include any goods employed in production other than land, labor, buildings and fences. All work-stock, machinery, equipment, power engines, feed, seed, fertilizer and other materials are included in this category.

Caponization [Gen Agri] Is the removal of the testicles whether by surgical or chemical means.

Capons [Gen Agri] Male chickens that have had their reproductive organs surgically removed.

Capped Riser or Pot [Soil & Water] An irrigation pipeline riser extending above the ground, with a water tight cap over its top and outlet gates on its sides slightly above the ground surface.

Carabao [Gen Agri] A Philippine water buffalo or swamp buffalo.

Cara-beef [Gen Agri] Refers to the carabao meet.

Carabull [Gen Agri] A carabao bull; cara heifer, caracow, etc.

Cara-calf [Gen Agri] Is a young carabao of either sex under one year of age.

Cara-cow [Gen Agri] Is a female carabao.

Cara-heifer [Gen Agri] Is a young female carabao below three years of age.

Cara-stag [Gen Agri] Is a male carabao castrated/unsexed after the secondary sexual characteristics have developed.

Carbonate and Sulfate Rock-forming Minerals [Gen Agri] Carbonate and sulfur ions are present. Examples are dolomite, magnesite, anhydrite, and gypsum.

Carbon Cycle [Soil & Water] A sequence of atomic nuclear reaction and spontaneous radioactive decays which serves to convert matter into energy in the form of radiation and high speed particles.

Carbon Dioxide Concentration [Gen Agri] The carbon dioxide component of the mixture of gases of the atmosphere.

Carbonization [Ag Mach] It is the process of conversion of wood and other suitable biomass into charcoal or amorphous carbon through incomplete combustion with limited amount of air.

Carbon-Nitrogen Ratio (C/N) [Gen Agri] The weight ratio of carbon to nitrogen in organic matter.

Carbohydrates [Gen Agri] Is any foods, including starches, sugars, celluloses, and gums, that are broken down to simple sugars through digestion.

Carburizing [Ag Mach] To combine or add to the metal the element carbon for hardening purposes.

Carcass [Gen Agri] The body of a dead animal; The whole trunk of slaughtered animal.

Carnivorous [Gen Agri] Meat-eating animals.

Carnot Refrigeration Cycle [Ag Proc] Transfers energy from a low-level temperature to a high level temperature, requiring an additional external work for its operation.

Carrier [Ag Mach] A gas, liquid, or solid used to propel or transport a chemical.

Carrying Capacity [Gen Agri] Maximum number of individuals that can be sustained by the agro ecosystem without causing a degradation of the ability of the environment to support the animal or plant species.

Carryover [Gen Agri] Existing supplies of a farm commodity not used at the end of a marketing year, and remaining to be carried over into the next year.

Case-Harden [Ag Mach] To harden the outer surface metal to a given case or shell depth, while leaving the inner portion soft to absorb shocks and allow bending.

Casehardening [Ag Struc] A condition of stress and set in dry lumber in which the outer layers are under compressive stress and the inner layers under tensile stress.

Cash Crop [Gen Agri] Is a crop produced for direct sale for cash, as contracted with crops produced as livestock feed.

Cash Flow [Gen Agri] Is also called net benefit; in project analysis, it is the amount remaining after all outflows are subtracted from all inflows.

Cash Grain Farm [Gen Agri] A farm on which corn, grain sorghum, small grains, soybeans, or field beans and peas account for at least 50 percent of value of products sold.

Casing [Ag Proc] The outer enclosure surrounding the entire heat exchanger and confining the air being heated.

Castrate [Gen Agri] To remove the testicles or ovaries of large animals.

Catabolism [Gen Agri] A metabolic process by which complex substances are converted by living cells into more simple compounds.

Catch {Gen Agri} Any material collected during a test run.

Catch Basin [Irrig & Drain] Basin designed to catch or trap water and sediment.

Catchment Area or Basin [Irrig & Drain] A surface from which runoff is collected; watershed; drainage basin.

Cation [Gen Agri] A positively charged atom or molecule.

Cation Exchange Capacity (CEC) [Gen Agri] The total potential of soils for adsorbing cations, expressed in milligram equivalents per kg of soil. Determined values depend somewhat on the method employed.

Compost: a routine measure of the binding potential of a soil; measures the soil's ability to remove negative ions from metals and other compounds, allowing the ions to form insoluble compounds and precipitate in the soil; determined by the amount of organic matter and the proportion of clay to sand; the higher the CEC, the greater the soil's ability to bind metals.

Cation Exchange [Gen Agri] Is the exchange between cations in solution and cations held on the exchange sites of minerals and organic matter.

Cattle [Gen Agri] A domesticated bovine animals.

Catwalk [Ag Struc] A raised walkway which may be positioned horizontally or at an incline up to 15 degree.

CAUTION [Gen Agri] Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

Cavitation [Ag Mach] Formation of cavities filled with water vapor due to local pressure drop and collapse as soon as the vapor bubbles reach regions of high pressure.

CCA [Ag Struc] Abbreviation for chromated copper arsenate, a common wood preservative.

CEC [Gen Agri] A measure of the potential of a soil to give up or exchange positively charged ions or molecules.

Ceiling Stiffness [Ag Struc] The stiffness of a horizontal diaphragm consisting of the ceiling of the building.

Cell [Gen Eng] Chemical system that produces voltage.

Cell [Ag Elec] A general term for the minute units of wood structure, including wood fibers, vessel, segments, and other elements of diverse structure and function.

Cell Pack [Ag Elec] Individual divisions in a carton formed by fiberboard dividers, each cell to contain one fruit.

Cellulose [Gen Agri] A carbon component of plants, not easily digested by microorganisms.

Cement [Ag Struc] A powder of alumina, silica, lime, iron oxide and magnesia burned together in a kiln and used as an ingredient of mortar or concrete.

Center Drive [Ag Power] When final drive location is between the intake and discharge.

Center Pivot System [Irrig & Drain] A method of agricultural irrigation consisting of a single sprinkler lateral with one end anchored to a fixed

pivot structure and the other end continuously moving around the pivot while applying water.

Centrifuge [Ag Proc] A device with a rapidly rotating bowl which separates the impurities of the fluid by intense centrifugal force. It is one of the most efficient means known for purifying fuel and lubricating oils.

Centrifugal Atomizers (Rotary Atomizers) [Ag Mach] The class of devices wherein the kinetic energy of a rotating mechanism is the primary source of energy utilized to produce a spray.

Centrifugal Blower [Ag Proc] Air-moving device constructed with many blades located on a cylindrical frame which is mounted so the blades are parallel to the axis of rotation.

Centrifugal Compressor [Ag Proc] A non-positive displacement compressor which depends for pressure rise in part on centrifugal forces.

Centrifugal Manure Transfer Pumps [Ag Struc] A slurry and liquid manure transfer pump which moves manure by pressure generated through a rotary centrifugal impeller and housing.

Centrifugal Pump [Ag Proc] Pump consisting of rotating vanes (impeller) enclosed in a housing and used to impart energy to a fluid through centrifugal force; [Ag Mach] A pump using the centrifugal force produced by a rapidly rotating impeller to displace liquid; [Soil & Water] Type of pump with impellers rotating inside a closed casing which draws water into the pump through a central inlet opening and forces water out through a discharge outlet at the periphery of the housing by means of centrifugal force.

Centrifugal Separators [Ag Struc] A rapidly rotating device that uses centrifugal force to remove manure liquids from solids.

Centrifugal Type [Ag Proc] Is the most advanced milling machine that works on the principle of centrifugal force and impact.

Centroid [Gen Eng] It is a point that corresponds to the center of gravity of a very thin homologous plate of the same area and shape.

Certified Milk [Gen Agri] Is a fresh milk of high purity to be delivered to the customer within 36 hours. The number of bacteria is 10,000 or less per ml.

Certified Seed [Gen Agri] Is a seed that meets rigid standard of purity and germination and is so designated by an authorized agency.

Cervix [Gen Agri] Is the portion of the female reproductive tract between the vagina and the uterus. It is usually sealed by thick mucus except when the female is in estrus or delivering young.

Cesium [Gen Eng] Is the best known conductor of electricity, but reacts with air and water (disintegrate) and make them useless for making

connections in an electric circuit. The choice is based on lowest resistance per unit length.

Cesspool [Ag Struc] A partially lined or unlined underground pit into which raw animal and/or household wastewater is discharged and from which liquid seeps into the surrounding soil.

Cetane Number [Ag Power] The rating of a diesel fuel's ignition.

Chaff [Ag Mach] Chaff is the harvest residue discharged from the cleaning device(s).

Chaffing [Ag Mach] The process of separating the grain from chaff and other impurities on the top sieve by a combination of pneumatic and mechanical means.

Chaff Outlet [Ag Mach] The outlet where the chaff separated by blowers or sieves from the grain dropped through concave are forced out.

Chaff Spreader [Ag Mach] Device for spreading the material discharged from the cleaning device.

Chaff Straw [Ag Mach] Straw being discharged from threshing chamber in the throw-in type thresher which is usually crushed, cut and different from original straw in appearance.

Chain Pitch [Ag Mach] Distance between adjacent join members of a chain.

Chain Trencher [Soil & Water] An excavator that uses a chain with cutters attached to cut or remove, and deposit spoil to the side of the trench or on to a discharge conveyor.

Chalky Grain [Ag Proc] Kernels of grain which have some portions as opaque or milky white in color.

Chalky Kernels [Ag Proc] These are milled rice with white or chalky portions.

Chamber [Ag Struc] A relatively large circular or ovoid pore with smooth walls and an outlet through channels or planar pores.

Chain/Flighting Feed-handling System [Ag Struc] An organized group of equipment for distributing feed using uniformly spaced crossbars connected together by chain or cable.

Channel [Ag Struc] A tubular-shaped pore.

Channel Capacity [Irrig & Drain] Flow rate in a ditch, canal or natural channel when flowing full or at design flow.

Channel Improvement [Irrig & Drain] Increasing the cross section, straightening or clearing vegetation from a channel to change its hydraulic characteristics, increase its flow capacity, and reduce flooding.

Channel Stabilization [Irrig & Drain] Erosion prevention and stabilization of a channel by use of vegetation, jetties, drops, revetments, or other measures.

Channel Storage [Irrig & Drain] 1) (hydrology) Water temporarily stored in channels while enroute to an outlet, 2) (drainage) The volume of water that can be stored above the start pumping level in ditches or floodways without flooding cropland.

Channel-Type Terrace [Irrig & Drain] Terrace which is constructed by moving soil for the embankment from the uphill side only.

Characteristic Curve [Ag Power] It is a graph that shows interrelations between speed, head discharge, and horsepower of a pump.

Charcoal [Ag Waste] A form of amorphous carbon derived from the incomplete combustion of animal or vegetable matter (e.g. bones or wood).

Charcoal Briquette [Ag Proc] Consists of ground charcoal fines lumped and molded firmly together by suitable binders through the application of pressure.

Charcoal Fine [Ag Waste] Fine particles of charcoal produced during the handling of lump charcoal. In large charcoal establishments, considerable volume of charcoal fines are produced. They are ideal material for the manufacture of charcoal briquette.

Charcoaling Cycle [Ag Proc] Encompasses all the series of procedures in the manufacture of charcoal. It includes charging or loading of the wood into the charcoaling chamber, carbonization of the wood, cooling of charcoal and discharging or unloading.

Charcoal Recovery [Ag Proc] It is the amount or volume of lump charcoal actually produced from raw wood after the carbonization or cooking process. The rest are either volatilized or turned into ashes. Charcoal recovery is generally expressed in percent.

Charge [Ag Proc] A test sample, or part of a test sample, placed on a test sieve or a nest of test sieves.

Charge [Ag Proc] A lengthwise separation of the wood that usually extends across the rings of annual growth and parallel to the wood rays, resulting from drying stresses.

Charge [Ag Proc] Batch of wood loaded into the charcoaling for carbonization or cooking into charcoal.

Charging/Discharging Door [Ag Proc] Refers to the door of earthen charcoal kilns where wood and charcoal are loaded and unloaded, respectively during charcoaling.

Charpy Test [Ag Struc] It is the one which a specimen, supported at both ends as a simple beam, is broken by the impact of a falling

pendulum. The energy absorbed in breaking the specimen is a measure of the impact strength of the metal.

Check [Soil & Water] A structure to control water depth in a canal, ditch or irrigated field.

Check Dam [Soil & Water] Small barrier constructed in a gully or other small watercourse to decrease flow velocity, minimize channel scour, and promote deposition of sediment.

Check Dams or Weirs [Soil & Water] Are constructed along the channel or waterway to control the velocity of flowing water and encourage deposition of sediments carried by water.

Check Drain [Soil & Water] Conventional drain altered by use of checks so that it can be used as a subirrigation system.

Check Gate [Soil & Water] Is a gate placed across a stream from which it is desired to divert water. The function of the check gate is analogous to that of the dam or the diversion weir or the rivers at the heads of canal system.

Check Irrigation [Soil & Water] Modification of a border strip with small earth ridges or checks constructed at intervals to retain water as the water flows down the strip.

Check Row Planter [Ag Mach] A type of row-crop planter which enables operator to perform hill planting at definite spacing.

Check Valve [Soil & Water] Valve used in a pipeline to allow flow in only one direction; A device to provide closure which effectively prohibits the flow of material in the opposite direction of normal flow when operation direction of normal flow when the operation of the irrigation system pumping plant or injection unit fails or is shut down.

Chemical Dehumidification Process [Gen Agri] Is a process where the water vapor from the air is absorbed or adsorbed by a hygroscopic material.

Chemical Oxidation [Ag Struc] Oxidation of organic substances without benefit of living organisms.

Chemical Oxygen Demand (COD) [Ag Waste] A measure of oxygen-consuming capacity of organic and inorganic matter present in water or wastewater.

Chemical Milling [Ag Mach] A controlled etching process in which metal is removed to produce complex patterns, light weight parts, taper thickness sheet and integrally stiffened structures.

Chemical Water Treatment [Soil & Water] Chemical treatment of water to make it acceptable for use of micro-irrigation systems.

Chemigation [Soil & Water] Application of chemicals to crops through irrigation system by mixing them with irrigation water.

Chest Freezer [Ag Proc] A small freezer in which access is gained by raising a lid.

Chevon [Gen Agri] Meat products of a goat.

Chick [Gen Agri] Young chicken regardless of sex.

Chilling (Cooling) [Ag Proc] The lowering of the temperature of a substance to a specific temperature above freezing.

Chilling Room [Ag Proc] A refrigerated room to chill a product without freezing it.

Chimney [Ag Power] Vertical surface used with a stove, furnace or fireplace and enclosing a flue(s) to carry away products of combustion.

Chipboard [Ag Struc] Building board made from thin wood chips (flakes) glued and compressed together; usually available in 1.2 m by 2.4 m sheets less than 254 mm thick.

Chip Ice [Ag Proc] Ice in thin flakes.

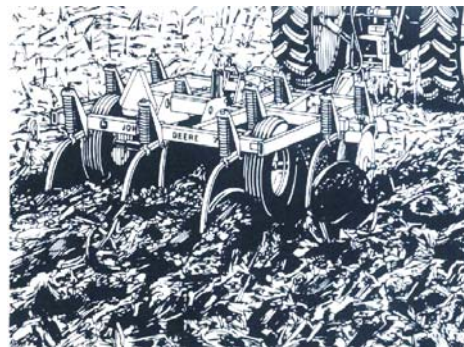
Chipper [Ag Mach] Part of the dendrothermal plant which cut fuelwood into small chips before they are fed into the set up as fuel.

Chisel [Ag Mach] A farm implement used to break through and shatter compacted or otherwise impermeable layers of soil.

Chiseling of Compacted Soils [Ag Mach] Loosening the soil, without inverting and with a minimum of mixing of the surface soil, to shatter restrictive layers below the normal plow depth that inhibit water and air movement or root development.

Chisel Opener [Ag Mach] A shank-mounted tillage tool of various dimensions with a blunt forward-curved leading surface. The seed delivery tube is attached to the rear of the shank.

Chisel Plow [Ag Mach] secondary tillage which shatters the soil complete burial or mixing materials. Multiple rows curved shanks are rigidly, with spring with spring resets. which shatters the soil



A primary or implement without of surface of staggered mounted either cushions, or Implement without

complete burial or mixing of surface materials.

Chisel Plowing [Ag Mach] Tillage in which a narrow tools is used. Chisel plowing at depths greater than 350 mm is termed subsoiling.

Chisel Plowing [Ag Mach] Cropland preparation by a special implement (chisel) that minimizes inversion of the soil leaves the soil surface relatively undistributed.

Chisel Ripper [Ag Mach] A shank with sweep, chisel, tooth or shovel tool for loosening soil in the row area to a depth of less than 350 mm. Width of the loosened strip depends on depth of operation, characteristics of the soil and the particular shank and tool combination used. A delivery tube may be attached to the rear of the shank for fertilizer deposition.

Chisel/Subsoiler Tube [Ag Mach] A tube for deep placement of fertilizers under, beside, or between seed furrows.

Chlorinated Hydrocarbon [Gen Agri] Synthetic compound that contains chlorine, hydrogen, and carbon; a main ingredient in some pesticides.

Chlorination [Ag Struc] The application of chlorine to water, sewage, or industrial waste, generally disinfect, to oxidize, or to improve settling.

Chlorine Residual [Ag Struc] The concentration of chlorine remaining in water, sewage, or industrial wastewater following chlorination.

Chlorophyll [Gen Agri] Is the green coloring matter of plants that take part in the process of photosynthesis.

Chloroplast [Gen Agri] Refers to the true cellular organelle in which chlorophyll is located.

Chlorosis [Gen Agri] Is the yellowing or blanching of leaves and other chlorophyll bearing plant parts.

C Horizon [Gen Agri] Is the layer of weathered parent rock material below B horizon of the soil but above the unweathered rock.

Chord [Ag Struc] The singular braces in a truss.

Chromated Copper Arsenate, CCA [Ag Struc] A wood preservative which provides long-lasting decay and termite resistance; rate of corrosion of fasteners or metal driven into the salt-based form may be increased under damp conditions.

Chromosome [Gen Agri] Carrier of genes.

Chute [Ag Struc] The narrowed portion of the livestock handling-treating system where livestock move in single file.

Chute Ladder [Ag Struc] A series of uniformly spaced individual steps or rungs, which may or may not have a side rail relationship, incorporated into a silo door assembly, serving the purpose of hinging and/or latching and/or removing said silo door(s) assembly.

Chute Spillway [Soil & Water] Lined channel constructed with a steep slope to convey water to lower level without erosion.

CIF (Cost, Insurance, and Freight) [Ag Mach] Is the landed cost of an import on the dock or other entry point in the receiving country. Includes cost of international freight and insurance and often includes cost of

unloading onto the dock. Excludes any charges after the import touches the dock and excludes all domestic tariffs and taxes or fees.

Cipolletti Weir [Soil & Water] A sharp-crested trapezoidal weir with 1 (horizontal) to 4 (vertical) side slopes.

Circuit Breaker (Lightning System) [Ag Elec] Device which protects a circuit from excessive currents; a device that opens the circuit when the current draw becomes excessive and closes the circuit when the current flow is reduced.

Circular Pitch [Gen Eng] The length of the arc of the pitch circle between two consecutive corresponding profiles.

Circular Stair [Ag Mach] Is a staircase with steps winding in a circle or cylinder.

Circulating Watering System [Ag Proc] Watering system in which unconsumed water is circulated continuously to prevent freezing.

Circulation Blower [Ag Mach] Air-moving device utilized within a building to provide air movement and circulation.

Cistern [Soil & Water] Man-made reservoir or receptacle for holding water or other liquids.

Civil-law Drainage Law [Irrig & Drain] A drainage law stating that the owners of higher land are entitled to the natural advantage that the elevation of their land gives them and owners of lower lying land must receive surface water flowing to them through natural channels.

Clamp-On Meter [Ag Struc] An ammeter used to measure current without physically interrupting the circuit.

Class A [Ag Mach] Class A designation of an order means that the rule applies to all kinds of work.

Class B [Ag Mach] Class B designation means that the order applies unless the nature of the work, type of machinery being worked will not permit.

Class 1 Milk [Ag Mach] Refers to a milk that is used for fluid use.

Classification [Ag Proc] Designation that identifies that the oil source and production procedure.

Clay [Gen Agri] A soil-type consisting of particles less than 2 μ m in equivalent diameter.

Claypan [Gen Agri] A dense, compact layer in the subsoil having a much higher clay content than the overlying material, separated by a sharply defined boundary.

Clay Slurry [Ag Waste] Clay material used in patching vents or holes of charcoal kilns to regulate amount of air inside the chamber during the carbonization.

Clay Tile [Soil & Water] Refers to short lengths of pipe used for subsurface drains which are made of shale or clay.

Cleaning [Ag Mach] The isolating of desired seed from chaff, small debris and unthreshed materials.

Cleaning Devices [Ag Mach] The main cleaning device is often referred to as the shoe. It is usually an oscillating mechanism containing a number of adjustable and/or fixed sieves which, together with an air supply constitute the cleaning apparatus of a combine.

Cleaning Efficiency [Ag Mach] The whole grain with respect to grain mixture at main grain outlet expressed as percent by weight.

Cleaning Sieve Area [Gen Eng] The area of each sieve shall be the product of its length and exposed width, measured in square meters to the nearest hundredth.

Cleanout [Ag Struc] Plumbing fitting or drain with a removable plug for access to cleaning a container or unplugging a pipe.

Clean Run-off [Ag Struc] Runoff not contaminated with manure such as runoff from roofs, grassed areas, drives and other area which are not animal alleys.

Clean Shelled Kernel [Ag Proc] Shelled kernel free from foreign matter.

Clean Threshed Grain [Ag Proc] Threshed grain with 100% purity exclusive of the empty grains and other impurities.

Clearance Height of Unloader [Ag Proc] The vertical distance from the plane on which the combine is standing to a point on the underside of the unloader located at a horizontal distance.

Clearance Radius [Ag Mach] The distance from the turning center to the outermost point of the combine executing its shortest turn without brakes in operation

Clearance Volume [Ag Power] The volume remaining above the piston when it is at top dead center.

Clearcut [Ag Mach] A harvesting and regeneration technique where in one operation all trees are removed from an area regardless of size. It is most used with species that require full sunlight to reproduce and grow well.

Clearcut Harvest [Ag Mach] A harvest and regeneration technique removing all the trees (regardless of size) on an area. Clearcutting is commonly used with shade-intolerant species such as Douglas fir or lodge pole pine, which require full sunlight to reproduce and grow well. Clearcutting produces an even-aged stand of trees.

Clear Face Cutting [Ag Mach] Is a cutting having one clear face and the reverse side sound as defined in sound cutting.

Clear Ice [Ag Proc] Block ice obtained by agitating the water during freezing and subsequently removing by suction the core of unfrozen water where impurities are concentrated.

Clear Span Roof Construction [Ag Struc] A building roof design without interior support posts.

Cleavage [Gen Agri] Refers to the ability of a mineral or rock to split along predetermined planes.

Climate [Gen Agri] Is the total long-time characteristic weather of any region.

Climate Change [Gen Agri] The slow variations of climatic characteristics over time at a given place.

Clinch allowance [Ag Mach] Allowance in length of rivet in order to turn over or flatten the protruding end.

Clods [Ag Mach] Soil blocks or masses that are cut, sheared, or broken loose by tillage tools.

Clone [Gen Agri] Is a group of organism composed of individuals propagated vegetatively from a single original individual.

Close Breeding [Gen Agri] A form of in-breeding animals.

Closed Drain [Soil & Water] Subsurface drain, tile or perforated pipe, which may also receive surface water through surface inlets.

Closed-frame Cylinder [Ag Mach] Type of shelling cylinder formed by a rolled metal sheet/plate or formed by longitudinal bars adjacently arranged forming a continuous cylinder.

Closed Loop Cooling Tower [Ag Proc] Water-conserving cooling tower system in which water used for cooling is recycled through a piping system that cools the water; the water is cooled as air exchanges heat with the pipes.

Closed Shop [Gen Agri] Is an establishment in which the employer by agreement hires only the union members in good standing.

Closed tank [Ag Struc] A completely closed structure, usually a horizontal cylinder or modified cylinder.

Clutch [Gen Agri] The eggs laid by a hen on a consecutive days.

Clutch [Ag Mach] A device used to disconnect the power input to power output.

C:N Ratio [Gen Agri] Refers to the proportion of Carbon and Nitrogen in fresh organic matter, humus, and whole soil. The C:N Ratio has significant importance in agriculture, because the proportion of Carbon and Nitrogen in organic matter affects its decomposition.

Coagulation [Ag Struc] In water and wastewater treatment, the aggregation of colloidal, finely divided suspended matter and/or bacterial cells by addition of a floc-forming chemical or by biological process.

Coal [Ag Power] A black or brownish-black solid combustible rock formed by the accumulation, decomposition, and compaction of plant materials under a long acting geological process.

Coal-Fired Power Plant [Ag Power] An electricity-generating plant which utilizes coal (whether locally produced or imported) as fuel.

Coarse Aggregates [Ag Struc] Such as crushed stone, crushed gravel or natural gravel with particles retained on a 5 mm sieve.

Coarse Sprays [Ag Mach] Distribution of droplets with $D_{V0.5} > 1200\mu\text{m}$.

Coastal Erosion [Irrig & Drain] Is an erosion caused by wave action on the seashore.

Coating [Gen Agri] A layer of a substance completely or partly covering a surface. It is composed of a variety of substances separately or in combination. Includes clay coatings (clay skins), calcite coatings, whole soil coatings, etc. It may become incorporated into the matrix or be fragmented.

Cock [Gen Agri] A mature male fowl.

Cockerel [Gen Agri] Young cock.

Cocktail Stair [Ag Struc] Is a winding stair case.

Co-Composting [Gen Agri] Is a composting process utilizing carbon-rich organic material including leaves, yard waste, or mixed municipal solid waste, in combination with a nitrogen-rich amendment such as sewage sludge.

COD [Ag Waste] Chemical Oxygen Demand

Cod [Gen Agri] The part of the scrotum left after castration.

Coefficient of Hulling [Ag Proc] Measure of the ability of the machine to remove the hulls.

Coefficient of Husking [Ag Proc] The ratio of the mass of brown rice to the total mass of paddy input to the husker.

Coefficient of Linear Extensibility [Gen Agri] The ratio of the difference between the moist and dry lengths of a clod to its dry length $(L_m - L_d)/L_d$ when L_m is the moist length at (1/3 atmospheres) and L_d is the air-dry length. The measure correlates with the volume change of soil upon wetting and drying.

Coefficient of Thermal Capacity [Ag Proc] Is the amount of heat added to or subtracted from a substance when unit weight of the material changes 1° in temperature.

Coefficient of Performance [Ag Proc] Refers to the ratio of useful refrigeration (or refrigerating effect) to the net work (or work of compression).

Coefficient of Wholeness [Ag Proc] The ratio of the mass of head brown rice grain to the total mass of brown rice (head broken) produced by the husker.

Coercivity [Gen Eng] Is the amount of power needed to magnetize or demagnetize a permanent magnet.

Cogeneration [Gen Eng] The simultaneous production of two useful forms of energy, heat and power. It is a cost effective energy resource option for the industry.

Cogging [Gen Eng] It is the cyclic physical resistance felt in some alternator designs from magnets passing the coils and gaps in the laminates. Detrimental to start-up.

Coil [Ag Elec] Another name for inductor.

Coil-Rolled Steel [Gen Eng] Is a steel processed by working at room temperatures. More expensive than hot-rolled steel.

Cold Barn [Ag Struc] Naturally ventilated barn, usually constructed with no or minimum insulation. No supplemental heat is provided and inside temperature varies with outside temperature.

Cold Brakes [Ag Mach] A brake is deemed to be cold if one of the following conditions is met.

Cold Heading [Ag Mach] A method of forcing metal to flow cold into enlarged sections by endwise squeezing.

Cold Room [Ag Proc] An insulated structure served by a refrigeration system.

Cold Shortness [Gen Eng] Refers to the brittleness of metal at ordinary or low temperature.

Cold Slaughter [Ag Struc] Refers to slaughtering an animal which is already dead of some causes prior to slaughter.

Cold Storage [Ag Proc] The trade or process of preserving perishables by refrigeration.

Cold Working [Gen Eng] It is the process of deforming a metal plastically at a temperature below the recrystallization temperature and at a rate to produce strain hardening.

Coleoptile [Gen Agri] Refers to the sheath covering the tip of the leaf of a grass seedling as it emerges from the soil.

Coleorhizer [Gen Agri] Refers to the sheath covering the tip of the 1st root from a seed.

Colic [Gen Agri] Is a nonspecific pain of the digestive tract.

Coliform-Grouped Bacteria [Gen Agri] A group of bacteria predominantly inhabiting the intestines of man or animal, but also found in the soil.

Collapse [Ag Struc] A distortion of lumber with corrugated appearance on the wider face due to excessive shrinkage.

Collars [Ag Struc] Components that increase the bearing area of portions of the post foundation, and thus increase lateral or vertical resistance.

Collecting Tank (Holding Tank) [Ag Struc] Chamber where manure and water are collected, stored and separated from heavy and non-biodegradable materials before feeding them into the digester.

Collector Ring [Ag Power] An assembly of slip rings for transferring electrical energy from a stationary to a rotating member.

Collector Slope [Ag Power] The collector slope is the angle between the plane of the collector absorber and a horizontal surface.

Colloidal Matter [Ag Struc] Finely dividing solids which will not settle but may be removed by coagulation or biochemical action or membrane filtration.

Colloids [Ag Mach] Negatively charged soil particles smaller than the soil surface made when a mole plow is drawn through the soil or by a rolling disk.

Colostrum [Gen Agri] The first milk secreted pre and post partum.

Colt [Gen Agri] A young female horse usually up to 3 years old.

Column [Ag Struc] Is an element used primarily to support axial compressive loads and with a height of at least three times its least lateral dimension.

Combination [Ag Mach] Trailed equipment with or without braking systems coupled to an agricultural tractor or self-propelled machine.

Combine [Ag Mach] A self-propelled or tractor-drawn machine which cuts, threshes, and cleans the standing crop which moving across the field. It is adapted to harvesting all the small grains, soybeans, grain sorghums, peanuts, beans, etc.

Combine Capacity [Ag Mach] The maximum sustained feed rate of a combine harvester with the machine in field operation on level ground.

Combine Height [Ag Mach] The vertical distance from the plane on which the combine.

Combine Length [Ag Mach] The overall dimension from the foremost point to the rearmost point of the combine equipped for field operation measured parallel to the longitudinal centerline of the combine.

Combine Weight [Ag Mach] The weight of a combine with the header removed, with the grain tank empty and with the fuel tank empty (or deduct weight of fuel).

Combined Cycle [Ag Power] A modern technology in which one or more combustion turbines are used to initially generate electricity, after

which, waste heat recovered from the exhaust gases produces steam in a heat recovery steam generator. The steam is then used in a steam turbine to produce additional electric power.

Combined Tillage Operations [Ag Mach] Operations simultaneously utilizing two or more different types of tillage tools or implements (subsoil-lister, lister-planter, or plow-planter combinations) to simplify, control, or reduce the number of trips over a field.

Combined Sewer [Ag Mach] A sewer that receives storm water runoff as well as transports sewage.

Combined Stress Member [Ag Mach] Refers to a member subjected to bending and axial forces (tension or compression) simultaneously.

Combine Tillage Operation [Ag Mach] Tillage operation simultaneously utilizing two or more different types of tillage tools or implements to simplify, control or reduce the number of trips over a field.

Comb-tooth harrow [Ag Mach] Implement used for breaking clods after initial plowing, for subsequent operations prior to transplanting and for puddling and leveling.

Combustion [Ag Power] Any chemical process accompanied by the emission of light and heat, being typically a vigorous union of substances with oxygen.

Combustion [Ag Power] The act or process during burning.

Combustion Chamber [Ag Power] The chamber in which combustion of fuel mainly occurs.

Combustion Chamber Volume [Ag Power] The volume of the combustion chamber measured in cubic centimeters when the piston is at the top dead center.

Combustion Efficiency [Ag Power] Ratio of the heat released by the fuel, to the theoretical heat available from the fuel.

Comb-Tooth Harrow [Ag Power] Implement used for breaking clods after initial plowing, for subsequent operations prior to transplanting and for puddling and leveling.

Combustion Products [Ag Power] Residue resulting from the combustion of a fuel.

Comfort Air Conditioning [Ag Struc] Is the process of treating air to control simultaneously its temperature, humidity, cleanliness, and distribution to meet the comfort requirements of the occupants of the conditioned space.

Comfort Stall [Ag Struc] Stall with a chain attached to an anchor in the cub separating the manger from the stall.

Commercial [Gen Agri] (1) A carcass grade of cattle. (2) Livestock that are not registered or pedigreed by a registry (eg. Breed) association.

Common Stock [Gen Agri] Refers to the capital stock in excess of the value of the assets of the issuing corporation.

Communal Irrigation System (CIS) [Irrig & Drain] It is an irrigation system that is managed by a bonafide Irrigator's Association.

Community Nest [Gen Agri] Large nesting boxes for 3-6 layers.

Commutator [Gen Eng] It is the rotating part of a DC generator.

Compact Farming [Gen Agri] Is a system of grouping continuous land holding for the purpose of operating as one farmstead, resources for production are pooled together from among the other member.

Compaction [Gen Agri] Increase in bulk density due to mechanical forces such as tractor wheels.

Compaction Load [Ag Struc] The load transferred through the silage onto the silo wall from the compaction equipment operating on the surface to the silage.

Compact Utility Tractor [Ag Mach] A small agricultural tractor equipped with a 540 rpm rear PTO and a three-point hitch designed for Category 1 implements only as specified in ASAE Handbook.

Compacted Layer (Plow Pan, Traffic Pan, Plow Soil) [Ag Mach] A dense layer of soil immediately below tillage depth created by mechanical pressure and/or soil-shearing forces.

Companion Crop [Gen Agri] Is a crop grown with another crop, as a small grain with forage crops.

Comparative Advantage [Gen Agri] Is the special ability of a resource to provide/produce one product or service relatively more cheaply than the other products or services.

Comparison Combine [Gen Agri] The combine or combine configuration with which the test combine is being compared.

Compartment-type Separator [Ag Proc] A type of paddy separator that makes use of the difference in specific gravity and buoyancy of the paddy grains and brown rice.

Compensatory Gain [Gen Agri] Is a faster-than-normal rate of gain after a period of restricted gain.

Competitive Enterprise [Gen Agri] Is an increase in the production of one makes a reduction in the other, given a particular level of resources.

Complementary Enterprise [Gen Agri] Refers to when a transfer of resources to one product and an increase in the production of it are accompanied by increase in the production of the other.

Complementary Genes [Gen Agri] Are genes that interact, which when both are present, a new or novel trait appears.

Complete and Perfect Flower [Gen Agri] Is a flower with all parts of the perianth and pistil and stamen.

Complete Planning and Budgeting [Gen Agri] Takes the whole farm as the subject for decisions. It considers all expenses and returns so that the figure indicates the performance of the entire farm.

Complete Supplement [Gen Agri] Dietary component containing high concentrations of protein, vitamins, and minerals, and with which an energy source is mixed to produce a complete diet.

Complex Tillage Tools [Ag Mach] Tillage tools which rotate or move so that they present a varying boundary and contact area to the soil.

Composite Breed [Gen Agri] A breed that has been formed by crossing two or more breeds.

Composite Structure [Gen Agri] Any combination of different types of peds.

Compost [Ag Waste] Organic residues, or a mixture of organic residues and soil, which have been piled, moistened, and allowed to undergo biological decomposition for use as a fertilizer.

Composting [Ag Waste] Biological degradation of organic matter under aerobic conditions to a relatively stable humus-like material called compost; A controlled microbial degradation of organic waste yielding an environmentally safe and nuisance-free soil conditioner and fertilizer.

Composting Amendment [Ag Waste] Any item added to the compost mixture that alters the moisture content, C.N ratio, or pH.

Composting, Municipal [Ag Waste] Solid waste management method whereby the organic component of the solid waste stream is biologically decomposed under controlled conditions; an aerobic process in which waste organic materials are ground or shredded and then decomposed to humus in windrow piles or in mechanical digesters, drums, or similar enclosures; results in volume and odor reduction, waste stabilization, destruction of pathogens, larvae and weed seeds; the final product is sufficiently stable for storage and land application without adverse environmental effects.

Compost Mix [Ag Waste] Mixture of an organic waste with amendment(s) or bulking agent(s) in the proper proportions to promote aerobic microbial activity and growth and to achieve optimum temperatures.

Compound Interest [Gen Agri] Is the interest paid not only on the amount borrowed but also on the interest earned in previous periods.

Compound Structure [Gen Agri] Large peds such as prisms and columns that are themselves composed of smaller incomplete peds.

Compressed Air Sprayer [Ag Mach] A sprayer apparatus that uses air pressure to move liquid from a container through an atomizing device.

Compressed Natural Gas [Ag Power] Natural gas compressed to a high pressure of about 16-20 MPa to store on-board in specially-designed cylinders.

Compressibility [Ag Mach] The ratio of the volume of initial powder to the volume of compressed piece.

Compression [Ag Mach] A process that increases the pressure of a gaseous refrigerant.

Compression Failure [Gen Agri] Rupture of the wood structure resulting from excessive compression along the grain. It may develop as a result of bending in the living tree or during felling. In surface lumber, compression failures may appear as fine wrinkles across the face of the piece.

Compression Ignition [Ag Power] The ignition of fuel through the heat of compression.

Compression Ignition Engine [Ag Power] Engine in which combustion is achieved by compressing the air until temperature, pressurized fuel is injected in the combustion chamber, it ignites on contact with high temperature air to generate power.

Compression Members [Ag Mach] Are vertical members that resist axial compressive loads(e.g. columns)>

Compression Ratio [Ag Power] The ratio between the total volume in the cylinder when the piston is at the bottom dead center and the volume remaining when the piston is at the top dead center; The ratio of the cylinder volume on top of the piston when it is at its lowest position to the volume remaining above the piston when it is at its highest position; The ratio of the absolute pressure after compression to the absolute pressure before compression.

Compression Set [Ag Struc] Occurs during compression, that tends to give the wood a smaller than normal dimension after drying, usually found in the interior of wood items during the 1st stage of drying but sometimes in the outer layers after overconditioning or rewetting. Also caused by external restraint during rewetting of dried wood.

Compression Wood [Ag Struc] Abnormal wood formed on the lower side of branches and inclined trunks of softwood trees. It has relatively wide, eccentric growth rings with little or no demarcation between springwood and summerwood and more than normal amounts of summerwood.

Compressor [Ag Proc] A device for mechanically increasing the pressure of a gas; A mechanical device to pump air and thereby increase the pressure.

Compressive Stress [Gen Eng] Refers to the tend to press or squeeze and object.

Compound Motor [Ag Power] A DC motor consisting of a shunt winding and a series winding in addition to armature.

Concave [Ag Mach] A concave-shaped stationary element adjacent to the threshing cylinder or rotor fitted primarily to promote threshing.

Concave [Gen Eng] A surface curved like the interior of a circle or sphere.

Concave Arc [Ag Mach] A common alternative way of defining arc length in degrees which is measured from the outside of the first bar to the outside of the last bar in a plane perpendicular to the axis of the associated cylinder or rotor, dimension.

Concave Arc Length [Ag Mach] The arc length dimension of the concave, including the first and last bars.

Concave Area [Ag Mach] The product of the concave width or length, and arc length, expressed in square meters to the nearest hundredth.

Concave Capacity [Ag Mach] Actual capacity of the sheller corrected at 20% kernel moisture content (wet basis), and 100% purity.

Concave Clearance [Ag Mach] Clearance between the cylinder shelling/threshing elements and the concave components.

Concave Component [Ag Mach] An iron grill frame partly surrounding the cylinder on which the threshing elements rubs, shear and/ impact the cut plants.

Concave Disk [Ag Mach] Circular concave steel plate used for cutting and inverting the soil.

Concave Grate [Ag Mach] An iron grill frame partially or fully surrounding the cylinder in which the threshing elements rubs, shear and/or impact the cut plants.

Concave Grate Arc [Ag Mach] The portion of the concave arc that corresponds to the concave grate length.

Concave grate extension [Ag Mach] A permeable element, approximately concentric to he associated cylinder or rotor and generally forming an extension to concave. Concave grate extension area the product of the concave width and the concave grate extension length.

Concave, Lower [Ag Mach] A semi-circular shaped wire mesh or bar grate covering the lower portion of the threshing chamber which causes the grains to separate from the panicle.

Concave, Upper [Ag Mach] A semi-circular shaped grate at the upper portion of the threshing cylinder with louvers which assist threshing and axial movement of the straw.

Concave Width or Length [Ag Mach] The outside dimension of the concave, measured parallel to the axis of its associated threshing cylinder or rotor.

Concavity [Ag Mach] Vertical distance measured from the lowest point to the center of the disc when its concave side is placed on a flat surface.

Concentrate [Gen Agri] A feed that is high in energy, low in fiber content, and highly digestible.

Concentrated Farmstead [Ag Struc] In this type, all structures are in close proximity, in many instances, will all or most of the buildings joined together or connected by sheds or covered walks.

Concentrated Load [Ag Struc] Is a load applied at a point or along a line.

Concentrates [Gen Agri] Feeds low in fiber (usually under 12%) and high in digestible energy.

Concentrations [Gen Agri] Amount of active ingredient contained in the chemical formulation. .

Conception [Gen Agri] Refers to the fertilization of the ovum. The action of conceiving or becoming pregnant.

Concrete [Ag Struc] Is hardened structure consisting of a mixture of cement, sand, and gravel or broken stone.

Concrete Block [Ag Struc] A solid or hollow block of precast concrete.

Concrete Hollow Blocks (CHB) [Ag Struc] Are most widely used masonry material for all types of construction walls, partitions, dividers, fences, etc.

Concrete Masonry [Ag Struc] Building units composed of hollow blocks, bricks or the laid by masons.

Concrete Slab [Ag Struc] A flat reinforced concrete structural member, relatively sizable in length and width, but shallow in depth, used for floors, roofs, and bridge decks.

Concrete Steel [Ag Struc] Steel used in reinforced concrete, which should comply with standard specifications for pre-stressed concrete.

Concretions [Gen Agri] Soil-structural units which are irreversibly cemented together.

Concurrent Flow Type Dryer [Ag Proc] Continuous flow dryer wherein the product being dried moves in the same direction as drying air.

Condemned Meat [Gen Agri] Meat which is unfit for human consumption as declared by a veterinary inspector after veterinary examination.

Condensate [Ag Waste] Moisture in the air that is pulled through a compost pile.

Condensation [Ag Proc] The change of state of a vapor into a liquid by extracting heat from the vapor.

Condensed Milk [Ag Proc] Is a concentrated milk to which sugar has been added. It has 27 percent water, 8.1 percent protein, 54.8 percent lactose, and 1.7 percent minerals.

Condenser [Ag Proc] A vessel or arrangement of pipe or tubing that liquefies vapor by removal of heat; [Ag Elec] Outdated name for capacitor.

Condensing Pressure [Ag Proc] The pressure of a gas or vapor at which it condenses.

Condensing Temperature [Ag Proc] The temperature of a fluid at which condensation occurs.

Condensing Unit [Ag Proc] An assembly of refrigerating compressor, receiver, condenser and necessary accessories attached to one base.

Conditioned Fluid {Gen Eng} The fluid being acted upon by the working fluid.

Conditioning [Ag Proc] Rewetting of dried corn kernels to about 18% to 22% moisture content and tempering it to make the pericarp and the germ more pliable and easier to remove.

Conditioning [Ag Proc] Refers to the preliminary treatment of unseasoned or partially seasoned timber to reduce its moisture content and improve its absorptive properties.

Conductance [Gen Eng] Ability to conduct current.

Conduction [Ag Proc] Is the transmission of heat molecular vibration from one part of the body to another or from one body to another body in direct contact with it; Transmission through or by means of a conductor, distinguished in the case of heat from convection to radiation.

Conduction [Gen Eng] The transfer of heat through the air between the fire and the pot. In a traditional open fire, heat is lost into the open air; in the improved stove, passages or ducts leading from the fire to the cooking pots are sealed so that only air controlled by the dampers reaches inside the stove.

Conductivity [Gen Eng] A measure of the soluble salts in the soil; used as an overall indicator of the level of macro- and micronutrients in the soil.

Conductors [Gen Eng] Materials that have very low resistivity.

Conduit [Gen Eng] A circular tube used to enclose electrical wires; the conduit may be metal or plastic.

Cone Atomizer (Cone Spray Nozzle) [Ag Mach] A pressure atomizer in which the liquid is swirled, typically by means of tangential inlets,

slotted distributors, vanes or cores, and produces a conical sheet of liquid that collapses into droplets.

Cone Index [Soil & Water] The force per unit basal area required to push a cone penetrometer through a specified increment of soil.

Cone of Depression or Influence [Soil & Water] The water table of piezometric surface is roughly conical in shape, produced by the extraction of water from a well.

Cone Distance [Soil & Water] The distance from the end of the tooth to pitch apex.

Cone Penetrometer [Soil & Water] An instrument in the form of a cylindrical rod with a cone-shaped tip designed for penetrating soil and for measuring the end-bearing component of penetration resistance.

Confidence [Gen Agri] Relative frequency that the statistically derived interval contains the true value being estimated.

Confined Aquifer [Soil & Water] An aquifer whose upper, and perhaps lower, boundary is defined by a layer of natural material that does not transmit water readily.

Confinement [Ag Struc] Holding livestock in a restricted area on an underfooting other than soil.

Congenital [Gen Agri] That which are acquired during prenatal life. It exists at or dates from birth.

Conglomerate [Gen Agri] A sedimentary rock composed mainly of rounded boulders.

Coniferous Forest [Gen Agri] A forest consisting of predominantly cone-bearing trees with needle shaped leaves: usually evergreen but some are deciduous. Coniferous forests produce soft wood which has a large number of industrial applications including paper making.

Conjugated Proteins [Gen Agri] Are those proteins that yield not only amino acid but also other organic and inorganic components; a type of protein in which simple proteins are combined with non-protein radical, i.e., nucleoproteins, glycoproteins, phosphoproteins, hemoproteins, lecithoproteins, lipoproteins, metalloproteins.

Connecting Rod [Ag Mach] The rod joining the piston with the crankshaft.

Connecting Stub Shaft [Ag Mach] Connector between two fighting assemblies.

Connective Storm [Gen Agri] Rainfall caused by condensation of warm moist air that moves upward, being cooled both by the surrounding air and by expansion.

Cono-type Rice Mill [Ag Proc] It is technically known as the under runner disc which consists of 2 horizontal cast iron disc partly coated

with an abrasive layer. The top disc is fixed in the frame housing while the bottom disc rotates. This mill is equipped with a vertical cone-shaped polisher.

Conservation [Soil & Water] The continuing protection and management of natural resources in accordance with principles that assure their optimum long-term economic and social benefits.

Conservation Plan [Soil & Water] A combination of land uses and practices to protect and improve soil productivity and to prevent soil deterioration.

Conservation Practices [Soil & Water] Methods which reduce soil erosion and retain soil moisture. Major conservation practices include conservation tillage, crop rotation, contour farming, strip cropping, terraces, diversions, and grassed waterways.

Conservation Tillage [Ag Mach] Any tillage or seeding system that maintains a minimum of 30% residue cover on the soil surface after planting or maintains at least 1 100 kg/ha (1,000 lb per acre) of flat small grain residue equivalent on the soil surface during the critical erosion period.

Conspicuity Tape [Ag Elec] Refers to retroreflective materials, usually self adhesive.

Constant Rate Period [Ag Proc] Drying takes place from the surface of the grain i.e. similar to evaporation of moisture from a free water surface. The magnitude of the rate of drying during this period is dependent upon (a) the area exposed, (b) difference in humidity between air stream and wet surface, (c) the coefficient of mass transfer, and (d) velocity of the drying air.

Constrained Case [Ag Struc] The post rotates about a rigid support and is laterally supported by reactive soil pressure on one side of the post.

Constructed Wetland [Ag Struc] A man-made aquatic ecosystem containing emergent hydrophytic vegetation, designed and managed to treat wastewater.

Consumptive Use [Irrig & Drain] Is defined as the sum of the volumes of water used by the vegetation growth of a given area for transpiration and building of plant tissues plus that evaporated from the adjacent ground or intercepted precipitation on the area in any specified time divided by the given area.

Consumptive Use Efficiency [Irrig & Drain] It is the ratio of the normal consumptive use of water to the net amount of water depleted from the root zone soil.

Contact [Ag Elec] Equivalent to a switch; A contact in a motor starter or relay is controlled by a magnetic coil.

Contact Freezer [Ag Proc] A freezer in which the product is frozen by contact with a refrigerated surface.

Contact Herbicide [Gen Agri] A nonsystemic weed killer – one that does not have to be metabolized by a plant to be effective.

Contagious [Gen Agri] Transmissible by direct or indirect contact.

Container [Ag Proc] Any form of packaging material which completely or partially enclose the food (including wrappers).

Contaminant [Gen Agri] A foreign material lending impurity to a primary material; physical contaminants of compost include glass and plastic, chemical contaminants include heavy metals and toxic organic compounds.

Contamination [Ag Waste] Any introduction into the environment of microorganisms, chemicals, wastewater in a concentration that makes the environment unfit for its intended use.

Contemporaries [Gen Agri] Refers to a group of animals of the same sex and breed (or similar breeding) that have been raised under similar environmental conditions (same management group).

Continuity [Ag Elec] Continuous path for current.

Continuous Brake Power [Ag Power] Power recommended by the manufacturer for satisfactory operation under continuous duty condition within a specified speed range.

Continuous Cycle Motors [Ag Power] The motor that is operated at or near full load for more than 60 minutes at a time.

Continuous Data [Gen Agri] Data taking is considered continuous if the instrument measures and records data once each minute or more frequently.

Continuous Duty [Gen Agri] A service requirement that demands operation for an indefinitely long period of time.

Continuous-flow [Ag Proc] A system of composting in which material is continuously added to the composting process and the end product is continuously removed; often used for large operations.

Continuous-Flow Dryer [Ag Proc] A dryer in which the grain is moved continuously or periodically through the drying chamber towards the drier outlet while the moist grain is being fed into it; Dryer in which the material being dried moves through the drying chamber in a substantially continuous stream and is discharged without being recirculated.

Continuous-Flow Irrigation [Irrig & Drain] System of irrigation water delivery where each irrigator receives allotted quantity of water continuously.

Continuous Flow System [Irrig & Drain] The continuous use, by an industry, of deionized water to remove contaminants from products and equipment.

Continuous Hot-Dip Aluminum/Zinc-Coated Steel Sheet [Ag Mach] Product obtained by hot-dip coating steel sheet coils on a continuous aluminum/zinc coating line to produce either coated coils or cut lengths.

Continuous Load [Ag Elec] Is a load where the maximum current is expected to continue for three hours or more.

Continuously Anaerobic (*very poorly drained*) [Irrig & Drain] A horizon that is saturated with water throughout the year, it is blue, olive or grey.

Continuous-Tool Bar Cultivator [Ag Mach] Implement consisting of tool bars that extend across to the top of the rows, which allow lateral adjustments of the tools for different row spacing.

Continuous Wall Foundation [Irrig & Drain] It may be used either as a basement walls or as curtain walls.

Contour Cultivation [Irrig & Drain] Consists of carrying out agricultural operations very nearly on the contour. IT reduces the velocity of overland flow and retards soil erosion.

Contour Farming [Gen Agri] System of farming used for erosion control and moisture conservation whereby field operations are performed approximately on the contour.

Contour Furrows [Ag Mach] Furrows plowed approximately on the contour to reduce soil loss and increase infiltration.

Contour Line [Ag Mach] Is an imaginary line of constant elevation on the surface of the ground.

Contour Strip Cropping [Gen Agri] A modification of contour farming in which alternating crops are planted in strips, usually includes strips of close-growing, erosion-resistant forage.

Contract Crops [Gen Agri] Are crops eligible for production flexibility payments: wheat, corn, sorghum, barley, oats, rice, and upland cotton.

Contracted Weir [Soil & Water] Weir having sufficiently sharp upstream edges and slow approach velocity to cause the napped to contract.

Contract Growing [Gen Agri] Growing animals for someone else for a fee.

Control [Ag Proc] Any component of dryer, or dryer heat source, so designed to affect or limit to any normal or abnormal condition of the drying operation.[ASAE] a device which will control the operation of a powered unit, attachment, accessory, or any specific operating function thereof.

Control Conductors [Ag Elec] Those conductors that carry current to control devices necessary for movement of the machine.

Control Console [Gen Eng] The electronic/electrical assembly which monitors all sensors and activates auxiliary alarm devices upon sensing an alarm condition.

Control Gate [Gen Eng] Device to adjust the intake areas for capacity control.

Controlled Atmosphere Storage [Ag Struc] Storage in an artificial atmosphere in which the proportion of carbon dioxide and/or oxygen is precisely controlled.

Controlled Drainage Mode [Soil & Water] Mode of operating a water-table management system with water-table control structures adjusted to limit system discharge resulting from rainfall to maintain a free water surface within the soil profile.

Controlled Drainage [Irrig & Drain] Regulation of the water table by means of pumps, control dams, or check drains, or a combination of these, for maintaining the water table at a depth favorable to crop growth.

Controlled Dynamic System [Ag Waste] Compost piles receive forced aeration and periodic turning.

Controlled or Warm Environment [Ag Struc] Insulated livestock housing where temperature, humidity, lighting, air movement, radiation, etc., are controlled by appropriate construction and environmental modifications.

Controlling [Gen Agri] is the process of ensuring that actual activities conform to planned activities.

Control Station [Soil & Water] The control station may include facilities for water measurement, filtration, treatment, addition of amendments, flow and pressure control, timing of application and backflow prevention.

Control Structure [Soil & Water] Water regulating structure, usually for open canals.

Convection [Ag Proc] Is the transfer of heat between fluid and a surface by the circulation or mixing of the fluid.

Convection [Gen Eng] The transfer of heat by circulating motion; hot gases rise and cooler gas sink, creating a turbulence. In a traditional open wood fire, convection is uncontrolled and the wind can dispose the hot gases and prevent them from reaching the pot. In an improved stove, passages for the flow of air and gases are constructed in such a way (for example by adding baffle) that convection is increased. The turbulence ensure that the hot air is bounced directly up against the bottom of the pot, rather than being carried openly across the bottom of the pot.

Convection [Ag Proc] Transference of heat or electricity by moving masses of matter, as by currents in gases and liquids caused by differences in density, or by electrically charged particles across a spark gap.

Conveyance Loss [Soil & Water] Loss of water from a channel or pipe during transport, including losses due to seepage, leakage, evaporation, and transpiration by plants growing in or near the channel.

Convective Precipitation [Soil & Water] Is caused by the rising of warmer, lighter air in colder, denser surroundings.

Conventional Energy Source [Ag Power] Source of energy which includes petroleum based fuels such as kerosene, gasoline, diesel oil and banker fuel oil.

Conventional Tillage [Ag Mach] Tillage operations traditionally performed in preparing a seedbed for a given crop and growth in a given geographical area.

Conversion [Ag Mach] changing a machine from an arrangement suitable for the performance of one activity to one suitable for performance of another.

Convex [Gen Eng] A surface curved like the exterior of a circle or sphere.

Conveyance Loss [Irrig & Drain] Loss of water from a channel or pipe during transport, including losses due to seepage, leakage, evaporation, and transpiration by plants growing in or near the channel.

Conveyance Structures [Irrig & Drain] They are used to transport irrigation water from the source to the farm ditches.

Conveying Equipment [Ag Proc] Equipment used to move granular materials from one place to another by mechanical means.

Cool-Down Period [Ag Proc] The period following suberization when potato temperatures are reduced to desired holding temperatures.

Cooling [Ag Struc] Generally, the removal of heat from the interior of the building.

Cooling Air [Ag Proc] Air cooled to lower the temperature of a space or products stored in a space.

Cooling Air Temperature [Ag Proc] The mean temperature of the air to be used for cooling the grain, measured at number of points closest to its entry to the grain bed.

Cooling and Dehumidification [Ag Proc] Results in a reduction of both the dry-bulb temperature and the humidity ratio.

Cooling Coil [Ag Proc] A coil which can either be used as direct expansion evaporator or be fed with chilled water or another cooling medium.

Cooling Load [Ag Proc] Contributing sources of load; transmission through walls, ceiling, floors, doors, ducts, and pipes; radiation and conduction, occupants, electrical equipment, infiltration, ventilation, latent load and other essential to a careful design of the refrigeration system.

Cooling Period [Ag Proc] The specific period during which ambient or cooled air is passed through the drying chamber or tempering beam immediately after drying to lower the temperature of the partially dried grain and to avoid moisture condensation in the grain mass.

Cooling Stage [Ag Proc] The time required to move a cooling zone entirely through a product mass.

Cooling Tower [Ag Proc] A structure over which water is circulated to cool the water by evaporating a portion of the water in contact with air.

Cooling Tower Makeup [Ag Proc] Water added to the recirculating cooling tower water stream to compensate for water evaporation losses.

Cooling Water [Ag Proc] Water typically used to cool heat-generating equipment or to condense gases in a thermodynamic cycle.

Cooling Water Blowdown [Ag Proc] Procedure used to reduce total dissolved solids by removing a portion of poor-quality recirculating water.

Cooling Water Drift [Ag Proc] Unevaporated water carried out of a cooling tower by the airflow; it has the same composition as the recirculating water.

Cooling Water Evaporation [Ag Proc] Cooling water recycling approach in which water loses heat when a portion of it is evaporated.

Cooperative [Gen Agri] Is an organization owned collectively by members who share its profits and benefits.

Copolymer [Gen Eng] Polymers consisting of more than one monomer.

Copper [Gen Eng] Is the usual choice for conductor on commercial scale.

Copper Sheets [Gen Eng] Are widely used for making projects in general metal shops because of their attractive appearance. The thickness of copper sheet may be given in gauges but the weight in ounces per square foot is also used. Thus, a 16-ounce copper sheet would be gauge number 24 (nearest B&S gauge number).

Coppice [Gen Eng] A newly cut area regenerated primarily by sprouts.

Cord [Ag Struc] A stack of wood that has a gross volume of 128 cubic feet. A standard cord measures 4 feet x 4 feet x 8 feet.

Core Wall [Ag Struc] Masonry, sheet piling, concrete, or compacted earth placed near the center of a dam or embankment in the form of a wall to reduce percolation.

Corm [Gen Agri] Is the hard swollen base of the stem.

Corn, Cob [Gen Agri] Part of the ear corn where the kernel are attached.

Corn, Ear [Gen Agri] Pistillate inflouescense of the plant Zea mays L. enclosed with a leaf-like protective covering known as husk.

Corned Meat [Gen Agri] Is a prepared meat cured by soaking with or without injecting into it a solution of common salt with or without one or more of nitrate, nitrite, sugar, dextrose, syrup, honey, and with or without the use of spices.

Corn Grits [Ag Proc] Milled corn kernels where the outer covering and germs have been removed and with particle size of not less than 0.86 mm.

Corn Husker-Sheller [Ag Proc] Machine used to remove the husk of corn ear, detach, separate and clean the corn kernels from the cobs in one operation.

Corn Mill [Ag Proc] Equipment used to produce corn grits using the dry milling process.

Corn Sheller [Ag Mach] A machine used to detach, separate and clean the corn kernels from the cobs.

Corn Variety [Gen Agri] This refers to the common name or specific varietal common name of a given shelled corn variety (i.e. Pioneer, SMC-1, BPI, etc).

Corporation [Gen Agri] Is a group of people who gets a charter granting, as a body, certain legal rights and liabilities of a single individual.

Corpus Luteum [Gen Agri] Is a yellowish body in the mammalian ovary. The cells that were follicular cells develop into the corpus luteum, which secretes progesterone. It becomes yellow in color from the yellow lipids that are in the cells.

Corral [Ag Struc] Refers to holding and handling facility for livestock, usually adjacent to pasture, feedlot or livestock barn.

Corrected Capacity [Ag Mach] The corrected capacity of the thresher at 20% grain moisture content (wet basis), grain-straw ratio of 0.55 and 100% purity.

Correction Strip [Irrig & Drain] The irregular width strips of land lying between uniform width strips in strip cropping systems.

Corrosion [Ag Mach] The slow destruction of material by chemical agents and electromechanical reactions; A slow or gradual eating away or erosion of materials due to chemical action.

Corrugated G.I Sheet [Ag Struc] Is widely used for roofing and siding material. Has a standard width of 80 cm with varying length of 1.5 m to 3.6 m at an interval of 30 cm.

Corrugated Metal [Ag Mach] Metal sheeting panel with infolds or furrows of regular size and spacing in order to give greater bending strength and rigidity to the panel.

Corrugated Plastic Tubing [Ag Struc] Extruded plastic tubing with a corrugated wall and when perforated, used for subsurface drains.

Corrugation [Irrig & Drain] A small, shallow furrow – an irrigation method.

Corrugation Irrigation [Irrig & Drain] A method of surface irrigation similar to furrow irrigation, in which small channels, called corrugations, are used to guide water across a field.

Cost Accounting [Gen Agri] A system of accounting in which records of all cash and non-cash costs chargeable to any enterprise as well as cash and non-cash returns are kept for the purpose of preparing an account to show costs of production, returns, and net profit or loss on the enterprise.

Cost of Gain [Gen Agri] Is the total cost divided by the total pounds gained; usually expressed on a per-pound basis.

Cost of Production [Gen Agri] The sum, measured in peso of all purchased inputs and other expenses necessary to produce farm products.

Cotyledon [Gen Agri] Is the first leaf of a plant as found in the embryo.

Coulomb [Gen Agri] Is the amount of charge that flows through a given cross section of a wire in one second if there is a steady current of one ampere in the wire.

Coulter [Ag Mach] A circular, flat tool used to cut plant material and soil place ahead of a plow bottom.

Coulter/Knife Applicator [Ag Mach] One of various types of coulter blades followed by an integrally-mounted forward curved, vertical, or backward curved fertilizer application knife with an attached deposition tube on the trailing edge.

Coulter/Nozzle Applicator [Ag Mach] One of various types of coulters which cut a straight slit in the soil, followed by a solid-stream hydraulic nozzle for the deposition of liquid fertilizers in the opened soil slit beside or between seed furrows.

Coulter Opener [Ag Mach] A rolling coulter operating in line with the direction of movement a seeder to undercut or move soil laterally to form furrow.

Counter-Flow Type Dryer [Ag Proc] Continuous flow dryer wherein the flow of air is transverse to the direction of flow of the grain being dried.

Coupler pair a pair of female hydraulic couplers compatible with male couplers.

Coupler (Sprinkler) [Ag Mach] A device, either self-sealed or mechanically sealed, that connects the ends of two lengths of pipe to hose.

Coupling [Ag Mach] A process used to connect two components.

Course Sprays [Ag Mach] Distribution of droplets with $D_{v0.5} \leq 1200 \mu\text{m}$.

Covalent [Gen Eng] non-ionic chemical bond formed by shared electrons.

Cover [Gen Agri] Vegetation or other natural shelter serving to conceal wildlife from predators.

Cover Crop [Gen Agri] Is a crop grown between orchard trees or on field between cropping season to protect the land from leaching and erosion.

Covering Chain [Ag Mach] A chain of various styles and lengths, attached to drag loosened soil into the furrow.

Covering Depth [Ag Mach] Thickness of soil with which materials are covered by an implement.

Covering Knives [Ag Mach] One or two opposing, sharpened, rigid, elongated blades, which are rigidly, positioned upright on either side of the seed furrow.

Cow [Gen Agri] A mature female cattle for breeding.

Cow-calf Operation [Gen Agri] A management unit that maintains a breeding herd and produces weaned calves.

Cracked Grain [Ag Proc] Grains, which show signs of fissures or fractures or splinters; Head rice with visible cracks, especially when viewed under a magnifying lens against a diffused backlight through a translucent glass plate.

Cracked Kernels [Ag Proc] Kernels which show signs of fissures or fractures or splinters.

Crack Width [Ag Proc] Space between the ends of adjacent clay or concrete drain tile.

Cradle [Soil & Water] A support made of rigid material, such as concrete, wood, or steel, used in unstable soil to maintain grade, support tile or tubing, and prevent deflection of the tubing.

Crank [Ag Mach] Is a body rotating or oscillating about an axis.

Crankcase [Ag Mach] The casing which surrounds the crankshaft.

Crankpin [Ag Mach] The portion of the crank throw attached to the connecting rod.

Crankshaft [Ag Mach] A rotating shaft for converting rotary motion into reciprocating motion.

Credit [Gen Agri] Is the transaction between two parties in which one (creditor) supplies money, goods and services and other securities on the basis of a promise that payment by the other (debtor) would be due at a specified time.

Creditworthiness [Gen Agri] Is the ability of an individual, firm or nation to meet its debt service obligations. For a firm, a judgment about creditworthiness is often formed on the basis of one or another financial ratio.

Creep [Ag Struc] Enclosure for small livestock which excludes larger livestock and in which feed is sometimes provided.

Creep Area [Ag Struc] A place for piglets inside the farrowing pen.

Creep Distance [Ag Struc] Refers to the longitudinal length along the outer surface of a pipe or conduit plus the length along antisspe collars within an earth embankment.

Creep Feeding [Gen Agri] Is a system of feeding young animals prior to weaning.

Creosote [Ag Waste] A burnable liquid or tar like substance that sometimes forms a chimney. It forms when unburned firebox gases cool. It can cause dangerous chimney fires.

Creosote [Ag Waste] A generic term applied to distillates of tars within specified temperature limits. As used in the wood preserving industry, the unmodified term "creosote" denotes a coal-tar creosote.

Crest [Soil & Water] 1) Refers to the top of a dam, dike, spillway, or weir, 2) Summit of a wave or peak of a flood.

Crest Stage Gage [Soil & Water] Provides record of the highest stage observed at a stream.

Critical Depth [Soil & Water] Is the depth of flow in a channel at which specific energy is a minimum for a given discharge.

Critical Suction Head [Soil & Water] (Preferred term in Set positive suction head).

Critical Velocity [Soil & Water] Flow velocity at which a given discharge changes from tranquil to rapid or rapid to tranquil. That velocity in an open channel for which the specific energy is a minimum for a given discharge.

Crook [Ag Struc] A distortion of a board in which the edges deviate from a straight line from end to end of a board.

Crop Area [Gen Agri] The field surface area allocated to each plant.

Crop Feeding [Gen Agri] A system of feeding young animals prior to weaning.

Crop Gathering Headers [Ag Mach] Devices used to gather the crop into the forage harvester.

Crop Irrigation Requirement [Irrig & Drain] Quantity of water, exclusive of effective precipitation, that is needed for crop production.

Crop Management Tillage Operation [Ag Mach] A very shallow operation aimed to control weeds, break up surface crust to improve water infiltration and crop emergence and for forming ridges that encourages early growth and facilitate the harvesting of root crops.

Cropping Intensity [Gen Agri] Is the total cultivated area on a farm divided by the total cropland. Often reported as a percentage.

Cropping Pattern [Gen Agri] Is the area devoted to, and the sequence of crops produced by a farmer or in a region.

Cropping Systems [Gen Agri] Is a modification of cropping system such as crop rotation and mixed cropping.

Crop Residue [Gen Agri] Portion of a plant, or crop, left in the field after harvest.

Crop Rotation [Gen Agri] The planting of some crops like vegetables, cereals, and legumes after harvesting the main crop.

Crop Water Requirement [Irrig & Drain] It is the sum of evapotranspiration and percolation losses.

Crop Year [Gen Agri] Generally, the 12-month period from the beginning of harvest of a particular crop.

Cross (Sprinkler) [Irrig & Drain] Pipe fitting with 4 outlets or connections each 90 deg. Apart.

Crossbred [Gen Agri] Is an animal produced by crossing two or more breeds.

Crossbreeding [Gen Agri] The mating of animals of different breeds.

Cross-Flow Type [Ag Proc] Continuous flow dryer wherein the flow of air is transverse to the direction of flow of the grain being dried.

Crossing Over [Gen Agri] The physical exchange of chromosomal material between non-sister chromatids of homologous chromosomes.

Cross-pollination [Gen Agri] Is the condition in which pollen from an anther on one plant ultimately fertilize a flower on a different plant.

Cross Section [Gen Agri] The surface wood cut at right angle to the grain.

Cross Slope [Gen Agri] The slope perpendicular to crop rows.

Crowding Gate [Ag Struc] Movable gate used to press livestock towards a treatment, milking, or handling area.

Crowding Pen [Ag Struc] Pen in which livestock are confined closely (by crowding gate) prior to treatment, milking, shearing, etc.

Crown [Ag Mach] The sharp corner forming the outside diameter.

Crown-To-Back [Ag Mach] The distance from the crown to the rear of the gear.

Crowning [Soil & Water] The process of forming the surface of land into a series of broad, low ridges, separated by parallel field drains.

Crude Protein Is composed of true proteins and nitrogenous products;
Crude protein = %N x 6.25.

Crumbles [Ag Proc] Pelleted feed reduced to granular form.

Crushing Test [Ag Mach] The application of a vertical static load through a beam placed laterally across the uppermost members of the roll over protection structure of a tractor.

Crust [Gen Agri] A surface layer of soils that becomes harder than the underlying horizon.

Cryogenics [Ag Proc] The science of very low temperature phenomena and the effect of low temperature on the properties of matter.

Crystallization [Gen Agri] Is the process by which magma solidifies.

Cryptorchid or Ridgling [Gen Agri] A stallion with one testicle or none in the scrotum, the other or both is held inside the abdominal cavity.

Cube [Ag Proc] An agglomeration of unground ingredients in which some of the fibers are equal to or greater than the length of the minimum cross-sectional dimension of the agglomeration.

Cucurbits/vines [Gen Agri] Are viny crop vegetables yielding edible fresh fruits.

Cud [Gen Agri] A bolus of regurgitated food (common only to ruminants).

Cull [Gen Agri] To eliminate one or more animals from the breeding herd or flock.

Culling [Gen Agri] The process of eliminating nonproductive or undesirable animals.

Culling Rate [Gen Agri] The rate of removing undesirable or unproductive animals within the heard.

Cultivar [Gen Agri] Is a cultivated variety within a plant specie that differs in some respect from the rest of the species.

Cultivating Tillage Implement [Ag Mach] Implement performing shallow post-plant tillage to aid copy by loosening the soil and/or by mechanical eradication of undersized vegetation.

Cultivation, Soil [Ag Mach] A shallow tillage operation performed to promote growth of crop plants by creating a soil condition conducive to aeration, infiltration, and moisture conservation or to pest control.

Culture Medium [Gen Agri] Any nutrient material prepared for the growth and cultivation plant tissue.

Culvert [Soil & Water] Is a closed conduit usually circular, square or rectangular in cross section, used for conveying water across and under an elevated roadway, embankments, or dike.

Cumulative Oversize Distribution Curve [Gen Eng] A curve obtained by plotting the total percentages by mass retained on each of a set of sieves of descending aperture size against the corresponding aperture sizes.

Cumulative Undersize Distribution Curve [Gen Eng] A curve obtained by plotting the total percentages by mass passing each of a set of sieves of descending aperture size against the corresponding aperture sizes.

Cup [Ag Struc] A distortion of a board in which there is deviation from flatness across the width of the board.

Curing [Ag Proc] A form of conditioning as opposed to simple drying in which a chemical change occurs, such as in tobacco, sweet potatoes, etc., to prepare the crop for storage or use.

Curing Compartment [Gen Agri] Space within the barn which is filled with tobacco.

Curing Compartment Volume [Gen Agri] The curing compartment area times the distance through the tobacco.

Current [Ag Elec] The flow of electronics passing through a conductor. Measured in amperes.

Current Assets [Gen Agri] Consist of cash and items expected to be converted into cash within a reasonably short period, usually one year.

Curtain Wall Ventilation [Ag Struc] Curtain or woven or solid fabric placed over a wall opening and adjusted up and down with a cable-and-winch arrangement, to vary the ventilation in a livestock barn.

Custom cost [Gen Agri] The amount paid for hiring equipment and operator services to perform a certain task.

Custom Work [Gen Agri] Specific farm operations performed under contract between the farmer and contractor.

Curve Number [Irrig & Drain] An index of the runoff potential which is related to the soil and vegetation conditions of the site.

Cut [Soil & Water] Portion of land surface or area from which the earth or rock has been removed or will be removed by excavation; The depth below original ground surface to excavated surface.

Cutability [Gen Agri] Fat, lean, and bone composition of meat animals. Used interchangeably with yield grade.

Cut-and-Fill [Soil & Water] Process of earth moving by excavating part of an area and using the excavated material for adjacent embankments or fill areas.

Cutans [Gen Agri] Coatings or deposits of material on the surface of peds, stones, etc. A common type is the clay cutan caused by translocation and deposition of clay particles on ped surfaces.

Cutback Irrigation [Irrig & Drain] The reduction of the furrow or border inflow stream after water has advanced partially or completely through the field in order to reduce runoff.

Cut-In [Gen Eng] The rotational speed at which an alternator or generator starts pushing electricity hard enough (has a high enough voltage) to make the electricity flow in a circuit.

Cutoff [Soil & Water] Wall, collar, or other surface structure such as trench filled with relatively impervious material intended to reduce percolation of water along other smooth surfaces, or through porous strata.

Cutoff Drain [Soil & Water] (preferred term is interceptor drain).

Cut Off Saw [Ag Mach] It has a motor driven circular blade that may be adjusted for angle cuts and is fed down into the material being cut.

Cutslope [Soil & Water] The uphill side slope of a broadbase-terrace channel.

Cutthroat Flume [Irrig & Drain] It serves the same function as a Parshall Flume but it is simpler in design and has lesser construction cost.

Cutting [Gen Agri] A part of a plant used for vegetative propagation.

Cutting [Ag Struc] Refers to a portion of a board or plank that would be obtained by crosscutting, ripping, or both.

Cutting Cycle [Ag Mach] The planned interval between major felling or cutting operations in the same stand.

Cutting Mechanism [Ag Mach] A device on the header of a combine harvester for severing the plant stalks.

Cutting Mechanism Height [Ag Mach] The height of the forward tip of any cutting blade or sickle section above the plane on which the machine is standing, measured under the following conditions and expressed in centimeters.

Cutting Tools [Ag Mach] Are tools used to cut, chop, saw, or otherwise remove materials (i.e. saws, chisels, planes, axes and wedges, cutters, files, taps, and dies).

Cyanoacrylate [Gen Eng] A fast-setting, hard and brittle adhesive.

Cycle [Ag Power] Series of events occurring one after the other in a definite order and repeats the events after the last one has occurred.

Cycle per Second [Gen Eng] Measured in Hertz. In electricity, it is the number of times and AC circuit reaches both minimum and maximum values in one second.

Cycling [Gen Agri] Infers that nonpregnant females have active estrous cycles.

Cyclone Separator [Ag Proc] A large, round, tank-like structure, usually metal, used to separate particles carried in an air stream.

Cyclonic Precipitation [Gen Agri] Results from lifting of air converging into low-pressure area or cyclone.

Cylinder [Ag Power] The piston chamber of an engine.

Cylinder Head [Ag Power] The replaceable portion of the engine that seals the cylinder at the top and often contains the valves, and in some cases, it is part of the combustion chamber.

Cylinder Length [Ag Mach] The distance between the outermost points along the cylinder base axis.

Cylinder Peripheral Speed [Ag Mach] The equivalent linear speed of the cylinder tip when running at normal operating speed, expressed in m/s.

Cylinder, Treating [Ag Struc] A mild steel tank, commonly horizontal, with door at one or both ends, in which wood is placed for treatment, usually by a pressure process with a preservative, fire-retardant or other material.

Cylinder-Type [Ag Mach] Type of shelling unit consisting of a cylinder with shelling elements such as knife bar or pegtooth.

Cylindrical Tanks [Ag Struc] This is especially adaptable to structures in which the walls are subjected to outward lateral pressure due to contained liquid or semi-liquid material. The silo, water tanks and the circular grain bin are the common examples.

Cytokinesis [Gen Agri] The division of the cytoplasm to form two new cells.

Cytology [Gen Agri] Is the study of the structure, function, and life history of the cell.

Cytoplasm [Gen Agri] Refers to the contents of a cell outside the nucleus.

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Daily Efficiency [Ag Elec] The collected energy of the collector for the test day divided by the total solar energy incident on the gross collector area for the same test day, dimensionless.

Dam [Gen Agri] A female parent.

Dam [Soil Water] A structure of earth, rock, concrete, or other materials designed to retain water, creating a pond, lake or reservoir.

Damaged Grains [Ag Proc] Grains which are heat damaged, sprouted or distinctly damaged by insects, water fungi and/or any other means; Grain which is distinctly injured or marred by insects, fungi, water, heat, handling or other elements.

Damaged Grains (Corn) [Ag Proc] Are grains or pieces of grains, which are heat damaged, sprouted, weather damaged, moldy, diseased, insect-bored or otherwise materially damaged.

Damaged Grains (Milled Rice) [Ag Proc] Are grains, whole or broken, which are distinctly damaged by insects, water, fungi and/or any other means.

Damaged Grains (Palay) [Ag Proc] Are grain, which are sprouted or distinctly damaged by insects, water, fungi and/or any other means.

Damper [Ag Mach] A sliding door that controls the gas and air flow in a stove.

Damping Capacity [Gen Agri] It is the ability of a material to absorb or damp vibrations, which is a process of absorbing kinetic energy of vibration owing to hysteresis.

Danger [Gen Agri] Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

Danger Zone [Ag Mach] Any place at or near the point of operation where an employee may be caught by or between the moving parts of the machine or between the material and the moving part of the machine.

Darcy's Law [Ag Proc] A concept formulated by Henry Darcy in 1856 to describe the rate of flow of water through a porous media is proportional to, and in the direction of, the hydraulic gradient and inversely proportional to the thickness of the bed.

Dark Cutter [Gen Agri] Color of the lean (muscle) in the carcass has a dark appearance, usually caused by stress to the animal before slaughter.

Darrieus [Gen Eng] A Vertical Axis Wind Turbine design from the 1920s and 1930s by F.M. Darrieus, a French wind turbine designer.

Daylight (Colloquid) [Gen Agri] The extension of a grade line to or above the ground surface.

Daytime [Gen Agri] The period that starts immediately following the halfhour after sunrise and ends immediately a halfhour before sunset.

Dead-air Space [Gen Agri] Space in which there is little or no air movement.

Deadborn [Gen Agri] Stillborn.

Dead Center [Ag Mach] Either of the two positions when the crank and connecting rod are in a straight line at the end of the stroke.

Dead Furrow [Ag Mach] Open trench (about twice the width of one plow bottom) left in between the adjacent strips of land after finishing plowing.

Dead Furrow [Ag Mach] Empty furrow left when plowing.

Dead Load [Ag Struc] Gravitational force due to mass of all material used in the building construction.

Dealer [Ag Mach] Those who carry several items and brands from varying sources and are not usually engaged in manufacture and fabrication of agricultural machines.

Debris Basin [Soil & Water] Surface reservoir designed to trap sediment and debris.

Debris Cone [Soil & Water] A fan-shaped deposit of debris including soil, sand, gravel, and boulders built up at the point where a mountain stream meets a valley, or where the velocity of a stream is reduced sufficiently to cause such deposits.

Decarburization [Ag Proc] Refers to the loss of carbon from the surface of steel occurring during hot rolling, forging, and heat treating, when the surrounding medium reacts with the carbon.

Decay [Ag Waste] The decomposition of wood substance by fungi.

Deceleration [Gen Eng] An instrument to measure and record average deceleration with an accuracy of $\pm 3\%$.

Deciduous [Gen Agri] Not persistent; applied to leaves that fall in summer and to calyx and corolla when they fall off before the fruit develops.

Deciduous [Gen Agri] Refers to plants or trees that shed leaves or awns at a particular season or stage.

Deciduous Forest [Gen Agri] A forest composed of trees that shed their leaves at some season of the year. In tropical areas, the trees lose their leaves during the hot season in order to conserve moisture.

Deciduous forests produce valuable hardwood timber such as teak and mahogany from the tropics, oak and beech come from the cooler areas.

Deciduous Tree [Gen Agri] Is a tree that loses its leaves or needles during the fall and winter.

Deck [Ag Struc] A raised floor within or extending outside a building.

Decomposition [Gen Agri] The conversion of organic matter as a result of microbial and/or enzymatic interactions; initial stage in the degradation of an organic substrate, characterized by processes of destabilization of the pre-existing structure.

Decreasing Block Rate [Gen Agri] Pricing that reflects per-unit costs of production and delivery that go down as customers consume more water.

Dedendum [Ag Mach] Radial distance between the dedendum circle and the pitch circle.

Dedendum Circle [Ag Mach] Line of intersection of the dedendum cylinder by a plane perpendicular to the axis of the gear.

Dedendum Diameter [Ag Mach] Diameter of the dedendum circle.

Deep Freezing [Ag Proc] Refers to freezing products at a temperature of -20°F or lower.

Deep Percolation [Irrig & Drain] Water that moves downward through the soil profile below the root zone and cannot be used by plants.

Deep Percolation Percentage [Irrig & Drain] The ratio of the average depth of irrigation water infiltrated and drained out of the root zone to the average depth of irrigation water applied, expressed as a percentage.

Deep Tillage [Ag Mach] Primary tillage operation which manipulates soil to a greater depth than 300 mm.

Defecation [Gen Agri] Is the evacuation of fecal material from the rectum.

Defects, Drying [Ag Proc] Any irregularity occurring in or on wood, as a result of drying, that may lower its strength, durability or utility value.

Deficiency [Gen Agri] Refers to the lack of an adequate amount of a plant nutrient.

Deficiency Symptom [Gen Agri] A result, including slow plant growth, chlorosis or necrosis, caused by the lack of a plant essential element.

Deflation [Soil & Water] Preferential removal of fine soil particles from the surface soil by wind.

Deflector Nozzle (Flood Nozzle, Flooding Nozzle) [Ag Mach] An atomizer in which a liquid jet spreads out over a deflector, forming a spray with a shape depending upon the deflector.

Deflocculate [Soil & Water] To separate or disperse particles of clay dimensions from a flocculated condition.

Deformation [Gen Eng] Is the amount of change in the material's shape.

Deformed Bar [Ag Mach] Steel bar with lugs or protrusions called deformation.

Defrosting [Ag Proc] Process of removing unwanted ice or frost from a surface.

Degriminated Corn Kernels [Ag Proc] Shelled corn kernels where the germ and pericarp have been removed.

Degerminator [Ag Proc] A machine used to remove the germ and pericarp from the corn kernel.

Degerminator Efficiency [Ag Proc] Ratio of the weight of degerminated corn kernel sample, to the initial weight of the sample expressed in percent.

Deglutition [Gen Agri] The act of swallowing.

Degrade, Kiln [Ag Proc] A drop in lumber grade that results from kiln drying.

Degree of Milling [Ag Proc] Expression used to indicate the amount of bran removed in the milling process.

Degrees of Superheat [Ag Proc] Is the difference between the dew point and dry bulb temperature of the air.

Dehairing [Gen Agri] Removal of hair of the carcass.

Dehiscence [Gen Agri] Refers to the opening of valves or anthers, or separation of parts of plants.

Dehoring or Disbudding [Gen Agri] The process of removing of horn in young animals.

Dehorn [Gen Agri] Is to remove the horns from cattle, sheep, and goat or to treat young animals so the horn will not develop.

Dehumidification [Ag Proc] The removal of water vapor from air.

Dehusking [Ag Proc] The process of removing the husk from the paddy during milling.

Dehydration [Ag Proc] The rapid removal of moisture, usually to a very low level; The chemical or physical process whereby water in chemical or physical combination with other matter is removed.

Deionized Water [Gen Agri] Common industrial water used to remove contaminants from products and equipment.

Delivery Box (Irrigation) [Irrig & Drain] Structure diverting water from a canal to a farm unit often including measuring devices.

Delivery Loss [Irrig & Drain] (Preferred term is Conveyance loss).

Delta [Gen Eng] A 3-phase alternator wiring configuration in which all phases are connected in series.

Demand [Gen Agri] The numerical expression of the desire for goods and services associated with an economic standard for acquiring them.

Demand Curve [Gen Agri] Is a graphical depiction of the demand-price relationship, showing the buyer's sensitivity to selling prices.

Demand Factor [Ag Elec] The ratio of the maximum power demand to the total connected load.

Demand Irrigation System [Irrig & Drain] Irrigation water delivery procedure where each irrigator may request irrigation water in the amount needed and at the time desired.

Demand Waterer [Gen Agri] Waterer from which livestock receive water by taking a deliberate action to open some type of valve with its mouth.

Denitrification [Gen Agri] The reduction of oxidized nitrogen compounds to nitrogen gas or nitrous oxide gas.

Density [Gen Eng] Is mass per unit volume.

Density, Apparent [Ag Proc] The density of isolated pieces of charcoal.

Density, Bulk [Ag Proc] The weight of material which can be packed into the container of a given volume. This varies with the granule density of the charcoal and the grading of the particles.

Density, Particle [Ag Proc] The weight of a given volume of charcoal particles excluding the volume of free space between the granules.

Density, True [Ag Proc] The density of the substance making up the charcoal excluding its internal porosity.

Dent Corn [Gen Agri] Are corn grains which have a dent in the broad end of the grain caused by shrinkage of soft starch between the two layers of corneous and flinty starch at the side of the endosperm.

Denudation [Gen Agri] Sculpturing of the surface of the land by weathering and erosion; leveling mountains and hills to flat or gently undulating plains.

Deoxidation [Ag Mach] Removal of oxygen which causes oxidation of steel.

Deoxygenation [Ag Struc] The depletion of the dissolved oxygen in a liquid, through the biochemical oxidation of organic matter present or by chemical addition.

Depletion [Soil & Water] Loss of water from surface water reservoirs or groundwater aquifers at a rate greater than that of recharge.

Depletion Curve [Soil & Water] Recession curve for soil water, streamflow, ground water etc., usually shown as a decay function with time.

Depreciation [Ag Mach] Decrease in value of machine due to the wear and tear or obsolescence. A procedure for allocating the used up value

of durable assets over the period during which they are owned by the business.

Depreciation Cost [Ag Mach] Is the cost outlay of the firm for the wear and tear of machines, buildings, and implements. It is a part of the total fixed cost of the business.

Depression [Ag Mach] Is an economic state which is characterized by sickening business.

Depression, Wet Bulb [Soil & Water] The difference between the dry-bulb and wet-bulb temperatures.

Deposit [Gen Agri] Material placed in a new position by the activity of humans or natural processes such as wind, water ice or gravity.

Deposition [Soil & Water] Transported material deposited because of decreased transport capacity of water or wind.

Deposit Rate [Soil & Water] The amount of any material deposited per unit area.

Depression Storage [Soil & Water] Water stored in surface depressions and therefore not contributing to surface runoff.

Depth [Soil & Water] A distance measured vertically downward from the ground surface.

Depth Band [Ag Mach] An opening centered or wheel-like circular form which is concentrically attached to a rotating circular soil penetrating seeder component to limit the depth of penetration.

Depth Factor [Ag Proc] When drying with air, a depth which would contain enough product that, if all the theoretical heat available for drying could be used, it would all dry to equilibrium in a period of time equal to the time required for fully exposed product to dry half-way to equilibrium.

Depth Profile [Soil & Water] The measured depth-penetration resistance relation of a specific soil condition and location.

Dermal Exposure [Gen Agri] An exposure to pesticides by skin contact.

Descriptive Statistics [Gen Agri] Deals with the methods of organizing, summarizing, presenting data and their interpretation..

Design Area [Irrig & Drain] The specific land area in which pipelines are planned and located to serve as an integral parts of an irrigation water distribution or conveyance system, designed to facilitate conservation, use and management of water and soil resources, and which the supplier or designer and purchaser mutually understand to be irrigated.

Design Emission Uniformity [Irrig & Drain] An estimate of the uniformity of a emitter discharge rates throughout the system.

Design Working Head [Irrig & Drain] The vertical distance that water wheel rise in a vent or stand above the center line of the pipeline at design flow at any point in the system.

De-Stoner [Ag Proc] Auxiliary device used to separate stones from paddy and/or brown rice.

Detained Meat [Gen Agri] Meat requiring further examination as declared by a veterinary inspector after veterinary examination.

Detention Dam [Soil & Water] Dam constructed for the temporary storage of surface runoff and for releasing the stored water at controlled rates.

Detention Pen [Ag Struc] Separate compartment in the lairage used to confine sick or suspected animals.

Detention Pond [Ag Struc] An earthen structure constructed to store runoff water and other wastewater until such time as the liquid may be recycled onto land.

Detention Time [Ag Struc] The time wastes are subjected to stabilization process or held in storage.

Determinate Inflorescence [Gen Agri] Refers to flowers that arise from the terminal bud and check the growth of the axis.

Deterministic Process [Gen Agri] A process in which a definite law of certainty exists.

Detonation [Ag Power] Burning of a portion of the fuel in the combustion chamber at a rate faster than desired (knocking).

Devaluation [Gen Agri] Refers to when peso becomes cheaper compared to foreign currency.

Dewatered Sewage Sludge [Ag Struc] A sewage sludge with a total solid content of 6% or greater that can be transported and handled as a solid material; usually done by belt press, screw press, vacuum filtration or centrifuge.

Dew Point Temperature [Ag Proc] The temperature at which the condensation of water vapor in a space begins for a given state of humidity and pressure and as the temperature of the vapor is reduced.

Diameter [Gen Eng] A straight line passing through the center of a circle, and ending on both edges. Equal to 2 times the radius.

Diameter of Coverage [Irrig & Drain] Average diameter of the area wetted by an irrigation sprinkler operating in still air.

Diamonding [Ag Mach] A form of warp in which the cross section assumes a diamond shape.

Diaphragm [Ag Struc] A structural assembly - including the timber framing (truss chords and purlins), metal cladding, fasteners, and

fastening patterns-capable of transferring in plane shear forces through the cladding and framing members.

Diaphragm Design [Ag Struc] The design of a post frame, including the roof truss, sidewall post, endwalls, shear connectors, chord splices and ground anchorages, in which the diaphragm strength diaphragm.

Diassortative Mating [Gen Agri] Is a form of non-random mating wherein individuals, which are less phenotypically similar, tend to mate more often together than would be expected by chance.

Dicotyledonous Plants [Gen Agri] Are plants producing two cotyledons in each fruit.

Dielectric [Ag Elec] Insulation used between the plates of a capacitor.

Dielectric Constant [Ag Elec] A number which compares a material's ability to store energy to the ability of air.

Diesel Engine [Ag Mach] A prime mover actuated by the gases resulting from the combustion of a liquid or pulverized fuel, injected in a fine state of subdivision into the engine cylinder at or about the conclusion of the compression stroke.

Diestrus [Gen Agri] Is characterized by the regression of the corpus luteum; progesterone secretion is at basal.

Diet [Gen Agri] Feed ingredients or mixture of ingredients (including water) that are consumed by animals.

Differential [Ag Mach] A special arrangement of gears so that it will permit one driving member to rotate slower or faster than the other and permit operation of driving wheel at different speed for easy turn.

Differential Locks [Ag Mach] Any manually operated device fitted to a machine to lock the differential gear shall be designed and fitted so that there is clear indication to the operator that the lock is engaged.

Differential Shrinkage [Ag Mach] Difference in shrinkage between the radial and tangential direction.

Diffuser [Ag Elec] A device used to redirect the illumination by the process of diffuse transmission.

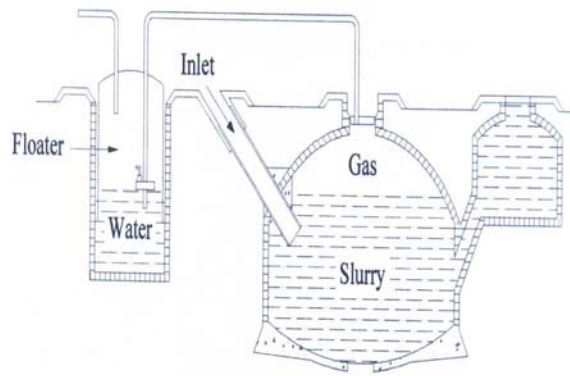
Diffuser Pump (Turbine Pump) [Ag Mach] Type of centrifugal pump wherein the impeller is surrounded by diffuser vanes.

Diffuse Springs [Ag Proc] Are natural springs in which flow is not concentrated at one outlet.

Diffusion [Ag Proc] Involves the movement of the basic units from areas of high concentration (the GI tract) to area of lower concentration (the blood).

Diffusion [Ag Proc] Spontaneous movement of heat, moisture, or gas throughout a body or space. Movement is from high points to low points of temperature or concentration.

Digester [Ag Struc] Any water and air tight container designed for the process of a anaerobic microbiological degradation of organic matter into which the slurry is introduced for digestion and methanization.



Digestibility [Gen Agri] The quality of being digestible. If a high percentage of a given food taken into the digestive tract is absorbed into the body, that food is said to have high digestibility.

Digestion [Ag Struc] The microbial decomposition of organic matter under saturated conditions resulting in sludge that is a humus-like mass and somewhat stable; Usually refers to the breakdown of organic matter in a liquid, through the biochemical oxidation of organic matter in water solution or suspension into simpler or more biologically stable compounds, or both.

Digging Tools [Ag Mach] Are devices used to turn up, loosen or remove earth.

Diluent [Ag Mach] A gas, liquid, or solid used to reduce the concentration of active ingredient in a formulation or to reduce the concentration of a formulation for application.

Dimension Ratio [Ag Proc] It is the ratio of the average pipe diameter to the minimum wall thickness.

Diode [Ag Elec] A device which allows current to pass but only in one direction.

Diploid [Gen Agri] Having two sets of chromosomes.

Dipper Dredge [Ag Mach] Excavating machine using a boom-type shovel.

Dipstick [Ag Mach] A device to measure the quantity of fuel in the reservoir.

Directed Application [Gen Agri] An application of a chemical to specific area such as a row (i.e., in furrow, in-the-row), bed, or base of plants.

Direct Current [Ag Elec] Current that flows in one direction only.

Direct Expansion Evaporator [Ag Proc] An evaporator in which the total volume of refrigerant vaporizes.

Direct-Fired Furnace [Ag Proc] Furnace which fires directly into the airstream which passes through the tobacco.

Direct Heating-Type Dryer [Ag Proc] A dryer that uses air heated directly from combustion of fuel, including the gaseous and particulate products of combustion.

Directing [Gen Agri] Is aimed at getting members of the organization to move in the direction that will achieve its objectives. It builds a climate/environment, provides leadership and arranges opportunity for motivation.

Direct Runoff [Irrig & Drain] Is the surface runoff plus interflow.

Discharge [Irrig & Drain] The volume of water pumped per unit time.[ASAE] the area where conveyed material is discharged from the machine.

Discharge Bay [irrig & Drain] Enlarged channel section for collecting the discharge of a pumping plant.

Discharge Coefficient [Irrig & Drain] Ratio of observed flow to theoretical flow.

Discharge Curve [Irrig & Drain] A rating curve showing the relation between stage and flow rate of a stream, channel or conduit.

Discharge Grain Temperature [Ag Proc] The temperature of grain immediately after discharge from the drier.

Discharge Height of Unloader [Ag Proc] The vertical distance from the plane on which the combine is standing to a point on the underside of the unloader in operating position.

Discharge Spout [Ag Proc] Means for guiding released material from the discharge in a desired direction to a desired receptacle.

Disc Harrow [Ag Mach] Implement used to pulverize the soil and put it in a better tilth for the reception of the seed.

Discolored Grains [Ag Proc] Paddy or rice grains, which have changed to a yellowish or brownish or black color because of heat damaged during storage or uneven parboiling.

Disconnecting Means (Switch) [Ag Elec] Device, or group of devices, or other means by which the electric motor can be disconnected from the power supply.

Discount Rate [Gen Agri] Refers to the interest that a commercial bank pay when it borrows from a central bank, using government paper or bond as security. The discount rate is one of the tools of monetary policy when central bank authorities are trying to prevent inflation.

Disc Plow [Ag Mach] Implement with individually mounted concave disc blades which cut, partially or completely invert a layer of soil to bury surface material, and pulverize the soil.

Disc Type [Ag Mach] Type of shelling unit consisting of a vertical disc with spiked surface.

Disinfection [Gen Agri] Killing the larger portion of microorganisms in or on a substance with the probability that all pathogenic bacteria are killed by the agent used.

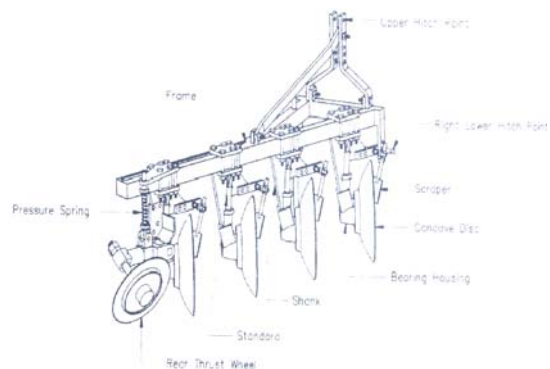
Di Size [Ag Proc] The particle size diameter such that 1% (by weight) of a granular material is of smaller diameter.

Disk [Ag Mach] Is a tractor-drawn implement composed of circular plates arranged at an angle with the soil. Used to prepare the soil for seeding.

Disk Cutter [Ag Mach] A multiple disk cutter device, using two or more blades per disk, driven about vertical axes from above at sufficiently high rotational speeds to achieve impact cutting.

Disk Harrow [Ag Mach] A primary or secondary tillage implement consisting of two or four gangs of concave disks. Adjustment of gang angle controls cutting aggressiveness.

Disk Plow [Ag Mach] A primary tillage implement with individually mounted concave disk blades which cut, partially or completely invert a layer of soil to bury surface material, and pulverize the soil. Blades are attached to the frame in a tilted position relative to the frame and to the direction of travel for proper penetration and soil displacement;



Implement with individually mounted concave discs blades which cut, partially or completely invert layer of soil to bury surface material, and pulverize the soil.

Disk Spacing [Ag Mach] Transverse distance between two adjacent disc edges.

Dispersion [Gen Agri] The process whereby the structure or aggregation of the soil is destroyed so that each particles is separated and behaves as a unit.

Dispersion Agent [Ag Mach] Non-toxic chemicals that help break up agglomerates.

Displacement [Ag Mach] In a single-acting engine, the volume swept by all pistons in making one stroke each; The displacement on one cylinder in cubic inches is the circular area (in square inches) times the stroke (in inches).

Displacement Manure Pumps [Ag Struc] A positive displacement transfer device which utilizes a variety of methods to move primarily semi-solid manure through a pipeline.

Displacement Meter [Irrig & Drain] A meter that measures the quantity of flow by recording the number of times a container of known volume is filled and emptied. Used primarily for low flow measurement.

Disposal Field [Irrig & Drain] Subsurface soil space for seepage/evaporation of digested sewage effluent.

Disposal Site [Gen Agri] Site where solid waste is finally discharged and deposited.

Dissolved Oxygen [Gen Agri] The molecular oxygen dissolved in water, wastewater, or other liquid, usually expressed in milligrams per liter, parts per million, or percent of saturation.

Dissolved Solids (DS) [Gen Agri] Very small pieces of organic and inorganic material contained in water.

Distal [Ag Struc] The terminal end farthest from the base.

Distillation [Ag Proc] Heating a liquid and then condensing the vapors given off by the heating process.

Distributary [Irrig & Drain] 1) A small conduit or channel taking water from a canal for delivery to farms. 2) Any system of secondary conduits. 3) River channel flowing away from the main stream and not rejoining it, as contrasted to a tributary.

Distributed Type Farmstead [Ag Struc] This is the most common type of farmstead where buildings are located sufficiently far apart to allow adequate room for road drives and yards, reasonable fire safety and sanitation, yet sufficiently close together to be effective for farm operation.

Distributed Load [Ag Struc] Is a load spread over a large area.

Distributing Auger [Ag Proc] An auger capable of discharging material to one or more locations.

Distribution [Ag Elec] The process of delivering energy from a distribution substation to the consumers; A network of overhead lines of cables designed to deliver power to the load (the utilization and consumption of electric energy from convenient points on the transmission or bulk power system to customer.

Distribution Duct [Ag Struc] Inflatable tube or rigid duct through which ventilation air is distributed in the building.

Distribution System [Irrig & Drain] It is a system of ditches, or conduits and their controls, which conveys water from the supply canal to the farm points of delivery.

Distribution Uniformity [Irrig & Drain] It is the measure of the uniformity of irrigation water distribution over a field.

Distribution Uniformity of Low Quarter [Irrig & Drain] It is the ratio of the average of the lowest $\frac{1}{4}$ measurements of irrigation water infiltrated to the average depth of irrigation water infiltrated, expressed as a percent.

Distributor [Ag Mach] A device for dividing the flow of fluids between parallel paths.

Distributors [Gen Agri] Are those who perform the functions of wholesalers and retailers.

Ditch Rider [Irrig & Drain] Manages water for an irrigation district. This person is responsible for delivering water through ditches to farmers for irrigation.

Diversified Farming [Gen Agri] Is a type of farming, which engages in the production of several main products/crops.

Diversion [Soil & Water] A channel or dam constructed across the slope to intercept surface runoff and divert it to a safe or convenient discharge point.

Diversion Box [Soil & Water] A structure built into a canal or ditch for dividing the water into predetermined portions and diverting it to other canals or ditches.

Diversion Canal [Soil & Water] Is a channel constructed around the slope and given a slight gradient to cause water to flow to a suitable and stable outlet.

Diversion Dam [Soil & Water] Barrier built in a stream for the purpose of diverting part or all the water from the stream into a canal.

Diversion Requirement [Soil & Water] Refers to a farm turnout requirement plus conveyance losses in the main canal and lateral up to the farm turnout.

Dividend [Gen Agri] Is the payment made for the company's stockholders.

Division Box [Soil & Water] It controls or regulates the flow of irrigation water from a main farmditch to a supplementary ditch.

Dock [Gen Agri] (1) To cut off the tail. (2) The remaining portion of the tail of a sheep that has been docked. (3) To reduce or lower in value.

Dockage [Ag Proc] The amount of foreign material or impurities found in the sample of paddy, usually expressed as percent.

Doe [Gen Agri] A female goat of any age.

Domain [Gen Agri] A bundle of clay particles that is only visible in crossed polarized light.

Domesticated Bird [Gen Agri] All birds that have been tamed or trained or adapted to serve man's need.

Domestic Resource Cost [Gen Agri] Is the cost in domestic currency required to earn a unit of foreign exchange through a proposed budget.

Domestic Use [Gen Agri] The quantity of water used for household purposes such as washing, food preparation, and bathing.

Domestic Value Added [Gen Agri] Refers to the value added by local or domestic activities to components imported from abroad.

Dominance [Gen Agri] (1) A situation in which one gene of an allelic pair prevents the phenotypic expression of the other member of the allelic pair. (2) A type of social behavior in which an animal exerts influence over one or more other animals.

Dominant [Gen Agri] Possessing the character which is manifested in the hybrid to the apparent exclusion of the contracted character from the other parent.

Dormancy [Gen Agri] Is an internal condition of a seed or bud that prevents its prompt germinating or sprouting under normal growth conditions.

Double-Action Disc Harrow (Tandem disc harrow) [Ag Mach] Consists of two or more disc gangs follows behind the front gangs and is arranged in such a way that the discs on the front gangs throw the soil in one direction (usually outward) and the disc on the rear gangs throw the soil in the opposite direction.

Double-Covering Discs [Ag Mach] Two opposing disc blades positioned evenly or staggered on each side of the seeded furrow.

Double Crop [Gen Agri] Two different crops grown on the same area in one growing season.

Double Cross [Gen Agri] Is the result of mating two single crosses, each of which had been produced by crossing two distinct inbred linen.

Double-Disc Applicator [Ag Proc] Similar to a double-disc opener but used for fertilizer deposition beside or between seed furrows.

Double Ditch or Drain [Ag Proc] See W-ditch.

Double-Fertilization {Gen Agri} Is the process of sexual fertilization in the angiosperms in which one nucleus from the male gametophyte fertilizes the egg nucleus to form the embryo and a second nucleus from the male gametophyte jointly fertilizes two polar nuclei to form endosperm.

Double-Pole Double Throw [Ag Elec] A safety switch designed for use with an auxiliary, or standby generator so that the auxiliary generator cannot put power back out over the electrical lines leaving the farmstead.

Down Draft [Ag Mach] Air that flows down the chimney and into the room.

Down Feathers [Gen Agri] Refer to the feathers of the newly fowl.

Dowsing (Water Witching) [Soil & Water] Using a forked stick or wire to locate underground water.

Downwind [Gen Eng] Refers to a Horizontal Axis Wind Turbine in which the hub and blades point away from the wind direction, the opposite of an Upwind turbine.

Draft [Ag Mach] An air current in a stove.

Draft [Ag Mach] The force to propel an implement in the direction of travel which is equal and opposite to drawbar pull.

Drag [Gen Eng] In a wind generator, it is the force exerted on an object by moving air. It also refers to a type of wind generator or anemometer design that uses cups instead of blades with airfoils.

Drag Auger [Ag Mach] A device which a screw type flighting in contact with material, pivotally attached to the auger intake when rotated.

Drag Auger Handle [Ag Mach] Portion of drag auger assembly used to control position of drag auger.

Drag-wafer/Tube Feed-handling System [Ag Mach] A combination of equipment for distributing feed using uniformly spaced wafers pulled by a cable.

Drain [Soil & Water] Any closed conduit (perforated tubing or tile) or open channel, used for removal of surplus ground or surface water.

Drainage [Soil & Water] Process of removing surface or subsurface water from a soil or area.

Drainage Basin [Soil & Water] The area from which runoff is collected and delivered to an outlet.

Drainage Coefficient [Soil & Water] Is the depth of water in inches to be removed in a 24-hour period from the drainage area.

Drainage Culvert [Soil & Water] It conveys drainage or excess water caused by storms from an irrigation canal.

Drainage Curves [Soil & Water] Flow rate versus drainage area curves giving prescribed rates of runoff for different levels of crop protection.

Drainage Mode [Soil & Water] Mode of operating a subsurface drainage system with a free outfall at the outlet.

Drainage Pattern [Soil & Water] 1) Arrangement of a system of surface or subsurface drains. 2) Arrangement of tributaries within a watershed.

Drainage Pumping Plant [Soil & Water] Pumps, power units, and appurtenances for lifting drainage water from a collecting basin to an outlet.

Drainage System [Soil & Water] Is a collection of surface and/or subsurface drains, together with structures and pumps, used to remove surface or groundwater.

Drainage Well [Soil & Water] 1) A well pumped in order to lower water tables. 2) Vertical shaft to a permeable substratum into which surface and subsurface drainage water is channeled (no illegal).

Drain Inlet Structure [Soil & Water] See surface inlet.

Drain Plow [Soil & Water] A machine with a vertical blade, chisel point, and shield or boot used to install corrugated plastic tubing or drain tile.

Drain Tile [Soil & Water] Short Length of pipe made of burned clay, concrete, or similar material, usually laid with open joints, to collect and remove subsurface water.

Drain Valve (Automatic) [Soil & Water] Spring-loaded valve that will automatically open and drain the line when the pressure drops to near zero.

Drake [Gen Agri] Is a breeding male duck.

Drawbar [Ag Mach] Bar at the rear of a tractor to which implements are hitched.

Drawbar Extender {Ag Mach] An add-on bar or similar means attached to the tractor drawbar to lengthen the distance from end of PTO to hitch pin hole beyond the standard dimension.

Drawbar Power [Ag Mach] Power available at the drawbar sustainable over a distance of at least 20 meters.

Drawdown [Ag Mach] The elevation of the *static water level in a well minus the elevation of the pumping water level (at the well) at a given discharge; [Soil & Water] Lowering of the water surface, water table, or piezometric surface resulting from the withdrawal of water from a well or drain.

Dredging [Soil & Water] Refers to the removal of mud from the bottom of water bodies using a scooping machine. This disturbs the ecosystem and causes silting that can kill aquatic life.

Dressing [Gen Agri] Preparation of carcass after evisceration, ready for storage or sale.

Dressing Percentage [Gen Agri] The percentage of the live animal weight that becomes the carcass weight at slaughter. It is determined by dividing the carcass weight by the liveweight, then multiplying by 100.

Dried Grain [Ag Proc] Grain which has undergone a full cycle of drying and in which the level of moisture content is considered appropriate for optimum milling or safe storage.

Dried or Powder Milk [Ag Proc] Is a dried milk obtained by evaporating the moisture from the milk solids.

Drier Coil [Ag Proc] A short additional coil fitted to the outlet of a direct expansion evaporator to prevent liquid refrigerant reaching the compressor by adding superheat to the vapor.

Drift [Ag Mach] The movement of chemicals outside the intended target area by air mass transport or diffusion.

Drill [Ag Mach] A farm implement for planting seeds which forms a small furrow, deposits the seed in dribbles, covers the seed, and packs soil over it. It can also deposit fertilizer, lime, or other amendments into the soil, alone or with the seed.

Drill Bit [Ag Mach] Bit attached to the end of the drilling pipe which is directly in contact with the soil formation and serves as cutting device during drilling operation.

Drilling Pipe [Soil & Water] Serves as an adaptor of the drill bit and conduit of water jet channel.

Drilling Rig [Soil & Water] Structural assembly which is used to drill holes for the purpose of water-well construction.

Drill or Drill Press [Ag Mach] A machine tool used mainly for producing holes in metal.

Drip Cooler [Ag Struc] Storage structure with continuously weeded walls.

Drip Irrigation {Irrig & Drain} A method of microirrigation wherein water is applied to the soil surface as drops or small streams through emitters.

Drip and Trickle Irrigation [Irrig & Drain] The application of water to the soil surface as drops or tiny streams through emitters.

Drip Irrigation [Irrig & Drain] A method of micro-irrigation wherein water is applied to soil surface as drops or small streams through emitters.

Drive Shaft [Ag Mach] Shaft that transmits power between the power source and the final drive.

Drive-shaft Bearing Support [Ag Mach] Drive-shaft bearing holder.

Driveline Clearance Plane [Ag Mach] The imaginary, horizontal plane which establishes the uppermost permissible limit of profusion of the drawbar hitch assembly or any component thereof, when the tractor and implement are on a common horizontal plane.

Driving Tools [Ag Mach] Are tools used to move other tools or objects. They rely on their weight and speed to provide force to move an object (i.e. hammers and punches).

Drop Hammer [Soil & water] A hammer in which the force of the blow is developed entirely by gravity.

Drop-Inlet Spillway [Soil & Water] Overall hydraulic structure in which water is discharged through a vertical riser conduit.

Drops [Soil & Water] They are used to conduct water from a higher to a lower elevation and diffuse the force of the falling water to prevent scouring.

Drops [Soil & Water] Like inclined drops, they are used to carry water from a higher to a lower elevation but they carry water over longer distances and flatter slopes and through several changes in grade.

Drop Credit [Gen Agri] Value of the drop.

Drop-inlet Spillway [Soil & Water] Overfall hydraulic structure in which water is discharged through a vertical riser conduit.

Droplet [Soil & Water] A small drop of a liquid material.

Dropsiding [Soil & Water] A specially milled building sheathing 102 mm or 153 mm by up to 4.88 m long with about 12.7 mm top thickness and 19 mm bottom thickness; similar to tongue and groove fit between pieces.

Drop Spillway [Soil & Water] Overall hydraulic structure in which the water drops over a vertical wall onto an apron.

Drop Structures [Soil & Water] Are irrigation structures which convey water from a higher to a lower level, maybe inclined or vertical.

Drop Tube [Ag Mach] A conduit (plastic, metal, or rubber) that directs granules flow of granular applicator from the metering device to the target.

Drought [Gen Agri] A continuous and lengthy period during which no significant precipitation is recorded.

Drum Cooler [Ag Proc] A rotating refrigerated cylinder whose surface is in contact with the liquid or objects to be cooled.

Drum Composting System [Ag Struc] Enclosed cylindrical vessel which slowly rotates for a set period of time to break up and decompose material.

Drum Cutter [Ag Mach] A multiple drum device, using two or more blades per drum, driven about vertical axes from above sufficiently high rotational speeds to achieve impact cutting.

Dry Bearing [Ag Mach] A bearing that operate without significant fluid film to separate the moving surfaces; Bearing using low friction materials or materials impregnated with lubricant.

Dry Bulb Temperature [Ag Proc] Is the temperature of a gas or a mixture of gases indicated by an accurate thermometer after correction for radiation.

Dry Bulb Temperature of the Air [Soil & Water] Is the temperature as measured by an ordinary dry bulb thermometer.

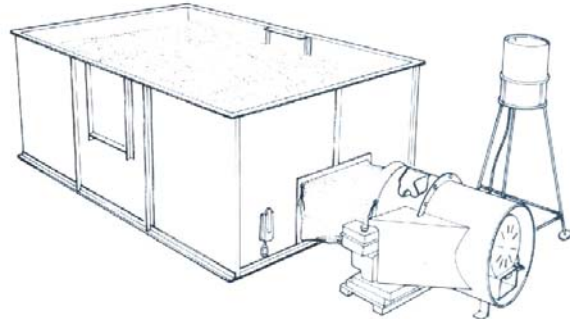
Dry Cow [Gen Agri] Female bovine not producing milk, usually prior to calving (freshening).

Dry Cooling [Ag Proc] Cooling-down process using steam, to eliminate the loss of water.

Dry Deposition [Ag Waste] Emissions of sulfur and nitrogen oxides which, in the absence of water in the atmosphere, settle to the ground as particulate matter.

Dry doe [Gen Agri] Doe without milk.

Dryer [Ag Proc] A unit which provides the conditions for removing moisture from the product.



Dryer, Batch [Ag Proc] Any dryer wherein the product to be dried is placed in the dryer, the complete drying or drying and cooling operation performed.

Dryer, Circulating [Ag Proc] A batch dryer equipped to circulate or mix the Product during drying and cooling period.

Dryer, Continuous Flow [Ag Proc] Any dryer wherein the product to be dried is continuous movement through the dryer and air movement is continuous, in contrast to batch operation.

Dryer Counter-Flow [Ag Proc] A type of continuous-flow dryer wherein the product being dried moves in one direction and drying air moves in the opposite direction.

Dryer, Cross-flow [Ag Proc] A type of dryer wherein the flow of air is transverse to the direction of the flow of the product being dried.

Dryer, Current Flow [Ag Proc] A type of continuous flow dryer wherein the product being dried moves in the same direction as drying air. Sometimes referred to as parallel flow.

Dryer, Direct Fired [Ag Proc] Dryer in which the products of combustion come into direct contact with the product being dried.

Dryer, Indirect-fired [Ag Proc] Dryer in which the products of combustion do not come in contact with the products being dried.

Dry Evaporator [Ag Proc] Is a type of evaporator when a portion of its area is used for superheating the refrigerant.

Dryer, Fluidized or Spouted Bed [Ag Proc] A dryer where the product is in suspension, or is moved through the dryer by the drying and/or the cooling air.

Dryer, Indirect-Fired [Ag Proc] Dryer in which the products of combustion do not come in contact with the products being dried.

Dryer, Tunnel [Ag Proc] A type of dryer wherein the product being dried is conveyed through a tunnel-like chamber.

Dry Farming [Gen Agri] A method of farming in arid and semi-arid areas without using irrigation, the land being treated so as to conserve

moisture. The technique consists of cultivating a given area in alternate years allowing moisture to be stored in the fallow year. Moisture losses are reduced by producing a mulch and removing seeds. This method is usually employed in the drier regions of India, USSR, Canada, and Austria.

Dry Ice [Ag Proc] Solid carbon dioxide.

Drying [Ag Proc] The process of reducing the moisture content in the grain.

Drying Air [Ag Proc] The air being passed through the product which is being dried.

Drying Air Temperature [Ag Proc] Mean temperature of the air to be used for the drying of the grain, measured at a number of pints as close as practicable to its entry to the grain bed.

Drying Efficiency (Heat Utilization efficiency) [Ag Proc] Ratio of the total heat utilized to vaporize moisture in the material, to the amount of heat added to the drying air expressed in percent.

Drying Period [Ag Proc] The specific period during which the drying air is passed through the grain.

Drying System Efficiency [Ag Proc] Ratio of the total heat utilized for drying, to the heat available in the fuel expressed in percent.

Drying Rate [Ag Proc] Amount of water removed per unit of time, expressed in kilogram per hour.

Drying Zone [Ag Proc] The band or layer of product in which most of the drying is occurring at any instant.

Dryland Farming [Gen Agri] Farming on a non-irrigated land. Success is based on rainfall, moisture-conserving tillage, and drought-resistant crops.

Drylot [Gen Agri] Is a relatively small area in which cattle are confined indefinitely as opposed to being allowed to have free access to pasture.

Dry Matter (DM) [Gen Agri] Feed after water (moisture) has been removed (100% dry).

Dry Milling [Ag Proc] Process of reducing the corn kernel into pieces of grits, germ and pericarp with or without conditioning.

Dry Sets [Gen Agri] Small onion bulbs approximately 1.5 to 2 cm in diameter used as planting material.

Dry Sows [Gen Agri] Unbred sows which have just been weaned; non-pregnant sows.

Dual-angled Presswheels [Ag Mach] Two semi-pneumatic or steel wheels which are typically positioned at angles less than 30 deg from vertical, toward the opposing wheel at the bottom.

Dual Secondary Residue Disc [Ag Mach] Opposing sharpened flat or concave circular discs blades, positioned on each side of a coulter. The disc blades are in-line with the direction of travel and adjusted to either hold or cut surface residue on each side of the row area while the coulter cuts residue directly over the row.

Typical disc blade thickness is 3-10 mm (1/8-3/8 in.). Typical disc blade diameter is 200-300 mm (7.8-11.8 in.).

Dual Wide Presswheels [Ag Mach] Two wide, vertical wheels usually steel, on a common axle which are spaced to straddle the seeded furrow.

Dubbing [Gen Agri] The removal of the comb or wattle.

Duck hen [Gen Agri] Is a breeding female duck.

Ductility [Ag Struc] Property that enables a material to be bent, drawn or stretched, and formed.

Dump Load [Gen Eng] A device to which wind generator power flows when the system batteries are too full to accept more power, usually an electric heating element. This diversion is performed by a shunt regulator, and allows a load to be kept on the alternator or generator.

Dunes, Sand Dunes [Gen Agri] Are ridges or small hills of sand which have been piled up by wind action on sea coasts, in deserts, and elsewhere.

Dunnage [Ag Proc] Wood frames used on concrete floors for stacking bags of rice. Prevents direct contact between the grain and the floor.

Duplex Receptacle [Ag Elec] Also called convenience outlet; a double receptacle.

Durability [Gen Eng] Refers to the ability of the materials to retain their strength and other properties over a considerable period of time.

Dust [Ag Waste] A fine-grained particle substance, suspendible in air, 90% of which is capable of passing through a 44 μ m screen.

Dust Collecting System [Ag Proc] Device used to collect dust. (i.e. consist of aspiration fan, cyclone, etc.) or permanently distorted without rupture.

Dust Proof [Ag Struc] Constructed or protected so that dust will not interfere with its successful operation.

Dust Tight [Ag Struc] Constructed so that dust will not enter the enclosing case.

Duty Cycle [Gen Eng] In a circuit, it is the ratio of off time to on time.

Duty Rating (Time Rating) [Ag Elec] Refers to how frequently the motor is started and how long it will run each time it is started.

Dyke [Soil & Water] An artificial embankment constructed to prevent flooding.

Dynamic Head [Soil & Water] Specific energy in a flow system.

Dynamic Pile System [Ag Waste] Compost piles receive forced aeration and are not turned.

Dynamic Tillage Tools [Ag Mach] Tillage tools which are powered so that some of their movements are in the direction other than along the line of travel.

Dynamo [Gen Eng] A device that produces direct current from a rotating shaft.

Dynamometer [Ag Mach] A device for absorbing the power output of an engine and measuring torque or horsepower so that it can be computed into brake horsepower.

Dystocia [Gen Agri] Difficult delivery.

E

Earthen Storage Basin [Ag Struc] An earthen structure usually with sloping sides and a flat floor, constructed to store semi-solid, slurry or liquid manure.

Earthmoving [Ag Mach] Tillage action and transport operations utilized to loosen, load, carry, and unload soil.

Earth Tempering [Ag Mach] Heating and/or cooling of air by moving it through a buried conductor, using the thermal mass of the earth to moderate air temperatures.

Eave [Ag Struc] Part of roof projecting beyond the face of the building sidewalls.

Eave Line [Ag Struc] The intersection of the roof and the structure wall.

Eave Trough [Ag Struc] Gutter along the edges of the roof to catch and carry away the roof runoff water.

Eccentric [Ag Mach] Circles, which do not have the same center

Ecological Solid Waste Management [Ag Waste] The systematic administration of activities which provide for segregation at source, segregated transportation, storage, transfer, processing, treatment, and disposal of solid waste and all other waste management activities which do not harm the environment.

Ecology [Gen Agri] Is the study of the mutual relations between organism and their environment.

Economic Poison (Pesticide) [Gen Agri] Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects, rodents, nematodes, fungi, or weeds, or any other forms of life declared to be pests.

Economics [Gen Agri] Is a special science concerned chiefly with the description and analysis of production, distribution and consumption.

Ecoregion [Gen Agri] Is an area of relatively homogeneous environmental conditions, usually defined by elevation, geology, and soil type. Examples include mountains, piedmont, coastal plain, sandhills and slate belt.

Ecosystem [Gen Agri] Is a biological community of interacting organisms and their physical environment.

Ecotype [Gen Agri] Is a variety or strains adapted to a particular environment.

Edaphology [Gen Agri] Is soil science which is more concerned with the practical utilization of soil, and the principles of maintaining its fertility.

Eddy Current [Ag Elec] Current induced into the core of a magnetic device. Causes part of the core losses.

Edge-Clearance Angle [Ag Mach] The effective angle which is included between the line of travel and a line drawn through the back or non soil working surface of the tool at its immediate edge.

Edgings [Ag Waste] The waste strips ripped from the edges of boards, dimension, and other wood items to produce square-edged products.

Effective [Gen Agri] Actual rate of land or crop processed in a given time.

Effective Cylinder Diameter [Ag Mach] Outside diameter generated by the outermost point of the cylinder threshing elements.

Effective Diameter of V-Belt Sheave [Ag Mach] The outside diameter of the sheave as a defined value at the specified sheave groove dimensions (without tolerance).

Effective Drying Capacity [Ag Proc] The mass of dried grain at the end of the drier test period divided by the sum of drier test period.

Effective Environmental Temperature [Gen Agri] An index incorporating factors such as air temperature, humidity and radiation, which reflects the net total cooling or heating power of the environment.

Effective Field Capacity [Irrig & Drain] The actual rate of being able to plant a given area per unit of time.

Effectiveness [Gen Agri] Refers to the ability to choose appropriate objectives or the appropriate means for achieving a given objective; *doing the right things*.

Effective Operating Width [Ag Mach] Operating width minus overlap.

Effective Precipitation [Gen Agri] That portion of total precipitation which becomes available for plant growth.

Effective Rainfall [Irrig & Drain] It is the total rainfall minus the amount which cannot be stored or used in the paddy field.

Effective Spray Deposit Rate [Irrig & Drain] The mean deposit from center to center of adjoining swaths.

Effective Swath Width [Irrig & Drain] The swath spacing that will produce acceptable field deposition uniformity for intended application.

Effective Width of V-Belt Groove [Ag Mach] A groove width characterizing the groove profile.

Efficiency [Ag Mach] In general, the proportion of energy going into a machine which comes out in the desired form, or the proportion of the ideal which is realized.

Efficiency [Ag Mach] In stoves, this a measure of how fuel is used, or the economy of fuel used. Efficiency is a measure of the amount of heat

actually used, as compared to the amount of heat which was available. The better the efficiency of the stove, the more the available heat is actually used for cooking.

Efficiency of Production [Gen Agri] Refers to the relationship of the output to input.

Efflorescence [Gen Agri] The accumulation of dissolved substance (usually simple salts) at a surface due to evaporation.

Effluent [Ag Struc] The discharge of wastewater or other liquid, treated or untreated.

Effluent Irrigation [Irrig & Drain] Land application of wastewater for irrigation and beneficial use of nutrients.

Effluent Stream [Irrig & Drain] It is a stream or part of a stream that receives water from ground water or seepage. (Preferred term is Gaining stream.)

Egg [Gen Agri] Refers to the female reproductive cell.

Egress [Ag Struc] Passageway out of a building (e.g., a fire exit door or a window), which could be easily opened to allow passage of people, animals, etc., in event of an emergency situation.

Elasticity [Ag Mach] Is the property of material that after a change in shape has occurred due to the application of an external load, returns to its original shape upon the removal of such load.

Elasticity of Demand [Ag Mach] Is the ratio of the percentage change in quantity demanded to the percentage change in price. $E_D = Q_D/Q_P$

Elastic Limit [Ag Mach] Is the limit of stress within which deformation disappears after the stress is removed.

Electrical bonding electrically connecting non-current-carrying metal parts to an electrical grounding system.

Electrical Conductivity [Ag Elec] A measure of a solution's ability too carry an electrical current; varies both with the number and type of ions contained by the solutions.

Electrical Resistance Block [Ag Elec] Small block consisting of electrodes set in an absorbent material, such as gypsum, used to estimate soil water content.

Electrical Service Entrance Panel [Ag Elec] The electrical panel where the service entrance wires are connected to the working system.

Electric-cable Floor Heater [Ag Elec] System comprising electric-resistance cable embedded in floor material; used to heat a building via the floor.

Electric Circuit [Ag Elec] Have 3 features; a source of electrical pressure; wires to conduct electric only from source to point of use; one

or more electrical appliances which presents a certain amount of opposition to flow of electrons.

Electric Current [Gen Eng] Refers to the movement of electrons (flow or passing).

Electric Field [Gen Eng] Invisible field of force that exists between electric charges.

Electric Generator [Ag Elec] An electrical machine that converts mechanical power to electrical power.

Electric Heating Mat [Ag Elec] Mat in which electric-resistance wires are embedded and on which livestock may lie.

Electricity [Gen Eng] A general term that refers to both naturally-occurring electrical phenomena, such as lightning and static electricity, and to generate electricity, which takes the form of direct current or alternating current electric power.

Electric Load [Ag Elec] The number of watts required by the electrical equipment in use in the building.

Electric Motor [Ag Elec] An electrical machine that converts electrical power to mechanical power.

Electric utilities [Ag Elec] Enterprises engaged in the production and/or distribution and sale of electricity for use by the public.

Electrification [Ag Elec] The provision of dependable and adequate electric services to a franchised area.

Electro-Chemical Grinding [Ag Mach] A method for removing hard materials by electrolyte.

Electro Discharge Machining [Ag Mach] A means of shaping hard metals and forming deep complex shaped holes in soft metals and electro conductive materials.

Electroforming [Ag Mach] An electro-plating process whereby a part is formed by depositing metal on a mold or matrix.

Electrolyte [Ag Mach] A solution of sulfuric acid and water.

Electromagnet [Gen Eng] It is a device made of wire coils that produces a magnetic field when electricity flows through the coils.

Electromotive Force (emf) [Gen Eng] Forces that move or tend to move electricity.

Electron [Gen Eng] Negatively charged particle of an atom.

Electromagnetic Vibratory Atomizer [Ag Mach] A vibratory atomizer in which an electromagnetic transducer transmit high-frequency oscillations to a liquid jet, creating droplets with a size as a function of frequency, jet diameter, and jet velocity

Electrostatic Atomizer [Ag Mach] The class of devices wherein an electric charge is the primary source of energy utilized to produce a spray.

Elevated Flame [Soil & Water] It often serves as an alternative to siphon crossing a depression. It is usually a rectangular hollow trough that is supported above the ground by reinforced concrete or structural steel.

Elevation Head [Ag Power] Energy possessed by a fluid due to its position above some datum.

Elongation [Soil & Water] An increase in the hose length caused by pressuring the hose.

Emaciation [Gen Agri] Is a wasted condition of the body.

Emasculate [Gen Agri] Refers to removing the male reproductive structures.

Embargo [Gen Agri] Refers to a complete prohibition against the import or export of a commodity.

Embedding [Ag Proc] The enclosing of parts in a transparent plastic for preservation and display.

Embrittlement [Gen Eng] Involves the loss of ductility because of a physical or chemical change of the material.

Embryo Sac [Gen Agri] Refers to the sac in the embryo containing the egg cell.

Embryo Transfer [Gen Agri] Is a technique wherein a young embryo is collected from a donor female parent and then implanted into the uterus of a recipient female parent.

Emergence [Gen Agri] Refers to coming off a place, as a seedling from the soil or a flower from a bud.

Emergency Spillway [Irrig & Drain] Auxiliary channel which transmits flood water exceeding the capacity of the principal spillway.

Emission Point [Irrig & Drain] Point where the water is discharged from an emitter.

Emission Uniformity [Irrig & Drain] An index of the uniformity of emitter discharge rates through a microirrigation system.

Emissivity [Gen Eng] Ratio at which the given surface unit radiates to the rate of radiation of a black body at the same temperature.

Emissivity of a Surface [Gen Eng] Is expressed as the ratio at which the given surface emits radiation to the rate of radiation of a black body at the same temperature.

Emitter [Irrig & Drain] A small microirrigation dispensing device designed to dissipate pressure and discharge a small uniform flow or trickle of water at a constant discharge, which does not vary significantly

because of minor differences in pressure head. Also called a “dripper” or trickler”.

Emitter - Compensating Emitter [Irrig & Drain] Designed to discharge water at a constant rate over a wide range of lateral line pressures.

Emitter Discharge Rate [Irrig & Drain] The discharge rate at a given operating pressure from an individual point-source emitter expressed as a volume per unit time or from a unit length of line-source emitter expressed as a volume per unit length per unit time.

Emitter - Flushing Emitter [Irrig & Drain] Designed to have a flushing flow of water to clear the discharge opening every time the system is turned on.

Emitter - Line - Source Emitter [Irrig & Drain] Water is discharged from closely spaced perforations, emitters, or a porous wall along the tubing.

Emitter - Long Path Emitter [Irrig & Drain] Employs a long capillary sized tube or channel to dissipate pressure.

Emitter - Multi - outlet [Irrig & Drain] Supplies water to 2 or more points through small diameter auxiliary tubing.

Emitter Operating Pressure [Irrig & Drain] The average operating pressure of the emitters within any simultaneously operate portion of the system.

Emitter - Orifice Emitter [Irrig & Drain] Employs a series of orifices to dissipate pressure.

Emitter - Vortex Emitter [Irrig & Drain] Employs a vortex effect to dissipate pressure.

Emitters [Irrig & Drain] The devices used to control the discharge from the lateral lines at discrete or continuous points.

Emitters Discharge Rate [Irrig & Drain] The discharge rate at a given operating pressure from an individual point-source emitter expressed as a volume per unit time or from a unit length of line-source emitter expressed as a volume per unit length per unit time.

Empty-Cell Process [Ag Struc] Pressure/vacuum process in which the air in the wood is maintained at or about atmospheric pressure before the injection of the preservative under pressure.

Emulsify [Ag Mach] To suspend oil in water in a mixture where the two do not easily separate.

Enclosed [Ag Struc] Moving parts are so guarded that physical contact is precluded as long as the guard remains in place.

Enclosed housing [Ag Struc] House wherein inside conditions are maintained as near as possible of the bird's optimum requirements with the use of mechanical ventilation and artificial lighting.

Enclosed Mobile Tank [Ag Power] All tanks for transporting and spreading agricultural liquids or slurry in which the material is completely contained and covered, as opposed to open tanks which permit rapid escape of the material if the tank is tipped or suddenly halted.

Enclosure [Ag Struc] A guard that, alone or with other parts of the machine, provides protection on all sides.

End Coating [Ag Struc] A coating of moisture-resistant material applied to the end-grain surface to retard end drying of green wood or to reduce moisture changes in dried wood to a minimum.

Endocarp [Gen Agri] Refers to the inner layer of pericarp.

Endocrine [Gen Agri] Pertaining to glands that produce secretions that pass directly into the blood instead of into a duct (hormones are secreted by endocrine glands).

Endocrine Glands [Gen Agri] Are glands that secrete chemical mediators called hormones that regulate growth and development, metabolism, reproduction, stress responses, body and tissue fluid, and electrolyte balance.

Endocrinology [Gen Agri] Is defined as a branch of physiology dealing with the coordination of various body tissues by chemical mediators (hormone) produced by restricted areas of the body (endocrine gland) and transported through the circulatory system to the organ or tissue on which they exert their effects.

Endogenous [Gen Agri] Refers to the substances that are internally produced in the body.

Endosperm [Gen Agri] The starchy interior of a grain.

End - Point [Ag Proc] The point in time after which further sieving fails to pass an amount sufficient to change the result significantly.

End Suction Pump [Irrig & Drain] A single suction pump having its suction nozzle on the opposite side of the casing from the stuffing box and having the face of the suction nozzle perpendicular to the longitudinal axis of the shaft.

Endurance Limit [Ag Struc] Is the maximum stress that a member subjected to a completely reversal load can withstand for an infinite number of load applications without failure.

Energizing Current [Ag Elec] The primary current in an unloaded transformer

Energy [Ag Power] Ability to do work.

Energy and Demand [Ag Power] Demand for various forms of energy such as electricity, gasoline, kerosene, LPG, bagasse, coal, etc.

Energy Balance [Gen Eng] Energy cannot be created or destroyed during heat transfer, therefore the amount of energy leaving the source must be the amount reaching the sink.

Energy collected the rate energy collection by the test collector per unit area of the gross collector area shall be computed from the specific heat of air flowing through the measuring device multiplied by the mass flow rate per unit area and by the temperature rise of the air from entrance to exit of the collector.

Energy Conservation [Ag Power] Measures that can be taken to reduce energy consumption. This is measured by past energy savings or potential future energy savings in terms of kilowatt-hour or British thermal unit.

Energy Efficiency [Ag Power] The amount of useful work or product divided by the fuel or energy input.

Energy Flow Rate [Ag Elec] The rate of flow energy, a fundamental radiometric unit; also called radiant power.

Energy Fluence [Ag Elec] The radiant energy dose time integral per unit spherical area.

Energy Fluence Rate [Ag Elec] The radiant energy fluence per unit time.

Energy Flux [Ag Elec] The radiant energy flow rate per unit plane surface area; also called irradiance.

Energy Resource [Ag Power] may be classified as either conventional or nonconventional, imported or indigenous.

Engelberg Rice Mill [Ag Proc] A steel huller/husker-friction type rice mill consisting of a solid metal cylinder with rectangular-shaped protrusions rotating inside a cylinder casing and, by abrasive action between the rotating cylinder and the grain, removes the husk and subsequently the bran of the paddy fed between the two concentric cylinders.

Engine [Ag Mach] Mechanical device that converts heat energy produced by combustion of fuel into mechanical energy; Maximum brake power, fuel consumption and operating characteristics of the engine at different speeds.

Engine Displacement [Ag Mach] Engine displacement shall be expressed in liters to the nearest hundredth.

Engine-driven generators an electric generator so constructed that its rotor is driven by an engine dedicated solely to the generator.

Engine Performance [Ag Mach] Maximum brake power, fuel consumption the operating characteristics of the engine of different speeds.

Engine Power [Ag Power] The corrected gross, rated, brake power in accordance with a given standard.

Enthalpy [Ag Proc] Is the arbitrary composite energy and is defined as the sum of two kinds of energy, the internal energy and the displacement energy or flow work; A thermodynamic property of a substance defined as the sum of its internal energy plus the quantity energy plus the quantity pv/J , where p is the pressure of the substance, v is its volume and J is the mechanical equivalent of heat.

Enthalpy (or Latent Heat) of Fusion [Ag Proc] Is the amount of heat required to change unit mass of a pure substance from the solid state to the liquid state, the pressure (or temperature) remaining constant.

Enthalpy (or Latent Heat) of Sublimation [Ag Proc] Is the amount of heat required to change unit mass of a pure substance from the solid state to the vapor state, the pressure (or temperature) remaining constant.

Enthalpy (or Latent Heat) of Vaporization [Ag Proc] Is the amount of heat required to change unit mass of a pure substance from the saturated liquid state to the saturated vapor state, the pressure (or temperature) remaining constant.

Entomology [Gen Agri] The study of insects and their environments.

Entozoa [Gen Agri] Are internal animal parasites.

Entrainment [Ag Struc] The mixing of ambient air with that exiting an air jet from an air inlet or distribution duct.

Entrance Head [Ag Struc] Head required to establish flow into a conduit or structure.

Entrance Loss [Ag Struc] Energy lost in eddies and friction at the inlet to a conduit or structure.

Entropy [Ag Proc] Is the mathematical function of the observable properties of the substance; The ratio of the heat absorbed by a substance to the absolute temperature at which it was added.

Envelope Filter [Sil & Water] Granular material or geotextile fabric which surrounds a subsurface pipe drain to prevent soil inflow and enhance eater entry.

Environment [Gen Agri] It is the sum of all the external conditions that may act upon a living organism or community to influence its development or existence.

Environmental Impact Assessment [Gen Agri] The critical appraisal of the likely effects of a proposed project, activity, or policy on the environment, both positive and negative.

Environmental Monitoring [Gen Agri] The process of checking, observing, or keeping track of something for a specified period of time or at specified intervals.

Enzyme [Gen Agri] Is a complex protein produced in living cells that causes changes in other substances within the body without being changed itself (organic catalyst).

EPA [Gen Agri] Environmental Protection Agency

Ephemeral Gully [Irrig & Drain] Small channels eroded by runoff which can be easily filled and removed by normal tillage, only to reform again in the same location.

Ephemeral Stream [Irrig & Drain] Is a stream that flows only sporadically, such as after storms.

Epicotyl [Gen Agri] Is the stem of the embryo or young seedling above the cotyledons.

Epigeal Germination [Gen Agri] In dicots, it refers to the germination in which the cotyledons rise above the soil surface.

Epizootic [Gen Agri] Designating a widely diffused disease of animals, which spreads rapidly and affects many individual of a kind concurrently in any region, thus corresponds to an epidemic in man.

Epoxy [Gen Eng] A 2-part adhesive system consisting of resin and hardener. It does not start to harden until the elements are mixed together. Not compatible with Fiberglass Resin.

Equalizing Ditch [Soil & Water] Secondary ditch, usually parallel to a field ditch, used to furnish irrigation water to 2 or more furrows.

Equilibrium Moisture Content [Ag Proc] The moisture content of the paddy after it has been exposed to particular environment for an infinitely long period of time.

Equipment Grounding [Ag Elec] Consists of circuits or conducting paths connecting non-current-carrying metal parts of equipment, raceways, and other metallic enclosures to the electrical grounding system.

Equipotential Plane [Ag Elec] A surface where wire mesh, reinforcing bars, or other conductive elements are embedded in concrete, bonded to all adjacent conductive equipment and structures, and bonded to the electrical grounding system of the facility.

Equitation [Gen Agri] Horsemanship; The art of riding on horseback.

Erodibility [Soil & Water] Is the vulnerability or susceptibility of the soil to erosion. It is a function of both the physical properties of the soil and land management practices.

Erosion [Soil & Water] The wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

Erosion - Accelerated Erosion [Soil & Water] Erosion much more rapid than normal, natural, or geological erosion, primarily as a result of the influence of the activities of man or, in some cases, of animals.

Erosion - Geological Erosion [Soil & Water] The normal or natural erosion caused by geological processes acting over long geological periods.

Erosion - Gully Erosion [Soil & Water] The erosion process whereby water accumulated in narrow channels and, over short periods, removes the soil from this narrow area to considerable depths, ranging from 0.5 m (1.6 ft.) to as much as 30 m (97 ft).

Erosion - Interrill Erosion [Soil & Water] The removal of a fairly uniform layer of soil on a multitude of relatively small areas by splash due to raindrop impact and by shallow surface flow.

Erosion - Natural Erosion [Soil & Water] It is the wearing away of the earth's surface by water, ice, or other natural agents under natural environmental conditions of climate, vegetation, etc., undisturbed by man. (See Geological erosion).

Erosion - Normal Erosion [Soil & Water] The gradual erosion of land used by man which does not greatly exceed natural erosion.

Erosion - Rill Erosion [Soil & Water] An erosion process in which numerous small channels of only several centimeters in depth are formed; occurs mainly on recently cultivated soils.

Erosion - Sheet Erosion [Soil & Water] The removal of soil from the land surface by rainfall and surface runoff. Often interpreted to include rill and interrill erosion.

Erosion - Splash Erosion [Soil & Water] The detachment and airborne movement of small soil particles caused by the impact of raindrops on soils.

Erosion Class [Soil & Water] Numerical ranking of erosion or erosion potential obtained in a soil conservation survey.

Erosion Pavement [Soil & Water] A layer of gravel or stones left on the surface of the ground after the removal of the fine particles by erosion.

Erosion Potential [Soil & Water] A numerical value expressing the inherent erodibility of a soil or maximum potential soil.

Erosive Velocity [Soil & Water] Velocity of the erosive agent necessary to cause erosion.

Erosivity [Soil & Water] The potential ability of water, wind, gravity, etc., to cause erosion.

Erosivity Index [Soil & Water] A relative value of erosion potential based primarily on rainfall.

Eruction (or Eructation) [Gen Agri] Is the elimination of gas by belching.

Escherichia Coli (E. Coli) [Gen Agri] One of the species of bacteria in the intestinal tract of warm-blooded animals.

Escort Vehicles [Ag Mach] An agricultural tractor or a motor vehicle other than a motorcycle.

Essential Amino Acids [Gen Agri] Are those amino acids which are essential to the animal and must be supplied in the diet because the animal cannot synthesize them at sufficient amount to meet its requirement.

Essential Elements [Gen Agri] The elements C, H, O, P, K, N, S, Ca, Mg, K, B, Mn, Cu, Zn, Mo, Cl, Co, Si, and F, These must be taken up and utilized in sufficient quantities for plants to complete their life cycles.

Essential Nutrient [Gen Agri] A nutrient that cannot be synthesized by the body and must be supplied in the diet.

Estimated [Gen Agri] The change in value as determined by the difference between purchase price estimated future value, both in constant dollars.

Estrogen [Gen Agri] Any hormone (including estradiol, estriol, and estrone) that causes the female to come physiologically into heat and to be receptive to the male.

Estrous [Gen Agri] An adjective meaning "heat," which modifies such words as "cycle."

Estrous Cycle [Gen Agri] It is the interval from the beginning of one heat period to the beginning of the next. It is divided into several well-marked phases.

Estrous Synchronization [Gen Agri] Controlling the estrous cycle so that a high percentage of the females in the herd express estrus at approximately the same time.

Estrus [Gen Agri] Is the period of heat and greatest receptivity to male, rapture of ovarian follicles in most animals.

Estuarine Inflow [Gen Agri] The freshwater input necessary to provide nutrient input, sediment movement, circulation and maintenance of brackish conditions for estuarine organisms.

Estuary [Gen Agri] Refers to coastal waters situated between rivers and near-shore ocean waters, where tidal action and river flow mix fresh and saltwater.

Ethanol [Gen Agri] An alcohol fuel that may be produced from an agricultural foodstock such as corn, sugarcane, or wood, and may be

blended with gasoline to enhance octane, reduce automotive exhaust pollution, and reduce reliance on petroleum-based fuels.

Ethics [Gen Agri] A set of moral principles. The study of morality.

Eutectic Plate [Ag Proc] A thin rectangular container containing an eutectic mixture which may include a coil to be connected to refrigeration system to freeze the mixture.

Eutrophication [Gen Agri] Refers to the degradation of water quality due to enrichment by nutrients primarily nitrogen and phosphorus, which results in excessive plant (principally algae) growth and decay. Low dissolved oxygen in the water is a common consequence.

Eutrophic Lake [Gen Agri] Shallow, murky bodies of water that have excessive concentrations of plant nutrients causing excessive algal production.

Evaporated Milk [Gen Agri] Refers to a fresh milk that has been evaporated to a concentration of 73.7 percent water. It contains 7 percent protein, 7.9 percent fat, 9.9 percent lactose and 1.5 percent minerals.

Evaporating Temperature [Ag Proc] The temperature which a fluid vaporizes within an evaporator.

Evaporation [Gen Agri] The process of changing of the liquid into vapor form.

Evaporation [Ag Proc] Total mass of water lost from the grain mass during a drier test period.

Evaporation Cooling [Ag Proc] The reduction of dry-bulb air temperature by the evaporation of moisture into the air. The heat required for the evaporation is supplied by the sensible heat loss of the air.

Evaporation Rate [Soil & Water] The mean rate of evaporation measured over the past test period; The quantity of water evaporated from a given water surface per unit of time.

Evaporative cooling [Ag Proc] The addition of moisture to air to reduce its dry bulb temperature.

Evaporator [Ag Proc] That part of a refrigeration system in which the refrigerant absorbs heat from the contacting medium by evaporation.

Evaporator Condenser [Ag Proc] Is a companion device for conserving water with the cooling tower.

Evapotranspiration [Irrig & Drain] The combined effects of evaporation from the soil and plant surfaces and transpiration from plants.

Even Aged [Gen Agri] Applied to a stand in which relatively small age differences exist between individual trees.

Even Discs Row Cleaner [Ag Mach] The leading edge of both disc blades are at the same fore-and-aft position, with or without a lateral space between them.

Even Spray Nozzle (Even Fan Nozzle) [Ag Mach] A fan spray atomizer that produces a relatively uniform band of liquid, usually by means of injection through an elliptical orifice.

Evergreen Tree [Gen Agri] Is a tree that retains some or most of its leaves, or needles, throughout the year.

Evisceration [Gen Agri] Process of removing the internal organs in the abdominal and thoracic cavities.

Ewe [Gen Agri] A female sheep of any age.

Excessively Aerobic [Gen Agri] A horizon which is usually too dry to support adequate plant growth.

Exchangeable Cation [Gen Agri] A cation such as calcium that is adsorbed onto a surface, usually clay or humus and is capable of being easily replaced by another cation such as potassium. These ions are readily available to plants.

Exchangeable Sodium Percentage [Gen Agri] The fraction of the cation exchange capacity of a soil occupied by sodium ions.

Exchange Capacity [Gen Agri] The total ionic charge of the absorption complex active in the absorption of ions.

Exchange Rate [Gen Agri] Refers to the prices of dollars in terms of peso.

Excise Tax [Gen Agri] Refers to the tax levied directly upon classes of goods produced within a country.

Excitation [Gen Eng] Using an electric current to create a magnetic field.

Exhaust Air Temperature [Ag Proc] The mean temperature of air immediately after discharge from the drier.

Exhausters [Ag Proc] Are fans used to withdraw air under suction.

Exhaust Gas [Ag Mach] The products of combustion in an internal-combustion engine.

Exhaust Valve [Ag Mach] The valve which when opened, allows the exhaust gas to leave the cylinder.

Exhaust Vents [Gen Agri] Louvered vent on the test barn which open to exhaust air which has been passed through the tobacco.

Exotic Species [Gen Agri] A non-native plant or animal species introduced by humans, either deliberately or accidentally.

Expansion Joint [Ag Struc] Joints in concrete walls and floors, usually fitted with special metal telescoping fittings or compressible material, to prevent buckling of concrete when it expands in hot weather.

Expansion Point [Ag Struc] Joints in concrete walls and floors, usually fitted with special metal telescoping fittings or compressible material, to prevent buckling of concrete when it expands in hot weather.

Expansion Ratio [Ag Mach] Ratio of the total volume when the piston is at BDC to the clearance volume when the piston is at TDC (Nominally equal to compression ratio).

Expected Progeny Difference (EPD) [Gen Agri] One-half of the breeding value; the difference in performance to be expected from future progeny of a sire, compared with that expected from future progeny of an average bull in the same test.

Explosion Proof [Gen Agri] Enclosed in a case that is capable of withstanding an explosion of a specified gas or vapor which may occur within it and of preventing the ignition of a specific gas or vapor surrounding the enclosure by sparks, flashes, or explosion of the gas or vapor within and operate at an external temperature that will not ignite the surrounding flammable atmosphere.

Extended Drawbar Position [Ag Mach] A position intended for a special PTO drive shaft condition where equal angularity of the drive shaft joints cannot be obtained using the regular position.

Extendible drawbar [Ag Mach] An adjustable multiple operating position drawbar matching the standard longitudinal dimension from hitch pin hole to end of PTO shaft for the particular type PTO shaft on the tractor plus providing extended and/or retracted hitch pin hole dimensions.

Extensive Farming [Gen Agri] Pertains to farming activities utilizing fixed outlay of labor and capital to an increasing area of land.

Extensive Property [Gen Eng] Its value for an overall system is the sum of its values for the parts into which the system is divided; varies directly with the mass i.e. total volume.

Exterior Plyhood [Ag Struc] Type of plyhood intended for outdoor or machine uses, also known type 1.

External Ladder [Ag Struc] A ladder attached to the outside of a structure.

External Mixing Pneumatic Atomizer [Ag Mach] A pneumatic in which pressurized gas is directed on a liquid film or jet outside the nozzle, so as to form a spray.

Extinction [Ag Struc] The position at which a crystal goes black in crossed polarized light.

Extinguisher [Ag Struc] A portable device used to extinguish a fire.

Extractives [Gen Agri] Substances in wood. Integral part of the cellular structure, that can be dissolved out with hot or cold water, either, benzenes, or other relatively inert solvents.

Extractive Industry [Gen Agri] Is an industry which pertains to the withdrawal of product from an origin by extraction with the provision for reproduction (e.g. juice from pineapple).

Extremities [Ag Mach] Is the extreme projection of the equipment in question.

F

F₁ [Gen Agri] Refers to the first filial generation, the first generation offspring of a given mating.

F₂ [Gen Agri] Refers to the second filial generation, the first generation in which segregation occurs.

Fabrication [Ag Mach] Is the process of cutting carcasses into standard wholesale and retail cuts.

Face [Ag Struc] Surface of plywood showing veneer of higher grade than that of the back side.

Face- Plywood [Ag Struc] Plywood faced with a material other than wood, such as metal or plastic.

Face Width [Ag Struc] The width over toothed part of a gear, measured along a straight line generator of the reference cylinder.

Facilitating Agents [Gen Agri] Are those who assist the flow of products and information in the marketing channels.

Factor of Safety [Ag Mach] Is the ratio of ultimate strength of the material to allowable stress.

Facultative Aerobic Organisms [Ag Struc] Are organisms capable of growing under both aerobic and anaerobic conditions.

Facultative Bacteria [Ag Struc] Bacteria which can use either free oxygen or reduced carbon compounds as electron acceptors in their metabolism.

Facultative Lagoons [Ag Struc] Lagoons that can function as aerobic or anaerobic depending on the environment.

Faecal Material [Gen Agri] The various types of faeces or excrement produced by soil fauna.

Failure [Ag Mach] The inability of a machine to perform its function under specified field and crop conditions.

Falling Rate Period [Ag Proc] Comes after the constant rate period. It is controlled largely by the product and involves the (a) movement of moisture within the material to the surface by liquid diffusion, and (b) removal of moisture from the surface.

Fallow [Gen Agri] Refers to the cropland left side for the soil to rejuvenate and replenish its fertility.

Family [Gen Agri] A related group of animals.

Family Farm [Gen Agri] An agricultural business which (1) produces agricultural commodities for sale in such quantities so as to be recognized as a farm rather than a rural residence; (2) produces enough income (including off farm employment) to pay family and farm operating expenses, to pay debts, and to maintain the property; (3) is managed by

the operator; (4) has a substantial amount of labor provided by the operator and family; and (5) may use seasonal labor during peak periods and a reasonable amount of full-time hired labor.

Family Labor [Gen Agri] Is a farm labor mainly supplied by the family circle.

Fan [Ag Proc] A device for moving air by two or more blades or vanes attached to a rotating shaft; Air moving device that is used to force heated air through the mass of grains at the desired air flow rate and pressure.

Fancy Palay [Gen Agri] This refers mainly to palay varieties possessing special genetic characteristics in terms of color, aroma, flavor and other cooking and eating qualities that make them distinct from other varieties.

Fancy Variety Rice [Gen Agri] This refers to the milled rice of fancy palay varieties possessing special genetic characteristics in terms of color, aroma, flavor and other cooking and eating qualities that make them distinct from other rice varieties.

Fan Efficiency [Ag Proc] The volumetric airflow rate per unit input power.

Fan Hood [Ag Struc] Enclosure to protect a ventilation fan from weather, particularly direct wind and precipitation.

Fan Spray Atomizer [Ag Mach] A pressure atomizer which produces a flat sheet of liquid that collapses into droplets. The fan spray pattern is formed by use of an elliptical orifice, or by a circular orifice adjacent to a deflector surface.

Faol [Gen Agri] A young horse of either sex below one year of age.

Fastening [Ag Struc] Attaching a ladder, cage or other component to a structure.

Farad [Ag Elec] Base unit of capacitance; Equal to a coulomb per volt.

Farm Budget [Gen Agri] Is a projection of the cash inflow and outflow of a farm to estimate the incremental net benefit over the life of the project.

Farm Gate [Gen Agri] Refers to the boundary of a farm.

Farm Gate Price [Gen Agri] Is the price a farmer receives for his product or pays for inputs at the boundary of the farm – that is, the price without any transport to a market or other marketing service; most commonly applied to outputs.

Farming [Gen Agri] Is the art and practice of crop production.

Farm Main [Soil & Water] An outlet ditch serving an individual farm.

Farm Management [Gen Agri] Refers to the study of the ways and means of organizing land, labor and capital and the application of

technical knowledge and skill in order that the farm may be made to yield the maximum net returns.

Farm Planning [Gen Agri] Is the process by which a farm manager looks ahead to the future and contemplates alternative courses of action for the farm.

Farm Ponds/Water Impounding Dams [Soil & Water] Refer to the temporary detainment of water in farm pond and dams to mitigate the erosive capacity of water.

Farmstead [Ag Struc] Is a limited area within the farm, occupied by building corrals, fences, and gates, and used generally as center of operations for farm work and activities.

Farmstead Equipment [Ag Mach] Is an equipment other than agricultural field equipment used in agricultural operations for the production of food and fiber. This includes livestock equipment, waste handling system, crop drying and milling systems, material handling systems and others.

Farm Water Requirement [Irrig & Drain] It is the sum of irrigation requirement and farm ditch losses.

Farrow [Gen Agri] Is the act of parturition in swine.

Farrowing [Gen Agri] Giving birth to pigs.

Farrowing Pen [Ag Struc] A area in which a sow is confined during farrowing and lactation period, but in which the sow can turn around.

Farrowing Room [Ag Struc] Space where sows are held during farrowing and lactation periods.

Farrowing Stall [Ag Struc] A device in which a sow is confined during farrowing and lactation period and which prevent the sow from turning around.

Fastener [Ag Mach] A mechanical device designed specifically to hold, join, or maintain equilibrium of single or multiple components.

Fat [Gen Agri] Adipose tissue.

Fatal Shock [Gen Agri] Occurs when currents range from 0.05-0.2 amp pass through a person's body. This can cause instant death.

Fatigue [Ag Mach] Deterioration of material caused by constant use.

Fattener [Gen Agri] A swine raised for meat production usually starts at 15 kg.

Faucet Aerator [Gen Eng] A device that can be installed in a sink to reduce water use.

Fecal Coliform [Ag Waste] Bacteria found in the intestinal tracts of warm-blooded animals. These organisms may also indicate the presence of pathogens that are harmful to humans.

Fecundation [Gen Agri] Refers to impregnation or fertilization.

Fecundity [Gen Agri] The ability of the male or female to produce large number of sperm or ova.

Fed (or Fat) Cattle [Gen Agri] Refers to a cattle that have been finished, usually in the feedlot, and are ready for slaughter.

Federation [Gen Agri] A group of cooperatives having a common bond of interest.

Feed Additives [Ag Proc] Non-nutrient compound added to livestock feeds too promoted growth and production, stabilize nutrients in feeds, improve feed stabilization or help prevent the stress of infections and disease.

Feed Bunks and Fences [Ag Struc] Cows are normally fed at permanent location in or near the free stall barn, either from one or both sides of a feed bunk or along a fence line.

Feed Efficiency [Gen Agri] (1) The amount of feed required to produce a unit of weight gain or milk; for poultry, this term can also denote the amount of feed required to produce a given quantity of eggs. (2) The amount of gain made per unit of feed.

Feeder [Ag Elec] Refers to all circuit conductors between the service equipment or the source of a separately derived system and the final branch-circuit overcurrent device.

Feeder Calves [Gen Agri] Cattle less than one year of age, often purchased from an auction or from another producer, that are raised to market.

Feeder Cattle [Ag Struc] Refers to cattle past the calf stage that have weight increases making them salable as feedlot replacements.

Feeder Pigs [Gen Agri] Swine about 2-3 months of age, usually purchased from an auction or from another producer, that are raised to market.

Feeder Grades [Gen Agri] Visual classifications (descriptive and/or numerical) of feeder animals. Most of these grades have been established by the USDA.

Feed Grain [Gen Agri] Any of several grains most commonly used for livestock or poultry feed, including corn, grain sorghum, oats, rye, and barley.

Feeding Alley Height [Ag Struc] The vertical distance from the reference point to the feeding alley or driveway for fence line bunks.

Feeding Auger [Ag Struc] An auger which releases conveyed material.

Feeding Space [Ag Struc] Refers to the lineal portion of the bunk available for single animals in bunks using vertical dividers or stanchions.

Feeding Stall [Ag Struc] Individual stall in which animal stands when fed and an attempt is made to control individual diet intake. essentially uniformly along a substantial portion of its length.

Feed Lot [Ag Struc] Area with its physical facilities used for cattle fattening.

Feed Mixer [Ag Mach] Machine for mixing dietary ingredients, the primary mixing device is usually an auger or helix.

Feed Rate [Ag Mach] Weight of product fed into the machine per unit of time.

Feeler Gauge [Ag Mach] A strip of steel ground to a precise thickness used to check clearance.

Fen [Gen Agri] A type of wetland that accumulates peat deposits. Fens are less acidic than bogs, deriving most of their water from groundwater rich in calcium and magnesium.

Fermentation [Gen Agri] Is the alternate path of respiration followed when oxygen is absent or limited.

Ferrite magnets [Gen Eng] Also called ceramic magnets. Made of Strontium Ferrite. High coercivity and Curie temperature, low cost, but brittle and 4-5 times weaker than NdFeB magnets.

Ferromagnesium [Gen Agri] When silicate materials combine with ions of iron and magnesium, these are very dark or black and have higher specific gravity than the other rock-forming minerals. Examples are olivine, augite, hornblendes, and biotite.

Fertilizer [Gen Agri] Any organic or inorganic material of natural or synthetic origin which is added to soil to provide nutrients, including nitrogen, phosphorus, and potassium, necessary to sustain plant growth.

Fertility [Gen Agri] The degree of reproductive ability; Any animal which has the ability to produce a viable offspring is fertile.

Fertility (Plant) [Gen Agri] Is the ability to reproduce sexually.

Fertility (Soil) [Gen Agri] Is the ability to provide the proper nutrients in the proper amount and in proper balance for the growth of specified plants under the suitable environment or the ability to support crop production.

Fertilization (Plant) [Gen Agri] Is the union of the male nucleus with the female cell.

Fertilization (Soil) [Gen Agri] Refers to the application to the soil of elements or compounds that aid in the nutrition of plants.

Fertilizers [Gen Agri] Are any materials, organic and inorganic or artificial which are necessary for the vigorous and healthy growth of plants.

Fertilizer Applicators [Ag Mach] Fertilizer applicators on seeding machines, if employed, apply fertilizer materials near or below the soil surface either in the seed furrow, beneath the seed furrows.

Fertilizer Value [Gen Agri] An estimate of the value of commercial fertilizer elements that can be replaced by manure or organic waste material.

Fiberglas® Resin [Gen Eng] Another 2-part adhesive system, not compatible with epoxy. Often used for making castings, since it is much cheaper than Epoxy.

Fiber Saturation Point (FSP) [Ag Proc] The stage in the drying or wetting of wood at which the cell walls are saturated with water and the cell cavities are free from water. It is usually taken as approximately 30% moisture content, based on weight when overdried.

Fibers [Gen Agri] The strengthening tissue of wood forming the matrix in which the vessels, parenchyma and rays lie. Fibers when observed in cross section with a hand lens, may be described as follows: dense (lumina not visible under lens); comparatively dense (lumina barely visible); and not very dense (lumina visible).

Fiberboard [Ag Struc] Panel made of consolidated lingo-cellulosic fibers with a primary bond derived from their inherent adhesive properties and/or the addition of the resin or other materials.

Fiber - Cement Flat Sheets [Ag Struc] Consist essentially of an inorganic hydraulic binder or a calcium silicate binder formed by the chemical reaction of a siliceous material and a calcareous material reinforced by organic fibers and/or inorganic synthetic fibers.

Fiber, Wood [Ag Struc] A comparatively long ($1/25$ or less to $1/3$ inch), narrow, tapering and closed at both ends.

Fibrous Proteins [Gen Agri] Are consist of polypeptide chains arranged in parallel along a single axis to yield long fibers or sheets and constitute about 30% of total protein in animal body, connective tissue, i.e., collagens, elastin, keratins.

Fibrous Root [Gen Agri] Is a slender thread-like root, as in grasses.

Field ratio of effective field capacity to theoretical field capacity, expressed in percent.

Field Capacity [Soil & Water] Amount of water remaining in soil when the downward water flow due to gravity becomes negligible.

Field Corn [Gen Agri] Any variety of corn that is grown extensively in large fields primarily for livestock feed, as contrasted with the horticultural varieties, such as sweet corn or popcorn.

Field Crops [Gen Agri] Refers to herbaceous plants grown in cultivated fields with a more or less extensive system culture.

Field Cultivators [Ag Mach] A secondary tillage implement for seedbed preparation, weed eradication, or fallow cultivation subsequent to some form of primary tillage. Field cultivators are equipped with sprig steel shanks or teeth, which have an integral forged point or mounting holes for replaceable shovel or sweep tools. Teeth are generally spaced 15-23 cm (6-9 in.) in a staggered pattern. Frame sections are folded upwards or backwards for transport.

Field Ditch [Irrig & Drain] A ditch constructed within a field either for irrigation or drainage.

Field Drain [Irrig & Drain] A shallow-graded channel, usually having relatively flat side slopes, that collects surface water within a field.

Field Efficiency [Ag Mach] Ratio of effective field capacity to the theoretical field capacity.

Field Lateral [Irrig & Drain] The principal ditch for draining areas on a farm. Field laterals receive water from row drains, field drains, and field surfaces and carry it to the farm mains.

Field Speed [Ag Mach] Average rate of machine travel in the field during an uninterrupted period of functional activity.

Field Time [Ag Mach] The time a machine spends in the field measured from the start of functional activity to the time the functional activity for the field is completed.

Filament [Gen Agri] Is the stalk of the stamen which bears the anther.

Fill [AS] The contents of the digestive tract.

Filled Milk [Gen Agri] Is a milk where the butterfat is replaced with vegetable fat such as coconut fat.

Filly [Gen Agri] A young female horse usually up to years old.

Filter [Ag Elec] A circuit designed to separate one frequency, or group of frequencies, from all other frequencies; [AFPE] A device for cleaning or purifying fluid or air.

Filter (Drainage) [Irrig & Drain] Envelope of graded porous material placed around a closed drain to prevent soil from entering the drain.

Filter (Wells) [Soil & Water] Sands, gravels, or fibrous materials placed around a well screed or perforated casing to increase permeability near the well and prevent unwanted aquifer particles from entering the well.

Filter (Irrigation) [Irrig & Drain] Device used in micro and sprinkler irrigation systems to remove debris from the water that might clog or otherwise foul the emitters or sprinklers.

Filter Pack [Soil & Water] Sand, gravel, or fibrous materials placed around a well screen or perforated casing to increase permeability near the well and prevent infiltration of fine materials.

Filter Strip [Soil & Water] Is a strip or area of vegetation often situated at the edge of a field or along a waterway that is used for removing sediment, organic matter, and other pollutants from stormwater runoff.

Filtration [Gen Agri] The process of passing of a liquid a filtering medium, such as activated carbon, sand, magnetite, diatomaceous earth, finely woven cloth, unglazed porcelain or specially prepared paper for the removal of suspended or colloidal matter.

Filtration System [Irrig & Drain] The assembly of independently controlled physical components used to remove suspended solids from irrigation water.

Fin [Ag Proc] A thin piece of metal attached to a pipe, tubing or other surface to increase the heat transfer area.

Final Drive [Ag Proc] Where the torque is applied to the auger flighting assembly; [Ag Mach] A gear reduction located in the power train between the differential and the driving wheel of a tractor to transmit power of low speed and large torque to the rear axle and wheels.

Final Infiltration Rate [Soil & Water] See basic intake rate.

Final Moisture Content [Ag Proc] Moisture content of a product prior to the start of drying, expressed as a decimal or a dry basis.

Financial Management [Gen Agri] Involves planning the procurement and utilization of funds and controlling the financial operations to insure effective utilization of funds.

Fine Aggregates [Ag Struc] Such as crushed stone sand, crushed gravel sand or natural sand with particles passing on a 5 mm sieve.

Fine Material [Ag Struc] Is a soil material in thin sections composed of particles less than 2mm which are difficult or impossible to resolve with the petrological microscope.

Fine Sprays [Ag Mach] Distribution of droplets with $100 \mu\text{m} < D_{v0.5} \leq 400 \mu\text{m}$.

Fine Texture [Gen Agri] Containing >35 per cent clay.

Finisher [Gen Agri] Swine which are 66 kg and up.

Finishing [Ag Waste] Post –processing; screening, grinding, or a combination of similar processes to remove plastics, glass, and metals remaining after composting.

Firebox [Ag Power] The chamber in which fuel is burned.

Firebreak [Ag Power] An existing barrier, or one constructed before a fire occurs, from which all or most flammable materials have been removed.

Fire Stop [Ag Power] A solid partition of noncombustible wall or ceiling covering material designed to slow the rate of fire spread.

Fire Wall [Ag Struc] A continuous wall constructed of a noncombustible material and designed to slow the rate of horizontal spread of fire.

First Law [Gen Eng] Also known as the Conservation of Energy principle, states that energy can neither be created nor destroyed, it can only change forms.

Fixed Assets [Gen Agri] Are durable items of relatively long life that are used by the enterprise for production of goods and services.

Fixed Carbon [Ag Waste] The major component of charcoal. This represents the coke minus the ash and volatile matter.

Fixed Cost [Ag Mach] Cost which do not changes regardless of the volume of production, e.g. depreciation, repair and maintenance, interest on investment, etc.

Fixed Solids [Ag Proc] The portion of the total solids remaining as an ash or residue when heated at a specific temperature and time.

Fixed type closed digester with an immovable, rigid gas chamber and a displacement pit.

Flake Ice [Ag Proc] Ice produced by freezing a thin of water on a refrigerated cylinder and removing it with a scraper.

Flame Barrier [Ag Proc] A material deigned to slow down the effect of heat and/or flames on a certain material.

Flaring Tool [Ag Mach] A tool used to form a flare on a tubing.

Flash Board [Ag Struc] Wood plank, generally held horizontally in vertical slots on the crest of a dam or check structure to control the upstream water level, sometimes called as "crestboard".

Flash Drying [Ag Proc] A pre-drying technique that uses high drying temperature to allow rapid removal of looses bound moisture from the grain.

Flash Gas [Ag Proc] The portion of the liquid refrigerant that is vaporized by sudden reduction of pressure, for example through a thermostatic expansion valve.

Flashing Amber Warning Lamps [Ag Elec] A regularly and predictably interrupted amber coloured light source used to identify the extremities of slow-moving equipment on public roads.

Flash Point [Ag Power] Is the temperature at which the fuel must be heated to give off sufficient vapor to form an inflammable mixture with air.

Flat Bed Type Dryer [Ag Proc] A shallow bed batch type dryer wherein a fixed volume of grain is held stationary in a horizontal gain bin holding bin.

Flat Belt [Ag Mach] Belts used to transmit rotary motion and power between two shafts, which lie flat on the face of its corresponding pulley.

Flat Belt Pulley [Ag Mach] Wheel having flat or crowned face used to transmit motion and power by means of flat belts.

Flat Roof [Ag Struc] Is used only to a limited extent on farm buildings. Maintenance is high since the roof has little slope for water to run off.

Flat - Sawed [Ag Struc] Lumber sawed in a plane approximately perpendicular to the radius of the log.

Flat Sour [Ag Proc] Is caused by microorganism's which do not produce any gas and the outside appearance of the can is normal.

Flat Spray Nozzle (Flat Fan Nozzle) [Ag Mach] A fan spray atomizer that produces planar spray pattern.

Flat Storage [Ag Proc] Mainly bag type storage, but could be bulk.

Flattened, Expanded Metal [Ag Struc] Commercial metal product with diamond-shaped slots of a certain size; flattened to make surface lens abrasive; used as slotted-flooring material.

Flavoring Substances [Gen Agri] Refer to flavor preparations composed of substances derived from plant/animal products or/and chemically synthesized substances whose significant function in food is flavoring rather than nutritional.

Flaying [Gen Agri] Is an act of removing hide from animals.

Fleece [Gen Agri] The wool covering of the sheep.

Fleshy Root [Gen Agri] Is a thickened root containing abundant food reserves; example: carrot, sweet potato.

Flexible Membrane Liner [Ag Proc] A synthetic barrier to water movement commonly fabricated of polyvinyl chloride or high density polyethylene sheets used to line water storage facilities to prevent seepage.

Flighting [Ag Mach] Helicoid screw.

Flighting Assembly [Ag Mach] Flighting shaft with flighting attached.

Flighting Shaft [Ag Mach] Shaft on which flighting is mounted.

Flight of Stairs [Ag Struc] Is a series of steps leading from one landing to another.

Flint Corn [Gen Agri] Refers to corn grains with relatively large amount of hard endosperm on the sides and the inner portion is composed of soft starch.

Flipper [Ag Proc] The can is of normal appearance outside but under very mild positive pressure, even when just struck against the top of the table, it will become convex.

Float - Assist Tiller [Ag Mach] A special type of walking-type agricultural tractor with a front-mounted tilling wheel and equipped with a floatation structure commonly used in waterlogged fields.

Floatation [Ag Mach] The ability of a tractor to resist sinkage in the surface being traversed.

Floatation Structure (Float, Hull) [Ag Mach] Component of float-assist tiller which provides buoyancy for the tiller.

Floating Slab or Raft Foundation [Ag Struc] It consists of a poured concrete floor in which the outer edges are thickened to 20 to 30 cm and reinforced.

Floating Type [Ag Struc] Plant consisting of digester and a moving, floating gasholder that either float directly in the fermenting slurry or in a separate water jacket.

Float-type Water-Stage Recorder [Ag Struc] Refers to the motion of a float that is recorded on a graph.

Float Method [Soil & Water] Measures the velocity of a floating object preferably in a straight section of a stream.

Float Valve [Ag Mach] A valve, actuated by a float in a stand

Flocculation [Ag Struc] In water and wastewater treatment, an operation which promotes the coalescence of suspended particles by increasing contact with each other for the purpose of removal by sedimentation.

Flock [Gen Agri] Group of fowl or sheep.

Flood [Gen Agri] The temporary inundation of normally dry land areas resulting from the overflowing of the natural or artificial confines of a river or other body of water.

Flood Control [Soil & Water] Methods or facilities for controlling flood flows.

Flood Damage [Soil & Water] The economic loss caused by floods, including damage by inundation, erosion, and/or sediment deposition.

Flood Forecasting [Soil & Water] Prediction of stage, discharge, time of occurrence and duration of a flood, especially of peak discharge at a specified point on a stream, resulting from precipitation and/or snowmelt.

Flood Gate [Soil & Water] Mechanical gate to prevent backflow into a closed conduit during high water stages.

Flood Plains [Soil & Water] Lowland and relatively flat areas adjoining inland and coastal waters, including floodprone areas of lands. This land includes, at a minimum, those areas that are subject to a 1 percent or greater chance of flooding in any given year.

Flood Irrigation [Irrig & Drain] Method of irrigation where water is applied to the soil surface without flow controls, such as furrows, borders or corrugations.

Flood Peak [Soil & Water] The highest magnitude of the stage of discharge attained by a flood. Also called peak stage or peak discharge.

Floodplain [Soil & Water] Any normally dry land area that is susceptible to being inundated by water from any natural source.

Floodplain Storage [Soil & Water] Volume of water that spreads out and is temporally stored in a floodplain.

Floodproofing [Soil & Water] Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage.

Flood Routing [Soil & Water] Process of determining stage height, storage volume, and outflow from a reservoir or reach of a stream for a given hydrograph of inflow.

Flood Spillway [Soil & Water] An auxiliary channel to carry a flood flow that exceeds a given design rate to the channel downstream.

Flood Water Retarding Structure [Soil & Water] Barrier across a watercourse usually designed with a restricted outlet of the temporary storage of runoff and release over time.

Floodway [Soil & Water] The channel of a river or stream and those parts of the adjacent floodplain adjoining the channel which are required to carry and discharge the base flood.

Floor Drain [Ag Struc] Waste and/or water outlet, located at the lowest point in a sloped paved floor.

Floor Feeding [Ag Struc] Feeding method in which feed is placed on floor for livestock consumption.

Floor Joist [Ag Struc] Is a structural member of a building that carries the wood flooring.

Floret [Gen Agri] Lemma and palea with included flower.

Floured Corn [Ag Proc] Fine powder by-product of corn milling process.

Flow Refers to the rate of water discharged from a source; expressed in volume with respect to time, e.g. m³/s.

Flowability [Ag Proc] That characteristic of a powder which permit it to flow readily and conforms to the mold cavity.

Flow Augmentation [Soil & Water] The addition of water to a stream especially to meet instream flow needs.

Flow Line [Soil & Water] Lowest level of flow in a conduit or channel.

Flowmeter [Ag Proc] An instrument used to measure the quantity or flow rate of a fluid in motion.

Flow Rate [Gen Eng] Refers to the quantity of fluid in motion per a unit of time. It is expressed in mass per unit time or volume per unit time.

Flue [Ag Struc] A duct or passage for gas or air.

Fluid [Ag Proc] Is a homogenous substance that cannot remain motionless under shearing stress.

Fluidized-Bed Freezer [Ag Proc] A freezer having a perforated base through which an upward flow of cold air suspends the produce, usually of small unit size, and causes it to flow like a liquid.

Fluid Bulk Fertilizer [Gen Agri] Any undivided quantity of liquid fertilizer in large enough volume to be considered a bulk quantity of regulatory authorities.

Fluid Bulk Pesticide (Stationary Bulk Container) [Gen Agri] Any container, mobile or fixed, meeting the volume requirement and duration of time at a facility to be designated a stationary bulk container by regulatory authorities.

Fluid Power [Ag Power] Power transmitted and controlled through the use of fluids, either liquids or gases, under pressure.

Flume [Irrig & Drain] A vertical tube attached to the wall of a bin through which grain can flow.

Flush [Ag Proc] Hydraulic removal of liquid, semi-solid or solid material with the addition of dilution water.

Flush Gutter [Ag Struc] An open or covered gutter where livestock wastes collect and are flushed out periodically by a flow of water with adequate velocity to clean the gutter.

Flushing System [Ag Struc] A system that collects and transports or moves waste material with the use of water such as in washing of pens and flushing confinement livestock system.

Flushing Type, Drain Valve [Soil & Water] Valve on the end of a line for the purpose of flushing out dirt and debris.

Fluted Coulter [Ag Mach] Offsets extend radially inward from the circumference to the blade hub, providing a sinusoidal cutting edge.

Flux [Ag Elec] Lines of force around a magnet.

Flux Density [Ag Elec] Amount of flux per unit cross-sectional area.

Flywheel [Ag Mach] A device for storing energy in order to carry the piston over a compression and to minimize cyclical speed variations.

Foal [Gen Agri] A young horse of either sex below one year of age.

Foaming [Ag Proc] Formation of a foam or froth of oil and refrigerant caused by rapid boiling of the refrigerant dissolved in the oil when pressure is suddenly reduced.

FOB (Free on Board) Prices [Gen Agri] Are prices of an export loaded in the ship or other conveyance that will carry it to foreign buyers.

FOB Destination [Gen Agri] The seller agrees to bear the freight costs of a merchandise. If the seller prepays the carrier, the agreed terms have been met, and no action is required of the buyer than to pay the agreed purchased price of the goods. If the seller does not repay the freight, the buyer will pay the carrier and deducts this payment from the amount owed the seller when making payment for the merchandise purchased.

FOB Shipping Point [Gen Agri] The seller will place the merchandise “free on board” on any means of transport, and the buyer must pay the transportation charges from that point. In most merchandise transactions involving wholesalers or manufacturers, the buyer bears the transportation cost. Sometimes however, the seller prepays the freight and adds this to the amount billed to the buyer.

Fogger [Ag Proc] System of dispersing water in fine droplets to provide evaporation for air cooling.

Fog Nozzle [Ag Mach] A high-capacity pressure atomizer that produces a dispersion of fine droplets.

Foliar Application [Ag Mach] An application of a chemical to the stems, fruit, leaves, or needles of a plant.

Foliar Spray Fertilizer [Gen Agri] Is applied on the upper portion of the plant particularly the leaves. This method is done by dissolving the fertilizer first in water as prescribed and then sprayed to the plants.

Follicle [Gen Agri] A blisterlike, fluid-filled structure in the ovary that contains the egg.

Follicle Stimulating Hormone (FSH) [Gen Agri] A hormone produced and released by the anterior pituitary that stimulates the development of the follicle in the ovary.

Food Additive [Ag Proc] Refers to any substance not normally consumed a food by itself and not normally used as a typical ingredient of the food, whether or not it has nutritive value, the intentional addition of which to food for a technological (including organoleptic) purpose in the manufacture, processing, preparation, treatment, packaging, transport or holding of such food results, or maybe reasonably expected to result (directly or indirectly) in its or its by-products becoming a component of (or otherwise affecting the characteristics of) such food.

Food Chain [Gen Agri] Encompasses the whole process of food production, from the fields of the farmer and the food their animals eat, through to food manufacturing, processing and distribution, all the way to your home.

Food Grain [Gen Agri] Cereal seeds most commonly used for human food, chiefly wheat and rice.

Food Standard [Ag Proc] Is a regulatory guideline that defines the identity of a given food product and specifies the minimum quality factors and, when necessary, the required fill of the container.

Food Waste [Ag Waste] Refers to residual food from residences, institutions or commercial facilities; unused portions of fruit, animal or vegetable material resulting from food production.

Food Web [Gen Agri] The complex intermeshing of individual food chains in an ecosystem.

Foot and Hand Press [Ag Mach] Machines actuated by foot or hand power only, and fitted with rams or dies for purposes of blanking, trimming, drawing, punching, stamping, forming or assembling materials.

Foot Bath [Ag Struc] Liquid container at floor level to wash or disinfect wheel or feet (humans or livestock) as they pass through it.

Foot-candle [Ag Elec] Refers to a light intensity of one lumen over a surface one square foot in area.

Foot-candle [Ag Elec] The unit of illumination when the foot is the unit of length.

Footing [Ag Struc] The support for the foundation wall.

Foot Valve, Drain Valve [Soil & Water] Check valve used to the bottom of the suction pipe to retain the water in the pump when it is not in operation or prevent backflow.

Forage [Gen Agri] Refers to roughage of high feeding value.

Forbs [Gen Agri] Green broadleaf weeds.

Force [Gen Agri] Fracture load applied to the test specimen.

Forced Air Drying [Ag Proc] A wood drying process generally designed to accelerate the evaporation of free water involving the placing of stickered loads or unit packages of lumber or other wood products in a building that is provided with fans to force air movement through the spaces between the courses of wood. Recirculation is attained in the closed building which is designed to confine the air movement. Some provision is often made to heat the recirculated air and ventilation is provided. The dry-bulb temperature is usually less than 120°F.

Forced Circulation Air Cooler [Ag Proc] A cooler that uses a fan blower for positive air circulation.

Force-Deformation Curve [Gen Eng] A graph with values of deformation on the abscissa and values of force on the ordinate.

Forced Outlet [Soil & Water] Basin or box outlet for a pipe drain in which the discharge will fill the basin and flow away over the ground surface.

Forebay [Soil & Water] Reservoir or pond at the intake of a penstock, pipeline, or pump station.

Foreign Materials [Soil & Water] All materials added to or mixed into soil, including residues, soil additives, and foreign bodies that have not originated in the soil's development.

Foreign Matter [Ag Waste] Other things, such as stones, sand chaff, straw, or other seeds, mixed with the paddy or rice.

Foreign Matter (Corn grains/Corn grits) [Ag Waste] Refers to any matter which is not corn grain/corn grits or fragment of corn grain/corn grits.

Foreign Matter (Milled Rice) [Ag Waste] Refers to all matters other than rice grains, rice polishings and paddy, such as weed seeds and other crop seeds.

Foreign Matter (Palay) [Ag Waste] Refers to all matters other than rice grains such as a) sand, gravel, dirt, pebbles, stones, lumps of earth, clay, mud, chaff, straw, and b) other grains like weed seeds and other crop seeds.

Forest Floor [Ag Waste] Litter humus, and organic matter which lies on the mineral soil surface under forest vegetation.

Forestry [Gen Agri] Is the science, art, and practice of managing and protecting tree and forest resources for human benefit.

Form [Ag Struc] Is a temporary boarding, sheathing or pan used to produce the desired shape and size of concrete.

Formulation [Ag Mach] The form of a chemical that is supplied to the user, and which includes both the active and inert ingredients.

Formulation Deposit Rate [Gen Agri] The amount of formulation deposited per unit area.

Formulation Rate [Gen Agri] The amount of chemical formulation applied per unit treated, expressed in terms of mass and volume per relevant unit treated.

Fortified Diet [Gen Agri] Diet formulated to meet all of the livestock known nutrient requirements.

Forward Contracting [Gen Agri] A method of selling crops before harvest by which the buyer agrees to pay a specified price to a grower for a portion, or all, of the grower's crops.

Foundation [Ag Struc] The structural element between the building and the ground.

Foundation Insulation [Ag Struc] Insulation around the foundation of the barn which may be applied by the manufacturer prior to shipment or may be installed at the side.

Founder [Gen Agri] Is a nutritional ailment resulting from overeating. Lameness in front feet with excessive hoof growth usually occurs.

Four-Stroke [Ag Power] Piston requires four movements to complete one cycle.

Four-Stroke Cycle [Ag Mach] Cycle of events which is completed in four strokes of the piston, or two crankshaft revolutions.

Four-Tooth or Two Shear [Gen Agri] Is a two year old sheep.

Four-Wheel Drive [Ag Mach] Type of four-wheel tractor where power is transmitted to rear wheels with small front wheels being pushed along.

Four-Wheel Tractor [Ag Mach] A self-propelled, wheeled vehicle two axles designated to carry, pull or propel agricultural implements and machines.

Fpm [Gen Eng] Abbreviation for feet per minute; one fpm = 0.0051 m/s.

Fractionation [Gen Agri] Refers to any process used in sorting the soil particles into distinct classes according to size.

Fracture Energy [Gen Eng] The energy required to deform a material to the point of fracture.

Fragment [Gen Agri] A small mass of soil produced by a disturbance.

Frame [Ag Mach] Structure on which the gangs are fitted in the discs harrow.

Frame Designation [Ag Mach] Standardized motor mounting and shaft dimensions as established by National Electric Manufacturers Association (NEMA) or International Electrotechnical Commission (IEC).

Frame Lifting/Gauge Wheels [Ag Mach] Wheels which control the height of the main frame of the machine when there is no other provision for the depth control of row-seeding units.

Frame Wall [Ag Struc] Is a wall that is constructed as a frame of relatively small members, usually of timber, at close intervals which together with facing or sheeting on one or both sides form a load-bearing system.

Frame Score [Gen Agri] A numerical rating of frame size.

Frame Size [Gen Agri] A measure of skeletal size. It can be visual or by measurement (usually taken at the hips).

Freeboard [Soil & Water] The vertical distance above the elevation of the hydraulic gradeline at working head to the tops of vents or stand.

Free Carbon [Ag Proc] It is the part of the carbon content of steel or iron that is in the form of graphite or temper carbon.

Free-choice Feeding [Gen Agri] Livestock can choose a diet for themselves from several feedstuffs and nutrient mixtures that are available and libitum.

Free Discharge [Soil & Water] Discharge of water from a conduit into the atmosphere without backpressure.

Free Electrons [Gen Eng] Electrons that are not attached (held) to any atom.

Free Farrowing Stall [Ag Struc] Farrowing stall that allows the sow to enter or leave at will, but confines the pigs within the stall.

Free Flooding [Soil & Water] The area to be irrigated is divided into a number of compartments.

Free Flow [Soil & Water] Flow through or cover over a structure without back pressure.

Freemartin [Gen Agri] Female born as twin with a bull; usually sterile.

Free Stall [Ag Struc] A dairy cattle free stall is a defined area in which a cow may lie down.

Free Water [Soil & Water] See water, free

Free Water Surface [Soil & Water] That level to which water would rise in a hole that penetrates into a saturated soil.

Freewheeling [Gen Eng] A wind generator that is not connected to a load, and in danger of self-destruction from overspeeding.

Freeze Dryer [Ag Proc] An apparatus or system for drying substances by dehydration while freezing progresses.

Freezer Burn [Ag Proc] Damage to frozen produce caused essentially by excessive loss of moisture.

Freezer Storage [Ag Proc] Refers to the storage at temperatures below 30°F employed for holding foodstuffs in the frozen state.

Freezing [Ag Proc] The process of changing a liquid substance or the liquid content of a food or other commodity to a solid state by removing heat.

Freezing Point [Ag Proc] For a particular pressure, the temperature at which a given temperature will solidify or freeze upon removal of heat.

French Drain [Soil & Water] An excavated trench refilled with previous materials, through whose voids water flows toward an outlet.

Freon [Ag Proc] Is a primary refrigerant such as Freon 12 or Freon 22, under the trademark of Freon Products.

Frequency [Ag Elec] Rapidity with which a periodic waveform repeats itself.

Frequency of Storm [Soil & Water] Is an anticipated number of years between storms of equal intensity and/or total rainfall volume.

Fresh Meat [Gen Agri] Is a meat that has not undergone any substantial change from the time of slaughter.

Freshwater [Gen Agri] Refers to all waters that would have a chloride ion content of less than 500 parts per million under natural conditions.

Friability [Gen Agri] Refers to the ease of crumbling of soils.

Friction Fit Insulation [Ag Struc] Batt or blanket insulation with no paper backing, usually mineral fiber, held in place by friction against framing members.

Friction Head [Soil & Water] Equivalent head required to overcome the friction caused by the flow through the pipe and pipe fittings.

Friction Head [Soil & Water] Energy required to overcome friction caused by fluid movement relative to the boundaries of a conduit or containing medium.

Friction Polisher [Ag Proc] Type of whitener using the friction between the rice grains to remove the bran layer.

Friction Process [Ag Proc] A bran removal process that uses the friction between the grains themselves to break and peel off the bran.

Friction Slope [Soil & Water] Friction head loss per unit length of conduit.

Friction Type Whitener [Ag Proc] A type of whitener consisting of a fluted roller rotating inside a hexagonal chamber with slot-type perforations.

Frontal Precipitation [Soil & Water] Results from lifting of warm, moist air on one side of a frontal surface over older, denser air on the other side.

Front Angle [Gen Eng] The angle between an element of the front cone and the plane of rotation.

Front-Mounted [Ag Struc] Mounting of replaceable devices so that they may be individually replaced from the front of an enclosure without removing subpanels or numerous other devices, gaining access to hidden nuts, or removing a rear enclosure cover.

Front-Wired [Ag Struc] Mounting of replaceable devices so that they may be individually wired from the front of an enclosure without removing the device, subpanels, or rear enclosure covers to gain access to electrical connections.

Frost Depth [Soil & Water] The depth to which a soil will freeze.

Frozen Food [Ag Proc] Any food in which the contained water is in solid form.

Fruit [Gen Agri] The ripened pistil or ovary.

Fryer [Gen Agri] Any bird that has developed to a size suitable for frying.

Fuel [Ag Power] Are substance having sufficient carbon or hydrogen for the chemical oxidation to produce, exothermically, worthwhile quantities of heat.

Fuel Consumption [Ag Mach] Volume of fuel consumed by the engine on per hour basis.

Fuel Consumption, Specific [Ag Power] Fuel The fuel consumed by an engine to deliver a given amount of energy (kilograms of fuel per kilowatt-hour)

Fuel Mixture [Ag Mach] A ratio of fuel and air.

Fuel Train [Ag Mach] The fuel train, mounted on the grain dryer structure and connected to the gas burner, includes all piping components of fuel flow control and safety shut-off valves.

Fuel Valve [Ag Mach] A valve admitting fuel to the combustion chamber. In a more general sense, this term may also apply to any manual or automatic valve controlling flow of fuel.

Fuelwood [Ag Power] Obtained as lops and pops from forest harvesting as dead wood, fallen branches, twigs, as byproducts or wood-based industries or as surplus of non-commercial wood derived from land clearing to be used as fuel.

Full-Cell Process [Ag Proc] A process of impregnating wood with preservative in which a vacuum is drained to remove air from wood before admitting the preservative.

Full Grain Paddy [Ag Proc] Natural and whole paddy.

Full Irrigation [Irrig & Drain] Management of water application to fully replace the soil water deficiency over an entire field.

Full-load Torque [Ag Mach] Refers to the torque output at rated speed.

Full Voltage Starting [Ag Elec] Motor started on full line voltage with no provision for restricting the starting current.

Fully Equipped Engine [Ag Mach] Engine equipped with all the accessories necessary to perform its intended functions such as air cleaner, exhaust system, radiator, generator, starter and related parts.

Flume [Irrig & Drain] A vertical tube attached to the wall of a bin through which grain can flow.

Fumigation [Ag Proc] The process of using chemicals to control insects in the grain.

Functional [Ag Mach] Ratio of the actual effectiveness of a machine to its theoretical effectiveness, expressed in percent.

Functional Component [Ag Mach] A working mechanism of an attachment or implement designed to perform a specific task, such as the rotary blades of rotary mowers or the reel and the shear bar of reel mowers.

Functional Intermediaries [Gen Agri] Are those who, unlike merchants, do not assume ownership of the products sold.

Fungicide [Gen Agri] A chemical applied to seeds or plants to protect from disease.

Fungus [Gen Agri] Is a group of plants that causes most plant diseases. They are nucleated, spore-bearing, non-chlorophyll organism which generally reproduces sexually and asexually and its filamentous structures are surrounded by cell walls containing cellulose or chitin or both.

Funnel Flow [Ag Proc] Flow from a bin which all grain movement occurs through a central core with no movement along the bin wall.

Funnel Flow Hopper [Ag Mach] A hopper in which a flow channel is formed within the stagnant grain.

Furling [Gen Eng] It is the act of a wind generator yawing out of the wind either horizontally or vertically to protect itself from high wind speeds.

Furling Tail [Gen Eng] A wind generator protection mechanism where the rotor shaft axis is offset horizontally from the yaw axis, and the tail boom is both offset horizontally and hinged diagonally, thus allowing the tail to fold up and in during high winds. This causes the blades to turn out of the wind, protecting the machine.

Furrow [Ag Mach] A trench in the soil made by a tillage tool: Trench left when the plow bottom cuts and turns the furrow slice.

Furrow Crown [Ag Mach] Peak of the turned furrow slice.

Furrow Depth (Ditch, Pit, Trench) [Ag Mach] Depth of depression below a specified (initial or subsequent) soil surface.

Furrow Dike [Ag Mach] A mound of soil mechanically placed across a furrow to form a small basin or impoundment.

Furrow Diking [Irrig & Drain] Water-saving agricultural irrigation practice in which a long, narrow groove or trench is made in the earth by a plow. The dike is usually placed at one end of the field to collect runoff.

Furrow Irrigation [Irrig & Drain] Method of surface irrigation where the water is supplied to small ditches or furrows for guiding across the field.

Furrow Slice [Ag Mach] Soil mass cut, lifted, pulverized, inverted and thrown to one side of the plow bottom.

Furrow Wall [Ag Mach] Undisturbed or broken side of the furrow.

Fuse [Ag Elec] Device which protects a circuit from excessive currents.

Fusion [Ag Proc] Or melting, is the change of phase from solid to liquid.

Futures Contract [Gen Agri] An agreement between two people, one who sells and agrees to deliver and one who buys and agrees to receive a certain kind, quality, and quantity of product to be delivered during a specified delivery month at a specified price.

G

Gabion [Soil & Water] Rectangular or cylindrical wire mesh cage filled with rock for protecting aprons, stream banks, shorelines, etc., against erosion.

Gable [Ag Struc] Vertical triangular (or gothic-shaped) portion of a building end wall.

Gable Roof [Ag Struc] Is one of the most universally used roof shapes on farm buildings. This type of roof is commonly seen on two-story poultry houses, dairy barns, and single-story buildings that are too wide for shed type of roof.

Gage Pressure [Gen Eng] Is measured above existing atmospheric pressure. It is the excess of the absolute pressure over the atmospheric pressure.

Gaining Stream [Soil & Water] Stream or part of a stream that has an increase in flow because of inflow from ground water.

Gait [Gen Agri] Refers to the way of going of the animal, in which the movements are regular and distinctively profound or performed.

Gallery [Soil & Water] Underground chamber constructed for collection of ground water.

Gallop [Gen Agri] A three-beat gait of the horse in which each of the two front feet and both of the hind feet strike the ground at different times.

Galvanealed Sheets [Gen Eng] Are freshly galvanized sheets kept hot for a few minutes to allow the zinc to actually mix or alloy with the steel giving the sheet a smooth, even and non-spangled appearance. Galvanealed metal does not crack nor peel regardless of how severe the conditions the sheet will be exposed to. The gauges and sizes of galvanealed sheets are similar to GI or BI sheets.

Galvanized Commercial Quality [Gen Eng] Sheet or coil which is intended for lock-seaming and other similar applications and have better formability than commercial quality.

Galvanized Drawing Quality [Gen Eng] Sheet or coil which is intended for drawing or severe forming but excluding deep drawing.

Galvanized Sheets (GI) [Gen Eng] Are steel sheets coated with a thin layer of zinc on the surface. Sizes are the same as those for black iron sheet. Galvanized sheets are used for garbage cans, funnels, gutters, roofing, air ducts, and other jobs that need to stand well against corrosive conditions.

Galvanized Steel Sheet [Gen Eng] Galvanized flat or corrugated metal product cut to the standard or specified length and has a nominal base

metal thickness ranging from 0.20 mm to 1.6 mm and a flat width of 760 mm to 1220 mm.

Gambrel [Ag Struc] Symmetrical roof with two or more slopes on each side of the ridge, the lower slopes being steeper than the upper slopes.

Gambrel Roof [Ag Struc] Is used to gain more space for the overhead storage of hay and feed. This roof is common sight on two-story dairy barns and other livestock shelters where overhead storage of hay is desired.

Gamma Density Function [Soil & Water] It so far gives the best fit for most stations for 1-week, 2-week, 3-week and monthly rainfall totals of the country.

Gamete [Gen Agri] A haploid cell or nucleus that may unite with another gamete to produce a zygote, the process of sexual fertilization.

Gametophyte [Gen Agri] The spore that, as a result of mitosis, ultimately produces the male and female gametes or nuclei.

Gander [Gen Agri] Is a breeding male goose.

Gang [Ag Mach] Set of concave discs, which is mounted on a common shaft and separated by a spool.

Gang Angle [Ag Mach] Angle between the axis of gang and the line perpendicular to the direction of motion.

Gang Angling Mechanism [Ag Mach] Mechanism by which the gang angles are adjusted.

Gang Axle [Ag Mach] A shaft on which a set of concave disc are fitted.

Garden Ride-On Tractor [Ag Mach] A self-propelled machine, designed and advertised for general purpose garden work.

Gas [Ag Power] Any fluid, combustible or noncombustible, produced in a natural state from the earth and that which maintains a gaseous or rarified state at ordinary temperature and pressure conditions.

Gas Chamber [Ag Power] Space inside or outside the digester for the collection of biogas.

Gasket [Ag Mach] A layer of material used between machined surfaces in order to seal them against leakage.

Gas Holder Retainer [Ag Struc] Cantilever beam that holds the gasholder/movable cover in position at the desired biogas pressure.

Gasification [Ag Power] The transformation of organic materials into gas through biological or physical processes.

Gas Production Rate [Ag Struc] Amount of biogas produced per day per cubic meter of slurry.

Gas Trap [Ag Struc] U- and J-shaped plumbing device to pass liquids, but hold enough liquid to prevent the flow of gas.

Gate [Soil & Water] A device used to control the flow of water to, from or in a pipeline; A device used to control the flow of water to, from, or in a pipeline, or open channel. It may be opened and closed by screw action, slide action, or hydraulic or pneumatic actuators.

Gated Pipe [Soil & Water] Portable pipe with small gates installed along one side for distributing irrigation water to corrugations or furrows.

Gate Valve [Soil & Water] A common type of manually operated valve in which a sliding gate is used to obstruct the flow of fluid.

Gathering Loss [Ag Proc] The weight of grain and unthreshed grain that has been missed or drop by the header or pick-up expressed as a percent of the sum of the grain feed rate and gathering loss feed rate.

Gathering Width [Ag Mach] The distance between the centerlines of the uttermost divider points, expressed in meters to the nearest hundredth.

Gauge [Ag Proc] An instrument for measuring pressure flow level or temperature.

Gauge Height (Surveying) [Gen Eng] The vertical distance from the sight bar, batter board or receiver to the bottom of the finished cut.

Gauge Height (Hydraulics) [Soil & Water] Elevation of a water surface measured by a gauge.

Gauge Pressure [Ag Proc] Pressure above atmospheric pressure.

Gauge Rod [Ag Proc] A graduated measuring device designed to be immersed in the product to establish the liquid level.

Gauging Station [Soil & Water] Section in a stream channel equipped with a gauge or facilities for obtaining stream flow data.

Gauss [Gen Eng] A unit of magnetic induction, equal to 1 Maxwell per square centimeter.

Gearing [Gen Eng] Using a mechanical system of gears or belts and pulleys to increase or decrease shaft speed. Power losses from friction are inherent in any gearing system.

Gears [Ag Mach] Are machine elements that transmit motion by means of successively engaging teeth.

Gear Tooth [Ag Mach] Each of the projecting parts of a gear which is intended to ensure, by contact with the teeth of another gear, that one gear turns the other.

Gear-Type Pump [Ag Mach] A pump which uses the spaces between the adjacent teeth of gears for moving the liquid.

Gelatinization [Ag Proc] The process by which starch granules change to a jelly-like form, and fill the voids in the grains and cement the fission together.

Gelatinization Temperature [Ag Proc] The temperature at which gelatinization takes place. It is between 55 and 75 degrees centigrade, depending on variety.

Gelding [Gen Agri] A horse castrated while young.

Geld Mare [Gen Agri] A dry mate, which has not produced any young during the breeding season.

Gene [Gen Agri] May be defined as a segment of the deoxyribonucleic acid (DNA) which determines the base sequence of a nucleotide in the messenger ribonucleic acid (m-RNA) that makes up the code for a certain biological function.

General Agreement on Tariffs and Trade (GATT) [Gen Agri] An agreement originally negotiated in 1947 to increase international trade by reducing tariffs and other trade barriers. The agreement provides a code of conduct for international commerce and a framework for periodic multilateral negotiations on trade liberalization and expansion.

General Lighting [Ag Elec] Lighting designed to provide a uniform level of illumination throughout the area involved.

General-Purpose Tillage Implement [Ag Mach] Implement performing functions simultaneously that of initial cutting, breaking and pulverizing the soil.

Generator [Ag Elec] An electromagnetic device used to generate electricity.

Genetically Modified Foods [Gen Agri] Refer to any food containing parts of genetically modified plants, animals or micro-organisms.

Genetically Modified Organism [Gen Agri] Abbreviated as GMO. Is any plant, animal, microorganism or virus which has been genetically engineered or modified.

Genetic Engineering [Gen Agri] Is the deliberate modification of the characteristics of an organism by manipulating its genetic material (DNA/genes).

Genetics [Gen Agri] The science or study of inheritance.

Genome [Gen Agri] All the genetic material in the chromosomes of a particular organism.

Genotype [Gen Agri] Is the genetic makeup of an individual.

Geographic Information System (GIS) [Gen Agri] Is a computerized database system containing information on natural resources and other factors that can be analyzed and displayed in spatial or map format.

Geological Erosion [Soil & Water] The normal or natural erosion caused by geological processes acting over long geological periods.

Geothermal Resource [Ag Power] All geothermal fluids consisting naturally or formed by the artificial introduction of fluids into naturally hot

formulations, heat energy ion the energy, and any by-products derived from these.

Geotropic [Gen Agri] Refers to the turning downward in response to a stimulus caused by the force of gravity.

Germ [Ag Proc] Embryo of the kernel removed during the milling or degermination process.

Germ Cell [Gen Agri] Is a cell capable of production or of sharing in reproduction.

Germination [Gen Agri] Refers to the sequences of events occurring in a viable seed, starting with the inhibition of water that leads to the growth and development of an embryo.

Gestation [Gen Agri] Period between conception and birth.

Gestation Period [Gen Agri] Period between the time of fertilization till delivery.

Gestation Stall [Ag Struc] Individual stall in which pregnant sow is held during gestation.

Gibberelins [Gen Agri] A group of hormones that contribute to the increase in cell size, fruit size, and fruit yield, among other effects.

Gilt [Gen Agri] A young pig of either sex weighing approximately 60 kg.

Girder [Ag Struc] Horizontal framing member in a building framework between columns or vertical posts.

Girts [Ag Struc] Longitudinal members of the framework used to support the glazing materials on the walls.

Glacier [Gen Agri] A large mass of ice that moves slowly over the surface of the ground or down a valley. They originate in snowfields and terminate at lower elevations in a warmer environment where they melt.

Glare [Ag Elec] The effect of brightness or brightness differences within the visual field sufficiently high to cause annoyance, discomfort, or loss in visual performance.

Glazing [Ag Struc] The transparent or translucent covering of a greenhouse; e.g., glass, polyethylene, fiberglass, etc.

Glossy [Ag Struc] Property of wood that enables it to reflect light or sheen.

Glycolysis [Gen Agri] Is a respiratory process in which glucose is converted anaerobically into lactate or pyruvate with a net gain of two molecules of ATP.

Godown [Ag Proc] A warehouse used for storing paddy or rice, either in bulk or bag.

Gomer Bull [Gen Agri] Male bovine with separated testicles that is used with a marker chalk to identify cows in estrus to be artificially inseminated.

Goose [Gen Agri] Is a breeding female goose.

Gosling [Gen Agri] A baby goose.

Governor [Ag Mach] A device for controlling the speed of a prime mover.

Grace Period [Gen Agri] In credit transaction, it refers to a period during which a borrower need not repay the principal and, sometimes, the interest.

Grade [Gen Agri] Refers to the domestic animals produced by crossbreeding, wherein one of the parents is of purebred stock (usually the sire) and the other parent, and ordinary stock.

Grade A Milk [Gen Agri] Milk, also referred to as fluid grade, produced under sanitary conditions that qualify it for fluid (beverage) consumption.

Grade B Milk [Gen Agri] Milk, also referred to as manufacturing grade, not meeting Grade A standards. Less stringent standards generally apply.

Grade Breaker [Ag Mach] A special mechanical device attached to an earthmoving machine to change the normal grade line.

Grade Control [Soil & Water] The process of maintaining constant and correct slope of a trench, ditch, terrace, canal, etc., using optical or laser surveying equipment.

Grade Line [Soil & Water] A line established as a construction reference for ditches, terraces, etc.

Grade Number [Gen Agri] Is a designation indicating the quality of rice and corn commodity determined with reference to its acquired characteristics (i.e. Premium, Grade No. 1, 2 and 3).

Grade No. 1 [Gen Agri] Refers to any rice and corn variety which meet the second highest grade requirements for rice and corn as set forth in the herein prescribed national standards.

Grade No. 2 [Gen Agri] Refers to any rice and corn variety which is lower in quality than Grade No. 1 but higher in quality than Grade No. 3, based on the grade requirements set forth in the herein prescribed national standards.

Grade No. 3 [Gen Agri] Refers to any rice and corn variety which meet the lowest grade requirements for rice and corn as set forth in the herein prescribed national standards.

Grade Stabilizing Structure [Soil & Water] A structure used to control the bottom grade of a channel.

Graded Terrace [Soil & Water] A terrace with sloping channel, constructed to reduce field slope length and remove runoff, with erosion control as the primary objective.

Gradient, Moisture [Ag Proc] In lumber drying, the differences in moisture content within the wood. During drying, the differences are between the low moisture content, the relatively dry surface layers and the higher moisture content at the center of the piece.

Grading [Ag Proc] The separation of broken rice grain from unbroken rice grain, and separation of broken into different sizes.

Grading Up [Soil & Water] Is the continued use of pure breed sires on grade dams.

Gradually Varied Flow [[Soil & Water] Is a type of flow if the depth changes smoothly over a distance.

Grafting A [Gen Agri] method of asexual propagation involving the transfer of aerial parts of one plant (scion) to the root or trunk material (stock) of another plant.

Grain [Gen Agri] A karyopsis, a collective term for the cereals.

Grain [Gen Agri] Refers to the arrangement, direction, or alignment of elements particularly fibers and vessels in wood or lumber. Under fiber direction, the specific terms are: Cross-grained, Diagonal-grained, Interlocked-grain, and Straight-grained.

Grain Bin [Ag Proc] A structure for the storage of grain.

Grain damage For the purposes of this Standard, grain damage refers only to that attribute to the machine.

Grain Dryer [Ag Proc] Device for removing excess moisture from the grain, generally by forced or natural convection with or without adding of heat.

Grain Feed Rate [Ag Proc] The weight of grain, including processing loss, passing through the combine per unit of time expressed in metric tons per hour (include leakage loss, if measured).

Grain Header Width [Ag Proc] The distance between the side sheets of the header measured immediately above the forward tips of the sickle sections.

Grain Holding Capacity (Load capacity) [Ag Proc] In continuous flow dryer, it is the weight of grain in the dryer after a period of stable operation; In batch type dryer it is the weight of grain required to fill the dryer at the input moisture content.

Grain Losses [Ag Mach] It include all losses attributable to the machine.

Grain Mixture [Ag Proc] The whole material received at main grain outlet of a machine which includes whole grain, damaged grain and foreign material.

Grain Output Capacity [Ag Mach] The maximum sustained rate of grain discharged from combine's clean grain elevator at which the

processing loss level, with the combine in field operation on level ground.

Grain Ratio [Ag Mach] Ratio of grain to harvested crop by weight under the same moisture content of straw as grain.

Grain Seeder [Ag Mach] Planting equipment used to deposit seeds in the soil for food production.

Grain-Straw Ratio [Ag Mach] The ratio of the weight of the grains present in the panicle to the total weight of the grain and straw in the same sample.

Granular applicator [Ag Mach] An apparatus consisting of a hopper, a metering device and a device directing the granules to the specific target area.

Granular Flow [Ag Mach] A type of granular applicator that uses an adjustable orifice to regulate flow rate and an agitator that assures constant delivery of granules to an adjustable orifice and prevents flow when operation stops.

Granule Flow Rate [Ag Mach] Mass of granules flowing from a metering device per unit time, expressed in terms of mass per unit time (kg/min, lb/min).

Granular Applicator [Ag Mach] An apparatus consisting of a hopper, a metering device, and a device directing the granules to the specific target area such as a row, bank, bed, or base of plants.

Grassed Infiltration Area [Soil & Water] An area with vegetative cover where runoff water infiltrates into the soil.

Grassed Waterways [Soil & Water] Refers to the establishment of natural waterways or construction of canals and planting it with grasses to make it stable and arrest soil erosion.

Grate [Ag Proc] A frame for holding fuel.

Grate (grating) [Ag Struc] Parallel bars or grill over an opening, gutter or other receptacle, designed to pass liquids, grain and/or manure solids but not trash and to support animals, vehicles or persons.

Grated Inlet [Soil & Water] A specific type of surface inlet to a pipe drain projected with a grate.

Gravel Filter [Sil & Water] 1) Graded sand and gravel aggregates placed around a subsurface drain (called a gravel envelope). 2) Well screen to prevent the infiltration of fine materials into the drain or well.

Gravitational Water [Soil & Water] Is not held by the soil but drains under the influence of gravity.

Gravity Drain Gutter [Ag Struc] Any gutter designed and operated to improve livestock waste removal by periodic draining with little or no flushing or washing.

Gravity Flow [Ag Mach] A type of granular applicator that uses an adjustable orifice to regulate flow rate.

Gravity hopper [Ag Mach] Device for receiving and directing material into the rotating flighting without power driven components.

Gravity Inlet [Soil & Water] A structure to control the flow of water from an open conduit into a pipeline.

Gravity Separation Systems [Ag Struc] Structures which utilize gravity to collect more dense particulate solids by allowing them to settle out of highly liquid manure.

Gray Soil [Gen Agri] The color is due to the poor organic matter or very low iron content, gray soil is either low in fertility, poor in drainage or both.

Gray Water [Gen Agri] Domestic wastewater composed of washwater from kitchen sinks, bathroom sinks and tubs, clothes washers, and laundry tubs.

Green [Gen Agri] Unseasoned lumber or other wood products containing free water in the cell cavities.

Greenbelt [Gen Agri] A strip of land kept in its natural state or in agricultural use to break up the continuous pattern of urban development.

Green Hams [Gen Agri] Are unsmoked cured hams.

Greenhouse [Ag structure that provide a enclosure within which environment favorable can be attained.

Greenhouse Effect warming of the earth's caused by a build-up of or other trace gases.

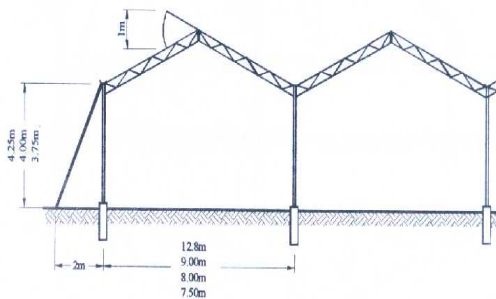
Greenhouse, Ridge and Furrow [Ag Struc] A method of greenhouse construction where modular roof units are connected at the eave by common gutter.

Green Lumber [Ag Struc] Refers to freshly cut lumber with MC above FSP.

Green Manure [Ag Waste] Is a crop that is plowed under while still green and growing to improve the soil fertility.

Green Offal [Gen Agri] Digestive tract of ruminants such as the stomach, or the intestines which still contain fecal matter.

Green Sets [Gen Agri] Young onion plant for transplanting.



[Ag Struc] A reliable an to plant growth

[Ag Struc] The atmosphere carbon dioxide

Green Waste [Ag Waste] Portion of the municipal waste stream consisting of grass clippings, tree trimmings and other vegetative matter.

Grey Water [Ag Waste] Refers to the wastewater other than sewage, such as sink or washing machine drainage.

Grid [Ag Elec] The electrical system of interconnected transmission lines, substations and generating plants of the National Power Corporation (NPC), or the concerned electric utility as the case may be.

Gridiron System [Irrig & Drain] Is an arrangement of a drainage system where parallel laterals enter a main on one side only.

Grid-Point Method [Soil & Water] Is a computer aided method wherein it averages estimated precipitation at all points of a superimposed grid.

Grinder [Ag Mach] It removes metal by abrasive action. They are used to sharpen tools, shape metals, prepare metals for welding, and remove undesirable metals.

Grinding Machine [Ag Mach] A machine tool in which an abrasive wheel is used as a cutting tool to obtain a very high degree of accuracy and a smooth finish on metal parts.

Gross [Gen Agri] The value received for a service or product before expenses are deducted.

Gross Area of a Collector Section [Gen Agri] If only a collection of a collector is being tested, then the gross area of the section shall include a proportional share of the area of all supports and partitions of the entire collector.

Gross Collector Area [Gen Agri] The area obtained by multiplying the width by the length of the outside of the collector.

Gross Diversion Requirement [Irrig & Drain] The total quantity of water diverted from a stream, lake, or reservoir, or removed from the ground in order to irrigate a crop.

Ground [Ag Elec] A conducting connection whether intentional or accidental between an electrical circuit or equipment and the earth, or to some conducting body that serves in place of the earth.

Ground Clearance [Ag Mach] Minimum vertical distance between the soil surface and a potentially obstructing machine element.

Ground-Driven Components [Gen Eng] Components which are powered by the forward or the rearward motion of equipment traveling over the ground.

Grounded [Gen Eng] Connected to earth or some conducting body that serves in place of the earth.

Grounded Conductor [Gen Eng] A circuit conductor which is intentionally grounded.

Ground Fault Circuit Interrupter, GFCI [Gen Eng] A device intended for the protection of personnel that functions to de-energize a circuit or portion thereof within an established period of time when a current to ground exceeds some predetermined value that is less than that required to operate the over-current protective device of supply circuit.

Grounding Conductor [Gen Eng] A conductor used to connect equipment or the grounded circuit of a wiring system to a grounding electrode.

Grounding Electrode Conductor [Gen Eng] The conductor used to connect the grounding electrode to the equipment grounding conductor and/or to the grounded conductor of the circuit at the service equipment or at the source of a separately derived system.

Grounds Maintenance [Gen Agri] The mowing, grooming and general care of non-home lawns and grounds, such as industrial parks, schools, cemeteries, and golf courses.

Grounds Maintenance Tractor [Ag Mach] A self-propelled machine, designed and advertised for general purpose grounds maintenance work.

Groundwater [Soil & Water] Water within the earth that supplies wells and springs.

Groundwater Flow [Soil & Water] Refers to the flow of water in an aquifer or soil. That portion of the discharge of a stream that is derived from ground water.

Groundwater Mining [Soil & Water] Pumping of ground water, for irrigation or other uses at rates, significantly faster than the rate which the ground water is being recharged.

Groundwater Recharge [Soil & Water] Refers to the inflow to an aquifer.

Groundwater Runoff [Soil & Water] Is a groundwater discharge into a stream due to deep percolation of the infiltrated water into groundwater aquifers.

Grouser [Ag Mach] The portion of the track or belt that extends into the soil for the purpose of developing traction. Used interchangeably with lug and cleat.

Grout [Ag Proc] A specially formulated mortar.

Grower [Gen Agri] Swine from 40 to 65 kg.

Growing Season [Gen Agri] The portion of the year when soil temperatures are above biologic zero 41°F (4—C) as defined by "Soil Taxonomy".

Growth [Gen Agri] Is an irreversible increase in cell size or cell number.

Guard [Gen Agri] A protective device designed and fitted to minimize the possibility of inadvertent contact with machinery hazards, as well as to restrict access to other hazardous areas.

Guarded [Ag Struc] Shielded fenced, or otherwise protected by means of suitable deterrent, or by nature of location so as to remove foreseeable risk of personal injury from accidental contact or approach.

Guarded by Location [Ag Struc] Moving parts are so protected by their location with reference to frame, foundation, or structure as to remove the foreseeable risk of accidental contact by persons or objects.

Guarded Not Possible [Gen Agri] Wherever conditions prevail which of guarded would render the auger unusable.

Guarded Soil [Ag Proc] Air discharge opening from the duct designed such that potatoes do not block the opening or restrict the open area.

Guarding by Location [Ag Mach] A hazard is guarded by location when it is guarded by other parts or components of the machine that are not themselves guards, or when the hazard is beyond the safety distance.

Gully [Irrig & Drain] A shallow steep-sided valley that may occur naturally or be formed by accelerated erosion.

Gully Erosion [Irrig & Drain] The erosion process whereby water accumulates in narrow channels and, over short periods, removes the soil from this narrow area to considerable depths, ranging from 0.5 m (1.6 ft) to as much as 30 m (97 ft.).

Gully Head Advance [Irrig & Drain] Upstream migration of the upper end of a gully.

Gusset [Ag Struc] Plate or bracket for reinforcing over/around a building framework joint.

Gutter [Ag Struc] Open or covered trench for collection and flow of liquids or wastes. If used for wastewater, it is usually lined with concrete, plastic, fiberglass or tile.

Gutter Cleaner [Ag Struc] Mechanical conveyor gutter for removing manure from a barn.

Gutter-Connected Greenhouse [Ag Struc] A series of two or more single span greenhouses joined together at the eave by a drain gutter.

Guy Anchor [Gen Eng] Attaches tower guy wires securely to the earth.

Guy Radius [Gen Eng] The distance between a wind turbine tower and the guy anchors.

Guy Wire [Gen Eng] A Vertical Axis Wind Turbine design.

Gypsum Block [Ag Elec] An electrical resistance block in which the absorbent material is gypsum.

H

H-Rotor [Gen Eng] A Vertical Axis Wind Turbine design.

Habitat [Gen Agri] The native environment where a plant or animal naturally grows or lives.

Half Monitor [Ag Struc] Unequal sloped roofs with a short, vertical wall directly beneath the ridge that joins the roof slopes together.

Half Section [Ag Struc] Cross section of one half of a symmetrical building.

Hammermill [Ag Mach] A machine using rotating or flailing hammers to grind material as it falls through the machine or rests on a stationary metal surface.

Hand Feeding [Gen Agri] Feed is manually delivered to livestock at each meal.

Handmating [Gen Agri] Same as hand breeding— bringing a female to a male for service (breeding), after which she is removed from the area where the male is located.

Handrail [Ag Struc] A single bar or pipe supported on brackets from a wall partition, or vertical supports to provide a continuous handhold for persons using a stair or catwalk.

Haploid [Gen Agri] Is used in reference to either a nucleus or an entire organism in which only one member of each set of homologous chromosomes is present.

Hardboard [Ag Struc] Is made by “exploding” wood chips into wood fivers and then forming them into panels under heat and pressure.

Hard Drawn [Gen Eng] Is a temper produced in a wire, rod, or tube by cold drawing.

Hardening [Ag Mach] The process of heating a piece of steel to a temperature within or above its critical range and then cooling it rapidly.

Hardpan [Ag Struc] A horizon cemented with organic matter, silica, sesquioxides, or calcium carbonate. Hardness or rigidity is maintained when wet or dry and samples do not slake in water.

Hardpan [Gen Agri] A hardened soil layer, in the lower A or B horizon, caused by cementation of soil particles.

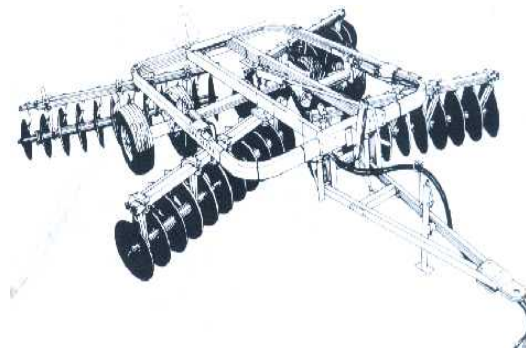
Hardness [Ag Mach] Refers to the ability of a material to resist penetration by another substance.

Hardness of Grain [Ag Proc] The compressive strength of a full head, uncracked and hand-husked, brown rice as measured by a hardness tester.

Hard Wiring [Ag Mach] Permanently installed wiring on a self-propelled machine that connects with and works in concert with permanently installed wiring and lighting on attached implements.

Hardwood [Ag Struc] Is a type of plywood which is used for paneling and finishing where usually only one face is with hardwood finish.

Harrows [Ag Mach] implements used for preparation and in surfaces cultivation planted and before emerges.



Tillage
seedbed
some cases light
after the seed is
or after the crop

Harrowing [Ag secondary tillage commonly used

which pulverizes, smooth, and firms the soil; Operation which pulverizes, smoothens, and makes the soil ready for planting.

Mach] A
operation
before seeding

Harsh [Gen Agri] A form of soil consistency that is characterized by hardness.

Harvester, Combine [Ag Mach] A machine that is used to gather matured crops and at the same time thresh it ready for drying.

Harvest Residue [Ag Mach] Material other than grain discharged from the combine including weed seed.

Hatchery [Ag Struc] Controlled environment building for hatching eggs.

HAWT [Gen Eng] Horizontal Axis Wind Turbine.

Hay [Gen Agri] Harvested forage such as alfalfa hay.

Haylage [Ag Waste] Low moisture silage (35-55% moisture).

Hazard [Gen Agri] A source of potential injury to a person.

Hazardous Waste [Ag Waste] Waste that possess a risk to human health or the environment and requires special disposal techniques to make it harmless or less dangerous.

Head [Soil & Water] The energy in the liquid system expressed as the equivalent height of a water column above a given datum; Quantity used to express a form of energy content of the liquid per unit weight of the liquid referred to any arbitrary datum.

Head Ditch [Soil & Water] Ditch across the upper end of a field used for distributing water in the surface irrigation.

Head Drive or Top Drive [Ag Mach] When final drive location is at the discharge end.

Header [Ag Mach] The portion of the combine comprising the mechanisms for gathering the crop.

Head Gate [Sil & Water] Water control structure at the entrance to a conduit or canal. [Ag Struc] Locking device to secure an animal at the neck, usually in a sorting alley or on a squeeze chute, for purposes of examination and/or treatment.

Headlamps [Ag Elec] A non-interruptible white colored light source used to illuminate the path of travel of equipment for operators, and identify moving equipment for oncoming traffic on public roads.

Head Works [Soil & Water] Diversion structures at the upper end of a conduit or canal.

Head Grain Recovery [Ag Proc] This is the weight of head rice obtained in a milling operation expressed as a percentage of the original paddy weight.

Headhouse [Ag Struc] A building, attached to greenhouse or free-standing, used as a work and storage area.

Head Land [Ag Mach] Unplowed soil at the end of the furrow strip.

Head Loss [Soil & Water] Energy loss in fluid flow.

Head Milled Rice Recovery [Ag Proc] The percentage mass of head milled rice recovered from the mass of the corresponding input paddy to the rice whitener.

Head Milled Rice Recovery Index [Ag Proc] Is the ratio of head milled rice recovery from the test rice mill too that from the laboratory whitener.

Headrail [Ag Struc] A horizontal member across the front of a freestall to help position an animal and to aid in keeping manure out of the stall area.

Head Rice [Ag Proc] The kernels of milled rice which are $\frac{3}{4}$ kernel size or larger: Grain or a fraction of grain with its length equal to or greater than eight-tenth ($\frac{8}{10}$) of the average length of the whole grain.

Head Rice Grain [Ag Proc] Is a rice particle with a length of $\frac{6}{8}$ or more of the length of the whole unbroken milled rice kernel.

Head stub shaft connector between flighting assembly and head drive or head bearing.

Headwater [Soil & Water] Water upstream from a structure; Source of a stream.

Head Works [Soil & Water] Diversion structures at the upper end of a conduit or canal.

Head Yield [Ag Proc] The amount of head rice which obtained when paddy is milled; It is the total rice less the broken.

Heart [Gen Agri] The central portion of a log including the pith and adjacent wood.

Heart Check [Gen Agri] A check that extends in a radial direction from the pith toward, but not to the surface of a piece of wood.

Heartgirth [Gen Agri] Is the circumference of the body of an animal behind the shoulders.

Heartwood [Gen Agri] The inner core of a woody stem, wholly composed of non-living cells and usually differentiated from the outer enveloping layer by its darker color. This is the wood extending from the pith to the sapwood, the cells of which are not dead.

Heat [Ag Power] A form of energy that is exchanged between a system and its environment or between parts of the system, induced by a temperature difference existing between them; Is the energy in transition from one body to another solely because of temperature difference between the systems.

Heat Balance [Ag Struc] The difference between the heat gained within the building and all the heat lost from the building.

Heat Capacity or Specific Heat [Ag Proc] Refers to the ratio of the heat capacities of the material to that of water.

Heat Damaged Grains/Grits [Ag Proc] Refer to grains or pieces of grains/grits of corn which are materially discolored and damaged by external heat or a result of heating caused by fermentation.

Heated-Air Mechanical Grain Dryer [Ag Proc] Device used to remove grain moisture by forcing heated air through the grain mass until the desired moisture content is attained.

Heated Floor [Ag Struc] Floor having some means for being heated from within—usually warm water pipes or electric cable.

Heat Exchanger [Ag Proc] A device used to cool by transferring heat; A device to transfer heat between two physically separated fluids or gases.

Heater Mat [Ag Struc] An electrically heated wire mesh or heated liquid network embedded in a cold store floor to prevent freezing of water which may be in the soil below.

Heating [Ag Struc] Addition of heat to the interior of the building from any source including the sun.

Heating System Efficiency [Ag Proc] Product of combustion efficiency and burner/furnace efficiency.

Heating Value [Ag Power] Amount of heat produced by burning one pound of fuel.

Heat Lamp [Ag Elec] An electric light used to provide radiant heat to newborn animals or to heat an object.

Heat Loss [Ag Struc] Common term that refers to gross loss of heat from livestock or a building through surfaces and openings.

Heat of Conduction [Ag Struc] Quantity of heat that will pass in a unit time through a unit area of a specified thickness of material under a unit temperature.

Heat or Respiration [Ag Proc] Is the quantity of heat that will pass, in unit time through a unit area of a specified thickness of material under a unit temperature difference.

Heat Pad [Gen Agri] A device used to conduct (by direct contact) heat, usually some type of newborn animal.

Heat Pipe [Ag Proc] A tubular closed chamber containing a volatile fluid.

Heat Production [Gen Agri] Heat released during metabolism.

Heat Rate [Ag Power] A measure of generating station thermal efficiency, generally expressed as British Thermal Unit (BTU) per kilowatt-hour (KWh). It is computed by dividing the total BTU content of the fuel burned (or the heat released from a nuclear reactor) by the resulting KWh generated.

Heat Sink [Gen Eng] Is the object or location that is at a lower temperature than the source and receives the energy from the source.

Heat Source [Gen Eng] Is the object or location that is at a higher temperature than objects or locations.

Heat Transfer [Gen Eng] The movement of energy as heat moving from a heat source to a heat sink.

Heat Transfer Coefficient [Gen Eng] A proportionality constant in the heat transfer equation derived from the conditions of the fluid motion, the tube surface geometry, and other thermodynamic properties.

Heat Transfer Fluid [Gen Eng] Is any gas or liquid used by heat exchangers to transfer heat.

Heat Transfer Rate [Gen Eng] Is the amount of energy that is moved from the heat source to the sink per an amount of time. Usually stated as Btu/hr in the measurement system and Watts (Joules per second) in the Metric system.

Heat Treatment [Gen Eng] It is an operation or combination of operations involving the heating and cooling of metal or an alloy in the solid state for the purpose of altering the properties of the material.

Heat Utilization [Ag Proc] Total amount of heat utilized to vaporize moisture in the material, expressed in kJ/kg of H₂O.

Heavy Metals [Gen Eng] Trace elements regulated because of their potential for human, plant, or animal toxicity, including cadmium, copper, chromium, mercury, nickel, lead, and zinc.

Heavy Soil (Obsolete) [Gen Agri] A soil that has a high content of clay and is difficult to cultivate.

Hedgerow [Gen Agri] Trees or shrubs grown closely together so that branches intertwine to form a continuous row.

Hedging [Gen Agri] Is the technique of buying and selling that minimizes risk due to price fluctuation.

Heel [Ag Mach] The portion of the bevel gear tooth near the outer end.

Heifer [Gen Agri] A young female cattle under three years of age usually one that has not yet given birth.

Helical Gear [Ag Mach] A gear wheel of a spiraling shape. (The teeth are cut across the face at an angle with the axis.)

Helix [Ag Mach] Curve whose tangents are inclined at a constant angle to the axis of the cylinder.

Helix Angle [Ag Mach] A cut angle between the tooth trace and the generator of any imaginary cylinder or cone coaxial with a gear whose tooth trace is under consideration.

Hen [Gen Agri] Is a mature female fowl.

Henry Is the unit of measure of inductance. It is also equal to 1 volt-sec/amp.

Herbicide [Gen Agri] A chemical applied to crop land as pre-emergence or post emergence treatment for the control of weeds.

Herbicide/Tolerant Resistant Crops [Gen Agri] Are plants genetically engineered to tolerate herbicides used to kill weeds.

Herbivorous [Gen Agri] Are animals that subsist on grasses and herbs.

Herd [Gen Agri] Group of cattle, swine, horses or goats.

Heritability [Gen Agri] The portion of the total variation or phenotypic differences among animals that is due to heredity.

Hermetic Compressor [Ag Proc] A motor compressor assembly contained within a gas tight casing through which no shaft extends.

Herringbone System [Soil & Water] Arrangement of a pipe drainage system where laterals enter a main from both sides at angles less than 90 degrees.

Hertz [Ag Elec] The base unit of frequency; One cycle per second.

Heterogeneous [Gen Agri] Complex and not easily described.

Heterosis [Gen Agri] Is the second important reason for cross breeding. The term is used to explain the fact that the hybrids or crossbreeds are usually better off and more vigorous than their parents.

Heterozygous [Gen Agri] Containing unlike alleles at one or more loci as a reactant and not as a solvent.

High-Clearance Sprayer [Ag Mach] An apparatus consisting of the components of a boom sprayer mounted on a self-propelled vehicle with a frame constructed to permit the vehicle to pass over both short or tall plants (e.g., corn) with minimal damage.

High Water Mark [Soil & Water] A distinct mark made on vegetation, buildings or rocks that shows the extent of water rise.

Hill [Gen Agri] A place in which two or more seeds, a cutting or a section of the roots or a tuber are planted.

Hill Drop Planter [Ag Mach] A type of row crop planter which is designed to deposit one or more seed in a hill at equal interval.

Hilling-Up [Gen Agri] The moving of soil towards a row of plants.

Hip [Ag Struc] Meeting of line of two nonparallel roof slopes where roof drainage diverges.

Hip Roof [Ag Struc] Are more desirable from an architectural standpoint than from utilitarian value. It requires more complicated framing than the gable roof and is consequently more expensive to build. One of the most common uses of hip roof is on garages.

Hired Labor [Gen Agri] Is a farm labor supplied from outside of the family.

Histogram [Soil & Water] A graphical representation of a frequency distribution by a series of rectangles where the width of the rectangle represents the range of the variable and the height represents the frequency of occurrence.

Hitch [Ag Mach] The portion of an implement designed to connect the implement to a power source.[ASAE] device for connecting to a towing vehicle.

Hitch Assembly [Ag Mach] Structure made from attaching and/or supporting the implement.

Hitch Point [Ag Mach] Articulated connection between a link and the implement.

Hobbing [Ag Mach] A method of making molds for the plastics and die casting industries.

Hoe Opener [Ag Mach] A shank-mounted narrow, vertical or forward-curved tool with pointed or rounded leading edge. The seed delivery tube is attached to the rear of the shank.

Hog [Gen Agri] Domestic swine weighing over about 55 kg (120 lb).

Holding Area [Ag Struc] Area provided to accommodate animals before milking.

Holding Capacity [Ag Struc] The amount of paddy in a continuous-flow dryer at any one time.

Holding Pen [Ag Struc] Confinement area used for temporarily restraining livestock before loading, moving, treating, milking, etc.

Holding Period [Ag Struc] The period that follows cool-down.

Holding Tools [Ag Struc] Are tools used to hold materials while other tools are used to cut, shape, modify, or turn threaded items like screws.

Holding tools are also used to grip objects such as bolts or pieces of wire. They are even used to bend or shape objects and in fastening and gluing (i.e. clamps, pliers, vises).

Hold-On Type [Ag Mach] A type of thresher where the heads of the cut crop are fed into the threshing drum with the lower part of straw being manually or mechanically held.

Hole Method [Gen Agri] Is a localized fertilizer application applicable on bigger crops and sloping areas. This system makes use of a pointed stake to make several pegholes around the plant or along the rows of crops.

Hollow Cone Nozzle (Disc-Core Nozzle, Disc-Type Hollow Cone Nozzle) [Ag Mach] A cone spray atomizer that directs most of the liquid to the outside of the conical spray pattern. (Two-piece nozzles of this type are generally referred to as disc-core hollow cone nozzles.)

Hollow Piston Manure Pump [Ag Struc] A piston manure pump which uses a hollow piston equipped with one-way gate which allows manure to flow through the piston on the retraction stroke and then moves it into the pipeline on the extension stroke.

Home Garden [Gen Agri] An area prepared, planted, cultivated and harvested for the personal consumption and enjoyment of a family unit.

Homeostasis [Gen Agri] Is the maintenance of the static or constant conditions in the internal environment of the body.

Homeotherms or Warm-Blooded Animals [Gen Agri] Are animals whose body temperature is largely independent of that of the environment.

Home Range [Gen Agri] The area within which the activities of an animal are confined. The boundaries may be marked, such as by scent marking, and also may be defended, depending on the species.

Homogenization [Gen Agri] Fat globules are subjected to mechanical treatment which breaks them down into smaller globules, uniformly dispersed in the milk.

Homogenized Milk [Gen Agri] Refers to the milk that contains finer globules of butterfat than those present in fresh milk. It is prepared by passing fresh milk through small openings by pressure.

Homogenous Materials [Gen Eng] Are materials that have the same structure at all points. (Steel consists of randomly oriented iron crystals of different sizes, with other matter in between and is thus not homogenous).

Homozygous [Gen Agri] Containing like germ cells.

Honeycombing [Gen Agri] (syn. Hollow honing, internal checking, interior checking, inner checking) Checks, often not visible at the

surface, that occur in the interior of a piece of wood, usually along the wood rays.

Hood Stress [Gen Eng] The tensile stress in the wall of a pipe in the circumferential orientation caused by internal hydrostatic pressure.

Hoop Stress [Gen Eng] The tensile stress in the wall of the pipe in the circumferential orientation due to internal hydrostatic pressure.

Hopper [Ag Proc] The sloped portion of the bin which is used to aid gravity discharge through an orifice: Intermediate storage device in feed distribution system; that part of the storage which causes the product to be funneled to a point of discharge; Device for receiving and directing material into the rotating flighting.

Hopper Bin [Ag Mach] A bin equipped with a conical hopper having a center discharge opening.

Hopper Bin Storage Capacity [Ag Mach] Rated peaked storage capacity of a bin plus the capacity of a conical hopper.

Hopper fed type [Ag Mach] Type of corn sheller wherein the ear corn are fed into shelling chamber by gravity.

Hopper Slope [Ag Mach] The slope or inclination of the hopper measured from the horizontal.

Horizontal Abrasive Whitener [Ag Proc] Is more compact than vertical abrasive whitener. The machine consists of an abrasive roll (emery stone attached to a steel shaft) operating in a cylindrical metal perforated screen mounted horizontally.

Horizon [Gen Agri] Relatively uniform materials that extend laterally, continuously or discontinuously throughout the pedonit; runs approximately parallel to the surface of the ground and differs from the related horizons in many chemical, physical and biological properties.

Horizontal Air Circulation [Ag Struc] A system utilizing fans to generate a horizontal air circulation pattern above the plant canopy.

Horizontal Axis Wind Turbine [Gen Eng] A "normal" wind turbine design, in which the shaft is parallel to the ground, and the blades are perpendicular to the ground.

Horizontal Boring Mill [Ag Mach] A machine for finishing holes where the cutting tool revolves on a horizontal axis.

Horizontal Clearance [Ag Mach] Is the distance measured between specified points on adjacent plow buttons.

Horizontal-disc Row Cleaner [Ag Mach] A concave disc blade, with smooth, sharpened circumference and shank-mounted residue deflectors, to remove surface residue and/or soil from the row area.

Horizontal Friction Whiteners [Ag Mach] Are often called jet or pneumatic pearlers. These machines use the friction process in which

the bran is peeled off by friction of the rice grains. Steel hullers are also used as friction-type whiteners.

Horizontal Interval [Gen Agri] A horizontal interval between corresponding points on successive terraces.

Horizontally Laminated Assembly [Ag Mach] An assembly primarily designed to resist bending loads applied normal to the planes of contact between individual layers.

Horizontal Pump [Ag Mach] A pump with the shaft normally in a horizontal position.

Horizontal Silo [Ag Struc] Rectangular, usually above ground, silo with vertical or outward sloping sidewalls.

Horizontal Split-Case Pump [Ag Mach] A centrifugal pump characterized by a housing which is split parallel to the shaft.

Hormone [Gen Agri] Is defined as a substance or chemical mediator produced by the endocrine glands and carried by the blood to some distant part of the body where it exerts its effect.

Horsepower [Ag Power] Unit of power (1 hp = 746 watts); A unit of power equivalent to 33,000 foot-pounds of work per minute (English) or 75 kilogram-meters per second (metric).

Horsepower-Hour (hp-h) [Ag Power] A unit of energy equivalent to that expended in one horsepower applied for one hour. Equal to approximately 2545 Btu.

Hoseport [Ag Proc] Opening through milkroom wall for hose and electric motor cord for milk transfer from the bulk milk tank to tanker truck.

Hose End Sprayer [Ag Mach] An apparatus designed to be attached to standard hose, consisting of a hand-held container for the spray mixture with an integral metering head through which water from the garden hose flows. The metering head utilizes water pressure, siphon effect, or some other water-powered means to meter the spray mixture into the water stream which is then atomized.

Hospital Pen [Ag Struc] Pen for holding and treating sick or injured livestock.

Hot Boned Meat [Gen Agri] Refers to the meat deboned before the development of rigor mortis.

“Hot Gas” or Discharge Line [Ag Power] Delivers the high pressure, high temperature vapor from the discharge of the compressor to the condenser.

Hot Meat [Gen Agri] Refers to the meat from an illegal source.

Hot Nursery [Ag Struc] A high-temperature (approximately 30°C [86°F]) nursery unit for rearing pigs weaned at 3-4 weeks of age.

Hot-Rolled Iron Bars [Ag Mach] Are often called mild steel bars in rectangular, angular and square shapes are useful in bench metal work. The bars can be pounded, twisted and bent into many shapes. Mild steel is often used as replacement for wrought iron, because it is less expensive.

Hot-Rolled Steel Plate [Ag Mach] Hot rolled product supplied in cut lengths and produced by cutting from a coil rolled on continuous mill. It has a width of at least 600 mm and a nominal thickness of 3 mm minimum. The edge of the sheet may be either trimmed or untrimmed.

Hot-Rolled Steel Sheet [Ag Mach] Hot rolled product supplied in cut lengths and produced by cutting from a coil rolled on a continuous mill. It has a width of at least 600 mm and a nominal thickness of less than 3 mm.

Hot Surface [Ag Proc] A surface which reaches operating temperatures in excess of 130°C (266°F) and which could involve injury by inadvertent contact.

Hot-Water Floor Heater [Ag Proc] System comprised of a hot-water boiler with connected pipes embedded in floor for circulating hot water.

Hover [Ag Struc] Suspended cover of wood, canvas or other material, over an area in a pen or stall aimed at conserving heat and minimizing air movement for newborn animals; may include a heat source.

Hub [Gen Eng] The center of a wind generator rotor, which holds the blades in place and attaches to the shaft.

Huller (Dehuller) [Ag Proc] Component of a rice mill that removes the hulls (palea and lemma) from the grains.

Hulling Efficiency [Ag Proc] Product of the coefficient of hulling and the coefficient of wholeness of grains, expressed in percent.

Hull or Husk [Ag Proc] Outer covering of the paddy grain.

Humic Acid [Gen Agri] Usually refers to the mixture of ill-defined dark organic substances precipitated upon acidification of a dilute alkali extract of soil.

Humid Climates [Soil & Water] Climate characterized by high rainfall and low evaporation potential.

Humidification [Ag Proc] May be adiabatic or with the addition of heat.

Humidity [Ag Proc] Water vapour within a given space.

Humidity, Absolute [Ag Proc] The weight of water vapor per unit volume space.

Humidity Ratio [Ag Proc] Is also called as specific humidity, is an expression of the mass of water vapor per unit mass of dry air.

Humidity, Relative [Ag Proc] Ratio of the amount of water vapor present in the air to which the air would hold at saturation at the same

temperature. It is usually considered on the basis of the weight of the vapor, but for accuracy it should be considered on the basis of vapor pressures.

Humid Volume [Ag Proc] Is the volume of 1 kg dry gas plus its contained vapor.

Humification [Ag Proc] The decomposition of organic matter leading to the formation of humus. The microbial synthesis of three-dimensional polymers of saccharides and phenols resembling gums and lignin; a process of storing organic energy in compounds of high molecular weight which are slowly degradable (10-100+ years).

Humus [Ag Waste] The dark or black carboniferous relatively stable residue resulting from the decomposition of organic matter.

Husk [Ag Waste] Is the coarse outer envelope of a fruit as the glumes of an ear or maize.

Husking or Dehusking, Hulling or Shelling [Ag Proc] The process of removing the husk from the paddy grain during milling.

Husking Efficiency [Ag Proc] The product of coefficient of husking and the coefficient of wholeness.

Husking or Shelling [Ag Proc] This is the operation of removing the husk from paddy.

Hutch [Ag Struc] Small enclosure with an adjoining outdoor pen used for sheltering individual small dairy calves.

Hybrid [Gen Agri] Refers to the offspring of two parents unlike in one or more heritable characters.

Hybridization The process of crossing organism of unlike heredity.

Hydrant [Soil & Water] An outlet, usually portable, used for connecting surface irrigation pipe to an alfalfa valve outlet.

Hydration [Gen Agri] The process whereby a substance takes up water.

Hydraulic Conductivity [Soil & Water] The rate at which water will move through soil in response to a given potential gradient.

Hydraulic Diameter [Soil & Water] The hydraulic diameter of an orifice is 4 times the orifice area divided by the orifice perimeter

Hydraulic Efficiency [Soil & Water] A measure of efficiency with which a pump imparts energy to water or a turbine extracts energy from water.

Hydraulic Gradient [Soil & Water] Change in the hydraulic head per unit distance.

Hydraulic Pump [Soil & Water] Abrupt turbulent rise in water level from a flow stage less than critical depth to a flow stage greater than critical depth within which the velocity passes from supercritical to subcritical.

Hydraulic Jump [Gen Agri] Abrupt turbulent rise in water level from a flow stage less than critical depth to a flow stage greater than critical depth within which the velocity passes from supercritical to subcritical.

Hydraulic Radius [Soil & Water] Cross-sectional area of a fluid stream or conduit divided by its wetted perimeter (length of its conduit surface in contact with fluid).

Hydraulic Ram [Ag Mach] Device that uses energy of flowing water to lift a portion of the flow.

Hydraulic Resistance [Soil & Water] friction along the wetted boundary of a channel or conduit that causes a loss in head.

Hydraulics [Ag Mach] That branch of mechanics or engineering which deals with the action or the use of liquids forced through tubes and orifices under pressure to operate various mechanisms.

Hydraulic Settling [Soil & Water] Removal of water-transported particles by gravity.

Hydraulic Terms [Soil & Water] Hydraulic terms shall be as defined in the American society of civil engineers manual of engineering practice no. 11.

Hydrodynamic Bearing [Ag Mach] A bearing where fluid is drawn into the region between the moving parts of the bearing by virtue of its adhesion to the surfaces of the bearing and of its viscosity and due to the shape of the bearing surfaces, pressure is generated within the fluid, which keeps the bearing surfaces separated.

Hydroelectricity [Ag Elec] Electric energy produced by water-powered turbine generators.

Hydrogen Ion Concentration [Gen Agri] The hydrogen ion concentration measured in the substrate or liquid media over a range of 0 to 14 pH units.

Hydrogen Swell [Ag Proc] Is caused by the formation of hydrogen gas resulting from the corrosion of the tin plate of the can.

Hydrograph [Soil & Water] Graphical or tabular representation of the flow rate of a stream with respect to time.

Hydrologic Condition [Soil & Water] An indication of the effects of ground cover and treatment on infiltration and runoff generally estimated from the density of plants and residue cover on sample areas.

Hydrologic Cycle [Soil & Water] Term used to describe the movement of water in and on the earth and atmosphere.

Hydrology [Soil & Water] Is a science that treats of the waters of the Earth, their occurrence, circulation, and distribution, their chemical and physical properties, and their reaction with their environment, including their relation to living things.

Hydrolysis [Gen Agri] In soils, it is the process whereby hydrogen ions are exchanged for cations such as sodium, potassium, calcium and magnesium.

Hydrometer [Ag Mach] A test instrument for determining the specific gravities of liquids.

Hydromulching [Gen Agri] An application method using a water jet to spread a mulch emulsion on a land surface.

Hydrophyte [Gen Agri] Is a plant adapted to wet or submerged condition.

Hydrostatic Bearing [Ag Mach] A bearing where the load is carried by fluid pressure generated outside the bearing, unlike in the hydrodynamic bearing where the load is sustained by fluid pressure self-generated by the bearing.

Hydrostatic Pressure [Ag Proc] Force per unit of area exerted by a liquid at rest.

Hydroponics [Gen Agri] Growing of plants in water containing dissolved nutrients, rather than in soil. This process is being used in greenhouses for intensive off-season production of vegetables.

Hydrothermal or Hydro Resources [Ag Power] natural streams, rivers or lakes that can be harnessed to provide the combination of adequate flow and heat essential for hydropower generation.

Hygroscopic Coefficient [Soil & Water] It is determined by placing an air-dry soil in a nearly saturated atmosphere at 25°C until it absorbs no more water. This tension is equal to a force of 31 atm. Water at this tension is not available to plants.

Hygroscopicity [Soil & Water] The property of a substance which permits it to absorb and retain moisture.

Hygroscopic Moisture [Soil & Water] Moisture absorbed by dry soil from a saturated atmosphere.

Hygroscopic Water [Soil & Water] Water which has been absorbed from an atmosphere of water vapor as a result of attractive forces in the surface of the particles.

Hypocotyl [Gen Agri] Refers to the stem of the embryo or young seedling below the cotyledon.

Hypogeal Germination [Gen Agri] In dicot, it refers to the germination in which the cotyledons do not rise above the soil surface.

Hysteresis [Ag Elec] Magnetic effect caused by residual magnetism in ac operated magnetic devices. Causes part of the core losses.

Ice Storage System [Ag Proc] A thermal storage system, usually designed for comfort cooling, which uses the phase change properties of water/ice.

Idling [Ag Mach] An engine running without load.

Igneous [Gen Agri] Are called as the ancestors of all rocks, were one hot molten liquid masses known as magma which subsequently cooled into firm hard rocks. Examples are granite, rhyolite, obsidian, basalt, gabbro, peridotite, andosite, and diorite.

Ignition [Ag Mach] The start of combustion.

Illuminance [Ag Elec] The density of the luminous flux incident on a surface; it is the quotient of the luminous flux by the area of the surface when the latter is uniformly illuminated.

Illuvial Horizon [Gen Agri] A horizon that receives material in solution or suspension from some other part of the soil.

Immature Grains [Ag Proc] Paddy grains which are underdeveloped, or not fully develop, sometimes referred to as unripe; Paddy which are light green and chalky with soft texture.

Immature Grain Outlet [Ag Mach] The outlet which collects the poor quality grain such as immature small grain.

Immature Soil [Gen Agri] Lacking a well developed perunit.

Immunity [Gen Agri] Refers to the power of an animal to resist and/or overcome an infection to which most of many of its species are susceptible.

Immunize [Gen Agri] To render an animal resistant to disease by vaccination.

Impact Atomizer (Impingement Atomizer) [Ag Mach] a pressure atomizer in which a spray pattern is achieved by the external collision of two or more liquid jets.

Impact-Driven Sprinkler Head [Sil & Water] Type of rotating sprinkler head which rotates using weighted or spring-loaded arm which is propelled by the liquid stream and hits the sprinkler body.

Impact Threshold Velocity [Soil & Water] It is the minimum velocity required to initiate soil movement by impact of particles carried by wind or water.

Impair [Gen Eng] To dim or conceal (wholly or partly) a lamp or marking with some external interfering object.

Impedance [Ag Elec] The total opposition of a circuit consisting of resistance and reactance; Resistance used for AC current ;The base unit is ohms.

Impeller [Ag Mach] A wheel or disk with fins. The rotating part of a fan, centrifugal compressor or pump.

Impeller Meter [Soil & Water] A rotating mechanical device for measuring flow rate in a pipe or open channel.

Impermeable Layer, Soil [Soil & Water] Layer of soil resistant to penetration by water, air, or roots.

Impervious [Gen Agri] Not easily penetrated by roots or water.

Impinging Jet Atomizer (Impingement Atomizer) [Ag Mach] A pressure atomizer in which atomization is achieved by the external collision of two or more liquid jets.

Implant [Gen Agri] T graft or insert material to intact tissues.

Implement Input Connection [Ag Mach] The shaft or other connecting means to which the rear joint of the implement input driveline is attached on the implement.

Implement Input Driveline [Ag Mach] Two universal joints and their connecting members and fastening means for transmitting rotational power from the tractor PTO to the implement input connection.

Import Substitute [Gen Agri] Is an output of a project that replaces goods or services that would have been imported without the project.

Impregnation [Ag Mach] Thorough mixing or spraying of a small ratio of liquid material, e.g., pesticide to a large ratio of dry material, e.g., fertilizer. May be accomplished during blending operations or during application.

Implement Width [Ag Mach] The horizontal distance perpendicular to the direction of travel between the outermost edges of the implement.

Imported Energy Resource [Ag Power] Energy resources which are principally obtained from outside the Philippines.

Impulsive Load [Ag Elec] Is a suddenly applied load.

Impurities [Ag Proc] Impurity in the paddy, brown rice or milled rice grains which may be other crop seeds, chaff, immature grains, bits of wood and other plant materials, sand, stones, metal, glass, dust and other foreign matter.

Inadvertent contact unplanned contact between a person and a hazard, resulting from the person's actions during normal operation or servicing of equipment.

Inbred Line [Gen Agri] Is a plant or group of plants that is homozygous.

Inbreeding [Gen Agri] Is a form of non-random mating wherein individual that are related by descent tend to mate more often than under random mating.

In calf [Gen Agri] Is a pregnant cow.

Incineration [Ag Struc] The rapid oxidation of solids within a specially designed combustion chamber.

Included Angle [Ag Mach] Angle between the axes of two adjacent gangs.

Incompatibility [Gen Agri] Is a genetic condition in which certain normal male spores are incapable of functioning on certain pistils.

Incomplete Flower [Gen Agri] Is a flower missing all or some of the following parts: sepals, petals, stamens or pistils.

Incorporating (Mixing) [Ag Mach] Operation which mix or disperse foreign materials, such as pesticides, fertilizers or plant residues into the soil.

Incorporator, Soil-Additive [Ag Mach] A machine used to mechanically incorporate or mix material into the soil.

Increasing Block Rate [Gen Agri] Pricing that reduces water use by structuring water rates to increase per unit charges as the amount used increases.

Incubation [Gen Agri] Maintenance of viable organisms in or a nutrient substrate at constant temperature for a growth period.

Incubation Period [Gen Agri] Period starting from the time poultry eggs are set to the time they are hatched.

Incubator [Ag Struc] Device used to mechanically control environment for gestating and hatching poultry eggs.

Indehiscent Fruit [Gen Agri] Is a fruit that does not split open naturally at maturity.

Indeterminate Growth [Gen Agri] Refers to the growth exhibited by a stem that terminates in a vegetative bud and thus elongates indefinitely.

Indicated Airspeed [Gen Eng] The speed as indicated by the airspeed indicator of the aircraft in flight.

Indicated Horsepower (IHP) [Ag Mach] The power transmitted to the pistons by the gas in the cylinders.

Indicated Thermal Efficiency [Ag Mach] The ratio of indicated horsepower to equivalent power input in the form of heat from fuel.

Indigenous Energy Resource [Ag Power] Energy resources which originate or occur naturally in the Philippines.

Indirect-Fired Furnace [Ag Proc] Furnace which fires into a combustion chamber that is vented outside the curing compartment.

Indirect Heating, Dryer [Ag Proc] A drier that uses a heat exchanger for heating air.

Individual [Ag Mach] Operating one or more similar machines as one unit.

Induced Voltage [Ag Elec] Voltage created in a conductor when the conductor interacts with a magnetic field.

Inductance [Ag Elec] Electrical property which opposes changes in current.

Induction [Ag Elec] Using the magnetic field to impart electricity into an object which is not otherwise connected to the first ones.

Induction Motor [Gen Eng] An AC motor in which the rotating armature has no electrical connections to it, and consists of alternating plates of aluminum and steel.

Inelastic Demand [Gen Agri] Refers to the price-demand relationship whereby lowering prices translate to lower total revenue.

Inert Ingredient [Gen Agri] Any substance other than an active ingredient which is intentionally included in a pesticide.

Inerts [Ag Waste] Non-biodegradable products contained in wastes (glass, plastics, etc.).

Inferential Statistics [Gen Eng] Is concerned with making generalizations about a larger set of data where only a part of it is examined.

Inferior Ovary [Gen Agri] Is an ovary that is imbedded in the receptacle, or an ovary whose base is below the point of attachment of the perianth.

Infiltration [Soil & Water] The downward entry of water through the soil surface into the soil; [Ag Struc] Generally undesirable air exchange which occurs through small, uncontrolled openings in the greenhouse covering; [Ag Mach] The process of filling the pores of a sintered product with molten metal in order to decrease porosity or to improve physical properties; [Ag Struc] Air leakage into a structure through the cracks and joints (e.g., at windows and doors) caused by wind pressure and differences in indoor and outdoor temperatures.

Infiltration Air [Ag Struc] Fresh air that naturally enters a building from the outside.

Infiltration Opportunity Time [Soil & Water] The time that water inundates the soil surface, with opportunity to infiltrate.

Infiltration Rate [Soil & Water] The rate at which water enters the soil or other porous material under a given condition, expressed as depth of water per unit time, usually in millimeters per hour; The quantity of water that enters the soil surface in a specified time interval.

Infiltrometer [Soil & Water] Device for measuring the infiltration rate.

Inflation [Gen Agri] Is the rise in the amount of money in circulation beyond the legitimate needs of the business so as to cause a reduction in the value of money and increases the price level.

Inflation Pressure [Ag Mach] For air-filled tires, it is the gauge pressure measured with the valve in any position. For tires containing liquid, it is the gauge pressure measured with an air-water gauge and with the valve in the bottom position.

Inflorescence [Gen Agri] Is any structurally organized group of flowers.

Inflow [Soil & Water] The entry of extraneous rain water into a sewer system from sources other than infiltration, such as basement drains, manholes, storm drains, and street washing.

Influent [Ag Struc] Water, wastewater, or other liquid flowing into a reservoir, basin, or treatment plant, or any unit thereof.

Influent Stream [Soil & Water] Stream or portion of stream that contributes water to the ground water supply.

Infrastructure [Gen Agri] The transportation network, communications systems, financial institutions, and other public and private services, necessary for economic activity.

Ingredient [Ag Proc] Means any substance, including a food additive, used as component in the manufacture or preparation of a food and present in the final product.

Inhalation Exposure [Gen Agri] Exposure to pesticides through inhalation.

In Heat [Gen Agri] In estrus or receptive to opposite sex.

Initial Moisture Content [Ag Proc] Moisture content of a product prior to the start of drying, expressed as a decimal on a dry basis.

Initial Storage [Soil & Water] That portion of precipitation required to satisfy interception, the wetting of the soil surface, and depression storage sometimes called "initial abstraction."

Injection Pump [Ag Mach] A high-variable-pressure pump delivering fuel into the combustion chamber.

Injection System [Ag Power] The components necessary for delivering fuel to the combustion chamber in the correct quantity, at the correct time, and in a condition satisfactory for efficient burning.

Injector [Ag Power] A device used to bring fuel into the combustion chamber; An implement used to insert materials into the soil.

Inlet [Soil & Water] An appurtenance to deliver water to a pipeline system.

Inlet [Ag Struc] An opening that allows air gas to enter.

Inlet Airflow Schedule [Ag Struc] Inlet airflow settings used for the stimulated cure.

Inlet chamber [Ag Struc] Chamber at the furnace end of the test barn used to monitor the flow of inlet air during the stimulated cure.

Inlet Duct [Ag Struc] Duct used to measure the inlet airflow.

Inlet Fan [Ag Struc] Variable speed fan used to set the inlet airflow.

Inlet pipe [Ag Struc] Serves as conveyor of the manure-water mixture or slurry from the mixing tank to the digester.

Inlet Vents [Ag Struc] Vents on the test barn which are opened manually or automatically to introduce inlet air during the curing process.

In Line Pump [Ag Mach] A centrifugal pump whose drive unit is supported by the pump having its suction and discharges flanges on approximately the same center.

Inoculation [Gen Agri] Is the introduction of bacteria on seed or into soil.

Inoculum [Gen Agri] Living organisms, or an amount of material containing living organisms which are added to initiate or accelerate a biological process.

Inorganic [Gen Agri] Refers to a substance in which carbon-to-carbon bonds are absent; mineral matter.

Input Capacity [Ag Proc] Weight of paddy unit loading time into the hopper/intake pit, expressed in kilogram per hour.

Input Moisture Content [Ag Proc] The mean moisture content, wet basis, of the input grain to the drier in pass test period.

Input Paddy [Ag Proc] The total mass of moist grain at the input moisture content fed into the drier.

In-row Liquid Tube [Gen Agri] A tube, of various materials, which is positioned in or behind the soil-opening component so that liquid fertilizers are deposited in the seeded furrow before closure.

Insecticide [Gen Agri] A chemical used to control insects on plants or plant parts.

Insect Resistant Plants [Gen Agri] Are plants resistant to certain insect pests, through a built-in insecticide.

Insolation [Gen Eng] The total rate of the solar radiation, direct and diffuse, incident on the outside surface of the gross collector area divided by the gross collector area.

Inspection [Gen Agri] Process of determining whether the grade standards have been interpreted or enforced properly by inspecting random samples usually of predetermined amount large enough to give an indication of the correctness of the grading procedures.

Installation Allowance [Ag Mach] A design length factor permitting the unforced installation of a belt.

Installation and/or Modification Instructions [Ag Mach] Outline in detail the procedures for properly installing components and/or performing inspections or modifications on existing equipment.

Installer [Ag Mach] Management in effective control of putting equipment in plane and in operating condition

In-Store Drying [Ag Proc] A type of drying wherein grain is dried slowly with the use of other ambient or heated forced air during bulk storage.

Instream Flow [Soil & Water] The amount of flow required to sustain stream values, including fish, wildlife, and recreation.

Instream Flow Requirements [Soil & Water] The flow regime necessary to provide for the combined needs of fish, wildlife, recreation, navigation, hydropower production, and downstream conveyance in a stream.

Instream Use [Soil & Water] Refers to the uses of water within the stream channel.

Insulating Fitting [Ag Elec] A type of fitting designed to prevent galvanic current flow when used between two dissimilar metals.

Insulation [Ag Proc] Material that retards or resists the flow of heat or electricity.

Insulators [Ag Elec] Materials that have very high resistivity.

Intake [Soil & Water] 1) Head-works of a conduit. 2) The place of diversion. 3) Water infiltration into soil.[ASAE] the area where material to be conveyed enters the machine.

Intake Guard [Ag Mach] Safety device for exposed intake flighting assembly.

Intake or Bottom Drive [Ag Mach] When the final drive location is at the intake end.

Intake Manifold [Ag Mach] A connecting casting between the air filter or turbocharger and the port openings to the intake valves.

Intake Rate [Ag Mach] It is the rate of infiltration from a furrow into the soil.

Intake Structure [Soil & Water] It is a concrete structure usually built along the bank of a river or stream. It draws the water which would be channeled into an irrigation system.

Intake Stub Shaft [Ag Mach] Connector between intake flight assembly and intake drive bearing.

Intake Valve [Ag Mach] The valve which open allows air to enter into the cylinder.

Intake (or inlet) Velocity [Ag Struc] Velocity of air as it enters the building through an air inlet.

Integral Mounted Implement [Ag Mach] An implement mounted at the rear end of the tractor where it is lifted or picked up by the hydraulic system of the tractor.

Integrated Crop Management (ICM) [Gen Agri] Is a system which integrates a number of ways to control pests and increase yields (including natural, biological controls and careful use of chemicals).

Integrated Pest Management (IPM) [Gen Agri] Using the best features of chemical, biological, and cultural controls in an overall pest control program.

Integrated Plant [Ag Struc] Biogas plant where the digester and gas chamber formed one unit.

Integrated Resource Planning [Gen Agri] The management of two or more resources in the same general area; commonly includes water, soil, timber, grazing land, fish, wildlife, and recreation.

Intellectual Property [Gen Agri] Refers to the property arising from creativity or original knowledge.

Intensive Farming [Gen Agri] Is a method of farming which utilizes an increasing amount of labor and capital to the same area of land.

Intensive Property [Gen Agri] Its value is independent of the size or extent of a system and may vary from place to place within the system at any moment i.e. pressure, temperature and density.

Interbasin Transfer [Irrig & Drain] The diversion of water from one drainage basin to one or more other drainage basins.

Intercellular Canals [Irrig & Drain] Tubular, intercellular spaces sheathed by parenchyma; arranged in continuous tangential lines or diffuse (scattered) or in short tangential lines as seen in the cross section.

Interception [Soil & Water] That portion of precipitation caught by vegetation and prevented from reaching the soil surface.

Interceptor Drain [Soil & Water] A channel located across the flow of groundwater and installed to collect subsurface flow before it resurfaces. Surface water is also collected and removed.

Intercrop [Gen Agri] The growing of two or more crops simultaneously in the same plot in alternating rows or sets of rows.

Intercropping [Gen Agri] Planting two or more crops in the same land area at the same time often used to help control pest populations that often occur on monoculture crops.

Interest [Gen Agri] Is the payment for the use of capital.

Interest Rate [Gen Agri] The price of money save and invested or loaned.

Interflow [Soil & Water] That which infiltrates into the soil surface and moves laterally through the upper soil horizons towards streams as perched groundwater above major groundwater level.

Interior Dike [Soil & Water] Secondary dike in a multiple dike flood protection system.

Interior Drain [Soil & Water] Drain installed within a dam or other earth structure as distinguished from peripheral or interceptor drains.

Interior Plywood [Gen Agri] Type of plywood intended for inside use, having limited moisture resistance.

Interlock Devices [Ag Mach] Safety equipment used to ensure that if the irrigation pumping plant stops, the chemical injection pump will also stop.

Interlock Injection Device [Irrig & Drain] Safety equipment used to ensure that chemical injection pump will stop if the irrigation pumping plant stops to prevent the entire chemical mixture from emptying from the supply tank into the irrigation pipeline.

Intermittent Duty [Ag Mach] The load is only on for 10, 20, or 30 minutes at a time with a rest or cooling period between operations.

Intermittent Flow System [Ag Proc] Alternating use, by an industry, of deionized water to remove contaminants from products and equipment.

Intermittent Stream [Soil & Water] Natural channel in which water does not flow continuously.

Internal bin wall ladder [Ag Proc] A ladder attached to the interior surface of a grain bin wall.

Internal Combustion Engine [Ag Mach] An engine that burns fuel within itself as a means of developing power.

Internal Drainage [Irrig & Drain] Drainage of the soil profile; may be either natural or augmented by men.

Internal Mixing Pneumatic Atomizer [Soil & Water] A pneumatic atomizer in which gas and liquid are introduced and mixed within the nozzle, and are then discharged as a two-phase dispersion through a common orifice.

Internal Resistance [Ag Elec] Resistance contained within a power or energy source

International Trade Barriers [Gen Agri] Regulations used by governments to restrict imports from other countries. Examples include tariffs, embargoes, import quotas, and unnecessary sanitary restrictions..

Interrill Erosion [Soil & Water] The removal of a fairly uniform layer of soil on a multitude or relatively small areas by splash due to raindrop impact and by shallow surface flow.

Interstices [Soil & Water] Spaces between soil particles or aggregates, filled with water or air.

Inter-Tilled Crop [Gen Agri] Is a crop planted in rows followed by cultivation between the rows.

Interval Feeding [Gen Agri] Feed is available to livestock intermittently at preset intervals.

Intrinsic Permeability [Gen Agri] The property of a porous material that expresses the ease with which gases or liquids flow through it.

Inverse Distance Ratio Method [Ag Mach] Is a method used for the analysis of distance factor fixed by location of gages for rolling areas and non-uniform distribution of gages.

Inversion [Soil & Water] An increase in air temperature with an increase in altitude above the earth, resulting in increase stability of atmosphere.

Invert [Soil & Water] Lowest element of the internal cross section of a channel or pipe.

Inverted Siphon [Irrig & Drain] A closed conduit with end sections above the middle section used for crossing below a depression or under a highway.

In-Vessel Composting [Ag Waste] (Also "Enclosed" or "Mechanical") system using mechanized equipment to rapidly decompose wastes in an enclosed area with controlled amounts of moisture and oxygen.

Invisible Grain Damage [Gen Agri] Kernel damage which requires instrumentation or special procedures for determination.

In Vivo [Gen Agri] Within the living body.

Involute Cylindrical Gear [Ag Mach] A cylindrical gear of which every useable tooth profile is an arc of an involute to a circle.

Involute to a circle [Ag Mach] A plane curve described by a point on a straight line which rolls out without slip on the base circle.

Ion [Gen Elec] An electrically charged element, group of elements or particle.

Ironing [Ag Mach] A name given to an operation for sizing and thinning the walls of drawn cups.

Irrecoverable Water [Soil & Water] Water loss that becomes unavailable for reuse through evaporation, phreatophyte transpiration, or ground water recharges that is not economically recoverable.

Irrigable Area [Irrig & Drain] Area capable of being irrigated, principally as regards to availability of water, suitable soils, and topography of land.

Irrigable Lands [Irrig & Drain] Are lands which display marked characteristics justifying the operation of an irrigation system.

Irrigated Lands [Irrig & Drain] Are lands serviced by natural irrigation or irrigation facilities. These include lands where water is not readily available as existing irrigation facilities need rehabilitation or upgrading or where irrigation water is available year-round.

Irrigating Stream [Irrig & Drain] 1) Flow for irrigation of a particular tract of land. 2) Flow of water distributed at a single irrigation.

Sometimes called “irrigating head.”

Irrigation [Irrig & Drain] It is the application of water to soil for the purpose of supplying moisture essential to plant growth.

Irrigation Check [Irrig & Drain] Small dike or dam used in the furrow alongside an irrigation border to make the water spread evenly across the border.

Irrigation District [Irrig & Drain] A cooperative, self-governing semipublic organization set up as a subdivision of a state or local government to provide irrigation water.

Irrigation Efficiency [Irrig & Drain] The ratio of the average depth of irrigation water that is beneficially used to the average depth of irrigation water applied, expressed as a percent.

Irrigation Field Practices [Irrig & Drain] Are techniques that keep water in the field, more efficiently distribute water across the field, or encourage the retention of soil moisture.

Irrigation Hose [Irrig & Drain] A closed conduit for supplying water to moving irrigation systems, flexible when subjected to normal operating pressure and may be collapsible to a flat cross section when purged of water.

Irrigation Interval [Irrig & Drain] It is the span of time from one water application to the next.

Irrigation Machine [Ag Mach] An electrically driven or controlled machine, not portable by hand, used primarily to transport and distribute water for agricultural purposes.

Irrigation Management Strategies [Irrig & Drain] Strategies to monitor soil and water conditions and collect information that helps in making decisions about scheduling application or improving the efficiency of the irrigation system.

Irrigation Period [Irrig & Drain] It is the time spent in one water application.

Irrigation Pipelines [Irrig & Drain] Includes underground, thermoplastic pipelines.

Irrigation Runoff Percentage [Irrig & Drain] The equivalent depth of irrigation water running off a field expressed as percentage of the depth of irrigation water applied.

Irrigation Set [Irrig & Drain] The area irrigated at one time within a field.

Irrigation Scheduling [Irrig & Drain] Careful choice of irrigation application rates and timing to help irrigators maintain yields with less water.

Irrigation System [Irrig & Drain] All equipment required to apply water to the design area.

Irrigation System Modification [Irrig & Drain] An addition to or an alteration of an existing irrigation system or the adoption of a new one.

Irrigation Water Requirement [Irrig & Drain] It is the quantity of water, exclusive of precipitation required to maintain desired soil moisture and salinity level during the crop season.

Irrigator's Association (IA) [Irrig & Drain] Is an association of farmers within a contiguous area served by a National Irrigation System or Communal Irrigation System.

Isohyetal [Irrig & Drain] Stations locations and amounts of rainfall are plotted on a suitable map, and contours of equal precipitation (isohyets) are then drawn. The equation for Thiessen method is used for computing the mean rainfall.

Isotropic [Soil & Water] The condition of a soil or other porous media when physical properties, particularly hydraulic conductivity, are equal in all directions.

Izod Test [Gen Eng] Is a test which a specimen, support at one end as a cantilever beam, is broken by the impact of falling pendulum. The energy absorbed in breaking the specimen is a measure of the impact strength.

J

Jack [Gen Agri] A male donkey.

Jenny [Gen Agri] A female donkey.

Jetty [Sil & Water] A wall or dike built of piles, rock or other material extending into a stream or into the sea at the mouth of a river to include scouring or deposition or for erosion protection.

Jig Saw [Ag Mach] Also known as a scroll saw. It is designed for sawing curves. The saw cuts with the reciprocating action of the blade.

Jointer [Ag Mach] A miniature moldboard plow attachment to permit a single listing-seeding operation with the planter normally being operated in the furrow; A miniature moldboard plow attachment whose purpose is to turn over a small furrow slice directly ahead of the main moldboard plow bottom, to aid in covering trash.

Joints [Ag Struc] Refer to the entire assemblage at the intersections of the members.

Joint Spacing [Soil & Water] Width of gap between adjacent rigid drain tiles through which water enters from the surrounding soil.

Joint Wrapping [Soil & Water] Placement of porous material over or around the pipe joints of subsurface drains to help prevent inflow of sediment.

Joule (BTU) [Ag Power] A measure of quantity of heat. One joule will raise the temperature of one gram of water one degree Celsius.

Journal [Ag Mach] The portion of a shaft, crank, etc., which turns in a bearing.

Journal Bearing [Ag Mach] A sleeve bearing; A cylinder which surrounds the shaft and is filled with some form of thick lubricant.

Junction [Soil & Water] Point of intersection of two drains; Accessory used to create a connection between two pipelines.

Junction Box [Ag Elec] Box, manhole, or other structure which serves to join two or more pipes.

Juvenile Stage [Gen Agri] Is a term applied to a period in the early growth of plants, mainly biennials, when they are not susceptible to the influence of environment in the stimulation of reproductive development.

K

Kerf [Gen Eng] Refers to the width of a cut made by a saw.

Kernel [Ag Proc] Dry and indehiscent seed developed from the ovary of the ear corn.

Kernel-Ear Corn Ratio [Gen Agri] Ratio of the weight of the corn kernel present in the ear corn to the weight of the ear corn.

Key [Ag Mach] A fastening device wherein two components each have a partially cut groove, and a single square of square is inserted in both to fasten them together.

Key Terrace [Soil & Water] Terrace that is selected as a reference in laying out other terraces.

Keys, Parallel [Ag Mach] Keys whose longitudinal sides are parallel with each other.

Keys, Taper [Ag Mach] Keys with a tapered longitudinal cross-section.

Keys, Woodruff [Ag Mach] Keys with semi-circular cross-section.

Keyway [Ag Mach] The groove cut in a component to hold the key.

Kid [Gen Agri] A young goat of either sex below one year of age.

Kidding [Gen Agri] It is the act of parturition of goat.

Kiln [Ag Proc] A heated chamber for drying lumber, veneer, and other wood products in which temperature and relative humidities are controlled.

Kiln Charge [Ag Proc] The total amount of lumber or wood items in a dry kiln.

Kiln Dried [Ag Proc] Lumber or other wood items that were dried in a closed chamber in which temperature and relative humidity of the circulated air can be controlled. The drying temperature is usually greater than outside air temperature.

Kilowatt [Gen Eng] 1000 Watts.

Kilowatt hour (kWh) [Gen Eng] One kilowatt of power applied for one hour.

Kinematic Wave [Gen Agri] A method of mathematical analysis of unsteady open channel flow in which the dynamic terms are omitted because they are small and assumed to be negligible.

Kindling [Ag Waste] Small piece of wood, dry leaves, etc. used to start life.

Kinetic Energy [Ag Mach] The energy which an object has while in motion.

Kinking [Ag Mach] The vertical transverse folding from the normally round configuration of a pressurized hose.

Kirchoff's Law [Gen Eng] At any junction, the algebraic sum of the currents must be zero. Also, the sum of changes in potential encountered in making a complete loop is zero.

Kiskisan [Ag Proc] More popular and most patronized mill in rural areas. It is composed mainly of a metal cylinder with rectangular protrusions running along its whole length and a hollow cylinder casing. It works on the principle of friction in dehulling the paddy. A (low) recovery of 50 to 60% is obtained.

Kitchen Work Surface [Ag Struc] Refers to any work area approximately 36" above the floor exclusive of cooking range surface or sink surface.

Knapsack Sprayer [Ag Mach] A sprayer apparatus, carried on the operator's back, consisting of a spray solution tank, pressure source, and an atomizing device that forms and distributes the spray. Spray pressure is supplied by lever-operated manual pump, an engine-powered pump, or a compressed air tank.

Knocking [Ag Mach] A sharp pounding sound occurring periodically in an engine.

Knockout [Ag Mach] Is a small circular section of the outlet box (made of metal) that has been stamped by a machine so that the section can easily be removed.

Knot [Gen Agri] Portion of a branch or limb which has been surrounded by subsequent growth of the wood of the trunk or other portions of the tree. As a knot appears on the sawed surface, it is merely a section of the entire knot, its shape depends upon the direction of the cut.

Knurling [Soil & Water] A method of placing ridges in a surface, thereby forcing the areas between these ridges to rise.

Kosher Meat [Gen Agri] Is a meat from ruminant animals with split hooves where the animals have been slaughtered according to Jewish law.

Kreb's Cycle [Gen Agri] Is a cyclic series of chemical reactions through which pyruvate is oxidized to CO_2 and H_2O and ATP is produced.

K-value [Ag Proc] A measure of materials' resistance to the flow of heat.

KWhr Meter [Ag Elec] Is the device used to measure electric energy.

L

Label [Ag Proc] Includes any tag, brand, mark, pictorial, or other descriptive matter, written, printed, marked, embossed or impressed on, or attached to a container of food.

Labeling [Ag Proc] Means any written, printed or graphic matter (1) upon any article or any of its containers or wrappers or (2) accompanying the packaged food.

Laboratory Dryer [Ag Proc] A dryer that is scaled down unit of either the continuous-flow or the batch drier but which causes a very slow drying rate or mild drying to avoid stressing the grains and to set the standard with which results to the test drier will be compared.

Laboratory Sieve Shaker [Ag Proc] Equipment with definite shaking motion used to sort the size of milled materials using standard screen sieves.

Lactation [Gen Agri] Is the process of producing and secreting milk in order to nourish the young.

Lactic Acid Fermentation [Ag Proc] Is the decomposition of sugar to lactic acid by the lactic acid bacteria.

Ladder [Ag Struc] A device incorporating or employing steps, rungs or cleats on which a person can ascend or descend.

Lagoon [Ag Struc] An earthen structure for the storage and biological treatment of wastewater.

Lag Time (Hydrology) [Soil & Water] The interval between the time when one half of the equivalent uniform excess rain (runoff) has fallen and the time when the peak of the runoff hydrograph occurs.

Lag Time (Irrigation) [Irrig & Drain] The interval after water is turned off at the upper end of a field, until it recedes from that point.

Lairage [Ag Struc] Any premise or yard used for the confinement of animals waiting to be slaughtered which include unloading ramp, pens and detention pens.

Lake [Gen Agri] Any inland body of standing water, usually fresh water, larger than a pool or pond; a body of water filling a depression in the earth's surface.

Lamb [Gen Agri] A young sheep of any age; Meat products of a sheep.

Lambing [Gen Agri] Act of giving birth to a lamb. Same as *parturition*.

Lamina [Soil & Water] Thin plate or scale or layer, or flakes as in a soil that is made up of thin flakes.

Laminar Flow [Ag Proc] Flow in which there are no cross currents or eddies, and where the fluid elements move in approximately parallel directions.

Laminations [Gen Eng] Electrical circuit core parts, found in motors, generators, alternators and transformers. When core parts are subjected to alternating electrical or magnetic fields, the buildup of Eddy Currents causes physical and electrical power loss. Laminations are made of thin strips of materials that make good temporary magnets and poor permanent magnets, and each strip is insulated electrically from the next.

Land [Gen Agri] unplowed soil

Land Capability [Soil & Water] Classification of soil units for the purpose of showing their relative suitability for specific uses, such as crop production with minimum erosion hazard.

Land Forming [Soil & Water] Tillage operations, which move soil to create, desired soil configurations. Forming may be done on a large scale such as contouring or terracing, or on a small scale such as ridging or pitting.

Land Grading [Ag Mach] Tillage operations which move soil to establish a desired soil elevation and slope. Examples: leveling, contouring, cutting, and filling.

Land Grading [Soil & Water] The operation of shaping the surface of land to predetermined grades so each row or surface slopes to drain or is configured for efficient irrigation water applications.

Landing [Ag Struc] Refers to the horizontal floor as resting place in a flight.

Landing Platform [Ag Struc] An elevated horizontal surface area that provides access and egress for a fixed ladder.

Land Leveler [Ag Mach] A machine with a long wheel base used for land smoothing or leveling operations.

Land Leveling [Soil & Water] Process of shaping the land surface to a level surface. A special case of lands grading.

Land Planning [Ag Mach] A tillage operation that cuts and moves small layers of soil to provide a smooth, refined surface condition.

Land Reclamation [Soil & Water] Refers to the restoration of productivity to lands made barren through processes such as erosion, mining or land clearing.

Landscape Irrigation [Irrig & Drain] Water conservation through landscaping that uses plants that need little water, thereby saving labor and fertilizer as well as water.

Landslide or Landslip [Irrig & Drain] Is the movement down the slope of a large mass of soil or rocks from a mountain or cliff. Often occurs after a torrential rain which soaks into the soil making it heavier and more mobile.

Land Smoothing [Ag Mach] The process of smoothing the land surface with a land plane or land leveler to eliminate minor depressions and irregularities without changing the general topography.

Land-use Planning [Soil & Water] Decision making process to determine present and future uses of land. The resulting plan is the key element of a comprehensive plan describing recommended location and intensity of development of public and private land uses such as residential, commercial, industrial, recreational, and agricultural.

Lapan [Gen Agri] A rabbit's meat.

Lap-Joint [Ag Struc] A type of riveted joint wherein the plates overlap each other and are held together by one or more rows of rivets.

Lap Sliding [Ag Struc] Building sheathing usually 305 mm (12 in.) or less wide and 4.88m (16 ft) or less long that gradually thickens from about 6.4 mm (1/4 in.) thick at its top edge to about 15.9 mm (5/8 in.) thick at its bottom (exposed) edge; the thick bottom is installed over the thinner, top edge.

Large Animals [Gen Agri] Livestock animals that refers to cattle or carabao.

Large Broken Milled Grain [Ag Proc] Is a rice particle with a length of 3/8 or more but shorter than 6/8.

Large Fluid Fertilizer Tank [Ag Struc] A fluid fertilizer storage tank large enough to be designated a large tank by regulatory authorities and thus have a unique set of containment rules.

Latent Heat [Ag Proc] Change of enthalpy during a change of state; Is the quantity of heat required to change the state of a body without an increase in temperature.

Latent Heat of Evaporation [Ag Proc] Is the change of heat (energy) required to change the unit mass of a substance from a liquid to a gas.

Latent Load [Ag Proc] Refers to heat loads principally coming from people, infiltration air, ventilation air and moisture-releasing appliances.

Lateral [Ag Struc] Foundation design for post frame resistance to loads such as wind and stored granular material that tend to cause horizontal post displacement; [Soil & Water] The water delivery pipeline that supplies water to the emitters from the manifold pipelines.

Lateral Headgate [Soil & Water] Is the structure built at the point where a lateral canal branches out from a main canal to regulate or control water flowing into the lateral canal.

Lateral Loads [Ag Struc] Include wind loads and seismic loads.

Laterally Loaded Connections [Ag Proc] Refers to the most common nailed connections. Load is applied perpendicular to the length of the nail.

Lateral Resistance in End Grain [Ag Proc] A type of laterally loaded connection wherein the nail is driven parallel to the grain of holding member.

Lateral Resistance in Side Grain [Ag Proc] A type of laterally loaded connection wherein the nail is driven perpendicular to the grain of holding member.

Lateral Ties [Ag Struc] Refer to the lateral reinforcements of vertical bars in a tied column.

Lateral Tool Spacing [Ag Struc] The horizontal distance between corresponding reference points on adjacent tools when projected upon a vertical plane perpendicular to the direction of travel.

Lath Box [Irrig & Drain] A wooden box that is placed in a ditch bank to transfer water from an irrigation ditch to the field to be irrigated (preferred term is spile).

Lathe [Ag Mach] A metal turning machine tool in which the work, while revolving on a horizontal axis, is acted upon by a cutting tool which is made to move slowly in a direction more or less parallel to the axis of the work, or in the direction at right angles to the axis of work.

Law of Diminishing Return [Gen Agri] Is the economic principle which states that successive portions of quantities of variable factors of production is other factor of production which is fixed will result in diminishing marginal productivity, at least after some points.

Lawn and Garden Ride-On Tractor [Ag Mach] A self-propelled machine, designed and advertised for general purpose lawn and garden work, having the following characteristics.

Lawn and Garden Walk-Behind Tractor [Ag Mach] Generally a self-propelled, single-axle, wheel-driven machine designed and advertised for general purpose lawn and garden work.

Laying or Oviposition [Gen Agri] Is the expulsion of egg outside of the reproductive tract in birds.

Layout Tools [Ag Mach] Are tools used to measure, mark and test wood, metal, and other materials (i.e. squares, rules, levels, calipers, tapes and lines).

Leach [Gen Agri] To remove materials by solution.

Leachate [Soil & Water] Water that moves downward through some porous media and contains dissolved substances removed from media.

Leaching [Soil & Water] The removal of soluble constituents such as nitrates or chlorides from soils or other material by water.

Leaching [Ag Proc] The outward diffusion of hydro soluble constituents of the paddy kernel into the soak water during the soaking process of

parboiling; [Soil & Water] Removal of soluble material from soil or other permeable material by the passage of water through it.

Leaching Fraction [Irrig & Drain] The ratio of the depth of subsurface drainage water to the depth of infiltrated irrigation water.

Leaching Requirement [Irrig & Drain] Is the fraction of the irrigation water that must be leached through the root zone to control soil salinity at specified level.

Leading [Gen Agri] Is the process of directing and influencing the task-related activities of group members or an entire organization.

Leading Edge [Gen Eng] The edge of a blade that faces toward the direction of rotation.

Leafy Vegetables [Gen Agri] Are vegetables that yield succulent leaves.

Leakage Loss [Ag Mach] Any involuntary loss of grain from the combine, expressed as a percent of the grain feed rate.

Leak Detection [Soil & Water] Systematic method of using listening equipment to survey the distribution system, identify leak sounds, and pinpoint the exact locations of hidden underground leaks.

Lean-To [Ag Struc] A shed with a single-sloped roof and upper edge abutting a wall or building.

Lean-To Greenhouse [Ag Struc] A greenhouse structure which is attached to another building along the ridge line.

Lease a lease is a contract for the use of the machinery for an agreed period of time in return for periodic payments.

Left-Hand Plow [Ag Mach] Turns the furrow slice to the left side of the plow.

Left-hand Side [Ag Mach] For mobile machines, it is the side which is on the left when an observer is facing in the normal forward direction of the travel of the machine; and for stationary machines, it is the side which is on the left when an observer is facing the machine.

Left Hand Thread [Soil & Water] A thread which winds in a counterclockwise and receding direction from the starting end, when viewed from that end.

Left Side [Ag Mach] The left hand side of a tractor, self-propelled implement of husbandry, agricultural implement, or farmstead equipment, as determined from the rear of the vehicle facing in the direction that it moves.

Legumes [Gen Agri] Are vegetables that yield edible fresh pods.

Length of Fastener [Ag Mach] The length of headed fastener is the distance from the intersection of the largest diameter of the head with

the bearing surface to the extreme end of the fastener, measured parallel to the axis of the fastener.

Length of Run [Soil & Water] Distance water must flow in furrows or borders over the surface of a field from the head to the end of the field.

Lenzing [Gen Eng] Covers on lamps that diffuse and color the light emitted from a source.

Lenz Effect [Gen Eng] Also Eddy Current. From H.F.E Lenz in 1833. Electromotive force is induced with variations in magnetic flux. It can be demonstrated physically in many different ways—for example dragging a strong magnet over an aluminum or copper plate, or shorting the terminals of a PM alternator and rotating the shaft by hand. Laminates are used to reduce power losses from this effect.

Lethal [Gen Agri] Deadly; causing death.

Lethal Dose [Gen Agri] The amount of a toxic substance required to cause death of an organism under study in a given period.

Leutinizing Hormone [Gen Agri] Is the hormone that causes ovulation of matured follicles.

Leveling Adjustment [Ag Mach] Adjustment of the right lower link so that the hitch point may be moved vertically with respect to the left lower hitch point to provide an inclination of the implement.

Level Terrace [Soil & Water] A terrace constructed along the contour with no slope and with either closed or open channel ends.

Lever Operated Knapsack Sprayer (LOKS) Backpack sprayer [Ag Mach] Sprayer which is operated manually with a lever and can be carried on the back of an operator for spraying.

Libido [Gen Agri] Sex drive or the desire to mate on the part of the male.

Life Goals [Gen Agri] Desired cycles or hours to (x)% failure in a specific operating environment.

Life of Machine, Economic [Ag Mach] The useful service life of a machine before it becomes unprofitable for its original purpose due to obsolescence or wear.

Life Safety [Gen Agri] Consideration of the preservation and safety of human life when designing buildings or structures that people could enter.

Lift [Gen Agri] The force exerted by moving air on asymmetrically-shaped wind generator blades at right angles to the direction of relative movement. Ideally, wind generator blades should produce high lift and low drag.

Lift Arm [Ag Mach] Undercarriage support member located nearest discharge end.

Lift (Rake) Angle [Ag Mach] The angle, in a vertical plane parallel to the direction of travel, between a tool axis and the soil surface.

Lift Range [Ag Mach] The range of vertical adjustment plus the power range.

Light [Gen Eng] Visually evaluated radiant energy, with wavelengths approximately ranging between 380 and 720 nm, based on the sensitivity of human eye.

Lighting [Ag Elec] Lamps used to illuminate and identify various parts of a machine to mark its size and position on a public road.

Lightning Protection [Ag Elec] Protecting a building or an electrical circuit from the damaging effects of lightning.

Lightning Surge Arrestor [Ag Elec] A device designed to protect an electrical circuit or an electrical system from the damaging effects of lightning or induced lightning surges.

Light Reaction [Gen Agri] Is the reaction in photosynthesis in which light energy is required, the photo activation or excitement of an electron in the chlorophyll molecule, electro transfers of this electron and associated reactions.

Light Soil (Obsolete) [Gen Agri] A soil which has a coarse texture and easily cultivated.

Light Timber Framing [Ag Struc] This framing is the type widely used in the construction of dwellings and other small buildings having a short roof span.

Light Transmittance [Ag Elec] The ratio of the light passing through a glazing material to the light incident upon it.

Light Trap [Ag Elec] A device for allowing passage into or out of a room or container while minimizing transmission of light.

Lignin [Gen Agri] The component of wood responsible for its rigidity.

Lime [Gen Agri] Refers to Calcium oxide or quick lime; Calcium carbonate; material applied to increase soil pH.

Limestone [Gen Agri] Calcium carbonate. When crushed, it is a suitable base for livestock barn floors.

Limited Irrigation [Irrig & Drain] Management of irrigation applications to apply less than enough water to satisfy the soil water deficiency in the entire root zone. Sometimes called "deficit" or "stress irrigations."

Limit Feeding [Gen Agri] Feeding method in which livestock are fed less than they would consume if given free access to feed.

Linchpin [Ag Mach] Retaining pin used in the hitch pins or studs.

Line-breeding [Gen Agri] Refers to the breeding of less related individuals, nephew and aunt, first cousin and so on.

Line Gate [Soil & Water] A hub-end screw-type or butterfly gate which is installed in the pipeline.

Line of Travel [Ag Mach] The line and direction along which the tillage implement travels.

Line Pressure [Ag Proc] The pressure of the fuel in the supply line to the dryer.

Line Source [Soil & Water] Continuous source of water emitted along a line.

Line-source emitters [Soil & Water] Water is discharged from closely spaced perforations, emitters or a porous wall along the lateral line.

Lining [Soil & Water] Protective covering over the perimeter of a conduit, reservoir, or channel to prevent seepage losses, to withstand pressure, or to resist erosion.

Linkage [Ag Mach] The combination of 1 upper link and 2 lower links, each articulated to the tractor and the implement at opposite ends in order to connect the implement to the tractor.

Link Point [Ag Mach] Articulated connection between a link and the tractor.

Lint [Gen Agri] Cotton fiber remaining after the seeds have been ginned out.

Lintel [Ag Struc] A beam used over doors, windows and other openings in buildings to carry vertical loads.

Liquefaction [Ag Proc] Act or process of hydrolysis, rendering or becoming liquid; reduction to a liquid state.

Liquefied Petroleum Gas (LPG) [Ag Power] Commercial propane gas, butane gas or a mixture of the two gases, with properties conforming to the specifications set by the Bureau of Product Standards.

Liquid Feeding [Gen Agri] Feeding method in which livestock are fed less than they would consume if given free access to feed.

Liquidity [Gen Agri] Is the readiness by which an asset can be converted into cash; the ability to pay debts as become due.

Liquid Line [Ag Proc] Carries the liquid refrigerant from the receiver tank to the refrigerant flow control.

Liquid Manure (Thin Slurry) [Ag Struc] Manure which has had sufficient water added so that it can be pumped easily.

Lister-Planter [Ag Mach] A combined tillage implement which is compose of a lister and planting attachment to permit a single listing-seeding operation with the planter.

Lister Seeding [Ag Mach] A method of seeding in which mix or dispense foreign materials, such as pesticides, fertilizers, or plant residues, into the soil.

Listing (also Called Bedding or Ridging) [Ag Mach] Tillage which forms a ridge and furrow soil configuration.

Litter [Gen Agri] A group of pigs in one farrowing.

Litter Index [Gen Agri] Average number of farrowings of one sow per year.

Litter type [Ag Struc] Type flooring utilizing the most commonly available materials such as rice hull and rice straw and wood shavings over the cemented floor.

Live [Gen Eng] A circuit that is carrying electricity. When live, it can shock you.

Live Load [Ag Struc] Gravitational force due to mass of equipment, livestock, products, and other loads resulting from the use of the structure.

Livestock [Gen Agri] Domestic animals kept for use on an agricultural operation and which are raised for sale and profit including milk, meat, power, traction, hobby and recreation.

Load [Gen Eng] Something physical or electrical that absorbs energy. A wind generator that is connected to a battery bank is loaded.

Load-Bearing Walls [Ag Struc] They support loads from floors and roof in addition to their own weight and which resist side pressure from wind and, in some cases, from stored material or objects within the building.

Load Factor [Ag Elec] The ratio of the average load to the maximum demand of the system.

Load Factor, Field [Ag Power] The ratio of engine power used in performing an operation to engine power available.

Loading Chute [Ag Struc] Inclined ramp with side barriers that directs livestock into or out of a truck or trailer.

Loading End Doors [Ag Struc] Doors through which the curing compartment is filled.

Loading Rate [Ag Mach] The quantity of material added per unit volume or unit area per unit time.

Load Transfer [Ag Mach] The change in the distribution of the force normal to the undistributed supporting surface on which the traction or transport devices are operating as compared to forces for static vehicle.

Localized Fertilizer [Gen Agri] Is applied on a specific area near the seed or plant either in bands, in rows, or by hole method.

Local Lightning [Ag Elec] Illumination provided over a relatively small area or confined space without any surrounding general lightning.

Locked-Rotor Current [Ag Elec] Maximum current required to start the motor.

Locked Rotor Torque [Ag Power] Refers to the motor torque at zero speed or the maximum torque available to start the load.

Lodging [Gen Agri] A condition most frequently observed in cereals where plants bend at or near the soil surface and lie more or less flat on the ground.

Logistic Function [Gen Agri] Involves moving products from point of production to the point of purchase or consumption.

Log Mean Temperature Difference [Gen Eng] Is a specialized average temperature difference used to determine the heat transfer rate.

Log-Normal Distribution [Gen Agri] Is used when there is skewness in the data distribution.

Longevity [Gen Agri] Refers to the length of life usually of seeds or plants of longer than average life.

Long Grain (Palay) [Gen Agri] Is a palay whose average length of the full size brown rice grain is above 6.5 millimeters.

Long Grain (Milled Rice) [Gen Agri] Is a rice grain with 80% or more of whole milled rice grains having a length of 6.0 millimeters and above.

Longitudinal [Gen Agri] Generally, the direction along the length of the grain of wood. A longitudinal section may be a plane either tangential or radial to growth rings.

Longitudinal Section [Ag Struc] Cross section along the length of a building.

Longitudinal Smoothing [Gen Agri] Land smoothing operation where all soil movement is done parallel to crop row direction for the purpose of obtaining a grade.

Longitudinal Tool Spacing [Ag Mach] The horizontal distance between corresponding reference points of two tools when projected upon a vertical plane parallel to the direction of travel.

Long Run [Gen Agri] Refers to a time period so long that all factors of production can be varied; i.e. there are no fixed costs anymore, all variable costs.

Long-term Hydrostatic Strength [Gen Eng] The estimated tensile stress of a pipe wall in the circumferential orientation that, when applied continuously, will cause failure of the pipe at 100,000h.

Loop [Ag Mach] A length of chain with both ends connected behind the furrow opener, forming a loop which drags over the seeded furrow.

Loose-fill Insulation [Ag Struc] Insulation installed by pouring or blowing into building walls and ceiling.

Loose Housing [Ag Struc] Animals are free to move between resting, feeding, and watering areas.

Loose Type Animals [Ag Struc] Animals are free to move in a pen while waiting to be slaughtered.

Lorena [Ag Struc] A sand and clay mixture. (From the Spanish words lode(mud) and arena(sand)).

Losing Stream [Soil & Water] Channel that loses water into the bed or banks.

Lot [Ag Mach] in any consignment, all components or equipments under study; [Ag Proc] Refers to a quality of food produced under essentially the same conditions during a particular production schedule.

Lot runoff [Gen Agri] Rainfall containing animal manure.

Louver [Ag Mach] A series of baffles used to shield a source from direct view at certain angles or to absorb unwanted light.

Lower Arm [Ag Mach] Undercarriage support member located nearest to the intake end.

Lower Critical Temperature [Ag Struc] Effective environment temperature below which the livestock must increase heat-production rate to achieve heat balance.

Lower Hitch Point Tire Clearance [Ag Mach] Clearance expressed as a radial dimension from the lower hitch point to the outside diameter of the tire with the implement in raised position and all side sway removed from the links.

Lower Hitch Point Tractor Clearance [Ag Mach] Horizontal dimension between the rearmost of the tractor in the area between the two lower links and the horizontal line through the two lower hitch points throughout the range of vertical movement of the hitch points.

Low-flow Plumbing [Ag Mach] Plumbing equipment that uses less water than was considered standard prior to January 1, 1994.

Low-flow Showerhead [Ag Mach] A showerhead that requires 2.5 gallons of water per minute or less, as compared to the 4.5 gallons of water required by most older standard.

Low-flush Toilet [Ag Mach] A toilet that requires 1.6 gallons of water per flush or less, as compared to the 3.5-5 gallons of water required to flush most older standard toilets.

Lowry Process [Ag Proc] An empty-cell process in which the air in the wood is compressed solely by the preservative introduced into the retort under pressure.

LP (Liquefied Petroleum Gas) [Ag Power] A pressurized (340 to 1030 kPa; 50-150 psi) mixture of mostly propane and butane gas.

Lubricant [Ag Mach] A medium that supports the metal to metal contact.

Lucerne [Gen Agri] Alfalfa, a legume of high feeding value of ruminants.

Lug Angle [Ag Mach] The average angle between the centerline of the lug face and the circumferential centerline of the tire.

Lug Spacing or Pitch [Ag Mach] The distance between corresponding points on adjacent lugs measured on a flat section of belt.

Lumber [Ag Struc] Wood from logs sawn and usually planed (dressed) for building use in construction.

Lumber Core [Ag Struc] Side board made up of well machined lumber strips properly dried and glued together.

Lumber Core Plywood (Ply Board) [Ag Struc] Plywood made up of face/back veneer, crossboard core veneer and well composed kiln dried lumber core.

Lumber, Kiln Dry [Ag Struc] Lumber that has been dried in a dry kiln to a specified moisture condition.

Lumen [Ag Elec] The unit of the time rate of flow of light equal to the energy emitted through a solid angle from a uniform point source of one candela.

Lumen [Gen Agri] In wood anatomy, the cell cavity.

Lumenance [Ag Elec] A complete lightning unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps, and to connect the lamps to the power supply.

Luminaire [Ag Elec] A complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps, and to connect the lamps to the power supply.

Lux [Ag Elec] The unit of illumination when the meter is the unit of length.

Lysimeter [Soil & Water] An isolated block of soil, usually undistributed and in situ, for measuring the quantity, quality, or rate of water movement through or from the soil.

M

Machine Disconnect [Ag Mach] A disconnecting means at the point of connection of electrical power to the machine.

Machine-Dried Grain [Ag Proc] Grain which has been dried by means of the test drier.

Machinery Hazard [Ag Mach] Machinery parts which can cause injury upon direct contact or by entanglement of personal apparel.

Macroelements [Gen Agri] Are elements such as nitrogen that are needed in large amounts for plant growth. Nutritive elements needed in large quantities to ensure normal plant development (N, P, K, S, Mg, Ca, Fe).

Macro Minerals [Gen Agri] Are minerals normally present at greater level in animal body or needed in relatively large amounts in the diet. Include Ca, P, Na, Cl, K, Mg, S.

Macro-Nutrient [Gen Agri] A mineral required in relatively large amount for plant growth.

Macropores [Gen Agri] Pores >100 mm in diameter.

Maggot [Gen Agri] Refers to the larvae of a fly.

Magnetic Coil [Ag Elec] The coil of wire on an electromagnet.

Magnetic Motor Starter [Ag Elec] A motor starter that maybe controlled from a remote location by energizing an electromagnetic coil.

Magnetic Field Strength [Ag Elec] Amount of magnetomotive force per unit length. Other terms for magnetic field strength are magnetic field strengths are magnetic field intensity and magnetizing force.

Makeup Heater [Ag Proc] Furnace, usually on an exterior wall, which adds heat to an incoming forced fresh air stream and exhausts, or distributes, it into the room.

Main and Submain [Irrig & Drain] The water delivery pipelines that supply water from the control station to the manifolds.

Main Canal [Irrig & Drain] Is the channel where diverted water from a source flows to the intended area to be irrigated.

Main control panel [Ag Mach] An enclosure containing the main controller an other control devices necessary for starting and stopping the machine.

Main Grain Outlet [Ag Mach] The outlet to collect the threshed grain.

Maintenance [Gen Agri] A condition in which the body is maintained without an increase or decrease in body weight and with no production or work being done.

Maintenance and Service [Ag Mach] Periodic activities to prevent premature failure and to maintain good function performance.

Maintenance Instructions [Ag Mach] Explain the maintenance required and the methods of performing maintenance on the equipment.

Main Rig Assembly [Ag Struc] Structure which supports the entire drilling system.

Main Tillage Operation [Ag Mach] This is normally the deepest operation that is performed during the period between two crops to control weeds, restore the soil structure in the arable layer where most of the roots develop and to prepare the land for seed bed preparation

Maize (Ear Corn) Header Width [Ag Mach] The average distance between the centerlines of adjacent picking units multiplied by the number of units.

Major Overhaul [Ag Mach] Extensive rebuilding which extends the useful life of a machine, increases its value or adapts the machine for a different use .

Malleability [Ag Mach] Is the ability of a material to sustain large permanent deformation in compression.

Management [Gen Agri] Is defined as the process of setting and achieving goals through the execution of the management functions that utilize human, financial and material resources.

Management Allowed Depletion [Irrig & Drain] The desired soil water deficit at the time of irrigation.

Managers [Gen Agri] Are people who are responsible for helping the organizations achieve their goals.[ASAE] the management in effective control of the operation after installation.

Manger [Ag Struc] Feed bunk in building.

Mangrove [Gen Agri] Group of forest tree species growing along marsh or coastal areas.

Mangum Terrace (Obsolete) [Irrig & Drain] Named for the irrigator of the broadbased terrace.

Manifold [Irrig & Drain] The water delivery pipeline that supplies water from the submain or main to the laterals.

Manometer [Gen Eng] An instrument which measures the pressure of liquids and gases by fluid displacement.

Manometer (Open-Type) [Ag Proc] Is a gauge in the form of a glass U-tube one leg of which is open to the atmosphere, or a straight tube one end of which is open to the atmosphere; Instrument which measures the pressure of liquids and gases by fluid displacement.

Manual Defrosting [Ag Proc] Defrosting by natural means with manual initiation and termination of overall defrost operation.

Manually Carried or Operated Sprayer [Ag Mach] A sprayer apparatus that is carried or operated by an individual.

Manual Motor Starter [Ag Power] A horsepower rated switch for starting a motor manually.

Manufacturer [Ag Mach] Those that produce one or more several types of farm machines and usually do not sell other items from other manufacturers.

Manufacturer's Coefficient of Variation [Irrig & Drain] A measure of the variability of discharge of a random sample of a given make, model, and size of microirrigation emitter, as produced by the manufacturer and before any field operation or aging has taken place.

Manufacturer-Dealer [Ag Mach] Those that manufacture their own line of item but also sell either consigned items such as single cylinder engine, pumps, etc.

Manufacturer's Coefficient of Variation [Irrig & Drain] This is a measure of the variability of discharge of a random sample of a given make, model and size of emitter, as produced by the manufacturer and before any field operation or aging has taken place.

Manure [Gen Agri] The fecal and urinary excretion of livestock and poultry.

Manure Flume [Ag Struc] Any restricted passageway, open along its full length to the atmosphere, through which the liquid moves by gravity.

Manure Gas [Ag Waste] Mixture of gases (primarily H_2S , NH_3 , CH_4 , and CO_2) formed during decomposition of waste.

Manure Separators [Ag Struc] A device or structure which brings about a partial separation of solid material from a liquid or slurry.

Manure Storage [Ag Struc] A storage unit to keep manure contained for some period of time prior to its ultimate utilization or disposal.

Manure Tank [Ag Struc] A storage structure with a vertical side walls and an impervious floor, constructed to store semi-solid, slurry and liquid manure.

Manure Transfer Device [Ag Struc] A device whose primary function is to move manure from a collection point to storage, and from storage to processing or utilization.

Marbling [Gen Agri] The distribution of fat in muscular tissue; intramuscular fat.

Mare [Gen Agri] A mature female horse.

Margin [Ag Mach] The distance from the edge of the plate to the centerline of the nearest row of rivets.

Marginal Cost [Gen Agri] Is the additional cost that a producer incurs in making one additional unit of output.

Marginal Land [Gen Agri] Refers to the grade of land whose productive capacity is only enough to recover its cost of production.

Marginal Product [Gen Agri] An additional product realized from additional investment or expenditure of the business.

Marine [Ag Struc] A type of plywood used for external use.

Market Animals [Gen Agri] Livestock that have reached the age and weight desired; livestock deemed ready for slaughter.

Marketing Allotments [Gen Agri] Provide each processor or producer of a particular commodity a specific limit on sales for the year, above which penalties would apply.

Marketing Management [Gen Agri] Is the planning, directing and controlling of the entire marketing activities of the farm, including the formation of marketing objectives, policies, programs and strategies for product development.

Marketing margin [Gen Agri] Refers to the difference between the price that consumers pay for the final production and the price received by the producers for the raw product; the difference between the price a buyer pays for a good or service and the price at which he sells that good or service. In general, equal to the cost of providing marketing services needed in a relatively competitive market.

Marking [Ag Mach] Signs and reflectors or reflective materials used to identify various parts of a machine and mark its size and position on a public road.

Mark-up Pricing [Gen Agri] The price is determined by adding some fixed percentage to the unit cost; most commonly found in the retail trades (groceries, furniture, clothing, jewelry, etc.) where the retailer adds predetermined but different mark-ups to various goods he carries.

Marsh [Gen Agri] A type of wetland that does not accumulate appreciable peat deposits and is dominated by herbaceous vegetation. May be either fresh or salt water and tidal or non-tidal.

Masonry [Ag Struc] Something made from stone, bricks or hard material.

Masonry Wall [Ag Struc] Refers to the wall that is build of individual blocks of materials such as brick, clay or concrete blocks, or stone, usually in horizontal courses bonded together with some form of mortar.

Mass Flow Hopper [Ag Mach] A hopper in which all the grain in the hopper is in motion whenever any grain is withdrawn through the hopper outlet.

Mast [Ag Mach] The member that provides attachment of the upper link to the implement.

Mast Adjustment [Ag Mach] The usable range of movement of the mast in a vertical plane.

Mastication [Gen Agri] Refers to the chewing of food.

Mastitis [Gen Agri] Is the inflammation of the udder or mammary gland.

Material Management [Ag Mach] Includes duties performed by purchasing, material supervision as inventory controls, inspection of materials and salvage operations.

Material-other-than-grain, MOG, feed rate [Ag Proc] The weight of material-other-than-grain passing through the combine per unit of time expressed in metric tons per hour.

Material-other-than-grain, MOG, to grain ratio [Ag Proc] The total weight of material-other-than-grain, MOG divided by the total weight of grain in a sample.

Maternity Pen [Gen Agri] Pen for animals to give birth.

Mature Compost [Ag Waste] Is a compost that has been cured to a stabilized state, characterized as rich in readily available forms of plant nutrients, poor in phytotoxic acids and phenols, and low in readily available carbon compounds.

Mature Soil [Gen Agri] Is a well developed soil usually with clearly defined horizonation.

Mattress [Irrig & Drain] 1) Mat or weighted blanket constructed of brush or poles, interwoven or other wise lashed together, placed in a channel to control erosion. 2) A wire basket, less than 30 cm thick, filled with stones.

Maximum Angle of Fill [Ag Struc] The maximum angle that may be used for calculating the capacity of the roof area.

Maximum Brake Power [Ag Mach] Highest power developed at a given speed.

Maximum Crushing Strength [Ag Proc] Maximum stress sustained by compression members under a load slowly applied parallel to the grain.

Maximum Drawbar Pull [Ag Mach] Mean maximum sustained pull of the tractor at the drawbar over a given distance, the pull being exerted horizontally and in the vertical plane containing the longitudinal axis of the tractor.

Maximum Gross Mass [Ag Mach] The maximum permissible mass (weight) of the test machine in accordance with manufacturer's recommendations regardless of travel speed restrictions, and including maximum ballast, equipment and material load recommended or permitted.

Maximum Input Capacity [Ag Proc] The mass of milled rice per unit of milling time, expressed in kg/h.

Mean Deposit Rate [Ag Mach] The average amount of deposit over the entire spray swath.

Mean Depth [Soil & Water] Cross-sectional area of a stream divided by its surface width; the average depth.

Mean Effective Pressure (MEP) [Ag Mach] The calculated combustion in pounds per square inch (average) during the power stroke, minus the pounds per square inch (average) of the remaining three strokes.

Mean Indicated Pressure (MIP) [Ag Mach] Net mean gas pressure acting on the piston to produce work.

Mean Velocity [Soil & Water] Velocity obtained by dividing the flow rate by the cross sectional area; the average velocity.

Measuring Sheaves [Ag Mach] Sheaves used for determining the effective length of as belt.

Meat [Gen Agri] Edible part of the muscle of cattle, sheep, goats or swine.

Meat By-Products [Gen Agri] Are edible by-products from the slaughter house.

Mechanical Analysis [Gen Agri] Is the separation and percentage evaluation of the different soil particles in the soil. The method most commonly used in particles size analysis is fractionation.

Mechanical Advantage [Ag Mach] The ratio of the resisting weight to the acting force; The distance through which the force is exerted divided by the distance the weight is raised.

Mechanical Anchorage [Ag Struc] Is any mechanical device capable of developing the strength of the reinforcement without damage to the concrete. It is the means by which the pre-stress force is permanently transferred to the concrete.

Mechanical Efficiency [Ag Mach] The ratio of brake horsepower or ratio of brake horsepower, or ratio of brake mean effective pressure to mean indicated pressure; An engine's rating which indicates how much of the potential horsepower is wasted through friction within the moving parts of the engine.

Mechanical Impedance [Ag Mach] Resistance to the movement of plant parts or tillage tools trough soil that is caused by mechanical strength of the soil.

Mechanically Damaged Grain [Ag Proc] Grains that were broken and/or dehulled (partially or fully) as a result of the threshing operation.

Mechanically Damaged Kernels [Ag Proc] Kernels that were broken and/or scratched as a result of shelling operation.

Mechanically Laminated Column [Ag Struc] A structural assembly consisting of suitably selected wood laminations joined with nails, bolts, and/or other mechanical fasteners.

Mechanical Rice Thresher [Ag Mach] Machine used to detach and separate the palay from the panicles.

Mechanical Solids Separation [Ag Struc] The process of separating suspended solids from a liquid-carrying medium by trapping the particles on a mechanical screen or sieve, or by centrifugation.

Mechanical Stability (Strength) [Soil & Water] The degree of resistance of soil to deformation.

Mechanical Tillage Implement [Ag Mach] Single or groups of soil-working tools together with power transmission structure, control, and protection system present as an integral part of the machine.

Mechanical Ventilation [Ag Struc] Desirable air exchange which occurs through controlled openings, when fans are used to move air into, and exhaust air out of the greenhouse.

Median Size [Ag Proc] Particle diameter at 50% probability of a size distribution curve.

Medicator [Soil & Water] Device which dispenses a medication at a known rate into a water line.

Medium Grain (Palay) [Ag Proc] Is a palay whose average length of the full size brown rice grain ranges from 5.55 to 6.5 millimeters.

Medium Grain (Milled Rice) [Ag Mach] Is a rice grain with 80% or more of whole milled rice grains having a length of 5.0 to 5.9 millimeters.

Medium Size Brokens [Ag Proc] Broken pieces of rice grains, between one-fourth and one-half a kernel size.

Medium Sprays [Ag Mach] Distribution of droplets with $400 \mu\text{m} < D_{v0.5} \leq 1200 \mu\text{m}$.

Megaspore [Gen Agri] The spore that germinates to form the female gametophyte, the end product of mitosis in the pistil.

Mesh Floor [Ag Struc] Flooring with many small openings in it to permit manure to pass through; usually used with livestock less than 90 kg.

Meiosis [Gen Agri] Is a process by which the germinal cells divide to produce haploid cells each carrying only one-half of the genetic complement of the individual.

Melengestrol Acetate (MGA) [Gen Agri] A feed additive that suppresses estrus in heifers and is widely used in the feedlot industry.

Mellow Soil [Gen Agri] Is a soil that is easily worked or penetrated.

Melting [Ag Proc] Change of state from solid to liquid caused by absorption of heat.

Membrane Wall [Ag Struc] It is a wall that is constructed as a sandwich of two thin skins or sheets of reinforced plastic, metal, asbestos-cement or other suitable material bonded to a core of foamed plastic to produce a thin wall element of high strength and low weight.

Merchants [Gen Agri] Are those who take physical possession and ownership of products sold.

Message Panel [Gen Agri] Area of a safety sign that contains the word messages that identify the hazard, indicate how to avoid the hazard, and advise of a probable consequence of not avoiding the hazard.

Mesophilic Bacteria [Ag Waste] Bacteria which are found in a temperature range of 25 - 40 degrees Celsius.

Mesophilic Stage [Ag Waste] Is a stage in the composting process characterized by bacteria that are active in a moderate temperature range of 20° to 45°C (68° to 113°F); it occurs later, after the thermophilic stage and is associated with a moderate decomposition rate.

Mesophilic Temperature Range [Ag Waste] Temperature range of 20°C-40°C where mesophilic bacteria operates.

Mesophyte [Gen Agri] Is a plant that thrives under medium conditions of moisture and salt content of the soil.

Metabolism [Gen Agri] Is the combination of anabolic and catabolic reactions occurring in the body with the liberation of energy. Metabolism involves all the chemical reactions performed by the cells to use the basic units of the nutrients for their specific functions i.e. glucose for energy or amino acids for protein synthesis.

Metal Benders [Ag Mach] Include sheetmetal benders, metal rollers, hand metal benders.

Metal Cutting Power Saw [Ag Mach] Includes reciprocating power hacksaws, band saws, or thin grinding type wheels that cut metals.

Metal Cutting-Band Saw [Ag Mach] A machine tool designed to cut everything all the time, because it employs an endless band with a sharp of teeth moving in one direction.

Metal Spinning [Ag Mach] The operation of shaping thin metal by pressing it against a form while it rotating.

Metal-To-Metal [Ag Mach] Attachment of metal parts to the machine with bolts and screws to provide an adequate contact for bonding purposes where all paint and dirt have been removed from under the bearing surface area of bolt or screw heads.

Metamorphic Rocks [Gen Agri] Are products of the reaction of very high temperature and pressure on sedimentary and igneous rocks.

Metamorphism [Gen Agri] Is the process whereby rocks undergo physical or chemical changes, or both, to achieve equilibrium with conditions other than those under which they were originally formed.

Meter Gate [Irrig & Drain] A calibrated irrigation valve used for flow measurement.

Metering [Ag Mach] Use of metering equipment that can provide essential data for charging fees based on actual customer use.

Meter, Moisture [Ag Proc] An instrument used for rapid determination of the moisture content of a wood by electrical means.

Metestrus [Gen Agri] Is the formation of corpus luteum, changes in vaginal wall and uterus.

Methanization [Ag Struc] Various processes that take place among the methanogens, non-methanogens and substrate fed into the digester as inputs.

Methanogens [Gen Agri] Anaerobic bacteria that act upon organic materials and in the process, produce biogas

Metritis [Gen Agri] An inflammation of the uterus.

Microclimate [Gen Agri] The climate of a very small region.

Microelement [Gen Agri] Refers to those elements that are essential for plant growth but are required only in very small amounts. Nutritive elements needed in small quantities for healthy plant development; trace elements (Mn, B, Cl, Zn, Cu, Mo).

Microfauna [Gen Agri] Small animals only visible with a microscope, including protozoa, nematodes, etc.

Microflora [Gen Agri] The small plants that can only be seen with a microscope they include algae, fungi, bacteria, etc.

Microhydro [Ag Proc] The energy of falling or running water which can be converted into rotary motion and in turn produces mechanical or electrical energy.

Microirrigation [Irrig & Drain] The frequent application of small quantities of water on or below the soil surface as drops, tiny streams or miniature spray through emitters or applicators placed along a water delivery line.

Micro-nutrient [Gen Agri] Is a mineral required in a relatively small amount for plant growth.

Microorganism [Gen Agri] Is a microscopic organism, eg. A bacterium, virus or fungus.

Micropores [Gen Agri] Pores 5-30mm in diameter.

Middlebreaker [Ag Mach] A lister without planting attachment.

Middlebreaking (Hilling-Up) [Ag Mach] The use of a Lister in a manner that forms a furrow midway, between two rows of plants; Operation wherein a Lister is used in a manner that forms a furrow midway between two previous of plants.

Migrant Farmworker [Gen Agri] A person who travels across State or county boundaries to do agricultural work of a seasonal or other temporary nature, and who is required to be absent overnight from his or

her permanent place of residence. Exceptions are immediate family members of an agricultural employer or a farm labor contractor, and temporary foreign workers.

Migration [Gen Agri] Is a process in which individuals from one population transfer to another population.

Milk Cooler [Ag Proc] Apparatus capable of cooling milk to the required temperature prior to collecting or processing.

Milking Center [Ag Struc] Combination of rooms in a dairy operation including the milking parlor and milk room, may include cow treatment area, mechanical and electrical equipment room, office and washroom and holding pen.

Milking Center Wastes [Ag Struc] The wastewater containing milk residues detergents, and manure which is generated in a milking center.

Milking Herd [Gen Agri] That portion of a dairy herd which is milked regularly.

Milking Parlor [Ag Struc] A facility that functions to extract milk from a cow by means of vacuum.

Milking Stall [Ag Struc] An enclosure designed to secure a cow during milking.

Milk Room [Ag Struc] Room attached to a dairy barn or milking parlor, for handling, cooling and storing milk.

Milled Rice [Ag Proc] Rice obtained from paddy after the husk and bran have been removed; Grains obtained after the removal of hull and bran.

Milling [Ag Proc] A general term representing the process of converting paddy into rice.

Milling Capacity [Ag Proc] Quantity of paddy that a rice mill can process to a specified quality per total milling time, expressed in kilogram per hour.

Milling Degree [Ag Proc] Extent or degree by which the bran layer of the brown rice is removed as a result of whitening; The extent or degree by which the bran covering the brown rice is removed as result of the whitening process.

Milling Recovery [Ag Proc] The ratio of the weight of milled rice produced to the weight of paddy passed through to the milling operation expressed in percent.

Milling Recovery Index [Ag Proc] The ratio of the milling recovery obtained in the actual testing, to the milling recovery obtained from the laboratory test mill.

Milling Yield or Milling Outturn [Ag Proc] The amount of water in the grain. Expressed as percentage based on wet or dry, i.e.

Milo [Gen Agri] A small drought-resistant grain sorghum with compact bearded heads of large yellow or whitish seeds.

Minerals [Gen Agri] Are naturally occurring elements or inorganic compounds in solid state, with definite chemical composition, unique crystalline structure, and certain physical properties.

Mineral Soil [Gen Agri] A soil that is composed predominantly of mineral material of organic soil.

Mineral Streak [Gen Agri] An olive to greenish-black or brown discoloration of undetermined cause in hardwoods, particularly hard maples; commonly associated with bird pecks and other injuries; occur in streaks usually containing accumulations of mineral water.

Mineral Wool [Ag Struc] Fibrous insulating material of processed slag or rock.

Minimum Tillage [Ag Mach] The least soil manipulation necessary for crop production or for meeting tillage requirements under existing soil conditions.

Minor Diameter [Ag Mach] For the straight thread, this diameter is the imaginary cylinder bounding the root of an external thread or the crest of an internal thread.

Miscut Lumber [Ag Struc] Rough lumber having greater variation in thickness, except to wane, between the thinnest and thickest points.

Misfiring [Ag Mach] When the pressure of combustion of one or more cylinders is lower than the remaining.

Mister [Ag Struc] System for dispersing water in coarse droplets to provide wetting of livestock and structural surfaces.

Mist Irrigation [Irrig & Drain] A method of microirrigation in which water is applied in very small droplets.

Mists [Sil & Water] Distribution of droplets with $50 \mu\text{m} < D_{v0.5} \leq 100 \mu\text{m}$.

Miter Gear [Ag Mach] Bevel gears having equal numbers of driver and driven gear teeth and operate at axes with right angle.

Mites [Gen Agri] Very small members of the arachnid which include spiders; they occur in large numbers in many organic surface soils.

Mitosis [Gen Agri] Cell division involving the formation and longitudinal splitting of the chromosomes.

Mixed-Flow Pump [Ag Mach] A centrifugal pump in which the pressure is developed partly by centrifugal force and partly by the lifting action of the impellers on the water; Type of pump which combines some of the features of both centrifugal and the axial flow pump and in which head is developed partly by the centrifugal force and partly by the lift of the vanes on the water.

Mixed Waste Paper [Ag Waste] Low-grade, potentially compostable paper, including noncorrugated paperboard, paperback books, telephone books, paper towels and paper food containers.

Mixing Type [Ag Proc] Continuous flow dryer wherein the grains in the drying bin flows through the column in a straight path.

Mobile Container [Ag Mach] A liquid transport vehicle such as an applicator, nurse truck, semi-trailer, or truck used to transport fluid fertilizers, pesticides, or mixture of the two.

Model [Gen Agri] A simulation, by descriptive, statistical, or other means, of a process or project that is difficult or impossible to observe directly.

Moder [Ag Waste] A kind of decomposition and humus formation which reproduces advance but incomplete humification of the remains of organism due to good aeration.

Modern Variety [Gen Agri] Refers to the variety of rice and corn derived from recent genetic improvement or inter-breeding of different varieties.

Modified Alfalfa Valve [Gen Agri] This valve is similar to an alfalfa valve except that the outside ring is omitted.

Modified Open Front Building [Ag Struc] Building with one or more walls with large adjustable openings that may be closed or opened, dependent on weather conditions, to moderate building environment.

Module [Ag Mach] Quotient of the circular pitch expressed in millimeters to the number π .

Modules of Elasticity [Gen Eng] Is the ratio of the increment of unit deformation. It is a measure of stiffness of materials.

Modules of Rupture [Gen Eng] Is the measure of the resistance of materials to bending stresses.

Modules of Inertia [Gen Eng] Is the sum of the products obtained by multiplying all the infinitely small areas by the square of their distances to the neutral axis.

Modulus of Elasticity [Ag Struc] A measure of the beam's resistance to bending or deflection under transverse load.

Modulus of Rupture [Ag Struc] A measure of the ability of a beam to support slowly applied load for a short time.

Moisture Balance [Ag Struc] Condition whereby water vapor brought into a building, plus that released inside, is exactly equal to that leaving.

Moisture Barrier [Ag Struc] Material which retards the passage or flow of moisture vapor.

Moisture Capacity [Soil & Water] Is the moisture content in the soil per unit depth which is usually expressed in inches foot.

Moisture Condensation [Soil & Water] Occurs when the temperature drops below the dew-point temperature of the air.

Moisture Content [Ag Proc] The amount of water inside the product.

Moisture Equivalent [Gen Agri] Arbitrary soil water content used as an estimate for the field capacity of soils. It is the weight of water remaining in a soil sample after the soil has been saturated and subjected for 30 mins. To a centrifugal force 1,000 times gravity.

Moisture Gradient [Ag Proc] Difference between the maximum and the minimum grain moisture content randomly sampled after drying.

Moisture Induced or Hygroscopic Pressures [Ag Proc] Pressures induced by expansion of grain resulting from increases in moisture content.

Moisture Proof [Gen Agri] Impenetrable to moisture absorption or passage of water in any form.

Moisture Reduction Rate [Ag Proc] Ratio of the average percent moisture content removed from the grain, to drying time, expressed in percent per hour.

Moisture Resistive [Gen Agri] Relatively impermeable to water.

Mold [Gen Agri] A fungus growth on lumber taking place mainly at or near the surface and, therefore, not typically resulting in deep discolorations. They are usually ash green to deep green in color, although black is common.

Moldboard Plow [Ag Mach] A primary tillage implement which cuts the soil into a depth of about 18 inches.

Moldboard Plowing [Ag Mach] Operation which is performed to cut the soil with partial or complete soil inversion.

Moldy Grains [Gen Agri] Are grains or pieces of grains which are contaminated with molds.

Mole Drain [Ag Mach] A drain formed by pulling a vertical blade and a bullet-shaped cylinder through the soil.

Molt (Molting) [Gen Agri] The shedding and replacing of feathers (usually in the fall).

Monitoring of Water [Soil & Water] Monitoring of water use by an industry, using metering for example, to provide baseline information on quantities of overall company water use, the seasonal and hourly patterns of water use, and the quantities and quality of water use in individual processes.

Monogastric [Gen Agri] Having only one stomach or only one compartment in the stomach. Examples are swine and poultry.

Mongrel [Gen Agri] Animals of mixed or unknown breeding.

Monitor [Ag Struc] Symmetrical, single-sloped roofs with a raised symmetrical central portion or section through the main building.

Monitor and Semi-Monitor Roof [Ag Struc] Is a special type of roof with additional height to give more room for storage. The extension above the main roof was often used for ventilation, and windows in the vertical walls give additional light.

Monocotyledon [Gen Agri] A plant having one cotyledon in its seed, as in the grasses.

Monoestrous [Gen Agri] An animal which has one testicle in the scrotum. Also called a ridgeling.

Monolithic Wall [Ag Struc] Refers to the wall that is built of a material placed in forms during the construction. Examples are traditional earth wall and the modern concrete wall. The earth walls are inexpensive and durable if placed on a good foundation and protected from rain by a rendering or wide roof overhangs.

Monomer [Gen Agri] Simple unpolymerized form of chemical compound.

Mortar [Ag Struc] It is a mixture of cement, sand, and water, used for laying brick or masonry. It is too weak to be used by itself as a material for building.

Motion-and-Time Study [Ag Mach] Determining the time necessary to perform motions required for a particular job.

Motion Resistance of Traction Device [Ag Mach] The difference between gross traction and net traction, accounts for all energy losses of a traction device not attributed to slip.

Motor Housing [Ag Power] The housing which is mounted to the body end of the electric linear actuator.

Mottling [Ag Proc] Patches or spots of different colors usually used for the color pattern developed due to partial anaerobism.

Mound [Ag Struc] Part of feedlot which is piled with earth to improve drainage and to provide a dry resting area.

Mounted Implement [Ag Mach] An implement which is mounted directly on the tractor and is carried by the tractor during transport.

Mounting Distance [Ag Mach] For assembled bevel gears, the distance from the crossing point of the axes to the registering surface, measured along the gear axis; ideally it should be identical to the apex to back.

Mounting Surface [Ag Mach] The diameter and/or plane of rotation surface which is used in locating the gear in the application assembly.

Moving Parts [Ag Mach] Parts which have motion during operation of the machine.

Mowing Height [Ag Mach] The minimum static-condition distance between the cutting edge of the blade and a plane-smooth floor while the mowing unit is resting upon that floor.

Muck [Gen Agri] Highly decomposed organic wet soil.

Mulch [Gen Agri] A layer of plant residues or other materials placed on the surface of the soil to conserve soil moisture.

Mulching [Gen Agri] Is the process of covering the land surface with plant residues, plastic or other materials appropriate to arrest loss of moisture through evaporation.

Mulch Tillage [Ag Mach] Tillage of the total soil surface in such a way that plant residue is specifically left on or near the soil surface.

Mule [Gen Agri] The hybrid that is produced by mating a male donkey with a female horse. Mules are usually sterile.

Multi-Digester Plant [Gen Agri] Plant with series of digester.

Multimeter [Gen Eng] Electric instrument designed to measure two or more electrical quantities.

Multinational Corporation [Gen Agri] Is a corporation operating in more than one country.

Multi-Pass Dryer [Ag Proc] Mechanical grain dryer wherein grain is passed intermittently in cycles or stages through a drying chamber either by mechanical means or by gravity which subsequent cooling and tempering until grain reaches the desired moisture content.

Multi-Pass Rice Mill [Ag Proc] Rice mill that employs a series of two or more whitening machines. A commercial scale milling unit characterized by several passing of the grains before the final milled rice is produced.

Multi-Powered Tillage Tools [Ag Mach] Tillage tools powered by more than one form of power, such as draft and rotating power, or draft and electrical power.

Multi-Stage Pump [Ag Mach] A pump having more than one impeller mounted on a single shaft.

Multiple Building System [Ag Struc] A building system in which more than one building is used in order to accommodate different stages of the livestock life cycle.

Multiple Cropping [Gen Agri] Growing of more than one crop in the same place in one year.

Multiple Ovulation [Gen Agri] Is a process by which the female animal is induced to simultaneously ovulate more eggs than what is normally shed.

Multiplier [Gen Eng] Precision resistor used to extend voltage range of a meter movement.

Multipurpose Cold Store [Ag Proc] One that can store all kinds of foodstuffs, generally at different temperatures.

Multi-Stage Pump [Ag Mach] A pump having more than one impeller mounted on a single shaft.

Municipal Discharge [Irrig & Drain] A discharge of effluent from wastewater treatment plants operated by municipalities or public sewerage authorities.

Municipal Solid Waste (MSW) [Ag Waste] Residential and commercial solid waste generated within a community.

Mushroom Compost [Ag Waste] Cellulose-rich organic matter, such as manure and straw, that has undergone the initial decomposition stage of a controlled composting process; used by mushroom growers.

Mutation [Gen Agri] Is a spontaneous change in the biochemical structure of the gene resulting in an entirely different phenotypic effect.

Mutton [Gen Agri] Meat products of a sheep, one year or over.

N

Nail-Laminated Column [Ag Struc] Used interchangeably with “mechanically laminated column” when nails are the only fasteners used to join individual layers.

Nanny [Gen Agri] Mature female goat.

Naphtha [Ag Power] Light or medium oils, a cut covering the end of the motor spirit and the beginning of the kerosene range. Naphtha distills between 30 degrees Centigrade and 210 degrees Centigrade.

Nappe [Soil & Water] Sheet of curtain of water flowing from a structure, such as weir or dam.

Narrow-Base [Ag Struc] The back and front slopes are constructed with steep.

Narrow Presswheel [Ag Mach] A single, semi-pneumatic or steel wheel which is narrower than 100 mm (3.9 in.) centered over the seeded furrow.

National Irrigation System (NIS) [Irrig & Drain] Is a major irrigation system managed by the National Irrigation Administration.

Natural Air Circulation [Soil & Water] Air circulation induced by differences of density caused by differences of temperature.

Natural Convection [Ag Proc] Heat transfer caused by the density difference between hot and cold fluids.

Natural Erosion [Soil & Water] Wearing away the earth's surface by water, ice, or other natural agents under natural environmental conditions of climate, vegetation, etc., undisturbed by man.

Natural Flow [Soil & Water] The flow of a stream as it would be if unaltered by upstream diversion, storage, import, export, or change in upstream consumptive use caused by development.

Natural Gas [Ag Power] Gas obtained from boreholes and wells that consists primarily of hydrocarbons; A gaseous hydrocarbon, odorless and flammable, found in its natural state of particular geologic formation as a product of decomposition of organic matter.

Natural System (Drainage) [Irrig & Drain] System of drainage in which the main drains follows the largest natural depression from the outlet to the upper end of the area.

Natural Ventilation [Ag Struc] Desirable air exchange which occurs in response to temperature and pressure variations inside and outside the greenhouse.

Navigable Waters [Soil & Water] Traditionally, waters sufficiently deep and wide for navigation by all, or specific sizes of vessels.

Necessary Nutrient [Gen Agri] The elements C, H, O, P, K, N, S, Ca, Mg, K, B, Mn, Cu, Zn, Mo, Cl, Co, Si, and F. These must be taken up and utilized in sufficient quantities for plants to complete their life cycles. Also known as essential elements.

Necrosis [Gen Agri] Discoloration, dehydration and death of plant parts.

Needle Bearing [Ag Mach] A roller-type bearing in which the rollers are smaller in diameter than in length proportional to the race.

Negative-Pressure (or Exhaust) Ventilation [Ag Struc] System in which air forcibly vented from the building and in which make-up air from outside is drawn by negative pressure into the building to replace that vented.

Nematode [Gen Agri] Microscopic soil worm, which may attack root or other structures of plants and cause extensive damage.

Neoprene [Ag Mach] A synthetic rubber highly resistant to oil, light, heat, and oxidation.

Nervous System [Gen Agri] Controls the rapid activities of the body such as muscular contraction, secretion of some endocrine glands, heart rate, respiration rate, gastrointestinal motility, to mention a few.

Nest of Test Sieves [Gen Eng] Assembled together with a lid and a receiver.

Net [Gen Agri] The value received for a service or product, less all expenses except income taxes.

Net Cracked Kernel [Ag Proc] Difference between the percent cracked sample taken before and after the shelling operation.

Net Farm Income [Gen Agri] The money and non-money income from operators realize from farming as a return for labor, investment, and management after production expenses have been paid.

Net Positive Suction Head [Soil & Water] Required performance characteristics require of the pump and is the NPSH at the pump jet; Total suction head determined at the suction nozzle (corrected to pump center line) minus the vapor pressure of water at the pumping temperature; The head that causes liquid to flow through the suction piping and enter the eye of the pump impeller.

Net Positive Head Required [Soil & Water] Performance characteristic required of the pump and is the NPSH at the pump inlet.

Net Power [Ag Mach] Power output of a "fully equipped" engine.

Neutral Soil [Gen Agri] A soil neither acid nor alkaline with a pH of about 7.0 or between 6.6 and 7.3.

Neutral Surface [Gen Eng] Is a horizontal plane separating the compressive and tensile stresses.

Neutron Probe [Gen Agri] Type of probe used to monitor soil moisture conditions to help determine when water should be applied.

Nicotinamide Adenine Dinucleotide Phosphate (NADP) [Gen Agri] A hydrogen acceptor molecule.

Nicking [Gen Agri] Refers to the breeding of progeny that are superior to their parents, also called heterosis.

Night Time [Gen Agri] The period that starts a halfhour before sunset and ends a halfhour after sunrise.

Nipple Waterer [Gen Agri] Demand waterer for livestock which has a valve that is actuated by the animal's mouth.

Nip Point (Pinch Point) [Ag Mach] That point at which a machine moving in line or rotating meets another element such as a manner that it is possible to nip, pinch, squeeze or entrap objects coming into contact with one or both of the members.

Nitrification [Ag Struc] The biochemical oxidation of ammoniacal nitrogen to nitrate.

Nitrogen [Gen Agri] A chemical element essential to life and one of the primary plant nutrients.

Nitrogen Fixation [Gen Agri] Refers to the transformation of free nitrogen into nitrogen compounds that can be absorbed as foods by plants. This is done naturally through bacterial decomposition, nitrogen nodules on plant roots, or by lightning.

Nitrogen Fixing [Gen Agri] The conversation of elemental nitrogen (N_2) from the atmosphere to organic forms utilizable in biological processes.

Nocturnal [Gen Agri] Of night, a nocturnal parasite is one which is active at night.

Nodule [Gen Agri] A tubercle formed on legume roots by nitrogen fixing bacteria of the genus ryzobium.

Noil [Ag Waste] Is a waste wool and foreign matter removed in the preparation of combed wool.

Nominal Diameter of Deformed Bar [Ag Mach] Diameter equivalent to the diameter of a plain round bar having the same mass per meter.

Nominal Length (Countersunk and Raised Countersunk Head) [Ag Struc] The distance from the periphery of the head to the end of the rivet measured parallel to the axis of the rivet.

Nominal Length (Rivets Other Than Countersunk or Raised Countersunk Rivets) [Ag Struc] The length from the underside of the head to the end of shank.

Nominal Size [Ag Mach] The designation used for the general identification; for external and internal threaded fasteners nominal size

usually is the basic major diameter of the tread; unthreaded fasteners, nominal size is usually the basic body diameter.

Non-bearing [Ag Struc] A type of concrete hollow block whose thickness ranges from 7.5 cm to 10 cm and are intended for walls, fences.

Non-Conventional Energy Source [Ag Power] Source of energy that includes non-petroleum based fuels such as biomass and solar energy.

Non-Condensable Gas [Ag Proc] Gas in a refrigerating system that does not condense at the temperature and partial pressure at which it exists in the condenser, therefore imposing a higher head pressure on the system.

Non-Constrained Case [Ag Struc] The post rotates an axis below the ground surface and is laterally supported by reactive soil pressure on both sides of the post.

Non-essential Amino Acids [Gen Agri] Are amino acids, which are essential to the animal, but are normally synthesized or sufficient in the diet and need not be supplemented.

Nonfarm Income [Gen Agri] Includes all income from nonfarm sources (excluding money earned from working for other farmers) received by farm operator households.

Non-Ferromagnesians [Gen Eng] Are minerals that do not contain iron and magnesium. Examples are muscovite, feldspar, and quartz.

Non-Load-Bearing Walls [Ag Struc] They carry no floor or roof loads. Each type may be further divided into external or enclosing walls, and internal dividing walls.

Non-metallic Sheathed Cable (Type NM) [Ag Struc] Is used for exposed and concealed work. It cannot be imbedded in masonry nor can it be used in wet conditions (Romex cable).

Non-Mixing Type [Ag Proc] Continuous flow dryer wherein the grains in the drying bin flows through the column in a straight path.

Nonpoint Source Pollution [Gen Agri] Pollutants that cannot be traced to a specific source, including stormwater runoff from urban and agricultural areas.

Non-protein Nitrogen (NPN) [Gen Agri] Are compounds that are not true protein in nature but contain N and can be converted to protein by bacterial action, i.e., urea.

Non-random Mating [Gen Agri] Occurs when some individuals do not have the same chances of mating with individuals of the opposite sex.

Non-renewable Resources [Ag Proc] Are natural resources that can be used up completely or else used up to such a degree that it is economically impractical to obtain any more of them.

Non-ruminant [Gen Agri]] An animal without a rumen e.g., a chicken or a pig.

Nonsaline-alkali Soil [Gen Agri] Soil containing sufficient exchangeable sodium to interfere with the growth of most crops.

Nonuniform Flow [Soil & Water] Flow in which the average cross sectional velocity is not the same at successive channel cross sections.

Normal Circular Pitch [Ag Mach] Length of the arc, lying between the tooth traces of two consecutive corresponding flanks of a cylindrical normal helix.

Normal Depth [Soil & Water] Depth of flow in an open channel during uniform flow for the given conditions.

Normal Distribution [Soil & Water] Are data which are more or less normally distributed.

Normal Erosion [Soil & Water] The gradual erosion of land used by man which does not greatly exceed natural erosion.

Normal Force Method [Ag Struc] It gives more accurate description of wind forces. Also used for buildings with gable rigid frames.

Normal Helix [Ag Mach] In a cylinder on which helix is considered, a helix which is perpendicular to that helix.

Normally Closed Sensor [Ag Elec] A sensing device that is electrically equivalent to a closed switch which opens or breaks a circuit in an alarm condition.

Normally Open Sensor [Ag Elec] A sensing device that is electrically equivalent to an open switch which closes or completes a circuit in an alarm condition.

Normal Module [Ag Mach] Quotient of the normal circular pitch (expressed in millimeters) and the number π (or the quotient of the diametral pitch, expressed in millimeters, to the number of teeth).

Normal Pressure Angle [Ag Mach] Pressure angle at a point on a tooth trace.

Notch Coulter [Ag Mach] A flat circular disc blade with a sharpened circumference and spaced, sharpened circumference notches in the circumference.

No-Till [Ag Mach] Seeding directly into previously undisturbed soil.

No-Tillage or No-Till [Ag Mach] A tillage system in which the soil is not tilled except during planting when a small slit is made in the soil for seed and agrochemical placement.

Novel Good [Gen Agri] Is a novel genetically modified food products ie. A processed food product whose composition has been altered.

Novel Organism (or Food) [Gen Agri] A term used to describe an organism or food that has been genetically engineered or modified.

Nozzle [Ag Mach] The component containing the fuel valve and having one or more orifices through which fuel is injected; [SWE] Discharge opening or orifice of a sprinkler head used to control the volume of discharge, distribution pattern, and droplet size.

Nozzle Orientation [Ag Mach] The angle of spray discharge from the nozzles measured relative to the local airflow in flight.

Nucleus [Gen Agri] Is the control centre of the cells of all living things. It contains the genetic material of an organism.

Nursery [Gen Agri] Area in which pigs are moved at weaning; Also an area in which lactating sows and their litters maybe moved after farrowing.

Nut [Ag Mach] A block or sleeve having an internal thread designed to assemble with the external thread on a bolt, screw, stud, or other threaded part.

Nutrient [Gen Agri] Is any feed constituent, or a group of feed constituents of the same general chemical composition that aids in the support of life. It may include synthetically produced vitamins, chemically produced inorganic salts or biogenically synthesized amino acids.

Nutrient Deficiency [Gen Agri] Refers to the lack of an adequate amount of a plant nutrient. It may result in a number of symptoms, including poor plant growth, chlorosis or necrosis. Its symptoms can easily be confused with toxicity symptoms.

Nutrition [Gen Agri] Is the series of processes by which an organism takes in and assimilates food for promoting growth and replacing worn-out or injured tissues. It encompasses several fields of discipline like biochemistry, chemistry, physiology, endocrinology, microbiology, genetics.

Nutrition Information [Ag Proc] Means any representation which states, suggests or implies that food has particular nutritional properties including but not limited to the energy value and to the content of protein, fat and carbohydrates, as well as vitamins and minerals.

O

Observation Well [Soil & Water] Hole bored to a desired depth below the ground surface for observing the water table level.

Obsolescence [Ag Mach] The process of becoming obsolete.

Obsolete [Ag Mach] The condition of a machine when it is either out of production and parts to repair or update it are not available from normal suppliers, or it can be replaced by another machine or method that will produce greater profit.

Occupancy [Gen Agri] Number of days an animal stay in a pen.

Odor Threshold [Ag Struc] The lowest concentration of an odorant in air which can be detected by the human olfactory sense.

Offal [Gen Agri] All organs and tissues removed from inside the animal during the slaughtering process.

Off Barring [Ag Mach] Operation that cuts and throws the soil away from the base of plants.

Off-farm Income [Gen Agri] Includes wages and salaries from working for other farmers, plus nonfarm income, for all owner operator families (whether they live on a farm or not).

Off-set [Gen Agri] Planting the plants in a row, are opposite the midpoint between those in the two adjacent rows rather than being directly opposite each other.

Offset Coulter [Ag Mach] A circular disc blade with sharpened circumference and various lateral offsets from the flat surface – rounded offsets or protrusions alternating between sides of the blade.

Offset Disk Harrow [Ag Mach] A primary or secondary tillage implement consisting of two gangs of concave disks in tandem. The gangs cut and throw soil in opposite directions; Consists of two gangs wherein one is located behind the other at an angle and the harrow is operated in an offset position in relation to the tractor.

Offset Gable [Ag Struc] Gable roof with off-center ridge.

Offset Section [Ag Mach] Section to show features not in a straight line by offsetting the cutting plane.

Ogee [Soil & Water] Profile of an overflow dam or spillway shaped in the form of an "S".

Ohm [Gen Eng] Base unit of resistance (volt per ampere).

Ohms Law (1825 by Simon Ohm) [Gen Eng] States that the electric current flowing in a circuit varies directly with the electrical pressure and inversely with the opposition.

Ohmmeter [Gen Eng] Device used to measure resistance.

Oil Cooler [Ag Proc] A heat exchanger which can be cooled by air, water or refrigerant vaporization to cool oil in a lubrication system

Oil Filter [Ag Mach] A device for removing impurities from oil.

Oil Pump [Ag Mach] A mechanical device to pump oil (under pressure) into the various oil galleries.

Oil Seal [Ag Mach] A mechanical device used to prevent oil leakage, usually past a shaft.

Oil Seed Crops [Gen Agri] Primarily soybeans, peanuts, cottonseed, and flaxseed used for the production of oils for cooking, protein meals, and nonfood uses. Less common oil crops include sunflower, safflower, castor beans, and sesame.

Oilseed Meal [Ag Waste] The product obtained by grinding the cakes, chips, or flakes that remain after most of the oil is removed from oilseeds. Used as a feedstuff for livestock and poultry.

Oil Trap [Ag Mach] A device for separating and collecting oil at a given point in a refrigerating circuit.

Omasum [Gen Agri] One of the stomach components of ruminant animals. It has many folds.

One-direction Application [Ag Mach] An application method where successive adjacent swaths are made in the same direction of tracks.

On-Farm Irrigation Facilities [Irrig & Drain] Refers to the composite facilities that permit entry of water to paddy areas and consist of farm ditches and turnouts.

On Full Feed [Gen Agri] Is a term that refers to animals that are receiving all the feed they will consume.

One-Way Disk Harrow [Ag Mach] A tillage implement equipped with one gang of concave disks. When mounted in short flexible gang units, the harrow performs to uneven soil surfaces.

Open [Gen Agri] Refers to nonpregnant females.

Open Ditch Outlet [Irrig & Drain] Excavated open channel for disposing of drainage water from surface or subsurface drainage system, or for carrying flood water.

Open Eave Bins [Ag Struc] Bins in which free passage of air between the sidewall and the roof is possible.

Open Frame Cylinder [Ag Proc] Type of shelling cylinder where the shelling elements are attached to the equally spaced longitudinal bars arranged cylindrically.

Open Pot [Soil & Water] An outlet consisting of an orchard valve installed in the top of a riser with a section of larger diameter pipe mortared to the riser and extending above it.

Open Shop [Gen Agri] Is an establishment in which eligibility for employment and retention on the payroll are not determined by membership or non-membership in a labor union.

Open-sided Housing [Ag Struc] Long and narrow type of houses wherein at least one-half of the front and the back of the house are open.

Open Tank [Ag Mach] A device consisting of a half cylinder or modified half cylinder lying in a horizontal axis.

Operating [Ag Mach] Carrying out the operations with people and machines. The operator of an agricultural field machine tends to be self-supervised.

Operating Conditions [Gen Eng] The values of temperature, flow rate, and pressure of the heat transfer fluids as they enter and leave the heat exchanger to determine the heat transfer rate for the heat exchanger.

Operating Costs [Ag Mach] Costs which depend directly on the amount of machine use.

Operating Overlap [Ag Mach] The distance perpendicular to the direction of travel that an implement reworks soil previously tilled.

Operating Width [Ag Mach] The horizontal distance perpendicular to the direction of travel within which an implement performs its intended function.

Operational Area [Ag Mach] Any area where product is dispensed from or into mobile or stationary containers, where product is mixed, or where product is rinsed from containers or equipment.

Operational Waste [Irrig & Drain] Water that is lost or otherwise discarded from an irrigation system after having been diverted into it as part of normal operations.

Operation Instructions [Ag Mach] Explain the procedures for proper operation of the equipment.

Operator [Gen Agri] Designated agent(s) of the owner or manager.[ASAE] any person in control of, or having responsibility for, the daily operation of a facility where a containment structure is required.

Opportunity Cost/Alternative Cost [Ag Mach] Is the value of the productive resources used in producing one good, such as automobile, instead of another such as tractor. The cost of an automobile is the value of other things that cannot be produced because of resource limitations.

Optimum Feed Rate [Ag Mach] The maximum feed rate at which reasonable threshing efficiency and recovery and cleanliness can be attained.

Optimum Tillage [Ag Mach] An idealized system which permits a maximized net return for a given crop under given conditions.

Oral Exposure [Gen Agri] Exposure to pesticides by ingestion.

Orchard Valve [Sil & Water] An outlet valve installed inside a riser pipe with an adjustable cover or lid to control flow.

Organic [Gen Agri] A substance which includes carbon-to-carbon bonds.

Organic Contaminants [Gen Agri] Are synthetic trace organics which include pesticides and polychlorinated biphenyls.

Organic Farming [Gen Agri] Is free of synthetic chemicals. It means, produced in soils of enhanced biological activity, determined by the humus level, crumb structure and feeder root development, so that plants are fed through the soil ecosystem and not primarily through soluble fertilizers added to the soil.

Organic Matter [Gen Agri] Chemical substances of animal or vegetable origin, consisting of hydrocarbons and their derivatives.

Organic Soil [Gen Agri] A soil that is composed predominantly of organic matter, usually refers to peat.

Organism [Gen Agri] Refers to an individual animal, plant, or single-celled life form.

Organizing [Gen Agri] Is the process of arranging and allocating work, authority and resources among an organization's members so that they can achieve the organization's goals.

Oriented Tillage [Ag Mach] Tillage operation which are oriented in specific paths or directions with respect to the sun, prevailing winds, previous tillage actions, or field base lines.

Orientation, Tool [Ag Mach] The position of the tool in a framework of Cartesian coordinates which is usually oriented with the soil surface and the direction of travel. Orientation is specified in side, tilt, and lift angles as a minimum.

Orifice [Ag Mach] An aperture or opening; [Soil & Water] An opening with a closed perimeter through which water flows; [Ag Power] The opening through which gas is admitted to the burner.

Orographic Precipitation [Soil & Water] Results from mechanical lifting of the air mass over mountain barriers.

Orographic Storm [Soil & Water] A weather pattern in which precipitation is caused by the rising and cooling of air masses as they are forced upward by topography.

Oscillating Screen [Ag Mach] Wire mesh or perforated sheet metal used to separate large and /or small particles.

Oscillating Scissors [Ag Mach] A device consisting of one pivoting knife with two cutting surfaces per row crop header per unit.

Osmosis [Gen Agri] Is the diffusion of substance through a cell wall or other membrane. Other cleaning areas: Dirt screens, recleaners, and other auxiliary cleaning devices provide cleaning areas. Permeable surfaces and pneumatic cleaning areas shall be calculated and expressed as specified in paragraphs 2.11.1 and 2.11.2.

Other Tools [Ag Mach] Are tools that do not fit in the standard categories.

Outbreeding [Gen Agri] Is a system where unrelated individuals are mated to produce the next generation.

Out Cross [Gen Agri] A cross to an individual not closely related.

Outfall [Soil & Water] Point where water flows from a conduit stream, or drain.

Outlet [Soil & Water] An appurtenance to deliver water from a pipe system to the land or to any surface pipe system.

Outlet Demand [Soil & Water] Channel constructed primarily to carry water from manmade structures such as terraces, subsurface drains, surface ditches, and diversions.

Outlet Gate [Soil & Water] Usually a slide gate, or other type of gate, which is used to control the flow of water from the outlet.

Outlet Pipe [Ag Struc] Serves as conveyor where the effluent or the slurry is forced out.

Output Capacity [Ag Mach] The weight of the grain (whole and damaged) received per hour at main grain outlet: [Ag Proc] The mass of milled rice per unit of milling time, expressed in kg/h.

Output Paddy [Ag Proc] The total mass of dried grain discharge from the drier at the end of the drier test period.

Ovendry [Ag Proc] A term used to describe wood that has been dried in a ventilated oven at $103 \pm 2^\circ\text{C}$, until there is no further loss in weight.

Oven Dry [Gen Agri] The equilibrium of tension of the moisture is 10,000 atmosphere.

Overall Height [Ag Mach] Distance between the horizontal supporting surface and the horizontal plane touching the uppermost part of the tractor.

Overall Length [Ag Mach] Distance between two vertical planes at right angles to the median plane of the tractor and touching its front and rear extremities.

Overall Splice Length [Ag Mach] The distance between the two farthest removed.

Overall Tillage [Ag Mach] Tillage of an entire area as contrasted to partial tillage as in bands or strips.

Overall Width [Ag Mach] The distance between two vertical planes parallel to the median plane of the tractor, each plane touching the outermost point of the tractor on its respective side and with wheels set for minimum track.

Over Current Protection [Ag Elec] A device installed in the circuit to protect the conductors in the form of fuses or circuit breakers.

Overfall [Soil & Water] Abrupt vertical change in stream channel elevation; the part of a dam or weir over which the water flows.

Overfall Erosion Erosion caused by falling down an overfall.

Overflow Stand [Soil & Water] Standpipe in which water rises and, at a given elevation overflows into a pipe or a container vessel.

Overhead Door [Ag Struc] Large wall-door that opens upward and is guided by rollers in tracks on each side of the opening.

Overhead Feeder [Ag Struc] Conveyor that drops feed from above into a feed bunk.

Overhead Flow [Soil & Water] That part of surface runoff that flows over the surface towards the stream channel.

Overhead Irrigation [Irrig & Drain] See Sprinkler irrigation.

Overhead Light [Ag Elec] Also called ceiling outlet.

Overhead Valve [Ag Mach] Arrangement of valves wherein the intake and exhaust valves are located in the cylinder head.

Overland Flow [Irrig & Drain] Surface runoff occurring at a relatively shallow depths across the land surface prior to concentration in drainage ways. May cause sheet and rill erosion.

Overload Protection [Ag Elec] A device installed in the power circuit to protect the motor in the form of relays, heaters, or elements.

Overmilled Rice [Ag Proc] Is a rice grain from which the hull, the germ and the bran layers have been completely removed.

Over Reinforced Design [Ag Struc] Is a design in which steel reinforcement is more than what is required for a balanced design. When the ultimate load is reached, the compression zone of the concrete is highly stressed leaving the steel bars under stressed and failure occurs suddenly without warning to the occupants of the structure.

Oversize [Gen Eng] That portion of the charge that has not passed through the apertures of a stated sieve.

Ovine [Gen Agri] An animal of the subfamily Ovidae; sheep, goats.

Oviparous [Gen Agri] Producing offspring from eggs which hatch outside the body.

Oviposition [Gen Agri] The laying (expelling) of a fully developed eggs.

Ovulation [Gen Agri] The shedding of a follicle by the ovary. The ovary of a hen contains a series of follicles (called the follicular-size hierarchy).

Owner [Gen Agri] A person who owns a facility at which a containment structure is required.

Ownership Costs [Gen Agri] The costs which do not depend on the amount of machine use.

Ox [Gen Agri] A member of the bovine animals.

Oxidation [Gen Agri] A chemical change involving addition of oxygen or its chemical equivalent, or involving an increase in + or decrease in – valence.

Oxidation Ditch [Ag Struc] A modified form of activated sludge process.

Oxidation Pond [Ag Struc] An earthen pond or lagoon for the biological oxidation of organic material by natural or mechanical aeration.

Oxide [Gen Agri] Are minerals formed by direct union of an element with oxygen.

Oxygen Demand [Gen Agri] A chemical and biological oxygen demand (COD and BOD) are measures of the oxygen consumed when a substance degrades.

Oxytocin [Gen Agri] Is a hormone secreted by the neurohypophysis or pituitary lobe which stimulates milk-ejection in lactating females.

Ozonation [Gen Agri] A new technology using a form of oxygen, instead of chemicals, to treat cooling water.

P

Pace [Gen Agri] Refers to the rate at which the animal moves.

Packaging [Gen Agri] Process to ensure adequate protection and safe delivery of a product from the producer to the ultimate consumer.

Packer [Ag Mach] A secondary tillage implement for crushing soil clods and compacting the soil. Packers consist of one or two in-line gangs of rollers. Roller sections may be lugged wheels or any one of various shaped ridged wheel.

Packer Roller [Ag Mach] A set of solid or open-centered wheels on a common axle for clod pulverization and firming or smoothing loosened soil in the row area. Wheel sections are available in various widths, diameters and sectional profiles: such as flat, angled, V-shaped or rounded.

Pack Material [Soil & Water] Graded gravel and sand aggregates placed around a well screen to prevent infiltration of fine materials.

Pad and Pole Foundation [Ag Struc] It consists of small concrete pads poured in the bottom of holes which support pressure treated poles.

Paddle Waterer [Gen Agri] Cup-type demand waterer in which water level is controlled by a paddle-activated valve, operated when an animal pushes it down to drink.

Paddy [Ag Proc] The rice kernel with the husk on it, sometimes referred to as rough rice or “palay”.

Paddy Grader [Ag Proc] Auxiliary device used to classify paddy based on length and thickness; An auxiliary device of rice mill system which groups together paddy of the same length or of the same thickness.

Paddy Husker or Huller [Ag Proc] A device which removes the husk or hull from the paddy grains.

Paddy Separation [Ag Proc] Refers to separating dehusked paddy from any remaining paddy grains. Most dehuskers remove about 90% of the husk.

Paddy Separator [Ag Proc] Auxiliary device used to separate paddy from the brown rice.

Pail Valve [Ag Struc] Valve for gravity drainage of manure gutters; made from two telescoped plastic pails, one fixed in the outlet opening, and the other removed with an attached handle or rope for gutter drainage.

Palay [Gen Agri] Refers to the unhulled grain of *Oryza sativa*, that is a grain with the hulls enclosing the grains. This is also known as “paddy” or “rough rice.”

Palay Variety [Gen Agri] This refers to the category/species of palay denoting its genetic characteristics whether it is traditional variety (i.e. Intan, Raminad, etc.) or modern variety which is a result of genetic improvement or inter-breeding of different varieties (i.e. C-4, IR Series, BPI Series, PSB Series, etc.)

Palea [Gen Agri] Is the inner bract of a floret lying next to the caryopsis in grasses.

Pallet [Ag Struc] Low portable platform made of wood or metal or plastic or in combination to facilitate handling, storage, or transport of materials as a unit load using a fork lift.

Pallet Bin Storage [Ag Struc] Produce is placed in boxes or pallet bins which in turn are stacked in storage room.

Palmate [Gen Agri] Radicately lobed or divided.

Palpation [Gen Agri] Feeding by hand.

Pancreas [Gen Agri] This gland is located at the duodenal lobe of the small intestine. It is both an exocrine and an endocrine gland.

Panel [Ag Struc] Is the portion of a truss that occurs between two adjacent joints of the upper chord.[ASAE] area of safety sign having a distinctive background color different from adjacent areas of the sign, or that is clearly differentiated by a line, border, or margin.

Panelboard [Ag Elec] Is a single panel or group of panel units designed for assembly in the form of a single panel; including buses, automatic overcurrent devices, and equipped with or without switches for the control of light, heat, or power circuits; designed to be placed in a cabinet or cutout box placed in or against a wall or partition and accessible only from the front.

Panicle [Gen Agri] An inflorescence with a main axis and subdivided branches, as in oats and sorghum.

Parallel [Ag Mach] Causing two or more similar machines to perform their respective functions simultaneously.

Parallel Drainage System [Irrig & Drain] A drainage system with parallel laterals or field ditches that are perpendicular to the row drains.

Parallel Terraces [Soil & Water] To aid in farming operations, parallel terraces should be used whenever possible. Use long gentle curves when curves are necessary to make these terraces as farmable as possible.

Parasitic [Gen Agri] Living in or on another living organism.

Parboiling [Ag Proc] Hydrothermal treatment of paddy before milling. Includes soaking, treating with heat, and redrying.

Parenchyma [Gen Agri] Tissue concerned with the storage and distribution of carbohydrates; cells mostly short, with numerous simple pits.

Parent Material [Gen Agri] The original state of the soil. The relatively unaltered lower material in soils is often similar to the material in which the horizons above have formed.

Parity [Gen Agri] The number of different times a female has had offspring.

Parking Brake [Ag Mach] The system used to hold one or more brakes or braking means continuously in the applied position.

Parking Brake System [Ag Mach] A means for holding a machine continuously in a parked position.

Parshall Flume [Irrig & Drain] A calibrated device used to measure the flow of water in open channels, based on the principle of critical flow (formerly called the improved Venturi flume).

Part-circle Sprinkler [Irrig & Drain] Rotating sprinkler designed to irrigate a sector of a circular area, either with or without the possibility of adjusting it to irrigate the entire circular area.

Parthenocarpy [Gen Agri] Refers to the fruit production without sexual fertilization.

Parthenogenesis [Gen Agri] Is the development of a new individual from a germ cell without fertilization.

Partially Slotted Floor [Ag Struc] Floor having openings for waste over only part of the area inhabited by livestock.

Partial Planning and Budgeting [Gen Agri] Takes part of the farm as the subject for decision. It considers the expenses and returns of the parts of the farm under consideration so that the net returns indicate only the profitability associated with change envisioned rather than the whole farm.

Particleboard [Ag Struc] Is a type of composition board made from wood chips. The pieces of wood are bonded together under heat and pressure with an adhesive or other binder. They are similar with hardboards except that they are thicker and whole chips are used in making it.

Particle Density [Gen Agri] It is the ratio of the dry weight of the soil to the volume of soil particles alone.

Particle Drift Deposits [Gen Agri] The deposition of chemical particles outside the intended target area.

Particle-size Analysis [Gen Agri] Determination of the various amounts of the different separated in a soil sample, usually by sedimentation, sieving, or micrometry.

Particulate Matter [Gen Agri] Solid or liquid particles of materials.

Partition Open Space [Ag Struc] Is the spacing between rails, bar, or other openings in the stall partition and stall front.

Parts information [Ag Mach] Lists and identifies all replaceable parts needed to service the product, including safety signs and optional equipment.

Parturition [Gen Agri] The act of process of giving birth to young.

Pascal (psi-pounds per square inch) [Ag Mach] A measure of pressure or stress. Assumed to be gage pressure unless followed by the term "absolute".

Paste [Ag Proc] Is a mixture of cement and water.

Paste Feeding [Gen Agri] Feeding method in which feed and water are mixed in definite proportions to form a paste before being offered to livestock.

Pasteurization [Ag Proc] The foods are subjected to a temperature below the boiling point of water for a period sufficient to ensure preservation - that is 71-85°C.

Pasteurized Milk [Ag Proc] Is a fresh milk heated to a temperature of not lower than 145°F for a period of not less than 30 minutes.

Pasture [Ag Struc] A fenced area of forage, usually improved, on which animals are grazed.

Patent [Gen Agri] Refers to a government authority or license to a particular individual or organization conferring a right or title for a set period, particularly the sole right to make use, or sell some invention.

Pathogen [Gen Agri] An organism, chiefly a microorganism, including viruses, bacteria, fungi, and all forms of animal parasites and protozoa, capable of producing an infection or disease in a susceptible host.

Pathogenic Microorganism [Gen Agri] Microorganism capable of causing diseases.

Pathology [Gen Agri] Is the science or study of disease, its causes, and its controls.

Pavement Drying [Ag Proc] A conventional sundrying practice which uses concrete pavement such as basketball court, etc. as the drying surface.

Payback Period [Ag Proc] Number of years needed for product in net operating income to pay for the capital investment in the project.

Pay Weight [Gen Agri] The actual weight for which payment is made. In many cases, it is the shrunk weight (actual weight minus *pencil shrink*).

Peak [Ag Struc] Highest point of a roof.

Peak Brake Power [Ag Power] Highest power developed.

Peak Daily Irrigation Water Requirement [Irrig & Drain] The net quantity of water needed to meet the peak daily evapotranspiration rate occur during the growing season expressed in mm/day (in./day).

Peak flow (q_p) [Irrig & Drain] It is used to determine the magnitude of floods and a valuable consideration in the design of structures.

Peak/Off-peak Rates [Irrig & Drain] Rates charged in accordance with the most and least popular hours of water use during the day.

Peak pressure [Irrig & Drain] The peak hydraulic pressure at either male coupler connected to a coupler pair.

Peak Use Rate [Irrig & Drain] Maximum rate of consumptive use of water by plants.

Pearson Type III Distribution [Irrig & Drain] Considers further the skewness of the logarithmically transformed hydrologic data; preferred for flood flow frequency; log-normal distribution is a special case of this method.

Peat [Ag Waste] An accumulation of dead plant material often forming a layer many meters deep. It is only slightly decomposed due to being completely waterlogged.

Pedestal [Ag Struc] Is an upright compression member having a ratio of unsupported height to average least lateral dimension of 3 or less.

Pedestrian-Operated Machine [Ag Mach] Machine, having an integral power unit but normally operated by a pedestrian, designed to carry out agricultural operation, and which may also be operated from a seat on an attachment or trailer.

Pedigree [Gen Agri] A list of an animal's ancestor, usually only those of the five closest generations.

Pedology [Gen Agri] Is the study of soil which puts more emphasis on the origin, characteristics, classification, and description.

Peeper [Gen Agri] A young pigeon ready to leave the nest.

Pellet [Ag Proc] An agglomeration of individual ground ingredients, or mixture of such ingredients, commonly used for animal feeds.

Pelt [Gen Agri] The wool and skin of a sheep.

Pencil Shrink [Gen Agri] An arithmetic deduction (percent of liveweight) from an animal's weight to account for fill.

Percentage Broken Milled Rice [Ag Proc] The percentage of milled rice grains measuring less than $3/4$ the size of its full head rice from the mass of the corresponding input paddy to the rice husker then to the whitener.

Percentage Cracked Brown Rice [Ag Proc] The number of grains showing cracks or fissures per 100 grains of hand-husked paddy.

Percent Area Wetted [Soil & Water] The area wetted as a percentage of the total crop area.

Percent Head Rice [Ag Proc] Ratio of weight of the grains that do not break in the process of milling and with a size of three-fourth or more of the whole grain to the total weight of milled rice, expressed in percent.

Percent Head Rice Index [Ag Proc] Ratio of the percent head rice obtained in actual testing, to the percent head rice obtained from the laboratory test mill.

Percent Nozzle Spray Overlap [Ag Mach] Calculated by subtracting the nozzle spacing from the single-nozzle pattern width and then dividing by the nozzle spacing and multiplying the result by one hundred.

Perched Water Table [Soil & Water] A water table, usually of limited area, maintained above larger ground-water bodies by the presence of an intervening, relatively impervious confining stratum.

Percolating Water [Soil & Water] Subsurface water that flows through the soil profile of other porous water.

Percolation [Soil & Water] Downward movement of water through the soil profile or other porous media.

Percolation Rate [Soil & Water] The rate of movement of water under hydrostatic pressure down through the interstices of rock, soil, or filtering media except movement through large openings such as caves: The rate at which water moves through porous media, such as soil;

Perennial [Gen Agri] Living more than one year but in some cases, producing seed in the first year and every season thereafter.

Perfect Elastic Demand [Gen Agri] Is the situation of extreme elasticity where even if you do not change the price, there is a change in the demand.

Perfect Flower [Gen Agri] Is a flower having both pistil and stamen.

Perfectly Inelastic Demand [Gen Agri] Is the situation of extreme inelasticity where change in price does not lead to a change in demand.

Perforated Casing [Soil & Water] A section of well casing with openings for water entry.

Perforated Pipe [Soil & Water] Pipe designed to discharge or accept water through small, multiple, closely spaced orifices, placed in its circumference.

Perforated Pressure Roller (Roll Press) [Ag Struc] One or more sets of parallel rollers between which manure passes.

Performance Curve [Ag Mach] Curve which represents the interrelationship between capacity, head, power, NPSH, and efficiency of the pump.

Performance Standard [Ag Mach] A limitation on the emission or discharge of a pollutant that may be expressed as an emission or discharge standard or as a requirement for specific operating procedures.

Perimeter Insulation [Ag Struc] Thermal insulation (usually rigid) installed onto or in a building foundation to reduce perimeter heat flow.

Permaculture [Gen Agri] Integrated, evolving agricultural system of perennial or self-perpetuating plant and animal species.

Permafrost [Gen Agri] Perennially frozen layer in the soil, found in alpine, arctic, and Antarctic regions.

Permanent Fasteners [Ag Struc] Include Rivets. Fastening materials generally used to join metallic materials such as sheets and bars by spreading one or both ends.

Permanent Pasture [Gen Agri] Pasture of perennial or self-seeding annual plants maintained through several years of grazing.

Permanent Safety Sign [Gen Agri] Information affixed to a product to warn against potential exposure to hazards inherent in the normal use of or associated with the product, or that might be created during reasonably anticipated product use.

Permanent Set Angle [Ag Mach] The angle formed by the back of the blade in the area of the bend after removal from the die.

Permanent Wilting Point (or Wilting Coefficient) [Gen Agri] Refers to the soil moisture content when plants permanently wilt. The soil moisture tension at this point is about 15 atmospheres. Permanent wilting percentage can be estimated by dividing the field capacity by a factor ranging from 2.0 to 2.4, with the value higher for soils with higher silt content.

Permeability [Soil & Water] The property of a material which permits movement of water through it when saturated and actuated by hydrostatic pressure of the magnitude normally encountered in natural subsurface water; The ease with which gases, liquids, or plant roots penetrate or pass through a layer of soil or porous media.

Permeameter [Soil & Water] Device for containing the soil sample and subjecting it to fluid flow in order to measure permeability or hydraulic conductivity.

Permissible Exposure Limits [Gen Agri] The maximum airborne concentration of a pesticide to which a worker may be exposed without typically experiencing adverse effects.

Permissible Velocity [Irrig & Water] Highest water velocity in a channel or conduit that does not cause erosion.

Personal Protective Equipment, PPE [Gen Agri] Protective gear worn by pesticide handlers as specified in the use directions on a pesticide label.

Personnel Management [Gen Agri] Is concerned with an effective recruitment, selection, placement development, maintenance and utilization of manpower to obtain optimum efficiency of labor.

Pesticide [Gen Agri] Is a chemical substance which is toxic to particular insect pests. Sprayed onto crops to prevent damage by pests.

Pesticide Exposure [Gen Agri] External (dermal) and/or internal (inhalation and/or oral) contact of the human body to pesticide.

Pesticide Label [Gen Agri] Printed statement as required by regulations or agency policies affixed to the pesticide container by the manufacturer listing the quantity of active and inert ingredients, directions for use and precautions.

Pest Resistant Plants [Gen Agri] Same as insect resistant plants. Are resistant to certain insect pests, through a built-in insecticide.

Petroleum [Ag Power] Any mineral; oil, hydrocarbon gas, bitumen, asphalt, mineral gas, and all other similar or naturally associated substances with the exception of coal, peat, bituminous shale and/or other stratified mineral fuel deposits.

pH [Gen Agri] Is the designation for degree of acidity or hydrogen-ion activity.

pH, Soil [Gen Agri] The negative logarithm of the hydrogen ion concentration of a soil solution. The degree of acidity or alkalinity of a soil expressed in terms of the pH scale, from 2 to 10.

Phase [Ag Elec] A time relationship between two electrical quantities.

Phase Shift [Ag Elec] The result of two waveforms being out of step with each other.

Phasing [Ag Elec] Interconnecting transformer, generator, or motor windings so that they have the correct time (phase) relationships between them.

Phasor [Ag Elec] A line representing alternating current or voltage at some instant of time.

Phenotype Is an environmentally and genetically determined observable appearance of an organism; the expression of genes which can be measured by our senses. What we see in an animal for some trait.

Phenology [Gen Agri] The study of natural phenomena that recur periodically (such as blossoming) and their relation to climate and seasons.

Phenotype [Gen Agri] The organism as exemplified by its expressed characters.

Phosphorus (P) [Gen Agri] An element essential to the growth and development of plants; occurs in manure and chemical fertilizer and, in excess, can cause waters to become polluted by promoting excessive growth of algae and other aquatic plants.

Photolysis [Gen Agri] Is the splitting of water into H^+ and OH^- , utilizing solar energy in the light reactions of photosynthesis.

Photon [Ag Elec] A quantum of electromagnetic energy with an energy of hc/λ .

Photon Flow Rate [Ag Elec] The rate of flow of photons.

Photon Fluence [Ag Elec] The photon flow rate per unit spherical area.

Photon Fluence Rate [Ag Elec] The photon fluence per unit time. The same as photon flux for normal incidence radiation.

Photon Flux [Ag Elec] The photon flow rate per unit plane surface area; also called photon flux density to emphasize the unit area.

Photoperiod [Gen Agri] Refers to the hours of daylight effective in causing physiological changes in plants.

Photoperiodic Response [Gen Agri] Is the flowering response of a plant in relation to the relative length of light and dark periods, usually in terms of 24-hour day.

Photoperiodism [Gen Agri] Is the response of plants to different day lengths or light periods.

Photophosphorylation [Gen Agri] Is the production of ATP using the energy of light – excited – electrons produced in the light reactions of photosynthesis.

Photosynthesis [Gen Agri] Is the process of converting water and carbon dioxide into sugar using chlorophyll and light energy, accompanied by the production of oxygen by green plants.

Phytotoxin [Gen Agri] A substance causing growth reduction or death in plants.

Phototropism [Gen Agri] Is the growing or turning toward the light. The influence of light on the direction of the different plant parts of a plant tends to grow.

Photovoltaic [Ag Power] Producing voltage from light energy.

Phreatic Divide [Soil & Water] Boundary between segments of a subsurface body of ground water that contributes to different stream systems.

Phyllotary [Gen Agri] Is the arrangement of leaves upon the stem.

Physiology [Gen Agri] Is defined as the study of function of the parts or organ systems of the body; a study of function of living matter. It attempts to explain the physical and chemical factors that are responsible for the origin, development, and progression of life.

Phytoplankton [Gen Agri] Usually microscopic aquatic plants, sometimes consisting of only one cell.

Pickup [Ag Mach] A device for gathering a crop from a window.

Pick Up Header [Ag Mach] A device for picking up a previously cut crop.

Pick Up width the minimum distance including the width of the outermost conveying elements but not including the gather of flared side sheets.

Pictorial [Gen Agri] A graphic representation intended to convey a message without the use of words.

Pictorial Panel [Gen Agri] Area of a safety sign that contains the pictorial.

Pier [Ag Struc] A column of concrete, masonry or pressure treated lumber used to support greenhouse individual frame members.

Pier and Ground Level Beam Foundation [Ag Struc] It is commonly used where extensive filling has been necessary and the foundation would have to be very deep in order to reach undisturbed soil.

Piercing [Ag Mach] The method of cold working by compression.

Pier Foundation [Ag Struc] It is often used to support the timber frames of light buildings with no suspended floors.

Piezoelectric [Ag Elec] Producing voltage by applying pressure to a crystal.

Piezoelectric Vibratory Atomizer (Berglund-Liu Atomizer) [Soil & Water] A vibratory atomizer in which a piezoelectric transducer transmits high frequency oscillations to a liquid jet, creating droplets with a size as a function of the frequency of oscillation, jet diameter, and jet velocity.

Piezometer [Soil & Water] Tube for measuring the combined elevation and pressure head or potential of a fluid; Is a device set in a pipe to enable a Bourdon gauge or a manometer attached to the piezometer to show the net or normal pressure.

Piezometric Head [Soil & Water] Combined elevation and pressure head as measured from a reference plane.

Piezometric Line or Surface [Soil & Water] Line or surface having equal piezometric head.

Pig [Gen Agri] Is a young swine below one year.

Pigeon Cock [Gen Agri] A breeding male pigeon.

Pigeon Hen [Gen Agri] A breeding female pigeon.

Piglet [Gen Agri] Very young pig, from birth to weaning.

Piles [Ag Struc] They are long columns that are driven into soft ground where they support their load by friction with the soil rather than by a firm layer at their lower end.

Pinholes [Gen Agri] Small stained circular holes caused by ambrosia beetles in green logs or lumber and considered as logs and lumber degrade.

Pipe Drop [Soil & Water] A pipe, with or without headwalls, used as an

Pipe Drain [Soil & Water] Any circular subsurface drain, including corrugated plastic tubing and concrete or clay tile.

Pipe Spillway [Soil & Water] A pipe drain for transporting water through an embankment. Sometimes called a “culvert.”

Piping [Soil & Water] Erosion of flow channels through soil by flowing water erosion control structure at a transition to drop water into a deeper drain.

Pistil [Gen Agri] The seed-bearing organ of a flower consisting of the ovary, style and stigma.

Pistillate [Gen Agri] Provided with pistils but without stamens.

Piston Displacement [Ag Mach] The volume of air moved or displaced by a piston when moved from BDC to TDC.

Piston Head [Ag Mach] The portion of the piston above the top ring.

Piston Manure Pump [Ag Struc] A pump which uses a reciprocating piston and cylinder to move manure from a collection hopper into and through a pipeline.

Piston Pin (Wrist Pin) [Ag Mach] A cylindrical alloy pin that passes through the piston bore and is used to connect the connecting rod to the piston.

Pit [Gen Agri] A relatively unthickened part of a wood cell wall where a thin membrane may permit liquids to readily pass from one cell to another. A “bordered” pit has an overhanging rim that is not present in a “simple” pit.

Pith [Gen Agri] The small, soft core occurring in the structural center of a tree trunk, branch, twig, or log.

Pitch [Ag Struc] A measure of the slope of a surface; Defined as rise divided by span.

Pitch [Ag Struc] Is the height or rise of a truss divided by the span.

Pitch [Ag Waste] The mixture of rosin and turpentine or other volatiles produced in the resin canals of pines and other conifers. Terms also applied to mixtures of nonvolatile liquids or non-crystalline solids and volatile oils in other species.

Pitch Angle [Ag Mach] The angle formed between an element of the pitch cone and the bevel gear axis, it is the half angle of the pitch cone.

Pitch Apex to Back [Ag Struc] The distance along the axis from apex of pitch cone to a locating registering surface on back.

Pitch Circle [Ag Mach] The line of intersection of the pitch cylinder by a plane perpendicular to the axis of the gear.

Pitch Diameter [Ag Mach] For the straight thread, this is the diameter of the imaginary cylinder whose surface passes through the thread profiles in such a way to make the widths of the thread ridge and the thread groove equal.

Pitch Diameter of Sheave [Ag Mach] The diameter of the sheave at the pitch width of sheave groove.

Pitching [Gen Agri] Insertion of a rod or a coiled wire through the hole in the skull of cattle made by the captive blot to destroy the brain and the spinal cord to prevent reflex muscular action and possible injury to operatives.

Pitch Pocket [Ag Mach] An opening, extending parallel to the growth rings, that contains or has contained pitch.

Pitch Width [Ag Mach] The width of the belt at its neutral zone.

Pitch Width of Groove [Ag Mach] That width of the sheave groove which has the same dimension as the pitch width of the belt used with this sheave.

Pithing [Gen Agri] Insertion of a rod or coiled wire through the hole in the skull of cattle made by the captive blot to destroy the brain and spinal cord to prevent reflex muscular action and possible injury to operatives.

Pitot Tube [Ag Proc] Is used to measure the pressure of water discharging from the nozzle or flowing in a pipe by having its open end in the water and the other is connected to a gauge or manometer; Device for measuring the velocity head of flowing fluid.

Pititng [Gen Agri] 1) Shallow pits of suitable capacity and distributing retain precipitation on rangeland or pasture. 2) Formation of small cavities in a surface by corrosion of cavitation.

Pituitary [Gen Agri] Small endocrine gland located at the base of the brain.

Plain G.I Sheet [Ag Mach] Is widely used for roofing, gutter, flashing, ridge etc. Has a standard size of 90 cm wide by 2.4 m long.

Plain Jet Atomizer (Orifice Atomizer, Plain Orifice Atomizer, Single-jet Atomizer, Straight- stream Nozzle) [Soil & Water] A pressure atomizer comprising a simple orifice designed to produce a liquid jet that collapses into droplets.

Plain Milling Machine [Ag Mach] A machine very similar in appearance and construction to the universal milling machine, differing chiefly in that it lacks the swivel table construction.

Plainsawed [Ag Struc] Another term for flat-sawed or flat-grained lumber.

Planer [Ag Struc] A machine tool used in the production of flat surfaces on pieces too large or too heavy or cannot be held in a shaper.

Plankton [Gen Agri] Tiny plants and animals that live in water.

Planning [Gen Agri] Is the process of establishing goals and a suitable course of action for achieving those goals.

Plant [Gen Agri] Any organism belonging to the plant or vegetable kingdom.

Plant Germplasm [Gen Agri] Living material such as seeds, rootstock, or leaf plant tissue from which new plants can grow.

Plant length [Gen Agri] The length of the plants from its base of ground level to its tip when the plant is straightened, expressed in millimeters.

Plantation Fruits [Gen Agri] Are fruits plant grown in relatively large areas.

Plantation or Ranch Farmstead [Ag Struc] It often consists of two or more separated groups of buildings; one group includes the residence, garage and attendant service buildings; the other group includes barns, storage houses, and principal service buildings and workers' houses.

Planters [Ag Mach] Machines with multiple row-seeding units that are individually suspended from a main frame. Seed hopper and singulated metering for each individual row may be separately mounted on each row-seeding unit or centralized with seed delivery tubes to individual row units. Seeding depth is principally controlled by depth-control components on each seeding unit.

Planters, Drills and Air Seeders [Ag Mach] Three basic categories of row-type seeding machines that are appropriate for use in conservation-tillage environments.

Plant Length [Ag Mach] The length of the plant from its base at ground level to its tip when the plant is straightened, expressed in millimeters.

Plasma [Gen Agri] Is the fluid portion of the blood containing a number of ions, inorganic molecules, and organic molecules which are transit to various parts of the body or which aid in the transport of other substances.

Plastic [Gen Agri] A form of soil consistency which has the properties of toughness and the capacity to be muddled.

Plastic Bending [Gen Eng] Is the bending of a material beyond the elastic range of strain.

Plasticity [Ag Mach] Is a term used to express an ability to be deformed beyond the range of elasticity without fracture, resulting in permanent change in shape; [Soil & Water] Property of a wet soil which allows it to be deformed without appreciable volume change or cracking.

Plate [Ag Struc] Abbreviation for studwall sill plate or top wall plate; or to cover with an adherent, protective coating mechanically, chemically or electrically.

Plate Freezer [Ag Proc] A double contact freezer consisting of a series of parallel refrigerated metal plates.

Plate Shear [Ag Mach] Machine capable of shearing metal of more than 6 mm in thickness.

Plenum [Ag Proc] Chamber wherein air pressure is developed for uniform distribution of the heated air through the grain mass: An air chamber maintained under pressure usually connected to one or more distributing ducts in a drying or aeration system.

Plenum Flushes [Gen Agri] Rinsing procedure that discharges deionized water from the rim of a flowing bath to remove contaminants from the sides and bottom of the bath.

Plow Harrow [Ag Mach] Implement which works under the combined principles of the regular disc plow and harrow.

Plug Flow [Ag Proc] Flow from a bin in which the grain moves out of the bin in a manner such that movement occurs along all of the bin wall.

Plunge Pool [Soil & Water] Scour hole formed by falling water at the base of a vertical overfall such as the head cut of a gully or downstream of a dam.

Plunger Pump [Ag Mach] A pump which displaces fluid by means of a plunger battery polarity.

Pluvial Period [Soil & Water] Is a period of hundreds of thousands of years of heavy rainfall.

Ply [Ag Mach] Stratum or layer used in referring to the successive layers of veneer in a panel.

Ply Rating [Ag Mach] The identification of a given tire with its maximum recommended load when used in a specific type service. It is an index of tire strength and does not necessarily represent the number of cord plies in the tire.

Plywood [Ag Struc] Building board made from thin wood veneers peeled from logs, glued and compressed into layers.

Pneumatics [Ag Mach] That branch of physics pertaining to the pressure flow of gases.

Pneumatic Applicator [Ag Mach] An apparatus consisting of hopper, a metering device, and a distribution device that uses pneumatic conveyance to broadcast granules over the treatment area or to direct granules into parallel bands.

Pneumatic Atomizers (Air-Atomizing Nozzle, Gas-Liquid Nozzle, Twin-Fluid Atomizer) [Ag Mach] The class of devices wherein the

movement of gas or vapor is the primary source of energy utilized to produce a spray.

Pneumatic Feed-handling System [Ag Mach] Device for distributing feed through tubes by air flow.

Poikilotherms or Cold-Blooded Animals [Gen Agri] Are animals whose body temperature varies directly with that of the environment.

Point of First Sale [Gen Agri] Refers to the location where the first sale transaction takes place for a product.

Point Row [Gen Agri] A short crop row that forms an angle with another row at the field industry.

Point-source Emitters [Soil & Water] Water is discharged from emission points that are individually and relatively widely spaced.

Point Source Pollution [Ag Waste] A specific discharge that is traceable to a distinct source such as those from wastewater treatment plants or industrial facilities.

Poisson's Ratio [Ag Struc] Is the ratio of the lateral strain (contracting) to the longitudinal strain (extension) when the element is loaded with a longitudinal tensile force.

Polar Moment of Inertia [Gen Eng] Is the moment of inertia for an area relative to a line or axis perpendicular to the plane of the area.

Pole [Ag Struc] A round, unsawn, naturally tapered post.

Pole Barn [Ag Struc] A building with round poles or square or rectangular posts embedded into soil as main structural supports.

Poles [Gen Eng] A way of picturing magnetic phenomena. All magnets are considered to be "dipoles". Having both a north pole and a south pole. In an alternator, generator, or motor, the number of poles is a measure of how many coils, permanent magnets or electromagnets are in the armature or stator.

Polisher [Ag Proc] Auxiliary device of a rice mill, which removes the remaining small bran particles on the milled rice and gives it a glossy appearance.

Polishing or Refining [Ag Proc] This is the process of removing the powdered bran adhering to the milled rice.

Polled [Gen Agri] Is a naturally hornless animal.

Pollen [Gen Agri] Refers to the male germ cells produced in the anther.

Pollen Tube [Gen Agri] Is a tube-like structure developed by the tube nucleus in the microspore that helps guide the sperm and endosperm nuclei through the stigma and style to the embryo sac.

Pollination [Gen Agri] Is the transfer of pollen from the anther of the stamen to the stigma of the pistil.

Pollutant [Gen Agri] A contaminant that adversely alters the physical, chemical, or biological properties of the environment. It includes toxic metals, carcinogens, pathogens, oxygen-demanding materials, heat, and all other harmful substances, contaminants, or impurities.

Pollution [Gen Agri] The presence in a body of water of a substance (pollutant) in such quantities that it impairs the body's usefulness or renders it offensive to the senses of sight, taste or smell.

Polymer [Gen Agri] Chemical compound with higher molecular weight consisting of structural units linked together by covalent bonds.

Polyploidy [Gen Agri] Is a condition in which a plant has somatic cells with more than 2N chromosomes per nucleus.

Pond [Soil & Water] A small natural body of standing freshwater filling a surface depression, usually smaller than a lake.

Pomology [Gen Agri] The science or study of growing fruit.

Population [Gen Agri] The total quantity of parts to be produced and put into service.

Pore [Gen Agri] A discrete volume of soil atmosphere completely surrounded by soil.

Pore [Gen Agri] The cross section of a specialized hardwood cell known as a vessel (see Vessels). It is either round, oval, or angular hole depending on the species and may be filled with yellow, black, chalky, or white tyloses.

Pores [Gen Agri] A term of convenience for the cross section of a vessel element or of a vascular tracheid in wood.

Pore Space [Gen Agri] It is the percentage of volume of the soil not occupied by soil particles but occupied by water and air.

Porosity [Gen Agri] The volume of the soil mass occupied by pores and pore spaces.

Porosity [Soil & Water] The sum of the specific yield and the specific Retention; The volume of pores and the soil of the sample.

Porous Trickle Tubing (Microirrigation) [Irig & Water] Tubing with a uniformly porous wall. The pores are small and ooze water under pressure.

Port [Ag Mach] Opening in the main plenum where a trailer is connected.

Portable Hydrant [Soil & Water] An outlet used for connecting surface pipe to an alfalfa valve outlet.

Portable Pipe [Soil & Water] Irrigation pipe, which is or can be moved between irrigation sets, such as sprinkler or gated pipe.

Portable Power Drills [Ag Struc] Are portable power tools used for drilling holes, fastening screws, sanding, polishing and enlarging holes. Classified based on either chuck size, power rating, or duty cycle.

Portable Sanders [Ag Mach] Does the same work as hand sanders. However, they remove wood and other materials much easier and faster. Portable sanders include belt sanders, disc sanders, and finishing sanders.

Portable Saws [Ag Mach] Are useful in carpentry projects. Portables saws include the saber saw, reciprocating saw and circular saw. The action of reciprocating and saber saw is back and forth or up and down. They are compact, portable and useful for cutting curves on plywood, paneling, drywall, and other sheet materials. The circular saw is generally known as the power handsaw. It has a circular blade and is used exclusively for cutoff work.

Posilac [Gen Agri] Trade name of rBST marketed by Protiva, a unit of Monsanto.

Positive Displacement [Ag Mach] A type of granular applicator that uses a rotating rotor to regular flow rate.

Positive Displacement Pump [Ag Mach] A pump that moves a fixed quantity of fluid with each stroke of rotation, such as a piston or gear pump.

Positive-Pressure Ventilation [Ag Struc] System in which outside air is forced into the building, which in turn forces out inside air by positive pressure.

Post [Ag Struc] A rectangular primary structural member, usually vertical, and generally uniform in cross section along its length.

Post-Emergence [Gen Agri] The timing of a chemical treatment applied to the soil around seedlings or larger plants.

Post Emergence Spray [Gen Agri] Is a pesticide or herbicide spray that is after the crop has emerged from the soil.

Post Frame [Ag Struc] A structural frame consisting of a wood roof truss connected to vertical timber columns.

Postgastric Fermentation [Gen Agri] Is the fermentation of feed that occurs in the cecum, behind the area where digestion has occurred.

Postpartum [Gen Agri] After birth.

Postpartum Interval [Gen Agri] The length of time from parturition until the dam is pregnant again.

Potable Water [Gen Agri] Water that is safe and palatable for human consumption.

Potatoes, Dry [Ag Proc] Potatoes put into the bin under normal harvesting moisture condition without being sprayed with water and/or chemical fungicide or rained on.

Potatoes, Wet [Ag Proc] Potatoes that have been sprayed with water and/or with chemical fungicide or have been rained on during bin filling operations.

Potency [Gen Agri] The ability of the male to perform copulation.

Potential Evapotranspiration [Irrig & Drain] Rate at which water, if available, would be removed from soil and plant surfaces.

Pot Holes [Ag Power] The holes on the top of a stove where pots are placed.

Poulard [Gen Agri] Is a pullet whose ovaries have been removed.

Poult [Gen Agri] Young turkey regardless of sex.

Poultry [Gen Agri] Birds raised for meat and eggs.

Pour Point [Ag Mach] The lowest temperature at which an oil will flow.

Powder Metallurgy [Ag Mach] The art of producing commercial products from metallic powders by pressure.

Powder Post Beetles [Gen Agri] Group of beetles whose larvae or grubs and adults in some species have the capacity to burrow in and convert the sapwood portion of the wood into fine powder.

Power [Ag Power] Is the rate converting energy. It is the product of voltage and amperes and is measured in watts.

Power [Ag Elec] The rate at which energy is consumed in a circuit. It is measured in watts.

Power Conductors [Ag Elec] Those conductors that carry current to provide electric power from the machine disconnect to the drive motors.

Powered Blade or Coulter [Ag Mach] A toothed, flat disc blade or smooth, notched or offset coulter driven at a peripheral velocity different than ground speed.

Powered Hopper [Ag Mach] A device for receiving material to be conveyed at a point near the auger rotating flighting and for conveying the material to the rotating auger flighting.

Powered Unit [Ag Power] A machine having an electric motor or internal combustion engine as one of its components, for the purpose of providing power to the machine and, when required, to attachments for such machine.

Power Factor [Ag Elec] It is that factor by which the volt-ampere product must be multiplied in order to obtain the actual power. It is never greater than 1. The value depends on the kind of opposition offered.

Power Factor (f) [Ag Elec] The ratio of the true power to the apparent power.

Power Generation [Ag Power] Conversion of primary sources of energy into electric energy; Generation amounts of electricity derived from thermal, hydro, nuclear, and geothermal plants.

Power-operated Sprayers and Attachments [Ag Mach] A spraying apparatus that is transported and operated with a power source other than an individual.

Power Press [Ag Mach] Power driven-machine fitted rams or dies for purposes of blanking, trimming, drawing, punching or stamping, forming or assembling materials.

Power Range [Ag Mach] The total vertical movement of the hitch measured at the hitch tube and excluding any vertical adjustment in the hitch lift linkage.

Power Shears [Ag Mach] Include sheetmetal power shears, bench metal shears, multiple x-section power shears. Generally, shearing is done with two moveable blades that are made to move by maximized leverage.

Power Source [Ag Elec] The means for providing the energy for the system to operate.

Power-Take-Off (PTO) [Ag Power] A power outlet such as a shaft, tube, pulley, etc., to provide rotational power to an implement or attachment.

Power-Take-Off (PTO) Shaft [Ag Mach] External shaft usually at the rear of the tractor providing rotational power to implements and machines.

Power Unit [Ag Power] Motor or engine used to drive a machine such as a pump.

Polarity [Ag Elec] Can refer to the grounded battery terminal or to an electric circuit or to the north and south pole of a magnet; Electrical characteristic (negative or positive) of a charge.

Polarization [Ag Elec] Accumulation of gas ions around electrode of a cell.

Pork [Gen Agri] Meat produced from the pig.

Porous Dam [Soil & Water] A runoff control structure which reduces the velocity of the runoff so the solids will settle out in the settling basin or terrace.

Portable Auger [Ag Mach] An auger whose accessories include a suitable support system which provides mobility.

Potentiometer [Ag Elec] Three-terminal variable resistor.

Power [Ag Power] Rate of doing work or using energy.

Power Circuit [Ag Elec] The portion of electrical circuit that serves to supply the stator winding of motor.

Power, Drawbar [Ag Mach] The product of drawbar pull and vehicle velocity in the direction of travel.

Power Factor [Ag Elec] The cosine of theta; The ratio of the true power over the apparent power; Also equal to resistance divided by impedance.

Power, Input [Ag Mach] The product of input torque and angular velocity of the driving axle of a traction device.

Power, Output [Ag Mach] The product of net traction and velocity of a traction device.

Powered Blade or Coulter [Ag Mach] A toothed, flat disc blade or smooth, notched, or offset coulter driven at a peripheral velocity different than ground speed. The oriental may be angled from the direction of travel to produce a greater working width.

Power Routers [Ag Mach] Are used to cut grooves and ornamental shapes on faces and edges of wood and other soft materials. It is also useful in making various wood joints.

Practicable [Gen Agri] Possible to practice or perform, likely to meet the needs of a case.

Pre-Cast Concrete [Ag Struc] Is a plain or reinforced concrete element cast in other than its final position in the structure.

Precipitation [Irrig & Drain] Water falling, in a liquid or solid state, from the atmosphere to a land or water surface.

Precipitation Flow [Irrig & Drain] Flow into and through a porous media or soil by way of cracks, root holes, and other paths of low resistance rather than uniformly through the whole media.

Precipitation Heat Treatment [Soil & Water] Brings about the precipitation of a constituent from a supersaturated solid solution by holding body at an elevated temperature, also called artificial aging.

Precision [Ag Mach] The ability of the instrument to consistently reproduce a value of a measured quantity.

Precision Planter [Ag Mach] A type of row-crop planter which is designed to deposit a single seed at equal row interval.

Precision Tillage [Ag Mach] Subsoiling under the pant row prior to planting usually intended for subsurface drainage.

Pre-cleaner [Ag Mach] Auxiliary device of the corm mill that removes foreign material.

Pre-cleaner or Scalperator [Ag Proc] An auxiliary device of rice mill system groups together paddy of the same length or of the same thickness.

Pre-delivery Set-up and/or Installation Instructions [Ag Mach] Outline in detail the procedures for properly preparing and/or installing new equipment for delivery to the customer.

Pre-Emergence [Gen Agri] The timing of chemical treatment applied before seedling have appeared above the soil.

Preferred Stock [Gen Agri] Is a stock that entitles the holders to a preferential treatment as to dividend as well as to the distribution of assets in case the issuing corporation liquidates.

Pregastric Fermentation [Gen Agri] Fermentation that occurs in the rumen of ruminant animals. It occurs before feed passes into the portion of the digestive tract in which digestion actually occurs.

Pregnancy Testing [Gen Agri] An evaluation of females for pregnancy through palpation or using an ultrasound machine.

Pre-irrigation [Irrig & Drain] Refers to the irrigation before the final seedbed preparation and planting a method to insure adequate moisture for the germination of crop seeds.

Premature Birth [Gen Agri] Expulsion of live fetus before reaching full time.

Premium Grade [Gen Agri] Refers to any rice and corn variety which meet the highest grade requirements for rice and corn as set forth in the herein prescribed national standards.

Premix [Ag Proc] Blend of small amount of dietary ingredient with a suitable carrier, for example, a small amount of a feed additive in corn meal.

Prepackage [Ag Proc] Means packaged and or made up in advance in a container, ready for sale to the consumer.

Preplant Irrigation [Irrig & Drain] Irrigation applied prior to seeding. Sometimes called "preirrigation."

Preservative, Oil Borne [Ag Proc] A preservative that is applied to wood in the form of a solution in oil.

Preservative, Water Borne [Ag Proc] A wood preservative that is in the form of a solution in water.

Pressure [Ag Mach] Force extended per unit area: [Soil & Water] Maximum working head of a cast-in-place pipeline shall be 4.5m (15 ft) above the centerline of the pipe.

Pressure Angle [Ag Mach] Angle at the point where the profile cuts the pitch circle.

Pressure Atomizers (Hydraulic Atomizer, Pressure Atomizing Nozzle, Pressure Nozzle, Single-fluid Atomizer) [Ag Mach] The class of devices wherein pressurized liquid is the primary source of energy utilized to produce spray.

Pressure Chamber [Ag Mach] Component of the sprayer that evens out the fluctuations of the fluid pressure and induces more uniform flow of the sprayed liquid.

Pressure Drop [Ag Proc] Loss in pressure from one end of a refrigerant line to the other or through a component, caused by static friction or heat loss.

Pressure Head [Soil & Water] The pressure energy in the liquid system as the equivalent height of a water column above a given datum.

Pressure Inlet [Soil & Water] A structure where water enters a pipeline system from a pump or pressure system.

Pressure Preservative Treated, PPT [Gen Agri] Poles, posts and construction lumber that has been impregnated, under pressure, with a chemical to repel decay.

Pressure Rating [Soil & Water] The estimated maximum pressure that water in the pipe can exert continuously with a high degree of certainty that failure of the pipe will not occur.

Pressure Regulator [Soil & Water] 1) A pressure-decreasing device designed to maintain a constant pressure at an irrigation sprinkler regardless of elevation changes of the sprinkler. 2) A device used to maintain a constant, desired pressure on a pipeline.

Pressure Relief Valve [Ag Proc] A valve held closed by a spring or other means and designed to automatically relieve pressure in excess of its setting; also called a safety valve or relief valve.

Pressure Relief Valve, Drain Valve [Soil & Water] Spring-loaded valve set to open at a pressure slightly above the operating pressure, used to relieve excessive and surges.

Price [Gen Agri] Is the exchange value of goods or services measured in terms of money. [ASAE] market value per unit.

Price Deception [Gen Agri] Refers to disguising the true price of products/services by add-on pricing and promotional tactics.

Price Discrimination [Gen Agri] Is the illegal practice of offering attractive discounts for the same products to a selected clientele.

Price Dumping [Gen Agri] Refers to price discrimination plus predatory pricing in the international market where products are offered below cost to customers in another country.

Price Elasticity of Demand [Gen Agri] Measures the price sensitivity expressed by dividing the percentage change quantity bought over the percentage change in price.

Price Fixing [Gen Agri] Is the illegal collaboration among competitors to change a set level of prices for products of the same category.

Price Gouging [Gen Agri] Excessive water rate increases that are unfair to water customers.

Price Index [Gen Agri] An indicator of average price change for a group of commodities that compares price for those same commodities in some other period, commonly called the base period.

Price Sensitivity [Gen Agri] Is the effect on prices on the buying intention whereby price movement may or may not result to changes in purchasing behavior.

Pricing/Rate Structure [Soil & Water] System used by water utility managers to charge customers for water usage.

Pricking Off [Gen Agri] Refers to the transplanting of seedlings from a seeded plot to a wider spacing when they are in the cotyledon stage or have a couple of three leaves.

Primary Containment [Gen Agri] The storage of pesticide or fertilizer in storage containers at a storage facility.

Primary Cooperatives [Gen Agri] A duly registered association of 15 or more persons having a common bond of interest and are residing or working in the intended area of operation.

Primary Refrigerant [Ag Proc] The working fluid of a refrigeration cycle, as opposed to secondary refrigerant.

Primary Root [Gen Agri] A main root.

Primary Shear Surface [Gen Eng] Initial and distinct surfaces appearing during failure which are caused mainly by shear.

Primary Surface Area [Gen Eng] The area that contains the working heat transfer. Usually the tubes of a finned/tube heat exchanger.

Primary Tillage [Ag Mach] Tillage, which constitutes the initial major soil-working operation, normally designed to reduce soil strength, cover plant materials, and rearrange aggregates.

Primary Tillage Implement [Ag Mach] Implement used for cutting, displacing and/or shattering the soil to bury or mix plant materials, pesticides, and fertilizers in the tillage layer.

Primemovers [Ag Power] Are sources of power such as steam turbines, hydraulic turbines, internal combustion engines, and steam engines; [Ag Mach] an electric motor or a gasoline, or a diesel fed engine used to run a machine.

Primer [Soil & Water] Device attached to a pump to remove air and cause water to fill the pump through the suction pipe.

Priming [Ag Mach] Filling up the pump with water to displace or evacuate the entrapped air through a vent and create a liquid seal inside the casing; [Gen Agri] the removal of the first fruits, root, or tubers that develop on a plant leaving the remainder to mature.

Priming Chamber [Ag Mach] Chamber attached to or built into the casing of a pump to retain water for automatic priming.

Probabilistic Process [Gen Agri] A process which is governed by chance; time series.

Probability [Gen Agri] Likelihood of occurrence based on significant tests.

Processing Aids [Ag Proc] Are additives that are used in the processing of food to achieve a specified technological purpose and which may or may not result in the presence of residue or derivatives in the final product.

Processing Loss [Ag Mach] The weight of threshed and unthreshed grain remaining in the material-other-than-grain, after the completion of the threshing, separation, and cleaning processes expressed as a percent of the grain feed rate.

Procine Stress Syndrome (PSS) [Gen Agri] A genetic defect in swine inherited as a simple recessive. It is associated with heavily muscled animals that may suddenly die when exposed to stressful conditions. Their muscle is usually pale, soft, and exudative (PSE).

Product [Gen Agri] Fluid fertilizer, fluid pesticide, and rinsate containing these materials.

Product Load [Ag Elec] Refers to the amount of heat that must be removed from the product to lower its temperature to the room in which it is to be stored.

Productive Capacity [Gen Agri] The amount that could be produced within the next season if all the resources currently available were fully employed using the best available technology. IT increases whenever the available resources increase or the production of those resources increases.

Productivity (of Soil) [Gen Agri] Is the capability of a soil to produce a specified plant or sequence of plants under a specified system of management.

Production-line Building System [Ag Struc] Building system in which livestock in all stages of their life cycle are accommodated in respective areas of one building.

Production Management [Gen Agri] Deals with the planning, direction and control and decision making necessary for carrying out the production processes.

Production Testing [Gen Agri] An evaluation of an animal based on its production record.

Proestrus [Gen Agri] Is the first of the estrous cycle referred to as the "building up" phase; follicles increase in size, vaginal wall thickens, and uterus vascularity increases.

Profile [Gen Agri] A vertical cross section of the soil through all its horizons and extending into the parental material.

Progeny [Gen Agri] The offspring of animals.

Progeny Testing [Gen Agri] An evaluation of an animal on the basis of performance of its offspring.

Progesterone [Gen Agri] A hormone produced by the corpus luteum that stimulates progestational proliferation in the uterus of the female.

Progressive Application [Ag Mach] An application method where adjacent swaths are applied in alternate directions (back and forth application). This method produces a right-on-right pattern overlap alternately with left-to-left overlap.

Progressive Cavity Pump [Ag Struc] A displacement pump where rotating components create a forward moving cavity that serves to transport manure.

Project [Gen Agri] Any activity that involves the use of one or more scarce resources during a specific time period for the purpose of producing a socio-economic return in the form of goods and services.

Projected Area Method [Ag Struc] Is a simple method of determining wind loads and produces satisfactory design for most structures.

Prolific [Gen Agri] Capable of producing abundant offspring.

Prolificacy [Gen Agri] The ability of the male or female to produce large number of offspring.

Promotional Function [Gen Agri] Involves the increasing awareness, knowledge, attitude and patronage.

Prony Brake [Ag Mach] A friction brake used for engine testing.

Proof load [Ag Struc] The specified load which the fastener must withstand without any indication of permanent deformation after the load is released.

Proof Stress [Ag Struc] Is that stress which causes a specified permanent deformation of a material, usually 0.01% or less.

Prop [Gen Eng] Slang term for propeller.

Propeller [Gen Eng] The spinning thing that makes an airplane move forward. Often incorrectly used to describe a wind turbine rotor.

Propeller Pump [Soil & Water] A pump which develops most of its head by the lifting action of vanes on the water.

Propelling Machine [Ag Mach] A tractor or self-propelled machine used to operate towed, semi-mounted rotary mowers.

Proportioning Mill [Ag Proc] A device in which dietary ingredients are blended in set proportions and ground in a mill.

Protected Zone [Ag Mach] Soil and/or plant zone purposely protected by virtue of tool design, tool spacing or evasive tool movement.

Protein [Gen Agri] Is a basic nutrient made up of amino acids and used by the body for growth, maintenance, and reproduction of all organisms.

The orderly synthesis of proteins in the body is made possible by genes.

Protein quality [Gen Agri] Refers to the amount and ratio of essential amino acids present in protein.

Protein Supplement [Gen Agri] Is any dietary component containing a high concentration (at least 25%) of protein.

Proven Sire [Gen Agri] A bull about whom there is a sufficient unselected information to indicate its transmitting ability.

Primary Treatment [Gen Agri] Treatment that causes substances in liquid waste to readily settle or float.

Psychrometer [Ag Proc] Is an instrument used for ascertaining the humidity of hygrometric state of the atmosphere.

Psychometrics [Ag Waste] Is the measurement of physical properties of gas mixture.

Psychometric Chart [Ag Waste] Is a chart of gas mixture properties.

Psychometry [Sil & Water] Is the study of the properties of the mixtures of air and water vapor.

PTO Output Power [Ag Mach] Power measured at the PTO shaft.

Puberty (Sexual Maturity) [Gen Agri] The age when the animal is ready for breeding for the first time.

Puddlability [Gen Agri] Is the susceptibility of soils to puddling.

Puddled Soil [Soil & Water] A soil which has lost its granular structure and is in a deflocculated condition as a result of tillage, usually when it was in a wet plastic condition.

Puddling [Ag Mach] Act of destroying soil structure, usually by distributing or compacting the soil at high water content, thereby reducing porosity and permeability.

Pull, Drawbar [Ag Mach] The force, in the direction of travel, produced by the vehicle at the drawbar or hitch. Drawbar pull is the preferred term; also called draft.

Pullet [Gen Agri] A young female bird; hen or chicken.

Pullet Chicks [Gen Agri] Are already declared females.

Pulley [Gen Eng] A device used for transferring power when using belts as gearing.

Pulley Diameter [Ag Mach] The outside diameter of the pulley.

Pulley Pitch Diameter [Ag Mach] The diameter of the pulley, which coincides with a belt pitch.

Pull Type (Traction Type) [Ag Mach] Capable of pulling various kinds of implements.

Pull-up Torque [Ag Power] Is the lowest value of torque produced by the motor between zero and full-load speed.

Pulse Width Modulation [Gen Eng] A regulation method based on duty cycle. At full power, a pulse-width-modulated circuit provides electricity 100% of the time. At half power, the PWM is on half the time and off half the time. The speed of this alternation is generally very fast. Used in both solar wind regulators to efficiently provide regulation.

Pump [Ag Mach] Device used to lift or transfer water from one source to another; A device for moving fluids.

Pump Annex [Ag Mach] Describes a sump abutting the building manure storage and used for agitation and pumping; storage ventilation fans may be located in the annex.

Pumped Well Drain [Soil & Water] Well drilled into an aquifer which is pumped to lower the water table.

Pump Column [Soil & Water] The pipe column through which water from well pumps is conveyed to the ground surface.

Pump Drainage [Irrig & Drain] Drainage system in which pumps are used to lift water into an outlet.

Pump Efficiency (n_p) [Ag Mach] Ratio of power output to the power input of the pump; [Soil & Water] Ratio of the water power produced by the pump, to the power delivered to the pump by the power unit.

Pumping Plant or Station [Ag Mach] A complete installation of 1 or more pumps together with necessary appurtenances such as power units, pumps, screens, valves, motor controls, motor protection devices, fences, and shelters.

Pump Stand [Ag Mach] A structure to convey water from a pump to the inlet of a pipeline.

Pump Submergence [Ag Mach] Vertical distance between surfaces of the water supply and the inlet of the pump.

Purebred [Gen Agri] Is an animal eligible for registry with a recognized breed association.

Pure Breeding [Gen Agri] Is the mating of unrelated individuals in the same breed.

Pure Line [Gen Agri] Is a strain of organism that is genetically pure because of continued inbreeding, self fertilization, or other means.

Purging [Ag Proc] Is the removing of air from the refrigeration system. The operation is by drawing a mixture of refrigerant vapor and air from the condenser or receiver, condense the refrigerant by cooling or by compression and cooling, vent off the non-condensables, and return to the liquid refrigerant to the system.

Purity [Ag Proc] Percentage of grains free of foreign matter.

Purlin [Ag Struc] Longitudinal members of the framework that supports the glazing material of the roof.

Putrefaction [Ag Struc] Biological decomposition of nitrogen organic matter with the production of foul-smelling products associated with anaerobic degradation of proteins.

Pyrometer [Ag Mach] A temperature indicator used for comparing exhaust temperatures of the various cylinders.

QR

Quality [Gen Eng] The ratio of vapor mass to total mass of a substance at the substance's saturation temperature and pressure.

Quality Grades [Gen Agri] Are animals grouped according to value as prime, choice, etc., based on conformation and fatness of the animals.

Quality (x) of a Two-phase Mixture [Gen Agri] Is a fraction by mass of the vapor in the liquid-vapor mixture.

Quarry Screen [Ag Struc] Interwoven wire mesh of certain wire and mesh size designed for sizing stones but sometimes used as slotted-flooring materials.

Quartersawed [Ag Struc] Lumber sawed so the wide faces are approximately at right angles to the annual growth rings (see Grain).

Quench [Ag Mach] To cool heated steel or iron by thrusting it into water.

Quick Condition [Soil & Water] Condition in which water flows through the soil material with sufficient velocity to significantly reduces the bearing capacity of the material through a decrease in intergranular pressure. Sometimes called "quicksand."

Quick Freezing [Ag Proc] Refers to freezing products such that the deepest portion hardens in 30 minutes.

Quotas [Gen Agri] In reference to foreign trade policy, it is a limitation on the quantity of an item that may be imported. Quotas restrict the amount of a commodity consumers can purchase and thus, force consumers to pay a higher price. This action forces consumers to switch to less desirable substitute commodities, while domestic producers of substitute commodities expand their output under the quota protection, using resources drawn from more efficient industries. With respect to economic efficiency, quotas are much more harmful than tariffs in general. With tariffs, the domestic price can never exceed that of the world price by more than the tax. With a quota, any increase in domestic demand must cause the domestic price to rise because the amount of imports cannot be increased. Thus, there is no limit to the difference that can exist between the domestic and the world price of the commodity.

Race [Soil & Water] Channel that leads water to or from a turbine or pump.

Rack [Soil & Water] Screen of parallel bars placed in a channel to catch debris, sometimes called a "bar screen".

Radial [Gen Eng] An alternator design in which the armature magnets are attached to the outside circumference of a disc, with the stator coils mounted around the outside.

Radial [Ag Mach] Coincident with or generally parallel to a radius of the tree from the pith to the bark. A radial section is a lengthwise section in a plane that passes through the pith.

Radial Arm Saw [Ag Mach] It is a power circular saw, which rolls along a horizontal arm. The blade could be raised or lowered and the arm could be rotated up to 45 degrees in both directions.

Radial Flow [Soil & Water] Flow from a source or to a sink along radial lines. Direction of flow in a centrifugal pump.

Radial-Flow Pump [Ag Mach] A centrifugal pump that uses diffuser vanes to transform the velocity head into pressure head. Commonly called "turbine pump".

Radial Gate [Soil & Water] A pivoted water control gate whose face is usually a circular arc with center of curvature at the pivot. Sometimes called a "taintor gate."

Radial Load [Ag Mach] A load or force passing through the axis of rotation.

Radial-Ply Tire [Ag Mach] A tire in which the cords of the body plies run substantially radially from bead to bead.

Radiant Energy [Ag Elec] The transfer of energy by radiation.

Radiant Heater [Ag Struc] A device that emits thermal radiation that is directed at and received by absorbing materials, livestock and/or plants.

Radiant Heating [Ag Elec] Heating primarily by thermal radiation.

Radiation [Ag Elec] The phenomenon of sending out rays of light or heat from a source. The most common manifestation of radiation heat transfer is the experience of feeling hot when one approaches a fire.

Radiation [Ag Struc] The process by which energy is emitted from molecules and atoms owing to the internal changes; Is the transmission of heat in the form of radiant energy or wave motion from one body to another across an intervening space.

Radius [Gen Eng] The distance between the center of a circle and the outside.

Radius of Gyration [Ag Struc] It is an index of the stiffness of a structural section when used as a column or other compression member.

Radius of Influence [Soil & Water] Maximum distance from a well at which drawdown is significant.

Radius of Throw [Soil & Water] Farthest distance distance measured from the sprinkler head centerline to a point at which liquid is deposited.

Radius of Turning Area (Radius of the Smallest Circle) [Ag Mach]

Described by the outermost point of the tractor.

Radius of Turning Circle (Radius of the Smallest Circle) [Ag Mach]

Tangentially described by the median plane of outermost wheel of the tractor.

Rageland [Gen Agri] Refers to a land which is predominantly grasses, grasslike plants, or shrubs suitable for grazing and browsing. It includes natural grasslands, savannahs, many wetlands, some deserts,, tundra, and certain shrub communities. It also includes areas seeded to native or adapted and introduced species that are managed like native vegetation.

Railing [Ag Struc] A vertical barrier erected along exposed sides of stairs and platforms to prevent falls of persons.

Rainfall Frequency [Soil & Water] Frequency of occurrence of a rainfall event whose intensity and duration can be expected to be equaled or exceeded.

Rainfall Intensity [Soil & Water] Rate of rainfall for any given time interval, usually expressed in units of depth per time.

Rainfall Interception [Soil & Water] The interception and accumulation of rainfall by the foliage and branches of vegetation.

Rain Splash [Soil & Water] The redistribution of soil particles on the surface by the impact of rain drops. On slopes, this can causes a large amount of erosion.

Raised Deck Nursery [Ag Struc] A space for pigs following weaning, pens having a floor above the conventional floor level.

Raise Grain [Ag Struc] A roughened condition of the surface of dressed lumber in which the hard summerwood is raised above the softer springwood but not torn lose from it.

Ram [Ag Mach] Reciprocating part within a cylinder; It is also called plunger, slide or mandrel.

Ram or Buck [Gen Agri] A male sheep of any age for breeding purposes.

Ramp [Ag Struc] Sloped passage connecting two different elevations.

Random Drainage System [Irrig & Drain] Surface or subsurface drainage system of irregular pattern used on depressional topography.

Random System [Soil & Water] A system of meandering row drains, field drains, and/or field laterals that are located in and drain depressions in a field.

Range [Ag Struc] A series of single span greenhouses, usually interconnected, or two or more sections of gutter-connected greenhouses.

Rangeland [Gen Agri] A large open land area on which livestock wander and graze. The native vegetation is mainly grasses, forbs, and shrubs.

Range of Effective Pressure [Soil & Water] Pressure range between the minimum effective pressure, and the maximum effective pressure, declared by the manufacturer as the pressure range in which the sprinklers operate effectively.

Ramp [Soil & Water] A sloped passage connecting two different elevations.

Rapidly Varied Flow [Soil & Water] Is a type of flow if the depth changes abruptly over a comparatively short distance such as in a hydraulic jump.

Rare-Earth Magnets [Gen Eng] See Neodymium-Iron-Boron magnets.

Rasp-bar Cylinder [Ag Mach] Type of threshing cylinder wherein threshing is done between bar-like protusions in parallel orientation laid on the periphery of the cylinder and stationary bars built into or attached to the concave gate.

Rated Engine Speed [Ag Mach] Speed in revolutions per minute specified by the manufacturer.

Rated Life [Ag Mach] The number of revolutions or hours at a given constant speed that 90 percent of an apparently identical group of bearings will complete or exceed before the first evidence of fatigue develops.

Rated Operating Pressure [Soil & Water] The maximum steady state hydraulic pressure at either male coupler connected to a coupler pair.

Rated Power Output [Gen Eng] Used by wind generator manufacturers to provide a baseline for measuring the performance.

Rating Curve [Soil & Water] Graphic or tabular presentation of the discharge of flow through a structure or channel section as a function of water stage or depth of low. Sometimes called a "rating table."

Rating Flume [Soil & Water] Structure placed in a channel to maintain a consisted regiment for the purpose of measuring the flow and developing a stage-discharge relation.

Ration [Gen Agri] The amount of total feed fed to an animal over a 24-hour period.

Ratoon [Gen Agri] A shoot growing from the roots or base of a plant which has been cut down.

Raw Humus [Ag Waste] A humus form consisting predominantly of well preserved, though often fragmented plant remains with few faecal pellets.

Raw Rice [Ag Proc] Rice which has not been parboiled.

Rays [Ag Struc] Ribbon-shaped strands of tissue extending in a radial direction across the grain so oriented that the face of the ribbon is exposed as a fleck on the quarter surface. In cross section, rays appear as straight lines or tend to curve, touching one or both sides of the pores, broad in some timbers and in others, they consist of two distinct sizes.

Reach [Soil & Water] A length of a stream or channel with relatively constant characteristics.

Reach of unloader: The horizontal distance measured perpendicular to the longitudinal centerline of the combine, from the lowest point of the unloader discharged.

Reaction [Gen Agri] Refers to the degree of acidity or alkalinity of the soil expressed as pH.

Readily Accessible [Ag Struc] Capable of being opened quickly for maintenance, repair, or inspection. May be fastened by latches or held by mechanical interlocks or similar apparatus.

Readily Available Moisture (RAM) [Irrig & Drain] Is the portion of the available moisture that is most easily extracted by plants; this is approximately 75% of the available moisture.

Real Specific Gravity [Irrig & Drain] It is the ratio of the weight of a single soil particle to the weight of a volume of water equal to the volume of the particle soil.

Reaper [Ag Mach] A machine that is used to cut place it in a windrow.

Rear Presswheel [Ag or dual wheels which beside the planted see rear of the machine.

Reasonable-use Rule

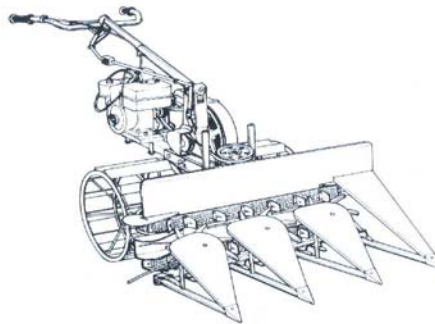
concept of water law in which a landowner is given the right to the reasonable use of water for domestic or similar needs.

Receiver Tank [Soil & Water] Provides storage for the condensed liquid so that a constant supply of liquid is available to the evaporator as needed.

Receiving Water [Soil & Water] Body of water that receives runoff or wastewater discharges.

Receptacle [Ag Elec] A contact device installed at the outlet for the connection of a single attachment plug.

Recession Curve [Soil & Water] Descending portion of a stream flow or hydrograph.



harvesting
crops and

[Ag Mach] Single
operate on or
furrow at the

[Gen Agri] A

Recession Time (t_r) [Soil & Water] Is the time for surface and interflow to recede; duration of flooding.

Recessive [Gen Agri] Used in reference to the allele form of a unit of heredity that, when present in a heterozygous condition is not expressed.

Recharge [Soil & Water] Process by which water is added to the zone of saturation to replenish an aquifer.

Recharge Area [Soil & Water] A land area over which water infiltrates and percolates downward to replenish an aquifer.

Reciprocating Compressor [Ag Mach] Is a type of compressor consisting of a piston moving back and forth in a cylinder with suction and discharge valves arranged to allow pumping to take place.

Reciprocating End [Ag Mach] The moveable end of the device opposite the body end.

Recirculating Cooling Water [Ag Struc] Recycling cooling water to greatly reduce water use by using the same water to perform several cooling operations.

Recirculating Manure Collection System [Ag Struc] Shallow liquid manure storage with periodic or continuous drainage to a lagoon and refilling with lagoon effluent.

Recirculating-Type Dryer [Ag Proc] A batch type dryer equipped to circulate and/or mixed fixed volume of grain during the drying operation.

Re-Circulation [Ag Struc] Recycling of air that is contained within the building.

Reclaimed Water [Soil & Water] Wastewater that is treated and reused to supplement water supplies.

Recombined Milk [Ag Proc] Dry skim milk, dry buttermilk plus butter oil.

Reconditioning Period [Ag Proc] The period following the holding period when potatoes are warmed up to improve processing quality or reduce the risk of subsequent bruise damage due to handling.

Reconstituted Milk [Ag Proc] Refers to the milk powder plus water.

Rectangular Bar [Ag Mach] Size varies in thickness from 1/16 inch to 3/8 inch and in width from 1/2 to 2 inches with a length of 20 feet.

Rectangular Weir [Soil & Water] A channel structure having a rectangular flow notch.

Recurrence Interval [Soil & Water] A time period in which a given hydrologic event can be expected to be equaled or exceeded, usually expressed in years.

Recyclable [Ag Waste] Refers to such products as paper, glass, plastic, used oil, and metals that can be reprocessed instead of being disposed of as a waste.

Red Grains [Gen Agri] Are grains which have red pericarp.

Red Meat [Gen Agri] Refers to the meat from cattle, swine, sheep, and goats, as contrasted with the white meat of poultry.

Red Shortness [Ag Mach] Is the brittleness in steel when it is red hot.

Red Soil [Gen Agri] Varies from very red to dark reddish brown, light brown, and yellow brown, this soil contains plenty of iron and with good drainage.

Red Streaked Grains [Ag Proc] Are grains, whole or broken, having red streaks of the total length of which is one-half or more of the length of the grains.

Reduced Tillage [Ag Mach] A system which consists of fewer or less energy intensive operations compared to conventional tillage.

Reducer [Soil & Water] Coupler or conduit section in which the outlet end is smaller than the inlet end.

Reference Mass [Ag Mach] A mass not less than the tractor mass, selected for calculation of the force and energy inputs to be used during tests.

Reflector [Ag Struc] A device used to redirect the light from a source primarily by the process of reflection.

Reforestation [Gen Agri] Refers to replanting of forest trees species in the watershed area.

Refractor [Ag Elec] A device used to redirect the illumination primarily by the process of refraction.

Refractory [Ag Struc] In wood, implies difficulty in processing or manufacturing by ordinary methods; resistance to the penetration of preservatives, difficulty in drying or difficulty in working.

Refrigerant [Ag Proc] Any substance that absorbs heat through expansion or vaporization: The fluid for heat transfer in a refrigerating system; the refrigerant absorbs heat at a low temperature and transfer heat at a higher temperature and higher pressure.

Refrigerant Flow Control [Ag Proc] Meters the proper amount of refrigerant to the evaporator and reduces the pressure of the liquid entering the evaporator so that the liquid will vaporize in the evaporator at the desired low temperature.

Refrigeration [Ag Proc] The process of moving heat from one location to another by use of refrigerant in a closed loop cycle.

Regeneration [Gen Agri] The renewal of a forest stand either through seed or vegetative method such as marcots, grafts, layerage or coppice.

Regime [Soil & Water] Condition of a stream with respect to its rate of flow.

Regolith [Gen Agri] Refers to the unconsolidated materials above the bedrock.

Regular Drawbar [Ag Mach] The operating position of the drawbar matching the standard dimension from hitch pin hole to end of PTO shaft for the particular type PTO shaft on the tractor.

Regular Milled Rice [Ag Proc] Is a rice grain from which the hull, the germ, the outer bran layers and the greater part of the inner bran layers have been removed but parts of the lengthwise streaks of the bran layers may still be present on 15% to 40% of the sample grains.

Regulator [Gen Eng] A device used to adjust incoming power so as to avoid overcharging a battery bank.

Regulator Leakage [Soil & Water] The air flow still admitted through the regulator when the vacuum the regular sensing pint falls 2 KPa below the regulated level at that point.

Re-Hilling [Gen Agri] The replacement of soil about individual plants or a row of plants after some soil has been removed from that location.

Reinforced Concrete [Ag Struc] Is a concrete containing reinforcement, including pre-stressing steel, and designed on the assumption that the two materials not together in resisting forces.

Reinforcement [Ag Struc] A strengthening concrete, plaster or mortar by embedding steel rods or wire mesh in it.

Reinforcing Bars [Ag Struc] Steels rods that are embedded in building materials such as concrete for reinforcement.

Relative Density [Gen Eng] The standard metrification name for specific gravity.

Relative Humidity [Ag Proc] Ratio of the amount of water present in the air to the amount required for saturation of the air at the same dry bulb temperature and barometric pressure, expressed as percentage: A measure of the moisture content of air expressed as a percentage. It is the ratio of weight of water vapor in a given volume of air at a given temperature to the maximum quantity of water vapor which the same volume of air could hold at the same temperature.

Relaxation [Ag Struc] Associated with creep, is the decreasing stress at a constant strain: important for metals in high temperature service.

Relay [Ag Elec] An electromagnetic switch which utilizes variation in the strength of an electric circuit to effect the operation of another circuit.

Relay Crop [Gen Agri] Is a crop which is planted in shortly before the first crop is to be harvested.

Relay Cropping (Crop Rotation) [Gen Agri] Is the planting of different crops, one after the other each season.

Reliability the probability that a part, assembly or system will perform satisfactorily for a specified period of time under specified operating conditions.

Relief Drain [Soil & Water] A system of subsurface drain tiles or tubing installed within an area having a high water table, in order to lower the water table or maintain it at a given level.

Relief Valve [Ag Proc] An automatic valve, which is held, shut by spring of correct strength. excesses pressure opens the valve and releases some the gas or liquid. This valve is for protecting filters, air tanks, etc., from dangerous pressures.

Relief Valve Pressure [Soil & Water] The set point of a relief valve when one is used in a tractor hydraulic system to limit the pressure at the coupler pair.

Remote Installation [Ag Mach] Neither end of the linear control device is attached to the basic tractor.

Renewable Energy [Ag Power] Energy obtained from the continuing or repetitive currents of energy occurring in a natural environment.

Renewable Resources [Ag Waste] Are resources such as forests, rangeland, soil, and water that can be restored and improved.

Renewable Source of Energy [Ag Power] The energy obtained from biomass, solar radiation, temperature differences that produce currents in deep oceans or those that are found in rocks beneath the earth's surface, air pressure differences that produce winds, and natural or man made differences in water levels.

Rent [Ag Mach] A rental agreement is a short-term contract that permits use of machinery in exchange for a fee.

Repair [Ag Mach] Restoring a machine to operative condition after breakdown excessive wear, or accidental damage.

Repair/overhaul Instructions [Ag Mach] Provide detailed procedures for properly diagnosing, repairing, or overhauling the equipment.

Replacement Boar [Gen Agri] Any intact (uncastrated) male pig intended for use in the breeding herd but not yet used for breeding.

Reproductive [Gen Agri] Efficiency and conception rates are often used to express degree of fertility.

Reservoir [Soil & Water] Body of water, such as a natural or constructed lake, in which water is collected and stored for use.

Reservoir Tillage [Ag Mach] A system in which a large number of depressions or small reservoirs are formed to hold rain or sprinkler applied water.

Residual [Ag Struc] The semisolid part of sewage and bacterial mass that has been acted upon by bacteria and settled or removed from the treated wastewater.

Residual Stresses [Ag Struc] Are those stresses that are independent of loads.

Residue Processing [Ag Mach] Operations that cut, crush, anchor or otherwise handle residues in conjunction with soil manipulation.

Residues [Ag Mach] All materials added to or mixed into soil, including residues, soil additives, and foreign bodies that have not originated in the soil's development.

Resilience [Ag Struc] Is the quality of absorbing impact loads without passing the elastic limit.

Resin [Gen Agri] Inflammable, amorphous, vegetable substance secreted by certain plants or tree as in the pines. They are oxidation or polymerization products of the turpenes, and consist of mixtures of aromatic acids and esters.

Resin Canal (or Duct) [Soil & Water] Intercellular passages that contain and transmit resinous materials. They extend vertically or radially in a tree.

Resistance [Ag Elec] Opposition to current which converts electric energy into heat energy.

Resistance Block [Soil & Water] Type of soil moisture probe used to monitor soil moisture conditions to help determine when water should be applied.

Resistance Coefficient [Soil & Water] A quantitative expression of hydraulic resistance exerted by a conduit boundary on fluid flow.

Resistance to Corrosion [Ag Mach] Is the degree to which a material resists chemical combination with other materials with which it comes in contact, is a measure of its resistance to corrosion.

Resistivity [Ag Elec] Characteristic resistance of a material (resistance of a cubic meter of the material)

Resonance [Ag Elec] A circuit condition in which $X_L = X_C$.

Resource [Gen Agri] A person, thing, or action needed for living or to improve the quality of life.

Resource Management System [Soil & Water] A combination of conservation practices and management identified by land and water uses that, when installed, will control soil losses and maintain acceptable water quality to permit sustained use.

Respiration [Gen Agri] Is the process of providing oxygen to the cells of the body and removing carbon dioxide from them.

Retard [Soil & Water] Permeable dikes or barriers built into a stream channel approximately at right angles to the bank line to deflect the main current away from and stop erosion of the stream bank.

Retardance Class [Soil & Water] A characterization of vegetation with respect to its resistance to flow, used primarily for designing vegetated waterways.

Retention [Ag Proc] Amount of preservative remaining in the wood immediately after completion of the treating operation. Same as net absorption, usually expressed as weight of preservative per unit volume of wood.

Retention [Soil & Water] Precipitation on an area that does not escape as runoff; the difference between total precipitation and total runoff.

Retention Time [Ag Struc] Average period that a given quantity of slurry is retained in the digester for digestion.

Reticulum [Ag Struc] One of the stomach components of ruminant animals. It is lined with small compartments, giving a honeycomb appearance.

Retrofit [Soil & Water] Replacement of existing equipment with equipment that uses less water.

Return Flow [Soil & Water] That portion of the water diverted from a stream which finds its way back to the stream channel, either as surface or subsurface flow.

Return-flow System [Soil & Water] A system of pipelines or ditches to collect and convey surface or subsurface runoff from an irrigated field for reuse.

Return Period [Soil & Water] The frequency of occurrence of a hydrologic event whose intensity and duration can be expected to be equaled or exceeded, usually expressed in years.

Returns [Ag Mach] The material from the grain cleaning mechanism which is recirculated for reprocessing.

Reuse System A system designed to collect runoff from a surface irrigated field for reuse.

Revenue [Gen Agri] Is the income derived from the sale of goods.

Reverse Grade [Soil & Water] A slope or grade on a field surface, crop row, or channel, that slopes in the direction opposite to the prevalent or desired grade.

Reverse Osmosis [Soil & Water] Common process used to produce deionized water from municipal water.

Revetment [Soil Water] Facing of stone or other material, either permanent or temporary, placed along the edge of a body of water to stabilize the bank and to protect it from erosion.

Revolved Section [Ag Mach] Section revolved about an axis in a traverse cutting plane.

Revolving Screen [Ag Mach] Trash screen or rack in the form of a cylinder or continuous belt revolved by water passing through it or other power source.

Reynold's Number [Gen Eng] Is a dimensionless expression used in predicting flow patterns.

Rheostat [Ag Elec] Two-terminal variable resistor; A device to regulate current flow by varying the resistance in the circuit.

Rhizome [Gen Agri] A subterranean stem, usually rooting at the nodes and rising at the apex; a rootstock.

Rhizobium [Gen Agri] A genus of bacteria that live symbiotically in the roots of legumes and fix nitrogen that is used by plants.

Ribbon Figure [Ag Proc] Figure consisting of changeable (with light) darker and lighter bands, obtained by quartersawing or slicing interlocked grain wood.

Rice Drier [Ag Proc] A device for removing excess moisture in the grain, generally by forced convection with or without addition of heat in the drying air.

Rice Hull [Ag Power] Outermost rough covering of the paddy consisting of the empty glumes, floral glumes, and awn.

Rice Mill [Ag Proc] Machine used to remove the hull and bran of the paddy to produce milled rice and consists mainly of hulling and whitening assembly; A machine or equipment used to remove husk or hull and the bran of paddy to produce milled rice.

Rice Milling [Ag Proc] Refers to the process of removing the husk from the paddy and the bran from the kernel (brown rice). In Japan and some other countries where rice is stored or transported in the form of brown rice this refers to the removal of the bran layers.

Rice, Overmilled [Ag Proc] Rice grain from which the hull, the germs, and the bran layers have been completely removed.

Rice, Regular Milled [Ag Proc] Rice grain from which the hull, the germ, the outer bran layers and the greater part of the inner bran layers have been removed but part of the lengthwise streaks of the bran layers may still be present on 15% to 40% of the sample grains.

Rice, Well Milled [Ag Proc] Rice grain from which the hull, the germ, the outer bran layer, and the greater part of the inner bran layer have been removed but part of the lengthwise of the bran layer may still be present on less than 15% of the sample grains.

Rice Variety [Ag Proc] This refers to the category/species of palay from which processed or milled rice was derived denoting its genetic

characteristics whether it is traditional variety not belonging to fancy variety rice or a result of genetic improvement/hybridization. Traditional variety shall include all other indigenous or native varieties not included in the listing of fancy palay or rice (i.e. Intan, Raminad). Modern variety shall include genetically improved palay varieties exemplified by the IR Series, BPI Series, PSB Series and other common names.

Ride-on Lawn Mower [Ag Mach] A self-propelled machine, designed and advertised for mowing lawns

Ridge [Ag Struc] The horizontal line formed at the apex of two roof slopes.

Ridge and Furrow [Ag Struc] A type of greenhouse construction where modular units are connected at the gutters to cover large ground areas; also called gutter-connected greenhouse.

Ridge Height (Bed, Hill, Window) [Ag Mach] Height of soil above a specified (initial or subsequent soil surface)

Ridge Tillage [Ag Mach] A system in which the ridges on which the crop is planted are formed during cultivation or after harvest and maintained from year to year in the same location. Seeding is done on the ridge top.

Ridge-Type Terrace [Soil & Water] Terrace embankment constructed from both sides.

Ridge Vent [Ag Struc] Opening along a roof peak for natural ventilation air outlet or an inlet for mechanical ventilation.

Rigid Frame [Ag Struc] A clear span building framework type where walls and sloping rafters are fixed together into a unit such that there is no relative rotation between members.

Ridging (Also Called Bedding or Listing) [Ag Mach] Tillage which forms a ridge and furrow soil configuration.

Ridgling [Gen Agri] A stallion with only one testis or none in the scrotum.

Right-Hand and Left-Hand [Ag Mach] Designations related to operator when sitting on the operator's station.

Right-Hand Plow [Ag Mach] Turn the furrow slice to the left of the plow.

Right-Hand Side [Ag Mach] For mobile machine, it is the side which is on the right when an observer is facing in the normal forward direction of the travel of the machine; and for stationary machines, it is the side which is on the right when an observer is facing in the machine.

Right Hand Thread [Ag Mach] A thread which winds the clockwise and receding direction from the starting end, when viewed from that end.

Right Side [Ag Mach] Refers to the right hand side of a tractor, self-propelled implement of husbandry, agricultural implement, or farmstead equipment, as determined from the rear of the vehicle facing in the direction that it moves.

Rigid Frame [Ag Struc] This is widely used in bridge construction and industrial buildings. The distinguishing characteristics of the rigid frame are: a) the joints are fixed, or rigid, rather than hinged, b) the basic geometric figure is not necessarily a triangle but can be almost any shape, c) some or all of the members carry both bending and axial loads.

Rigid Metal Conduit [Ag Mach] It consists of a metal pipe with insulated wires inserted into the pipe. Conduit can be corrosion resistant material and may be used under all atmospheric conditions.

Rigor Mortis [Gen Agri] The stiffness of body muscles that is observed shortly the death of an animal, it is caused by an accumulation of metabolic products, especially lactic acid, in the muscles.

Rill [Soil & Water] Small channels eroded into the soil surface by runoff, which can be filled easily and removed by normal tillage.

Rill Erosion [Soil & Water] An erosion process in which numerous small channels of only several centimeters in depth are formed; occurs mainly on recently cultivated soils.

Rim Diameter [Ag Mach] The nominal diameter at the intersection of the bead seat and vertical portion of the rim flange.

Rinse Sink [Ag Mach] Apparatus used to remove debris and contaminants from products and equipment.

Rinsewater [Ag Mach] Water used to remove debris and contaminants from products and equipment.

Riparian [Irrig & Drain] Pertaining to the area along the banks of a river, stream, or lake.

Riparian Rights [Irrig & Water] Legal water rights of a person owning land containing or bordering on a water course or other body of water in or to its banks, bed, or waters.

Rippled Coulter [Ag Mach] Offsets are either extended radially inward from the circumference providing a sinusoidal cutting edge, or recessed from the circumference with a sharpened cutting edge.

Riprap [Ag Struc] Is a concrete structure made of stones constructed along steep embankments to prevent landslide or gully erosion.

Rise [Ag Struc] Is the height of flight of stairs from landing to landing or the height between successive treads or stairs.

Riser [Ag Struc] Vertical part of a stair step.

River [Irrig & Drain] A natural stream of water of substantial volume.

River Basin [Irrig & Drain] The land area drained by a river and its tributaries.

Riverside Drain [Irrig & Drain] Drain adjacent to a riverbed to a point downstream where water can be discharged above the mean high water level of the river.

River Stage [Irrig & Drain] Is the elevation above some arbitrary zero datum of the water surface at a station along a river or stream.

Rivet [Ag Mach] A headed pin of metal used for uniting two or more pieces by passing the shank through a hole in each piece and then by beating or pressing down the plain end so as to make a second head.

RNA (Ribonucleic Acid) [Gen Agri] A molecule similar to DNA that functions primarily to decode instructions for protein synthesis that are carried by the genes.

Road Crossing [Soil & Water] It is used to carry water under roads or railroads.

Roaster [Ag Proc] An over grown fryer.

Rocker Arm [Ag Mach] A first-class lever used to transmit the motion of the pushrod to the valve stem.

Rock-fill Dam [Soil & Water] A dam composed of loose rock usually dumped in place; often with the upstream part constructed of hand-placed rock and faced with an impervious surface of concrete, timber or steel, or a thin core of impervious clayey materials.

Rockwell Hardness [Ag Mach] A measurement of the degree of surface hardness of a given object.

Rodenticide [Gen Agri] A chemical designed to kill rodents.

Roller Bearing [Ag Mach] An antifriction bearing using straight (cupped or tapered) rollers spaced in an inner and outer ring.

Roller-Harrow [Ag Mach] A secondary tillage implement for seedbed preparation which crushes soil clods and smoothes and firms the soil surface. It consists of an in-line gang of ridged rollers, followed by one or more rows of staggered spring cultivator teeth, followed by a second in-line gang of ridged rollers.

Roller Mill [Ag Proc] Major component of the corn mill used to reduce corn kernel into corn grits.

Roll-Over Protective Structure (ROPS) [Ag Mach] Two-or-four-post structural frame primarily used to protect operator from being crushed in case the machine rolls over.

Roof Cleats [Ag Struc] A member fastened to the roof of a structure for ascent or descent.

Roof Height [Ag Struc] Is the vertical distance between the reference line and the lowest point on the bunk roof or cover.

Roof Slope [Ag Struc] Degree of deviation of the roof from the horizontal.[ASAE] degree or inclination of the bin roof measured in degrees from horizontal.

Rooster (cock) [Gen Agri] Refers to a mature male chicken intended for breeding.

Root [Gen Agri] Is the part of the plant.

Root [Gen Eng] Refers to the area of a blade nearest to the hub. Generally the thickest and widest part of the blade.

Root Angle [Ag Mach] The angle between meshing bevel gear axis of the bevel gear.

Roots/Stems/Bulbs [Gen Agri] Are kinds of vegetable that yield specialized succulent parts other than the leaves.

Root bed [Soil & Water] The soil profile modified by tillage or amendments for use by plant roots.

Rootstock [Gen Agri] In asexual propagation, it refers to where the scion is attached to develop a new plant.

Root Zone [Soil & Water] That part of the soil profile exploited by the roots of plants; Depth of soil that plants roots readily penetrate and in which the predominant root activity occurs.

RPM [Gen Eng] Revolutions Per Minute. The number of times a shaft completes a full revolution in one minute.

Rotary or Axial-Rotor Concave [Ag Mach] These concave are similar to the concave except that they may be longer, wider and/or oriented longitudinally within the combine.

Rotary Blower [Ag Mach] Any blower in which the pumping element follows rotary motion, the centrifugal blowers being the exception.

Rotary Cage Atomizer [Ag Mach] A centrifugal atomizer in which liquid consists of a rotating, hollow cylindrical cage in which liquid is introduced to the interior and flows through passages to the cage openings, where it is broken up into drops.

Rotary Compressor [Ag Mach] Is a positive-displacement machine with shaft, blade, and roller as its moving parts in the compression.

Rotary Cultivator [Ag Mach] A set of wheels with curved, finger-like spikes extending radially from the individual wheel hubs, mounted on a common axle, for loosening, clod pulverization, and smoothing loosened soil in the row area, depending upon the angled orientation to the direction of travel and the curvature of the spikes. The overall diameter of the rotating wheel assembly is typically 250-380 mm (9.8-15 in.). Cross section of the base of the spikes, which may be tapered (thinner at the outer tip), is typically 10 x 25 mm (3/8 x 1 in.)

Rotary Cup Atomizers (Spinning Cup) [Ag Mach] A centrifugal atomizer in which liquid is fed to the interior surface of a spinning cup, from which it is dispensed by centrifugal force to form a spray.

Rotary Disk [Ag Mach] One or two disk per row crop header row unit are used to shear off the crop.

Rotary Disk Atomizer (Spinning Disk) [Ag Mach] A centrifugal atomizer in which liquid is introduced near the center of one or more spinning disks, spreads out toward the rim, and is dispensed by centrifugal force to form a spray.

Rotary Hoe [Ag Mach] A secondary tillage implement for dislodging small weeds and grasses and for breaking soil crust. Rotary hoes are used for fast, shallow cultivation before or soon after the crop plants emerge. Rigid curved teeth mounted on wheels roll over the soil, penetrating almost straight down and lifting soil as they rotate. Hoe wheels may be mounted in multiple gangs or as short gangs on spring loaded arms suspended from the main frame.

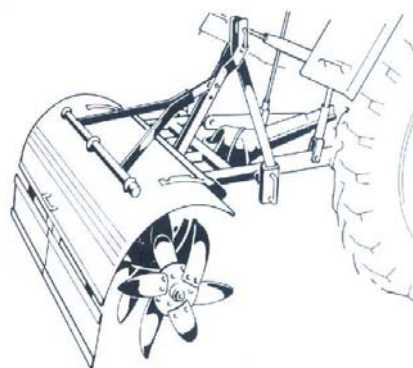
Rotary Mower [Ag Mach] A power mower which one or more functional components cut or shear by impact and rotate about an axis perpendicular to the cutting plane.[ASAE] a power mower in which one or more elements rotate about a vertical axis and cut by impact.

Rotary Separator [Ag Proc] An alternative term for a rotary device, similar to a cylinder, which is fitted to promote separation only.

Rotary Strainers [Ag Proc] A slowly rotating, perforated cylinder mounted horizontally.

Rotary Tillage [Ag Mach] A tillage operation employing power-driven rotary action to cut, break up, and mix soil.

Rotary Tiller [Ag Mach] secondary tillage for broadcast or strip tillers are also used as incorporators prior to row crop cultivators. They power-driven shaft, the direction of travel, curved knives that slice chop surface residue, and materials, in the disturbed layer.



A primary or implement used tillage. Rotary chemical planting and as consist of a transverse to equipped with through the soil, mix all

Rotary Tilling Type Hand Tractor [Ag Mach] A type of hand tractor equipped with rotary tiller which cuts, breaks up, and mixes the soil and/or plant residues.

Rotating Screens [Ag Proc] Cylindrical screens used in cleaners instead of the vibrating screens.

Rotation (or Crop Rotation) [Gen Agri] The growing of different crops, in recurring succession, on the same land.

Rotor [Ag Power] Is the rotating part of an electric motor. It is a cylinder made up of thin sections of a special soft steel with slots cut in the surface.

Roughage [Gen Agri] Feed high in fiber and low in digestible energy.

Roughness Coefficient (Preferred term is Resistance coefficient.)

Rough Rice [Ag Proc] Sometimes used to describe paddy, meaning unhusked rice.

Round Bar [Ag Mach] Are mild steel bars sold in diameters from 3/16 to 2 inches and lengths of 12 feet to 20 feet.

Rounded [Ag Mach] A rounded shape on the circumference of the tire or wheel to firm the soil over the width of the wheel.

Routine Test [Ag Mach] Test carried out on each and every component or equipment to check the specifications which are likely to vary during production.

Row Application [Ag Mach] Is a localized fertilizer application wherein a moldboard plow is passed between rows of plants to make the deepest portion of the furrow where the fertilizer should be applied, the plow is again passed about three inches away to cover the fertilizer and at the same time hill up the soil to the plants.

Row Crops [Gen Agri] The rows or planting beds are far enough apart to permit the operation of machinery between them for cultural operations.

Row Crop Cultivator [Ag Mach] Implement wherein the frame and cultivating tools are designed to adequately pass through standing crop rows without crop damage.

Row Crop Header [Ag Mach] A device used to cut off and gather row crops.

Row Crop Planter [Ag Mach] A type of tractor power-driven seeder which can deposit the seeds at a specified rate in hills and rows spaced to permit inter-row cultivation and also functions as a seed drill if required.

Row Crop [Gen Agri] Crop planted in rows far enough apart to allow cultivation between rows during the growing season.

Row Drain [Soil & Water] A small drain constructed with a plow or similar tillage implement to provide drainage into field drains or field laterals. Sometimes locally called "plow drain," "quarter drain," "header ditch," or "annual drain."

Row Grade [Gen Agri] Refers to the slope in the direction of crop rows.

RSI [Ag Elec] Resistance to heat flow, in SI units, $m^2 \cdot K/W$.

Rubber Roll [Ag Mach] This falls under friction type machines consisting of two rubber rolls rotating in opposite directions at different speeds. One roll moves about 25% faster than the other. The difference in peripheral speeds subjects the paddy grains falling between the rolls to a shearing action that strips off the husk. The clearance between the rolls is adjustable and is kept at less than the thickness of the grain. It has a 70% milling recovery.

Rubber Roll Husker [Ag Proc] Machine used to remove the husk from the paddy grain by passing the grain between two rubber rolls operating at different peripheral speeds.

Rubber Roll Type [Ag Proc] Type of rice mill using rubber roll huller and utilizes friction and/or combination of other types of whitener.

Rueping Process [Ag Proc] An empty-cell process for treating, usually with oil, in which the following sequence is employed; compressed air, cylinder filled without reducing pressure; pressure increase and held until required absorption is obtained; final vacuum.

Rumen [Gen Agri] The first stomach compartment of a ruminant, also called paunch.

Ruminant [Gen Agri] One of the order of animals which has a stomach with four complete cavities- rumen, reticulum, omasum, abomasum through which the food passes in digestion.

Rumination [Ag Elec] Can be described as controlled vomiting. In rumination, a controlled set of contractions of the esophagus, reticulum, and rumen allow ingesta to be regurgitated back up to the esophagus where fluids are swallowed again and additional remastication and reswallowing of solids occurs.

Run [Ag Struc] Refers to the horizontal distance from the first to the last riser of a stair flight.

Rungs [Ag Struc] Ladder cross members used for ascent or descent.

Run-off Application [Irrig & Drain] An application of a liquid chemical using sufficient volume such that it begins to drip from the target.

Runner Opener [Ag Mach] A fixed, elongated, blade-like opener which is vertically split to form a wedge-shape for cutting and moving soil laterally to form a furrow.

Running Resistance [Ag Mach] The sum of all the resistance acting on a tractor. This includes the rolling resistance to the soil surface, air resistance, acceleration resistance, slope resistance, etc.

Runoff [Soil & Water] The portion of precipitation, snow melt, or irrigation that flows over the soil, eventually making its way to surface water supplies.

Runoff (water) [Irrig & Drain] Surface water drained from a field, roof, etc. When used with livestock facilities, the term often denotes a dilute mixture of rainwater, snowmelt, manure and debris.

Run-off Coefficient [Irrig & Drain] Is the ratio of depth of run-off to depth of precipitation producing the run-off over a drainage area.

Runoff Control Facility [Ag Struc] System to intercept and prevent pollution from runoff containing manure.

Runoff Duration [Irrig & Drain] Elapsed time between the beginning and end of a runoff event.

Runoff Rate [Irrig & Drain] The rate at which water flows from a watershed. The peak value is often calculated by the rational runoff equation.

Runoff Volume (V) [Irrig & Drain] Is the total water yield from a storm for a given watershed.

Runt [Gen Agri] Is a term commonly used to denote a piglet of small size in relation to his/her littermates. Runts usually result from a shortage of milk in one or more teats of the sow.

Rural [Gen Agri] An area that has a population of fewer than 2,500 inhabitants and is outside an urban area. It does not only apply to farm residences or to sparsely settled areas, since a small town is rural as long as it meets the above criteria.

Rural Electric Cooperatives [Ag Elec] Non-stock, profit power distribution utility cooperatively owned by customers, organized to supply, promote and, encourage the fullest use of electric service on an area coverage basis.

Rural Wastes [Ag Elec] Wastes produced in rural area.

“R” Value [Ag Proc] A measure of a material’s ability to resist the flow of heat; the inverse of “K” for one layer of construction; or the inverse of “U” for a complete structure; units are $m^2 \cdot K/W$ ($ft^2 \cdot F/Bfu \cdot h$).

S

Sabo Dam [Soil & Water] A concrete structure that control erosion and mass movement of sediments.

SAE Horsepower (Rated horsepower) [Ag Power] Formula to determine power: bore diameter² x number of cylinders/2.5 = hp.

SAE Viscosity Numbers [Ag Mach] Simplified viscosity ratings of oil based on Saybolt viscosity.

Safety Device [Ag Mach] Mechanism or an arrangement for the specific purpose of improving the degree of personal safety for the operator and others involved during the normal operation and servicing of a portable farm auger.

Safety Devices [Ag Mach] A ladder safety device is any device, other than a cage or well, designed to eliminate or reduce the possibility of accidental falls and which may incorporate such features as life belts, friction brakes and sliding attachments.

Safety Distance Guarding [Ag Struc] A means of providing guarding where the possibility of inadvertent contact with the hazard is minimized by the combination of the guard configuration and the distance between the guard and the hazard.

Safety Factor [Ag Struc] Providing strength beyond that needed as an extra margin of insurance against parts failure.

Safety Sign [Ag Mach] A visual alerting device in the form of a decal, label, placard, or other making such as an embossing, stamping, etching, or other process that advises the observer of the nature and degree of the potential hazard that can cause injury or death.

Saline Soil [Gen Agri] Is a soil containing excessive amounts of soluble salts.

Saline-sodic Soil [Gen Agri] A soil containing sufficient exchangeable sodium to interfere with the growth of most crops and containing appreciable quantities of soluble salts.

Salinisation [Gen Agri] The process of accumulation of salts in the soil.

Salinity [Gen Agri] Refers to the quality of water based on its salt content; sea-water contains approximately 18,000 parts per million of salt.

Saltation [Soil & Water] Soil movement by water or wind where particles skip or bounce along the streambed or soil surface.

Saltwater Intrusion [Soil & Water] The invasion of fresh surface or groundwater by salt water.

Sample [Gen Agri] A small number of parts which will be considered as representative of the total population.

Sample Board [Ag Proc] A board from which one or more kiln samples will be cut or a board taken from a kiln truckload during drying for the purpose of cutting a moisture section.

Sand [Gen Agri] Mineral rock fragments that range in diameter from 2-0.05 mm in the USDA system.

Sanders [Ag Mach] They have either belts or disks that are used as sanding surfaces. The material to be finished is fed against the sanding surfaces.

Sand Lens [Gen Agri] Lenticular band of sand in distinctly sedimentary banded material.

Sanitary Sewers [Soil & Water] Underground pipes that carry off only domestic or industrial waste, not storm water.

Sap [Gen Agri] The moisture in unseasoned wood and all extractives it holds in solution.

Saprophytic [Gen Agri] Refers to living on dead organic matter.

Sapwood [Gen Agri] The layer of wood next to the bark, usually lighter in color than the heartwood, one half inch to 3 or more inches wide that are actively involved in the life processes of the tree.

Saturated Flow [Soil & Water] Flow of water through a porous material under saturated conditions.

Saturated Soil [Soil & Water] A soil for which the entire profile is saturated with water.

Savonius [Gen Eng] A vertical axis wind turbine design by S.J. Savonius of Finland from the 1920s and 30s. Shaped like a barrel split from end to end and offset along the cut. They are drag machines, and thus give very low rpm but lots of torque.

Saybolt Viscosimeter [Ag Mach] A container with calibrated outlet tube for determining the viscosity of liquids.

Scaffolding [Ag Struc] Is the temporary structure of wooden poles and planks providing platform for working men to stand on while erecting or repairing a building.

Scalding [Ag Proc] Lowering of animal into steam to prepare skin for dehairing.

Scalping [Ag Proc] Rough cleaning of paddy.

Scattered Grains [Ag Proc] The ratio of weight of grains that fell out from the machine during the drying operation, to the weight of the total grain input to the dryer, expressed in percent.

Scattering Loss [Ag Proc] Ratio weight of grains that fell out from the machine during threshing operation, to the weight of total grain input of the thresher, expressed in percent.

Scheduling [Gen Agri] Determining the time when the various operations are to be performed.

Scientific Method [Gen Agri] Is the approach taken by scientists to make observations of and theories about the world around them, and beyond.

Scion [Gen Agri] Is the aerial part of a plant that is transferred to a new rootstock in grafting.

Scour [Soil & Water] To abrade or wear away; the wearing away of a channel or surface as in a flood by flowing water.

Scouring (Shedding) [Ag Mach] A soil-tool reaction in which soil slides over the surface of the tillage tool without significant adhesion.

Scours [Gen Agri] Diarrhea; a profuse watery discharge from the intestines.

Scraper [Ag Mach] Components which scrapes the soil adhering to the concave side of the disc.

Screen (Wells) [Soil & Water] A manufactured well casing with precisely dimensioned and shaped openings.

Screen (Canals) [Soil & Water] A device used to clean surface water of debris.

Screening [Ag Mach] The isolating of desired seed by a mechanical device, where the desired seed is carried over the device and the undesired material passes through it. This function is not employed in modern combines, except where rotary second cleaners and dirt/weed screens are used in elevators, grain pans, and auger troughs.

Screw [Ag Mach] An externally threaded fastener capable of being inserted into holes in assemble parts, of mating with performed internal thread or forming its own thread, and of being tightened or released by torquing the head.

Screw Press [Ag Proc] A straight or tapered screw of fixed or varying pitch contained in a perforated or slotted cylinder.

Scrotal Circumference [Gen Agri] A measurement (usually in centimeters or inches) of the circumference of both testicles and the scrotal sac that surrounds them.

Scrub [Gen Agri] Is an animal inferior in either breeding or individuality.

SCS [Gen Agri] Soil Conservation Service

Scum [Ag Struc]] Layer of floating material on the slurry.

Scurs [Gen Agri] Small growths of hornlike tissue attached to the skin of polled or dehorned animals.

Sealed Bearing [Ag Mach] A bearing which is lubricated and sealed at the factory and which cannot be lubricated during service.

Season (syn. Dry) [Ag Proc] To dry lumber and other wood items to the desired final moisture content and stress condition for its intended use.

Seasonal Rate Structure [Soil & Water] Rate structure that bills all water consumed during the summer or peak season at a higher rate than during the other seasons.

Seasoning [Ag Proc] Removing moisture from green wood, and in some cases relief of stresses, in order to improve its serviceability.

Secondary Braking System [Ag Mach] A braking system used for stopping a machine in the event of a malfunction in the operation or control of the service braking system.

Secondary Canal [Irrig & Drain] It is the channel connected to the main canal which distributes irrigation to specific areas.

Secondary Containment [Irrig & Drain] Any structure designed to intercept and contain product spills and leaks and prevent runoff and leaching at product storage and operational areas.

Secondary Containment Unit [Irrig & Drain] Any structure designed and constructed to intercept and contain product spills and leaks and prevent runoff or leaching from bulk storage containers.

Secondary Mineral [Gen Agri] Refers to those minerals that form from the material released by weathering. The main secondary minerals are the clays and oxides.

Secondary Surface Area [Gen Eng] The area that extends from the primary surface area into the fluid being conditioned to enhance the heat transfer.

Secondary Shear Surface [Soil & Water] Shear surface which result from the twisting, pushing, or tumbling of the soil after or during the initial displacement.

Secondary Tillage [Ag Mach] Tillage, following primary tillage, which are designed to control weed growth and to create specific soil surface configurations before seeding.

Secondary Treatment [Ag Waste] The second step in most publicly owned waste treatment systems, which removes floating and settleable solids and about 90% of the oxygen-demanding substances and suspended solids. Disinfection in the final stage of this treatment.

Secondary Wastewater Treatment Plant [Ag Waste] A facility that reduces pollutants and suspended solids to a greater level than that achieved by a primary treatment plant; the water goes through additional treatment processes, producing "cleaner" wastewater.

Second Law [Gen Eng] Deals with the quality of energy (energy degradation).

Section [Soil & Water] A surveyed parcel of land containing 640 acres one square mile.

Section Modulus [Ag Struc] It is the measure of the strength of a beam according to the arrangement of the material.

Securities [Gen Agri] Are written or printed certificates giving their lawful holders a right to demand and receive property or payment.

Sediment [Soil & Water] Any material carried in suspension or bed load in water which will ultimately settle after the water loses velocity.

Sedimentary Rocks [Gen Agri] Are formed through the deposits of gravel, sand, and mud which are products of chemical and mechanical weathering. Examples are conglomerate, sandstone, mudstone or shale, limestone, chalk, dolomite, evaporates, and coal.

Sedimentation [Soil & Water] Deposition of waterborne or windborne particles resulting from a decrease in transport capacity.

Sedimentation Tank [Ag Struc] A unit in which water or wastewater containing settleable solids retained to remove by gravity a part of the suspended matter.

Sediment Basin [Soil & Water] Pond at the upper end of a conveyance or reservoir for detaining particle-laden water for a sufficient length of time for deposition to occur.

Sediment Load [Soil & Water] Amount of sediment carried by running water or wind.

Seed [Gen Agri] Refers to the ripened ovule enclosing a sedentary plant and the food necessary for its germination.

Seed Bed [Gen Agri] The soil zone, which affects the germination and emergence of seeds.

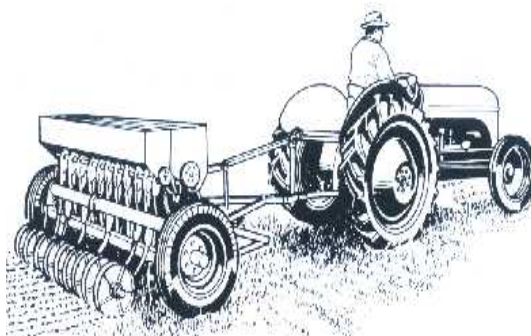
Seedbed Conditioner [Ag Mach] A combination secondary tillage implement for final seedbed preparation. Typical purpose is to smooth and the firm the soil surface for flat-planting.

Seedbed Preparation Tillage Operation [Ag Mach] This is shallow operation intended to prepare the seedbed or make the soil suitable for planting. This includes weed control and structural improvement for germination and early growth.

Seed Delivery Rate [Ag Mach] Amount of seeds that can be planted per unit area.

Seed Drill [Ag power tractor-driven drills and deposit specified rate and narrow-spaced

Seedstock [Gen



Mach] A type of seeder which the seeds at a depth and in rows.

Agri] Breeding

animals; sometimes used interchangeably with *purebred*.

Seepage [Soil & Water] Percolation of water through the soil; The slow movement of water through the small cracks, pores, interstices, of a material; [Ag Struc] The loss of liquid by infiltration from a canal, reservoir manure tank or manure stack.

Seep Collars [Soil & Water] An annular plat of concrete or other impervious material placed on the outside surface of underground conduits to lengthen the flow path and thus impede seepage.

Segregation [Gen Agri] Simply means separation or sorting out and refers to the way in which the genes separate out in subsequent generations.

Selection [Gen Agri] Is a process in which certain genotypes contribute more progeny in the next generation than other genotypes. Selection may take place because of natural forces (natural selection) or because of the intervention of man (artificial selection).

Selection Harvest [Gen Agri] Harvesting individual trees or small groups or trees at periodic intervals (usually 8-15 years) based primarily on their vigor and age. Selection harvesting perpetuates and uneven-aged stand.

Selfed [Gen Agri] Pollinated by pollen from same plant.

Self-feeder [Ag Struc] A device holding feed and from which livestock can obtain feed ad libitum.

Self-Mulching Soils [Gen Agri] Refer to soils with a naturally formed well aggregated surface which does not crust and seal under the impact of raindrops.

Self-propelled Agricultural Machine [Ag Mach] An implement designed with integral power unit to provide both mobility and performing agricultural operations.

Self-propelled Beet Harvester [Ag Mach] A self-propelled machine which digs and conveys sugar beets to an attached bin or into an accompanying truck or wagon.

Self-propelled Combine [Ag Mach] A self-propelled machine for harvesting a wide variety of grain crops.

Self-propelled Cotton Picker [Ag Mach] A self-propelled machine for collecting cotton from open bolls on the stalk usually consisting of picking heads equipped with revolving spindles or other picking means.

Self-Propelled Equipment [Ag Mach] Equipment that is conveyed by its own power source.

Self-propelled Forage Harvester [Ag Mach] A self-propelled machine which gathers and chops forage crops.

Self-propelled Hay Baler [Ag Mach] A self-propelled machine which picks up and compresses loose hay into compact bales and secures them with wire or twine.

Self-propelled High Clearance Sprayer [Ag Mach] A self-propelled machine which carries a storage tank, pump and spray heads for spraying crops which require high clearance.

Self-Propelled Machine [Ag Mach] Having one or more units which propel and operate the machine, designed to carry out agricultural operations while on the move.

Self-propelled Windrower [Ag Mach] A self-propelled machine which cuts and gathers standing hay or grain into uniform rows for drying and pickup.

Semiarid Climate [Gen Agri] Climate characterized as neither entirely arid nor humid, but intermediate between the 2 conditions.

Semiconductor [Ag Elec] Elements with four valence electrons.

Semi-Integral Mounted Implement [Ag Mach] A direct connected implement wherein the front implement is connected to the tractor while the furrow wheel supports the rear end of the implement.

Semi-mature Compost [Ag Waste] A material in the mesophilic stage (it has passed through a thermophilic stage); the material will reheat to 20°F above ambient temperature; organic matter has been reduced by 40-60%.

Semi-mounted Implement [Ag Mach] An implement which is partially mounted on the tractor and partially carried on wheels during operation and/or transport.

Seminal Root [Gen Agri] Refers to a root arising from the base of the hypocotyl.

Semi Permanent Fasteners [Ag Struc] Include nails. These are fasteners that are driven into the material it holds.

Semi-pneumatic Wheel [Ag Mach] A narrow vertical wheel with a flexible semi-pneumatic tire to resist soil accumulation.

Semi-Solid Manure [Ag Struc] Manure which has had some bedding added or has received sufficient air drying to raise the solids content such that it will stack has a lower but has a lower profile than solid manure and seepage displacement pumps or be handled with a front-end loader.

Senescence [Gen Agri] Is the process or condition of growing old.

Sensible Heat [Gen Eng] Heat that causes a change in the temperature of an object or location.

Sensible Heating or Cooling [Ag Proc] Refers to a rate of heat transfer attributable only to a change in dry-bulb temperature of the air.

Sensors [Ag Struc] Any sensing devices which are monitored by the system.

Separated Gang Cultivator [Ag Mach] Implement consisting of tool bars that extend across the top of the rows, which allow lateral adjustments of the tools for different row spacing.

Separating [Ag Mach] The isolating of detached seed, small debris, and unthreshed material from the bulk.

Separating Cylinder or Rotor [Ag Mach] Defined as for threshing cylinder or rotor, except that the terms "separating" and " separated" replace "threshing" and "threshed".

Separation Loss [Ag Proc] Ratio of the weight of grains that come out of the threshing chamber with the straw, to the weight of total grain input of the thresher, expressed in percent.

Septage [Ag Struc] Septic tank pumping; the mixed liquor and solid contents pumped from septic tanks and dry wells used for receiving domestic type sewage.

Septic System [Ag Struc] An onsite waste disposal system designed to treat and dispose of domestic sewage.

Septic Tank [Ag Struc] A settling tank in which settled solid matter is removed from the wastewater flowing through the tank and the organic solids are decomposed by anaerobic bacterial action.

Sequential Planting [Gen Agri] This is done by planting short season, drought tolerant crops after rice, more especially upon failure of the rice crop due to pests.

Series [Gen Eng] In DC electrical circuits such as a battery bank or solar panel array, this is a connection where all the negative terminals are connected to the neighboring positive terminals. Voltage increases, but amperage stays the same. In AC circuits such as a wind generator alternator, each coil is connected to the one next to it, and so on, again increasing voltage but leaving amperage the same. Opposite of parallel.

Serum [Gen Agri] Is the clear yellowish fluid obtained after separation from the clotted cellular element of the whole blood.

Service [Gen Agri] To breed or mate.

Servo Motor [Gen Eng] A motor used for motion control in robots, hard disc drives, etc. Generally designed more like an alternator than a standard motor.

Service Boar [Gen Agri] Any male boar that is being, or has been, used for breeding purposes.

Service braking system the primary systems used for retarding and stopping a machine.

Service Brake [Ag Mach] The primary braking system used for decelerating and stopping wheel motion of the machine.

Service Braking System [Ag Mach] The primary system used for retarding and stopping a machine.

Service Entrance [Ag Elec] Electrical equipment between electrical supply and a building electrical distribution system.

Service Factor [Ag Power] Indicates the maximum load that can be successfully carried by the motor if it is to operate continuously and remain within a safe temperature range.

Service Temperature [Ag Power] Temperature at which the plastic can withstand without incurring a change in its physical properties.

Setting Angle [Gen Eng] The angle between the blade chord and the plane of the blade's rotation. Also called pitch or blade angle.

Settling Basin [Ag Struc] A relatively long-term separation structure, larger in size than a settling tank.

Settling Channels [Ag Struc] A continuous separation structure in which settling occurs over a defined distance in a relatively slow-moving manure flow.

Settling Tank [Ag Struc] A relatively short-term separation structure, larger in size than a settling basin.

Seven-pin Connector [Ag Mach] A standardized wire harness connector used to connect hard wiring on a self-propelled machine to hard wiring on an attached implement for the purpose of controlling lights or other electrically powered equipment on the attached machine.

Seven-type Separator [Ag Proc] Is a type of paddy separator that makes use of the difference in width and thickness.

Sewage [Gen Agri] The spent water of the community. Term now being replaced in technical usage of wastewater.

Sewage System [Soil & Water] Pipelines or conduits, pumping stations, force mains, and all other structures, devices, and facilities used for collecting or conducting wastes to a point for treatment or disposal.

Sewerage [Ag Struc] The entire system of sewage collection, treatment, and disposal.

Sewer [Ag Struc] A channel or conduit that carries wastewater and storm water runoff from the source to a treatment plant or receiving stream.

Sewer Overflow [Ag Struc] Flow of wastewater that exceeds the treatment capacity.

Sexual Fertilization [Gen Agri] Is the union of two haploid gametes to yield a single diploid zygote.

Sexual Reproduction [Gen Agri] Is a form of reproduction wherein the male and female sex organs are involved in the process of propagation.

Shade [Ag Struc] Building or other object used to shield livestock from direct solar radiation; generally lightweight structure with solid or perforated roof and open walls to permit maximum air movement while blocking direct sunlight.

Shading [Ag Struc] To prevent excess solar radiation in a building.

Shaft [Ag Mach] Is a member, usually of circular cross-section, which supports the gears, sprockets, wheels, rotors, etc. and which is subjected to torsion and to transverse and axial loads acting singly or in combination.

Shaft [Gen Eng] The rotating part in the center of a wind generator or motor that transfers power.

Shaft Angle [Ag Mach] The angle between meshing bevel gear axes: also, the sum of the two pitch angles.

Shaft Horsepower [Ag Mach] Power delivered at the engine crankshaft. This term is commonly used instead of brake horsepower to express output large marine engines.

Shaft Power [Ag Mach] Power required to drive the pump shaft.

Shake [Gen Agri] A separation along the grain, the greater part of which occurs between the rings of annual growth. Found in stumps and ends of freshly cut logs and green lumber (see ring failure).

Shallow Storage Structure [Ag Struc] Grain storage with a square or rectangular floor plan used to store grain where the width of the building is greater than two times the height of the grain at the wall.

Shallow Tubewell (STW) [Soil & Water] It is a tube or shaft vertically set into the ground for the purpose of bringing groundwater to the soil surface from a depth of less than 20 meters by suction lifting.

Shank [Ag Mach] A structural member primarily used for attaching a tillage tool to a beam or a standard.

Shape Factor [Gen Eng] Is the ratio of plastic section modulus to the elastic section modulus.

Shaper [Ag Mach] Is ordinarily used for finishing flat or partly curved surfaces of metal pieces few in number and not over 305 mm or 610 mm long.

Shear Blocks (or Clods) [Ag Mach] The blocks of soil which are sheared loose from the main soil mass by tillage tool action.

Shear Diagram [Ag Struc] Is a graphical representation of the values of the vertical shear throughout the length of a beam.

Shear Surface [Soil & Water] Failure surfaces occurring where the soil has sheared.

Shearer [Gen Agri] A subclass of lamb denoting animals that are in full fleece and that are purchased primarily for their wool.

Shearing [Gen Agri] Clipping of fleece from sheep or angora goats.

Shearing Stress [Ag Struc] Are those tending to cause two contiguous parts of a body to slide, relative to each other in a direction parallel to their plane of contact.

Shearling [Gen Agri] A yearling sheep with two teeth.

Shearling or Two-tooth [Gen Agri] A yearling sheep.

Shear Surfaces [Ag Mach] Failure surfaces occurring where the soil has sheared.

Shed [Ag Struc] Single-sloped roof.

Shed Roof [Ag Struc] Is the simplest and easiest to construct and maintain. It is common site on single story poultry houses, open sheds for cattle or swine, and similar buildings.

Sheep [Gen Agri] This term includes ovine animals of all ages in practice. However this is divided on the basis of age into a) sheep, b) lamb.

Sheep [Gen Agri] Are ovine animals that include all those approximately one year of age.

Sheet erosion [Irrig & Drain] Is a type of water erosion in which a thin film of soil layer is detached and transported by water flowing on the land surface.

Sheet Flow [Irrig & Drain] Water, usually storm runoff, flowing in a thin layer over the soil or other smooth surface.

Shelled Corn [Gen Agri] Is a grain of either dent or flint varieties of the plant *Zea mays*. This is also known as "maize" or "corn grain."

Shelling Cylinder (Shelling Drum) [Ag Proc] Part of the shelling unit that rotates about an axis and it is equipped with pegs on its periphery.

Shelling Efficiency [Ag Mach] The ratio of weight of the shelled corn kernels collected at all outlets, to the total corn kernel input of the sheller, expressed in percent.

Shelling Recovery [Ag Mach] Ratio of weight of shelled corn kernels collected at the main outlet, to the total weight of the corn kernel input of the sheller, expressed in percent.

Shelling Unit (Shelling Chamber) [Ag Proc] Part of the sheller where the kernels are detached and separated from the corn cobs.

Shelterbelt [Soil & Water] Extended windbreak of living trees and shrubs established and maintained for protection of farm lands or buildings.

Shield [Ag Mach] A guard that, alone or with other parts of the machine, provides protection from the side(s) covered.

Shielding Angle (of a Luminaire) [Ag Elec] The angle between a horizontal line through the light center and the line of sight at which the base source first becomes visible.

Shield or Cover [Ag Mach] protective device designed and fitted so that alone or with other parts of the machine, they prevent the dangerous part being reached from the side or sides covered.

Shingle [Gen Agri] 1) Brush, paving, or cover placed with each overlapping layer extending farther upstream as in the manner of laying shingles. 2) A covering of stones, larger than gravel, developed on a beach or streambed.

Shipping Dry [Ag Proc] Lumber and other wood products that have been air- or kiln-dried to a sufficiently low moisture content to prevent stain, mold, and decay in transit.

Shoat [Gen Agri] Young pig after weaning.

Short Drawbar Position [Ag Mach] A position intended to connect non-PTO driven equipment that applies a high vertical load to the drawbar.

Shote [Gen Agri] A young swine of either sex weighing approximately 50 kilos.

Short Circuit [Gen Eng] Is an opposition of practically zero. Eg. Resistance of wire which is $1/1,000 \Omega$ and current = 6,000 for a 6V source i.e. $I = V/R = 6/1/1,000 = 6,000$ Ampere!!

Short Circuit [Gen Eng] (1) Parts of a circuit connected together with only the impedance of the leads between them, (2) In wind generators, it is connecting the output leads directly together so as to heavily load a generator in high winds. This creates a "short" circuit path back to the generator, bypassing all other loads.

Short Circuiting of Air [Ag Struc] Air-movement patterns in which air moves directly from the inlet to outlet openings of a room instead of the desired uniform pattern.

Short Grain (Palay) [Ag Proc] Is a palay whose average length of the full size brown rice grain is below 5.5 millimeters.

Short Grain (Milled Rice) [Ag Proc] Is a rice with 80% or more of the whole milled rice grains having a length of less than 5.0 millimeters.

Short Run [Gen Agri] Refers to a time period where one or more of the factors of production are fixed.

Shovel [Ag Mach] A spade-shaped, V-pointed soil working tool, which is used for various plowstocks, cultivators, grain drills, and soil scarifiers.

Shredder [Ag Mach] A mechanical device used to break waste materials into small pieces.

Shrink [Gen Agri] Loss of weight— commonly used to describe the loss in liveweight that occurs when animals are marketed or loss in weight from grease wool to clean wool.

Shrinkage [Ag Proc] The contraction of wood caused by drying the material below the fiber saturation point; radial, tangential, and volumetric is usually expressed as a percentage of the dimension of the wood when green.

Shriveled and Immature Grains [Gen Agri] Are grains or pieces of grains which are not fully developed, thin and paperly in appearance.

Shrouded Sprayer [Ag Mach] A sprayer apparatus consisting of a boom sprayer in which the boom and the area being sprayed are enclosed within a cover.

Shunt [Gen Eng] An electrical bypass circuit that proportionally divides current flow between the shunt and the shunted equipment. It also allows high current measurements with low current equipment.

Shunt Regulator [Gen Eng] A bypass device for power not needed for charging batteries.

Shutoff Head [Soil & Water] Pressure head on the outlet side of a pump at which the discharge drops to zero. Maximum pressure a pump will develop at a given speed.

Shutter [Ag Mach] Device for covering an air inlet or outlet that when shut, presents air from passing.

Shy Breeder [Gen Agri] A male or female of any domesticated livestock that has a low reproductive efficiency.

Siblings [Gen Agri] Refers to the offspring of the same parental plants.

Sickle [Ag Mach] A cutting mechanism which uses a reciprocating cutter.

Sickle Frequency [Ag Mach] The number of cycles which the sickle makes in a given period of time. One cycle is the full movement of the sickle in one direction and its return to the starting point.

Sickle Stroke [Ag Mach] The distance that a point on the sickle travels with respect to the centerline of a guard in one half cycle.

Side Angle [Ag Mach] The angle, in the soil surface plane, between a tool axis and a line which is perpendicular to the direction of travel.

Side Dressing Fertilizer [Gen Agri] Is applied between the rows close to the plants, simultaneous without cultivation. This is very effective during the developing stage of the plant when they feed on nutrients very rapidly.

Side Force (Side Draft) [Ag Mach] The horizontal component of pull perpendicular to the line of motion.

Side Gauge Wheel [Ag Mach] Single or dual wheels located on one or both sides of the furrow opener. Typical assembled width is 200-500 mm (7.9-19.7 in.) which may be excessive for closely-spaced row-seeding units on drills.

Side Inlet (Drainage) [Irrig & Drain] It is a junction between a lateral and a main ditch of a surface drainage system.

Side Rails [Ag Struc] Members that support ladder rungs.

Side Slopes [Soil & Water] Slope of the sides of a channel or embankment, horizontal to vertical distance (written 2:1).

Side Valves (SV) [Ag Mach] Arrangement of valves wherein the intake and exhaust valves are located on one side of the cylinder block.

Siding [Ag Struc] Exterior sheathing on walls.

Sieving [Ag Proc] The isolation of desired seed by a mechanical device where the desired seed penetrates the device and the undesired material is carried over the device.

Si-flume [Irrig & Drain] It is the combination of siphon and flume. It is usually a closed rectangular reinforced concrete conduit that conveys water across a depression and supported above the ground by columns.

Sifter [Ag Proc] Wire mesh or perforated metal sheet, moving in back-and forth direction, permitting smaller particles to fall through the openings and larger particles to remain on top.

Signal Word [Gen Agri] The word that designates a degree or level of hazard seriousness.

Signal Word Panel [Gen Agri] Area of the safety sign that contains the signal word and the safety-alert symbol.

Silage [Ag Struc] Forage preserved in a succulent condition by partial fermentation in a tight container.

Silage Load [Ag Struc] The load that the silage exerts on the silo wall after compaction of the silage is completed.

Sill [Ag Struc] Bottom edge of building wall framing, more accurately called sill plate.

Silo [Ag Struc] A cylindrical structure used for storage of high moisture forage, silage and grain.

Silo Chute [Ag Struc] A multipurpose enclosure mounted on the exterior wall of tower silos used for the discharge of stored materials, access into the structure for adjustment and maintenance of silo filling and discharge equipment, and/or various functions appurtenant to proper utilization of the structure.

Silo Door [Ag Struc] Generally a rectangularly shaped door mounted flush to interior wall and opening inwardly, which as a unit consists of a

dual rung and/or hinge assembly and latching device(s), and specifically designed to perform its purposes.

Silo Gas [Ag Struc] Nitrogen dioxide formed during the fermentation of ensilage.

Silt [Gen Agri] Soil particles which constitutes the physical fraction of a soil between 0.005 mm and 0.055 mm in diameter.

Silver [Ag Elec] Is the best conductor to use but high cost prevents it from being commonly used except for switch contacts.

Silviculture [Gen Agri] A branch of forestry dealing with the development and care of forests.

Simple (Globular Proteins) [Gen Agri] Are those proteins yielding only amino acids or their derivatives upon hydrolysis, i.e., albumins, histones, protomins, globulins, glutelins, prolamins.

Simple Interest [Gen Agri] Refers to the interest paid in one period.

Simple Solid Column [Ag Struc] Consists of a single piece of wood, square or rectangular in cross section.

Simple Tillage Tools [Ag Mach] Tillage tools which present a reasonable constant boundary area to the soil.

Singeing [Gen Agri] Cleaning the carcass by burning the hair.

Single-Action Disc Harrow [Ag Mach] Consists of two gangs of discs, place end-to-end at an angle, which throw the soil in opposite directions.

Single Cross [Gen Agri] Refers to the first generation hybrid between 2 inbred lines.

Single-covering Disc [Ag Mach] A sharpened, flat or concave disc blade, positioned upright and at an angle to the direction of travel at the side of the seeded furrow.

Single-disc Applicator [Ag Mach] Similar to a single-disc opener but used for fertilizer deposition beside or between seed furrows.

Single-disc Opener [Ag Mach] An upright, flat or slightly concave disc blade with a sharpened circumference.

Single-pass Application [Ag Mach] An application method where the applicator applies one pass over the treatment area.

Single-Pass Rice Mill [Ag Proc] A rice mill that employs only one whitening machine; A machine which accomplishes in one passing the dehulling and whitening process.

Single-phase [Ag Mach] has one voltage applied to the motor in the shape of sine wave.

Single-rib Presswheel [Ag Mach] A wide, single semi-pneumatic or steel wheel with a center circumferential rib to concentrate soil firming directly over the seeded furrow.

Single Span Greenhouse [Ag Struc] An independently erected greenhouse set apart from other structures.

Single-unit Machine [Ag Mach] A self-propelled machine not coupled to trailed equipment.

Sinkage [Ag Mach] Deformation of the supporting surface normal to the direction of travel of the traction or transport devices.

Sinking Fund [Gen Agri] Is a fund set aside periodically before dividends are declared for the purpose of retiring the bond at maturity.

Siphon Drain [Irrig & Drain] Sealed drain where atmospheric pressure forces water over an intervening elevation into an outlet at a level lower than the inlet.

Siphon Nozzle [Ag Mach] A pneumatic atomizer in which an air stream aspirates and atomizes liquid from a reservoir located beneath the nozzle.

Siphon Tube [Irrig & Drain] Relatively short, light-weight, curved tube used to convey water over ditch banks to irrigate furrows or borders.

Sinkage, Slip [Ag Mach] Sinkage, in addition to static sinkage, that results from the motion of a traction or transport device.

Sire [Gen Agri] The male parent. To father or to beget.

Size [Ag Proc] Is the length category of at least 80% of the sample of whole brown rice/milled rice to which the sample belongs.

Size Distribution Curve [Ag Proc] A graphic representation of results of a size analysis.

Size Primemover [Ag Power] Rated power rating of the primemover as specified by the manufacture.

Sizing [Ag Mach] Process of classifying into sizes according to criteria that may or may not be recognized or accepted by the industry.

Skid [Ag Mach] Horizontal member on the ground and supporting a portable building, equipment, feeder, etc.

Skid Plate [Ag Mach] A rectangle plate of various dimensions with an upturned leading edge to slide over the soil surface. Furrow openers may have individual skid plates fastened onto both sides or large wide skid plate with a center opening to fit around the opener.

Skid-steer Loader [Ag Mach] Vehicle with front-end loader, commonly used for scraping and loading manure or feed, steered by alternate braking of drive wheels on either side.

Skimming [Soil & Water] Diverting surface water by means of a shallow overflow crest to avoid diverting sand, silt, or other debris carried as bed load.

Skylight [Ag Struc] Roof window or translucent building material which admits natural light; usually fiberglass, plastic or glass.

Slab [Ag Struc] Flat piece of concrete, wood or other rigid materials.

Slab [Ag Struc] The exterior portion of a log removed in sawing lumber and other wood products.

Slabbed Pole [Ag Struc] A pole modified to provide flat surfaces for attaching framing members.

Slat [Ag Struc] Single solid piece of a slotted floor.

Slaughterhouse [Ag Struc] Building designed for processing livestock into edible meat.

Slenderness Ratio [Ag Struc] Is the unbraced length in inches divided by the dimension of the least side.

Slick Spot [Gen Agri] Small areas of sodic soil, relatively impervious to water, that appear to be slick when wet, as a result of high exchangeable sodium content.

Slide Gate [Irrig & Water] Head control valve, which slides on rails, used to control drainage or irrigation water.

Slide Pump Sprayer [Ag Mach] A sprayer consisting of a telescoping pump operated by both hands. A spray nozzle is mounted on the outlet end of the pump. The inlet of the pump is attached to a line leading to the spray solution container.

Sliding Door [Ag Struc] Large wall-door supported by a roller on a horizontal overhead track so door opens horizontally along the wall.

Slip [Ag Mach] Ratio of the difference between the speed of the pulley or belt and wheels or track with load, to the speed without load.

Slip Erosion [Irrig & Water] Are land slides and slips due to saturation of steep hills and slopes.

Slip Ring [Gen Eng] Devices used to transfer electricity to or from rotating parts. Used in wound-field alternators, motors, and in some wind generator yaw assemblies.

Slope [Ag Struc] The ratio of the rise and run (height/length), referring to a roof, floor, ramp, drainage channels, etc.

Slot Grid, Slotted-floor Grid, Floor Grid [Ag Struc] Slotted floor unit with slats interconnected for load-sharing and ease of fabrication and handling.

Slotted Floors [Ag Struc] The floor surface of a building which has open spaces, cracks or slots to allow manure and other waste material to pass through the floor.

Slot-litter Type [Ag Struc] Combination of slotted and litter type flooring wherein slats cover 60% of the total floor and 40% is covered with litter.

Slotted Type [Ag Struc] Type of flooring with openings to facilitate cleaning of the droppings.

Sludge [Ag Struc] The precipitate or settled solids from treatment, coagulation, or sedimentation of water or wastewater; Deposits on bottoms of streams or other bodies of water.

Sluice [Irrig & Drain] 1) Channel serving to drain off surplus water from behind a flood gate. 2) Conduit for carrying water at high velocity. 3) An opening in a structure for passing debris.

Slurry [Ag Struc] A mixture of solids and liquids which will flow as a liquid and create a surge force.

Slurry Manure [Ag Struc] Manure in which the present total solids content approximates that of excreted manure.

Small Brokens [Ag Proc] Are rice particles which will not pass through a perforated sieve with a round perforation of 1.4 mm but length of the grain is shorter than 3/8.

Small Fruits [Gen Agri] Are trees yielding relatively small fleshy fruits.

Small Population Size [Gen Agri] It would result in change in the gene frequency simply because of chance variation. The extent by which the change in the frequency of an allele, say a , could deviate from the expected frequency q is inversely proportional to the size of the population.

Smolder [Ag Waste] To burn or smoke without flame.

Smooth Coulter [Ag Mach] A flat circular disc blade with a sharpened circumference.

Snow Load [Ag Struc] The load imposed on a structure by the amount of snow and ice on the roof.

Snow Thrower [Ag Mach] A powered machine or attachment designed for throwing snow.

Soaking or Steeping [Ag Proc] allowing paddy to remain in water to increase its moisture content during the parboiling process.

Sod [Gen Agri] Plowed by meadow or pasture.

Sodic Soil [Gen Agri] A nonsaline soil containing sufficient exchangeable sodium to adversely affect crop production and soil texture.

Sodium Absorption Ratio (SAR) [Gen Agri] The proportion of soluble sodium ions in relation to the soluble calcium and magnesium ions in the soil water extract.

Sodium Percentage [Gen Agri] Refers to the percentage of total cations of sodium in water or soil solution.

Sod Strips [Irrig & Drain] 1) Are narrow bands of grass placed across a channel to spread and retard the flow of water. 2) Strips of sod maintained in a natural waterway to prevent erosion.

Soft [Gen Agri] A form of soil consistency that is characterized by friability.

Soffit [Ag Struc] Area under the eave and beyond the exterior wall of a building.

Soffit Board (Soffit Panel) [Ag Struc] Board or panel which partly or completely closes the soffit.

Softwood [Ag Struc] Is a type of plywood which is most common for structural use.

Soil [Gen Agri] Is a natural body composed of mineral and organic material on the surface of the earth in which plants grow.

Soil Abrasion [Ag Mach] The scratching, cutting, or abrading of materials caused by the action of soil.

Soil-Additive Applicator [Ag Mach] A machine used to apply, or to apply and incorporate soil additives by means of tillage.

Soil-additive Incorporator [Ag Mach] A machine used to mechanically incorporate or mix material into the soil.

Soil Adhesion [Ag Mach] The sticking of soil to objects such as tillage tools or wheels.

Soil Aeration [Gen Agri] It is the process by which air and other gases enter the soil or are exchanged.

Soilage [Gen Agri] Freshly cut green forage fed to animals in confinement. Also called green chop.

Soil Aggregates [Gen Agri] Agglomerations of primary soil particles which are produced by natural processes.

Soil Amendment/Soil Conditioner [Gen Agri] Is a soil additive which stabilizes the soil, improves resistance to erosion, increases permeability to air and water, improves texture and resistance of the surface to crusting, eases cultivation or otherwise improves soil quality.

Soil and Water Conservation District, SWCD [Soil & Water] A local government entity within a defined water or soil protection area that provides assistance to residents in conserving natural resources, especially soil and water.

Soil Anisotropy [Gen Agri] The occurrence of a vertical horizon sequence in soils causes vertical anisotropy to be an essential characteristic. Frequently this vertical anisotropy can also be observed in thin sections.

Soil-ascending Angle [Soil & Water] An angle between the sliding path and the horizontal at any point along the sliding path.

Soil Auger [Soil & Water] A tool used for boring into the soil and withdrawing small samples for field or laboratory examination.

Soil Colloid [Gen Agri] Is the tiniest of all soil particles, so very small that it can be seen only under an electron microscope. Colloid has the ability to absorb plenty of water and is responsible for causing many soils to become plastic or sticky when wet.

Soil Compaction [Ag Mach] The act of reducing the specific volume of soil.

Soil Conservation [Soil & Water] Is the application of engineering principles to the solution of soil management problems, method used to fully utilize and conserve soil.

Soil Consistency [Soil & Water] Refers to the manifestation of physical forces of cohesion and adhesion acting within the soil at various moisture contents.

Soil Cultivation [Ag Mach] Shallow tillage operation performed to promote growth of crop plants by creating a soil condition conducive to aeration, infiltration, and moisture conservation or to pest control.

Soil Cutting [Ag Mach] Separation of a soil mass by a slicing action.

Soil Density [Gen Agri] Weight of a unit of soil expressed on either a wet basis (including water and soil) or on a dry basis.

Soil-engaging Components [Ag Mach] Seeding-machine mechanical components that actively engage and penetrate the soil during the seeding operation, which are designed for or used to accomplish seeding functions or the placement or incorporation of fertilizers and pesticides.

Soil Erodibility [Soil & Water] A measure of the soil's susceptibility to erosional processes.

Soil Erosion [Soil & Water] Is the detachment and transport of soil particles from the land by water or wind action.

Soil Failure [Ag Mach] The alternation or destruction of a soil-structural condition by mechanical forces such as in shearing, compression, or tearing.

Soil Heaving [Ag Mach] The lifting or swelling of soil resulting from natural forces such as freezing.

Soil Horizon [Soil & Water] A layer of soil differing from adjacent genetically related layers in physical, chemical, and biological properties or characteristics.

Soil Injection [Ag Mach] The mechanical placement of a chemical beneath the soil surface with a minimum disturbance of the soil.

Soil Monolith [Ag Mach] A vertical section through the soil preserved with resin and mounted for display.

Soil Opener [Ag Mach] A tillage tool (e.g., disk, knife, runner) used to slice through the soil and create an opening for the insertion of material (e.g., seeds, pesticides, fertilizers).

Soil Organic Matter [Gen Agri] Organic fraction of the soil, including plant and animal residues in various stages of decomposition, cells and tissues of soil organisms, and substances synthesized by the soil population.

Soil Profile [Gen Agri] A section of two dimensions extending vertically from the earth's surface so as to expose all the soil horizons and a part of the relatively unaltered underlying material.

Soil Reaction [Ag Mach] Soil response to the application of mechanical forces.

Soil Roller [Ag Mach] A rotating implement which pulverizes, firms or smooth soil by crushing or compacting.

Soil Series [Gen Agri] The lowest category of U.S. System of soil taxonomy. A conceptualized class of soil bodies having similar characteristics and arrangement in the soil profile.

Soil Shatter (Pulverization) [Ag Mach] The general fragmentation of a soil mass resulting from the action of tillage forces.

Soil Sliding [Ag Mach] The sliding of soil across surface.

Soil-sliding Angle [Ag Mach] The angle at any point on the surface of a tool between the soil-sliding path and a horizontal contour line constructed through the surface of the tool.

Soil-sliding Path [Ag Mach] Path along which one element of soil slides across a tillage tool.

Soil-sliding Path Length [Ag Mach] A length of the path along tillage tool upon which soil slides.

Soil Structure [Gen Agri] Is the tendency of soil particles to clump together or form aggregates.

Soil Survey [Gen Agri] The systematic examination and mapping of soil.

Soil Taxonomy [Gen Agri] The systematic arrangement of soils into groups or categories on the basis of their characteristics.

Soil Texture [Gen Agri] Is the relative proportion of the various size groups of individual soil grain.

Soil Textural Triangle [Gen Agri] A 3-phase scale used to define soil into a soil textural group.

Soil-tool Geometry [Ag Mach] Configuration of the soil tool boundary wherein the overall shape is usually oriented with the direction of travel of the tool and the soil surface.

Soil Water [Gen Agri] All water stored in the soil.

Soil-water Characteristic Curve [Soil & Water] Soil-specific relationship between the soil-water matric potential and soil-water content.

Soil-water Deficit or Depletion [Soil & Water] Refers to the amount of water required to raise the soil water content of root zone to field capacity.

Soil-water Potential [Soil & Water] It is the amount of work that must be done per unit quantity of pure water in order to transport reversibly and isothermally and infinitesimal quantity of water from a pool of pure water at a specified elevation at atmospheric pressure to the soil water at the point under consideration.

Soil-water Pressure [Soil & Water] It is the pressure (positive or negative), relative to the external gas pressure on the soil water, to which a solution identical in composition to the soil water must be subjected in order to be in equilibrium through a porous permeable wall with the soil water.

Soil-Working Surfaces [Ag Mach] Portions of tillage tools which are designed to be in contact with soil.

Solanaceous [Gen Agri] Are vegetables that yield edible fresh fruits.

Solar Energy [Ag Power] Solar radiation convertible to useful energy (e.g., thermal or electricity energy).

Solar Time [Gen Agri] Time measured from solar noon.

Solenoid [Ag Elec] An electrically magnetic device used to do work.

Solid Cone Nozzle (Full Cone Nozzle) [Ag Mach] A cone atomizer having cores or vanes designed to direct a significant quantity of liquid into the center region of the spray pattern.

Solid Content [Ag Struc] The sum of the dissolved and suspended constituents in water or wastewater. The residue remaining when the water is evaporated away from a sample of sewage, other liquids, or semi-solid masses of material and the residue is the dried at a specified temperature; usually stated in milligrams per liter or percent solids.

Solid Manure [Ag Struc] Manure which has had sufficient bedding or soil added, or has received sufficient air drying to raise the solids content to where it will stack with little or no seepage.

Solid Manure Storage [Ag Struc] A storage unit in which accumulation of solid manure are stored before subsequent handling and field spreading.

Solid or Grade Floors [Ag Struc] Are floors which may be built at ground level, i.e. on the soil within the building.

Solid Piston Manure Pump [Ag Struc] A piston manure pump which uses a solid piston to move manure.

Solid Waste [Ag Waste] Garbage, refuse and other discarded solid materials, including such materials resulting from industrial, commercial, and agricultural operation and community activities.

Solid Wheel [Ag Mach] A narrow vertical wheel of various materials.

Solubility [Gen Agri] It refers to the amount of a substance that will dissolve in a given amount of another substance, typically water.

Solum [Gen Agri] Refers to the upper part of the soil profile, the A and B horizons.

Solvency [Gen Agri] Means having enough money to pay debts as they fall due.

Solvent [Gen Agri] Substances (usually liquid) capable of dissolving or dispersing one or more other substances.

Sonic Nozzle [Ag Mach] A pneumatic or vibratory atomizer in which energy is imparted to the liquid at frequencies below 20 kHz.

Sorghum [Gen Agri] A cereal grass used mainly for feedgrain or silage.

Sound Cutting [Ag Mach] A cutting free from rot, pith, shake, and wane; texture is not considered. It will admit sound knots, bird pecks, stain, streaks, or their equivalent, season checks not materially impairing the strength of cutting, pin, shot, and spot wormholes.

Source [Gen Agri] Refers to the person or organization that originates and encodes the message.

Source Protection [Soil & Water] Protection of a water source by a small utility, ranging from simple sanitary surveys of a watershed to the development and implementation of complex land use controls, in an effort to avoid water contamination.

Sow [Gen Agri] A mature female pig.[PAES] any breeding female pig that has farrowed.

Sow Wash [Ag Struc] Special stall for washing sows, usually part of gestation or farrowing area.

Soybeans [Gen Agri] A legume crop, native to the Orient, used mainly in the United States for high protein feed and oil.

Space Application [Ag Mach] A dispersion of liquid, gas, or dry particles in a confined air space.

Space Heat [Ag Struc] Heat added to room air with air circulation to provide more uniform temperatures.

Span [Ag Struc] The distance between vertical supports of structural members.

Spark-Ignition Engine [Ag Power] Engine in which combustion occurs through the initiation of a spark on the fuel and air mixture.

Spatially Variable Flow [Soil & Water] Is a special case of flow in which the discharge varies with distance along the channel.

Spearing [Soil & Water] A technique of connecting crossing mole drains by forcing a spear or rod through both drain channels at the point of intersection.

Special Self-propelled Agricultural Machine [Ag Mach] An implement designed with integral power unit with front drive axle and major mass on front axle.

Special Sensor [Gen Agri] A sensing device that does not fall in either normally open sensor or normally closed sensor.

Specification [Gen Agri] A concise statement of a set of requirements to be satisfied by a product, material or a process indicating whenever appropriate, the procedure by means of which it may be determined whether the requirements given are satisfied.

Specific Capacity [Soil & Water] Well discharge divided by the water level drawdown after a specified pumping duration.

Specific Delivery [Ag Proc] Is the ratio of the heat required to raise the temperature of a unit weight of a substance to the mass of an equal volume of water at some standards temperature.

Specific Draft (Unit Draft) [Ag Mach] Draft force of an implement per unit area of tilled cross section.

Specific Gravity [Ag Proc] The ratio of the oven-dry weight of a sample to the weight of an equal volume of water at some specific moisture content as green, air dry or oven-dry.

Specific Heat [Ag Proc] The amount of heat which must be removed or added in order to lower or raise the temperature of one pound of a substance one degree Fahrenheit.

Specific Retention [Gen Agri] Amount of water that a unit volume or porous media or soil, after being saturated, will retain against the force of gravity.

Specific Speed [Gen Eng] It expresses the relationship between the speed in rpm, discharge in gpm, and the head in feet.

Specific Volume [Gen Eng] Is volume per unit mass, reciprocal of density.

Specific Yield [Soil & Water] Amount of water that a unit volume of porous media or soil, after being saturated, will yield when drained by gravity.

Specified Fuel Consumption [Ag Mach] Quantity of fuel consumed by an engine on the basis of per horsepower hour.

Spectral Distribution [Gen Eng] A functional or graphic expression of the relation between the spectral energy flux, spectral photon flux, or fluence rate per unit wavelength, and wavelength.

Spectral Energy Flow Rate [Gen Eng] The radiant energy flow rate per unit wavelength interval at wavelength λ .

Spectral Energy Fluence [Gen Eng] The energy fluence per unit wavelength interval at wavelength λ .

Spectral Energy Fluence Rate [Gen Eng] The radiant energy fluence rate per unit wavelength interval at wavelength λ .

Spectral Energy Flux [Gen Eng] The radiant energy flow rate per unit plane surface area per unit wavelength interval at wavelength λ .

Spectral Photon Fluence Rate [Gen Eng] The photon fluence rate per unit wavelength interval at wavelength λ .

Spectral Photon Flux [Gen Eng] The photon flux per unit wavelength interval at wavelength λ .

Spectral Transmittance [Ag Struc] The transmission of light in the various regions of the spectrum.

Speed Ratio [Ag Mach] Ratio of the angular velocities of the pulleys making no allowance for slip and creep.

Spike-Tooth Harrow [Ag Mach] Implement consisting of long spikes attached rigidly to cross bars and staggered to attain maximum stirring and raking of soil

Spile [Irrig & Drain] A conduit, made of lath, pipe, or hose, placed through ditch banks to transfer water from an irrigation ditch to a field..

Spillbox [Irrig & Water] Canal stabilizing structure.

Spillway [Irrig & Drain] Is a structure for passing out water not needed for storage or diversion.

Spindle [Ag Mach] Is a short shaft.

Spinning [Ag Mach] The operation of shaping thin metal by to flow in some predetermined shape according to the design of the dies.

Spiral [Ag Struc] Continuously around reinforcement in the form of cylindrical helix.

Spiral Plow [Ag Mach] Implement which consists two horizontal power driven spiral flanged shafts which rotate vertically.

Splash Board [Ag Struc] Treated lumber placed on a wall between the ground and other construction liner material.

Splash/Raindrop Erosion [Irrig & Drain] A type of water erosion that is primarily caused by raindrop.

Splice [Ag Struc] A device for connecting adjoining members.

Splice Column [Ag Struc] A mechanically laminated column that contains one or more end joints.

Spliced Column [Ag Struc] A mechanically laminated column that contains one or more end joints.

Split Boot [Ag Mach] A divided shoe in a double-disc opener or in a runner opener for deposition of seed in one side of the furrow and fertilizer in the opposite side of the furrow.

Split Narrow Presswheels [Ag Mach] Two narrow, vertical wheels usually steel, which are closely spaced on a common axle, with flat or inward or outward angled surfaces, to concentrate soil firming on each side of the seed position.

Splits [Ag Struc] A lengthwise separation of the wood due to a tearing apart of the wood cells.

Splitting [Gen Agri] Dividing carcass into parts.

Split-type Plant [Ag Struc] Digester and gas chamber for separate units.

Spoil Bank [Soil & Water] Excavated soil piled along a canal, ditch, or basin.

Spoils [Gen Agri] Dirt or rock that has been removed from its original location, destroying the composition of the soil in the process, as with strip-mining or dredging.

Spool [Ag Mach] Flanged tube mounted on gang axle and placed between two discs to prevent the lateral movement of the discs on the shaft.

Spore [Gen Agri] Refers to a single-celled reproductive bodies produced by fungi.

Spot Treatment [Ag Mach] An application of a chemical to a small-restricted area, usually to control the spread of a pest.

Spray [Gen Agri] To surgically remove the ovaries of a female.

Spray Classification [Ag Mach] Classification of sprays by droplets size.

Spray Irrigation [Irrig & Drain] The application of water by a small spray or mist to the soil surface, where travel through the air becomes instrumental in the distribution of water.

Spray Deposit Rate [Irrig & Water] the amount of spray liquid deposited per unit area.

Spray Rate [Ag Mach] The amount of spray liquid applied per unit treated for area treatment, L/ha, or gal/acre; for space treatment, mL/m³, or oz/1000 ft³; for individual units, L/plant, mL/animal, or gal/tree).

Sprayed Width Per Nozzle [Ag Mach] The effective width sprayed by a single nozzle. (For broadcast spraying, it is the nozzle spacing; for band spraying, it is the band width; for row crop spraying, it is the row width divided by number of nozzles per row.)

Spring [Ag Mach] Is an elastic body or resilient member whose primary function is to deflect or distort under load.

Spring Covering Tines [Ag Mach] Multiple spring-steel wire upright tines with flexible mountings. Tines are positioned in various spatial arrangements to redistribute loosened soil behind the furrow opener.

Spring-tooth Harrow [Ag Mach] Implement consisting of long, flat and curved teeth made of spring steel.

Spring Tine Cultivator [Ag Mach] Multiple spring-steel wire upright tines, each typically 3-10 mm (1/8 -3/8 in.) in diameter and coiled at the upper end for flexible mounting. Tine length varies from 250-400 mm (10-16 in.). It smoothens and loosened soil.

Sprinkler Distribution Pattern [Irrig & Drain] Water depth-distance relationship measured from a single sprinkler head.

Sprinkler Head [Irrig & Drain] A device for distributing water under pressure.

Sprinkler Irrigation [Irrig & Drain] A method of irrigation in which the water is sprayed, or sprinkled, through the air to the ground surface.

Sprinkler Irrigation Systems – Boom [Irrig & Drain] An elevated, cantilevered sprinkler mounted on a central stand. It rotates about a central pivot.

Sprinkler Irrigation Systems – Center Pivot [Irrig & Drain] An automated irrigation system consisting of a sprinkler line rotating about a pivot point and supported by a number of self-propelled towers.

Sprinkler Irrigation Systems – Corner Pivot [Irrig & Drain] An additional span or other equipment attached to the end of a center pivot irrigation system that allows the overall radius to increase or decrease in relation to the field boundaries.

Sprinkler Irrigation Systems – Lateral Move [Irrig & Drain] An automated irrigation machine consisting of a sprinkler line supported by a number of self-propelled towers. Sometimes called a “linear move.”

Sprinkler Irrigation Systems – Permanent [Irrig & Drain] Underground piping with risers and sprinklers.

Sprinkler Irrigation Systems – Portable [Irrig & Drain] Sprinkler system which is moved by uncoupling picking up the pipes manually, requiring no special tools.

Sprinkler Irrigation Systems – Side-move Sprinkler [Irrig & Drain] A sprinkler system with the supply pipe supported on carriages and towing small diameter trailing pipelines, each fitted with several sprinkler heads.

Sprinkler Irrigation Systems – Side-roll Sprinkler [Irrig & Drain] The supply pipe is usually mounted on wheels with the pipe as the axle and where the system is moved across the field by rotating the pipeline by engine power.

Sprinkle Irrigation Systems – Solid Set [Irrig & Drain] System which covers the complete field with pipes and sprinklers in such a manner that all the field can be irrigated without moving any of the system.

Sprinkle Irrigation systems – Towed Sprinkler [Irrig & Drain] System where lateral lines are mounted on wheels, sleds, or skids, and are pulled or towed in a direction approximately parallel to the lateral.

Spur Gear [Ag Mach] A toothed wheel having external radial teeth.

Squab [Gen Agri] Young dove or pigeon.

Square Bars [Ag Mach] Are bar materials from $\frac{1}{4}$ inch up to 2 inches that are useful for a number of projects that involve such operations as forging, peering, drilling and tapping.

Squeaker [Gen Agri] A pigeon that is ready to leave the nest and just starting to eat.

Squeeze Chute [Ag Struc] A short narrow passage with at least one adjustable side to tightly restrain cattle for treatment.

Stabilized Grade [Irrig & Drain] Slope of a channel at which neither erosion nor deposition occurs.

Stabilizer Bolts [Ag Mach] The bolts that are used for adjusting clearance between hitch bail and implement yoke.

Stabilizer Pack [Soil & Water] A material placed around a well casing where the character of the aquifer does not require a filter as a formation and borehole stabilizer.

Stable [Ag Struc] A building used for the feeding and lodging of horses and other livestock.

Stubble Length [Gen Agri] The length of the straightened plant stalk still attached to the ground after the crop has been harvested expressed in millimeters.

Staff Gauge [Soil & Water] Is a scale set at the river/stream so that a portion of it is immersed in the water at all times to measure river stage.

Staffing [Gen Agri] Is concerned with locating prospective employees to fill the job created by the organizing process. Involves the process of reviewing the credentials of the candidates for the jobs and trying to match the job demands with applicant's abilities.

Stag [Gen Agri] A male cattle castrated after sexual maturity

Stage [Soil & Water] Elevation of a water surface above or below an established datum; gauge height.

Staggered Discs Row Cleaner [Ag Mach] The leading edge of one disc blade precedes the other.

Staging [Ag Struc] A more substantial framework progressively built up as a tall building rises up.

Stain [Gen Agri] A discoloration in wood that may be caused by such diverse agencies as microorganisms, metal, or chemicals. The term also applies to materials used to impart color to wood.

Stairs [Ag Struc] a series of steps leading from one level or floor to another, or leading to platforms, pits, crossovers, or around machinery, tanks or other equipment.

Staircase [Ag Struc] Is a whole set of stairs, the structure containing a flight of a stair.

Stall [Ag Struc] Space allocated, usually, to one animal at a time.

Stall Barn [Ag Struc] Is a structure, sometimes referred to as a stanchion barn for sheltering airy cattle and/or young stock where the adult animals are confined to one or more rows of stall by means of stanchions, straps for part of the year.

Stall Base [Ag Struc] Permanent or semi-permanent materials forms the "floor" of the free stall.

Stall Base Slope [Ag Struc] Is the total slope of the stall base from the front of the stall to the top of the curb.

Stall Bedding [Ag Struc] Material is added on top of stall base to make the stalls more comfortable, reduce injuries, and absorb moisture and manure tracked into the stall.

Stall Curb [Ag Struc] Serves to separate the stall area from manure in the litter alley.

Stall Curb Height [Ag Struc] Is measured from the top of the alley floor to the top of the curb on the alley side.

Stall Front [Ag Struc] Prevents cows from moving too far into the stall and dunging within the stall.

Stall Front Height [Ag Struc] Is the vertical distance from the top of the curb to the top of stall front.

Stallion [Gen Agri] Is a mature male horse intended for breeding.

Stall Length [Ag Struc] Is the distance from the alley side of the curb to the stall front.

Stall Partition [Ag Struc] Separates side-by-side free stalls from each other.

Stall Width [Ag Struc] Is the distance between the centerlines of partitions.

Stallion [Gen Agri] A mature male horse.

Stamen [Gen Agri] Is the pollen-bearing organ of a flower.

Staminate [Gen Agri] Having stamens but no pistils.

Stanchion Stall [Ag Struc] Stall with two upright bars hinged at the bottom and latched at the top for restraining an animal around the neck; used primarily for dairy cows.

Stand [Gen Agri] A recognizable area of plants that is relatively homogeneous and can be managed as a single unit.

Standard [Ag Mach] Upright support which connects the shank to tillage implement frame.

Standardization [Gen Agri] Is the process of formulating and applying rules in an orderly approach to a specific activity for the benefit and with the cooperation of all concerned, and in particular for the promotion of optimum over-all economy taking due account of functional conditions and safety requirements.

Standby Pump [Ag Mach] A pump designed to operate only upon failure of a regular service pump.

Standby power [Ag Power] The power to be delivered by a generator during periods when there is an outage of utility or prime power sources or when these sources provide power outside the acceptable limits of quality or capacity.

Stand Gate [Soil & Water] A valve in a structure which covers an inlet into or an outlet from a pipeline and controls water flow into or out of the pipeline.

Standing Wave [Soil & Water] Wave on the water surface at an acute angle to the flow which maintains a relatively constant position.

Standpipe [Soil & Water] A vent constructed of vertical pipe on a pipeline, to relieve pressure surges and water hammer.

Staple [Ag Struc] Term used to designate length of fiber in cotton, wool, or flax.

Star [Gen Eng] A coil connection scheme for 3 phase alternators and generators in which all 3 coil phases are connected in parallel—they all share a common connection.

Starter Solution [Gen Agri] Is a liquid that contains dissolved fertilizer nutrients and is applied to plants to facilitate growth.

Starting Torque (Locked Rotor Torque) [Ag Power] Motor torque at zero speed or the maximum torque required to start the load.

Start-Up [Gen Eng] The windspeed at which a wind turbine rotor starts to rotate. It does not necessarily produce any power until it reaches cut-in speed.

Static Discharge Head [Gen Eng] Vertical distance from the centerline of the pump to the discharge water level.

Static Inclined Screen [Ag Struc] A screen, mounted on an incline, over which manure passes as it flows by gravity from a top head box.

Static Head [Soil & Water] It is the difference in elevation of the water surface in a pond, lake, or river from which the water flows from a submerged discharged pipe. In pumping the groundwater source, static

head is the difference in elevation between the water surface in the well and the water surface of the discharged canal.

Static Lift [Gen Eng] A vertical distance between the source and discharge water in a pump installation.

Static Pressure [Ag Proc] Pressure build-up in the plenum chamber to maintain uniform distribution of air flow through the grain mass, expressed in Pascal: The portion of air pressure due to compression of the air.

Static Pressure Schedule [Gen Eng] Static pressure settings used for the stimulated cure.

Static Suction Head [Gen Eng] Vertical distance from the free suction water level to the center line of the pump.

Static Suction Lift [Gen Eng] Vertical distance from the free suction water level to the center line of the pump.

Static Test Horizontal Loading [Ag Mach] The application of a horizontal static load to the rear, front or side of the ROPS.

Stationary [Gen Eng] With wind generator towers, it refers to a tower that does not tilt up and down. The tower must be climbed or accessed with a crane to install or service equipment at the top.

Stationary Auger [Ag Proc] An auger essentially permanently installed on a particular site without capability.

Stator [Gen Eng] Is the stationary part of an electric motor. It contains pairs of cores made up of thin sections of soft iron. The cores are wound with insulated copper wire to form one or more pairs of magnetic poles.

Steady Flow [Soil & Water] Is a type of flow if discharge is constant with respect to time.

Steaming [Ag Proc] In parboiling, subjecting the soaked paddy to heat treatment by passing steam through the paddy mass. That causes the rice to gelatinize.

Steam Jet Refrigeration [Ag Proc] Is a refrigerating system using steam as a refrigerant, which expands through a converging-diverging nozzle and rushes out a supersonic speed.

Steam Power Plant [Ag Power] Thermal power plant which burns fuel to heat water and generate steam, which in turn runs the turbine coupled to an engine generator.

Steam Pressure [Ag Proc] Is vapor pressure at temperature above the boiling point when the volume is confined under pressure.

Steer [Gen Agri] A male cattle that has been castrated before the secondary sex character develop.

Steep Backslope [Soil & Water] Constructed with a stable steep backslope.

Stem Flow [Irrig & Drain] 1) Precipitation intercepted by vegetation that reaches the ground by flowing down the stems or trunks of vegetation.
2) Flow in the xylem of plants.

Step [Ag Struc] Is a stair which consists of one tread and one riser.

Step Height [Ag Struc] Is the vertical distance from the reference point to the juncture of the step face and bunk apron.

Step Potential [Gen Agri] The potential difference between two points on the earth's surface separated by a distance of one pace.

Steps [Ag Struc] Is an assembly consisting of a tread and a riser.

Sterility or Barrenness [Gen Agri] Complete and permanent reproductive failure in animals.

Sterilization [Ag Proc] The killing of all living microorganisms, ordinarily through the use of heat or some chemical.

Sticker *syn.*[Gen Agri] Crosses, strip, piling strip; a wooden strip, or its substitute, placed between sources of lumber or other wood products in a pile, unit package, or kiln truckload and at right angles to the long axis of the stock, to permit air or circulate between the layers.

Sticking [Ag Proc] Severance of the major blood vessels in the neck or immediately anterior to the heart of animal by means of a knife and "stuck."

Sticky [Gen Agri] A form of soil consistency that exhibits the property of stickiness or adherence to various objects.

Stiffness [Ag Struc] Is the ability to resist deformation under stress.

Still Birth [Gen Agri] Expulsion of dead fetus at the end of gestation period.

Stilling Basin [Soil & Water] Is a structured device designed to hold a pool of water to cushion the impact and retard the flow of falling water as from an overflow weir, chute or drop.

Stilling Well [Soil & Water] Pipe, chamber, or compartment, having closed sides and bottom except for a comparatively small inlet connected to a main body of water for attenuation of waves or surges while permitting the water level within the well to rise and fall with the major fluctuations of the main body.

S-Tine Cultivator [Ag Mach] A flexible S-shaped shank with a sweep, chisel, tooth, or shovel, used individually or in a ganged arrangement (2 or more), to loosen soil in the row area to a depth of less than 100 mm (3.9 in.)

Stirrer (Mixer, Agitator) [Ag Struc] Mechanical device inside the digester used to stir the slurry.

Stirrup [Ag Struc] Is the structural reinforcing member that holds or binds together the main reinforcement of a beam or a girder to a designed position.

Stochastic Process [Gen Agri] Refers to a process which is governed by chance; time dependent.

Stock [Gen Agri] A supply of seed of a crop variety.

Stocker (Cattle) [Gen Agri] A weaned cattle that is fed high-roughage diets (including grazing) before going into the feedlot.

Stoke's Equation [Gen Eng] The velocity at which a sphere will rise or fall in a liquid varies as the square of its diameter.

Stolon [Gen Agri] A modified propagating, creeping stem above ground that produces roots.

Stone Drain [Soil & Water] Underground channel with sides and top lined with flat stones, forming a generally rectangular or triangular section through which water passes.

Stone Wall [Soil & Water] Made of stones carefully and properly piled-up and arranged on steep embankments to protect from gully erosion or landslide.

Storage Coefficient [Soil & Water] See Specific yield

Stopping Distance [Ag Mach] The distance traveled between the point at which the braking control is first moved and the point at which the machine comes to a stop.

Stopping Time [Ag Mach] The time elapsed between the first of the movement of the braking control and the instant at which the machine comes to a stop.

Storage Curve [Soil & Water] Relationship between the volume of water stored and water surface elevation in a reservoir.

Storage Efficiency or Percentage [Irrig & Drain] The ratio of the average depth of irrigation water infiltrated and stored in the root zone to the soil water deficit, expressed as a percentage.

Storage Facility [Ag Struc] A location at which fluid bulk pesticide or fluid bulk fertilizer is stored.

Storage, Potato [Ag Struc] A structure designed and constructed for storing potatoes in bulk.

Storm Sewer [Irrig & Drain] A system of pipes that carry only water runoff from building and land surfaces.

Stormwater [Soil & Water] Water that is generated by rainfall and is often routed into drain systems in urban areas to prevent flooding.

Straight Bevel Gears [Ag Mach] Bevel gears whose teeth are straight but the sides are tapered so that they would intersect the axis at a common point called the pitch cone apex if extended inward.

Straight Run Chicks [Gen Agri] Are unclassified baby chicks.

Strain [Gen Eng] Is a change in form produced by a stress.

Strain Hardening [Gen Eng] Is increasing the hardness and strength by plastic deformation.

Stratified Soils [Gen Agri] Are soils that are composed of layers usually varying in permeability and texture.

Straw [Ag Mach] Straw is the harvest residue discharged from the separating device(s).

Straw and Chaff (Total Harvest Residue) Spreader [Ag Mach]

Devices for spreading material from both the separator and cleaning device.

Straw Chopper [Ag Mach] Device for cutting material discharged from the separator. A straw chopper may or may not spread the material.

Straw Length [Ag Mach] Cut plants length measured from the point of cut to the tip of the panicle.

Straw Outlet [Ag Mach] The outlet where the threshed straw is left in case of the hold-on type thresher.

Straw Spreader [Ag Mach] Device for spreading the material discharged from the separator without further cutting.

Straw Straightener [Ag Mach] A spring steel rod tine, typically 3-10 mm (1/8-3.8 in) in diameter, coiled or flexibly mounted at the upper end. Tine length usually varies from 250 to 400 mm (10-16 in.) A single tine may be used to align surface residue in the row area with the direction of machine travel.

Straw Walker Area [Ag Mach] The product of the width of the straw walker body, and the length of an individual walker, expressed in square meters to the nearest hundredths.

Straw Walker Length [Ag Mach] The distance from the front to the rear of the walker, expressed in meters to the nearest hundredth. If there are adjustable sections at the rear of the walkers, they should be in the fully extended position.

Straw Waterer [Ag Mach] A demand waterer in which livestock are presented a more-or-less vertical metal tube connected to a water-delivery system; animal sucks water through the tube of "straw".

Stray Voltage [Ag Elec] Small, erratic electric voltage difference that exists between two surfaces which livestock can touch.

Stream [Soil & Water] Any body of running water moving under gravity flow through clearly defined natural channels to progressively lower levels.

Stream Bank Erosion [Soil & Water] Is an erosion of stream banks by flowing water.

Stream Bank Stabilization [Soil & Water] Vegetative or mechanical control of erodible stream banks, including measures to prevent stream banks from caving or sloughing such as lining banks with riprap, or matting and constructing jetties or revetments, as necessary, for permanent protection.

Stream Channel Erosion [Soil & Water] Consists of soil removal from stream banks or soil movement in the channel.

Streamflow [Soil & Water] It is the discharge that occurs in a natural channel.

Stress [Ag Struc] Any force causing or tending to cause a change in a structure.

Stress Irrigation [Irrig & Drain] Management of irrigation water to apply less than enough water to satisfy the soil water deficiency in the entire root zone. (Preferred term is Limited irrigation).

Stress Relieving [Gen Eng] Is the heating of a metal body to a suitable temperature and holding it at that temperature for a suitable time for the purpose of reducing interval residual stress.

Stress-strain diagram [Gen Eng] Graph of stress as a function of strain which is constructed from data taken from the force-deformation curve.

Stride [Gen Agri] Is the complete cycle in the movements of the legs at any of the gaits of the animal.

Stringer [Ag Struc] Is an inclined plane that supports or holds the tread and the riser of a stair.

Strip Cropping [Gen Agri] Is the practice of growing different crops in alternate strips across the slope to serve as barriers for soil erosion.

Strip Rotary Tiller [Ag Mach] One or more powered vertical assemblies of several flat, ell-shaped blades typically 50-100 mm (2-4 in.) wide by 6-12 mm (1/4-1/2 in.) thick, radially attached to hubs on a powered shaft, are sharpened for cutting.

Strip Tillage [Ag Mach] System in which only isolated bands of soil is tilted.

Stroke [Ag Mach] One of a series of recurring movements of a piston or the distance of such Movement; Length of the piston travel.

Stroke-to-Bore Ratio [Ag Mach] The length of stroke divided by the diameter of bore.

Strongly Anaerobic (Poorly Drained) [Gen Agri] Soil that remains very wet or waterlogged for long periods of the year and as a result develops a mottled pattern of greys and browns.

Stopping distance a means of measuring the stopping distance with an accuracy of $\pm 1\%$.

Structure [Ag Struc] Is a combination of resistant bodies capable of transmitting forces or carrying loads but having no relative motion between parts.

Stubble [Gen Agri] The basal portion of the stems of plants left standing after cutting.

Stubble Cultivation [Ag Mach] This consist of shallow operations carried out shortly after the harvest to clear the field of weeds and crop residue and to restore the soil structure.

Stubble Length [Ag Mach] The length of the straightened plant stalk still attached to the ground after the crop has been harvested expressed in millimeters.

Stubble Mulch [Gen Agri] A protective cover provided by leaving plant residues of any previous crop as a mulch on the soil surface when preparing for the following crop.

Stub-Runner Opener [Ag Mach] A truncated or shorter version of the runner opener, typically 200 mm (7.8 in.) or less in length.

Stud [Gen Agri] A unit of selected animals kept for breeding purposes, ad of bulls and horses. Abbreviation for stud horses; a stallion.

Stud horse [Gen Agri] Is a mature breeding horse.

Studwall [Ag Struc] Vertical wall framework using dimension lumber or prefabricated metal studs usually spaced 406 to 610 mm (16 to 224 in.) on center with a bottom(sill) and a top (wall) plate.

Stunning [Gen Agri] Renders an animal insensible before it is killed.

Stunning Pen [Ag Struc] Compartment which is suitable for confining only one animal at a time while it is being stunned and which is so constructed as to confine, without discomfort, to prevent any substantial movement of the animal forward, backward or sideways.

Subbing [Gen Agri] The process of a crop obtaining water directly from a shallow water table.

Subbing (Colloquial) [Irrig & Drain] The horizontal movement of water from an irrigation furrow to the row bed.

Subcutaneous [Gen Agri] Situated beneath, or occurring beneath, the skin.

Subgrade [Soil & Water] Earth material beneath a subsurface drain or foundation.

Subirrigation [Irrig & Drain] Application of irrigation water below the ground surface by raising the water table to within or near the root zone.

Subirrigation Mode [Irrig & Water] Mode of operating a water-table management system by adding water.

Sublimation [Gen Agri] Is a change of phase from solid into a vapor, which may provide refrigeration.

Submain [Soil & Water] A collector pipe which serves several laterals and discharges into a larger main collector pipe.

Submerged Aquatic Vegetation [Soil & Water] Aquatic vegetation (macrophytes) that cannot withstand excessive drying and therefore live with their leaves at or below the water surface.

Submerged Flow [Soil & Water] Flow through any critical depth measuring structure where the downstream water depth is high enough to interfere with establishment of critical velocity at the control section.

Submersible Pump [Ag Mach] A vertical turbine pump with the pump and the motor closed coupled and design to be installed underground, as in the case of deepwell pump.

Submersible Pump Motor [Soil & Water] An electric motor located on a pump below the water level in a well and designed to pump water upward to a water system.

Submetering [Soil & Water] Use of separate meters to indicate individual water use in apartments, condominiums, and trailer homes, while the entire complex of units continues to be metered by the main supplier.

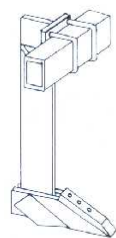
Subsistence Farm [Gen Agri] A low-income farm where the emphasis is on production for use of the operator and the operator's family rather than for sale.

Subsoil [Gen Agri] Is that part of solum below plow depth or below the A horizon.

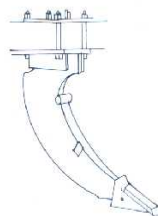
Subsoiler [Ag Mach] A primary tillage implement for intermittent tillage at depths sufficient to shatter compacted subsurface layers. Subsoilers are equipped with widely spaced shanks either in-line or staggered on a V-shaped frame. Subsoiling is commonly conducted with the shank paths corresponding to subsequent crop rows. Strong frame and shanks are required for deep operation.

Subsoiling [Ag Mach] Deep tillage, below 350 mm for the purpose of loosening soil for root growth and/or water movement.

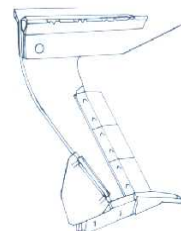
Subsoil Ripper [Ag Mach] A shank with a tooth-like which is set for loosening soil in a depth of more than (13.8in.)



Vertical



Parabolic



Paraplow 45° leg

Mach] A replaceable at a lift angle, the row area to 350 mm

Sub Station [Ag Elec] equipment that electricity voltage.

Assembled regulates

Substrate [Ag Struc] Organic material used to produce biogas.

Subsurface Drain [Soil & Water] Subsurface conduits used primarily to remove subsurface water from the soil. Classification of subsurface drains include pipe drains, tile drains, and blind drains.

Subsurface Drainage System [Irrig & Drain] A system of laterals and mains used to remove subsurface water from the normal root zone of agricultural crops.

Subsurface Drain Storage [Irrig & Drain] Volume of water that can be stored in the subsurface pipeline without reducing the effectiveness of the pipe or tile drain.

Subsurface Drip Irrigation [Irrig & Drain] Application of water below the soil surface through emitters, with discharge rates generally in the same range as drip irrigation.

Subsurface Runoff [Irrig & Drain] Same as interflow.

Suburban Farmstead [Gen Agri] It consists primarily of residence and small service buildings, where the essential farm operations area carried on with hired services.

Subsystem, Crop Production [Ag Mach] An ordered sequence of field machine operations performed in producing and harvesting a particular crop.

Sucker [Gen Agri] A tiller. A shoot produced from a crown or rhizomes or in tobacco, from auxillary buds.

Suckling [Gen Agri] A young pig from birth up to weaning.

Suction [Ag Mach] Pressure below atmospheric pressure.

Suction Head [Ag Mach] Exist when the total suction head is above atmospheric pressure.

Suction Lift [Ag Mach] Exist when the total suction is below atmospheric pressure.

Suction Line [Ag Proc] Conveys the low-pressure vapor from the evaporator to the suction inlet of the compressor.

Sulfide Rock-forming Minerals [Gen Agri] Are formed by direct union of an element with sulfur. Examples are pyrite, chalocite, galena, and sphalerite.

Sump [Ag Waste] Small liquid pit usually just below floor or gutter level, to collect and provide a small volume of storage for water or waste.

Sump Pump [Gen Eng] Pump, usually automatic and electric powered, to empty a sump.

Supernatant [Ag Proc] The liquid standing above a sediment or precipitate after settling or centrifuging.

Superovulation [Gen Agri] The hormonally induced ovulation of a greater-than-normal number of eggs.

Superpest [Gen Agri] Is a plant pest that has developed a resistance to an insecticide (that has been genetically engineered into a plant, or externally applied to a crop) it was once tolerant of.

Superweed [Gen Agri] Is a weed that has developed a resistance to a herbicide/weedkiller that once destroyed it.

Supplement [Gen Agri] A feed used with another feed to improve the nutritive balance of the total ration.

Supplemental Lighting [Ag Elec] Lighting used to provide a specific amount or quality of illumination which cannot be readily obtained by the general lighting system, and which supplements the general lighting system.

Supplementary Enterprise [Gen Agri] Refers to when the production of one can be increased without increasing or decreasing the production of the other.

Suppressed Weir [Soil & Water] Measuring weir with sides and bottom flush with the channel, thus eliminating contractions or nappe of the overflowing water.

Surface Aerator [Ag Mach] A partially submerged impeller whose action results in vigorous agitation and air entrainment.

Surface Check [Ag Struc] A check occurring on the tangential surface of a board or other piece of wood and extending across the annual growth rings into the interior.

Surface Collecting Drains [Soil & Water] Ditches used to remove pondages, and move water more rapidly into outlet drains.

Surface Creep [Soil & Water] Movement of coarse sediment in almost continuous contact with the soil surface during wind erosion.

Surface Drainage [Soil & Water] The diversion or orderly removal of excess water from the surface of land by means of improved natural or constructed channels, supplemented when necessary by shaping or grading of land surfaces to such channels.

Surface Inlet [Soil & Water] Structure for diverting surface water into an open ditch, subsurface drain, or pipeline.

Surface Irrigation [Irrig & Drain] Broad class of irrigation methods in which water is distributed over the soil surface by gravity flow.

Surface Measure (S.M.) [Ag Struc] The surface area of a board in square feet. To determine surface measure multiply to width of the board in inches and fractions by the length in feet and divide the product by 12. (Formula is: $\frac{\text{Width (inches)} \times \text{Length (feet)}}{12}$)

12

Surface Pipe Outlet [Soil & Water] Outlet for attaching a surface pipe to a riser without using a portable hydrant.

Surface Retention [Soil & Water] That portion of precipitation required to satisfy interception, the wetting of the soil surface, and depression storage.

Surface Runoff [Soil & Water] That which travels over the ground surface and through the channels to reach the basin outlet.

Surface Sealing [Soil & Water] Reorienting and packing of dispersed soil particles in the immediate surface layer of soil and clogging of surface pores resulting in reduces infiltration.

Surface Soil [Soil & Water] Is the upper 12 inches or 30 cm of the soil, or in arable soils, the depth commonly stirred by the plow.

Surface Storage [Soil & Water] Sum of detention and channel storage excluding depression storage, represents at any given moment, the total water enroute to an outlet from an area or watershed.

Surface Water [Soil & Water] Water flowing or stored on the earth's surface.

Surge [Soil & Water] That transient or cyclic phenomenon wherein water flowing in conduits at atmospheric pressure becomes unsteady with a rocking or oscillating motion as it moves from one steady state condition to another.

Surge Irrigation [Irrig & Drain] A surface irrigation technique wherein flow is applied to furrows intermittently during a single irrigation set.

Surging Stem (Jetting Stem) [Soil & Water] Light weight pipes used during high velocity flow operation.

Survey Cut [Soil & Water] It is the difference between the initial and final surge gauge heights at a point during an excavation or land-grading operation.

Suspended or Above-Grade Floors [Ag Struc] Are floors which may be supported on joists and beams.

Suspended Sediment [Ag Waste] Material moving in suspension in a fluid, due to the upward components of the turbulent currents or by colloidal suspension. Sometimes called "suspended load."

Suspended Solids (SS) [Ag Waste] Defined in waste management, these are small particles of solid pollutants that resist separation by conventional methods. SS (along with BOD) is a measurement of water quality and an indicator of treatment plant efficiency.

Suspension [Ag Waste] A test or operational unit that has not failed by the mode under consideration at the time of the life data analysis.

Sustainability [Gen Agri] Basically refers to those that encompass a holistic approach and such aims as preserving natural and non-renewable resources and intergenerational equity.

Sustainable Agriculture [Gen Agri] An integrated system of plant and animal production practices having a site-specific application that will, over the long term, satisfy food and fiber needs, enhance environmental quality and natural resources, make the most efficient use of nonrenewable resources and on-farm resources, integrate natural biological cycles and controls, sustain the economic viability of farm operations, and enhance the quality of life.

Sustainable Development [Gen Agri] Development that ensures that the use of resources and the environment today does not restrict their use by future generations.

Swaging [Ag Mach] A force in impact which causes the metal to flow in some predetermined shape according to the design of the dies.

Swath, Effective Width [Ag Mach] The center to center distance between overlapping broadcast applications.

Swath Spacing [Ag Mach] The lateral distance between the aircraft centerlines overlapping broadcast applications.

Sweep [Ag Mach] A type of cultivator shovel, which is wing-shaped.

Sweep Row Cleaner [Ag Mach] A wing-shaped sweep shovel of 250 mm (9.8 in.) or more in width with low lift-angle and shank-mounted residue deflectors to remove surface residue and/or soil from the row area. The width of the "cleaned row" strip depends on the width of the sweep and the setting or position of the residue deflectors.

Swelling [Ag Struc] Increase in the dimension of wood due to increased moisture content. Swelling occurs tangentially, radially and, to a lesser extent, longitudinally.

Swine [Gen Agri] Is a general term for any class of animal belonging to the family suidae of either sex.

Swing Away Hopper [Ag Mach] Powered hopper which swings to one or both sides to clear a driving lane through the normal operating position.

Swirl Chamber Nozzle (Whirlchamber Nozzle, Whirl Nozzle, Centrifugal Pressure Nozzle) [Ag Mach] A cone spray atomizer in which a chamber is located between the swirl generating device and the discharge orifice.

Swivel-arm Distributor [Ag Mach] This outlet has a valve and two short arms of gate pipe which swivel upward from the top of riser.

Symbiosis [Gen Agri] Two organisms that live together for their mutual benefit. Fungus and alga that forms a lichen or nitrogen fixing bacteria living in roots are examples of symbiosis. The individual organisms are called symbionts.

Symbiotic Nitrogen Fixation [Gen Agri] Is the fixation of nitrogen by bacteria infesting the roots of legumes while benefiting the legume crop.

Symbol [Ag Mach] Visually perceptible figure used to transmit information independent of language.

Symmetrically Mounted [Ag Mach] Mounted at the same height and at the same distance from centre.

Synergism [Gen Agri] The simultaneous action of separate agencies which, together, create a greater total effect than the sum of their individual effects.

Synthetic Hydrograph [Soil & Water] Is prepared using the data from a number of watershed to develop dimensionless unit hydrographs which are applicable to ungaged watersheds. Also a dimensionless hydrograph that is made from natural or unit hydrographs in which the time to peak (t_p) and the peak runoff rate (q_p) are considered and t/t_p is plotted against q/q_p .

System [Gen Agri] A group of devices or an organization forming a single network to serve a common purpose.

System, Crop Production [Gen Agri] A combination of the various subsystems required for culture of all crops grown on a particular farm.

System, Machines [Ag Mach] An arrangement and use of two or more machines to achieve a desired output.

T

Table Fed Type [Ag Mach] Type of corn sheller wherein the ear corn are fed into shelling chamber with the application of external force.

Table Saw [Ag Mach] Also known as the bench saw, it has a circular blade and its arbor or its table could be tilted for bevel cuts.

Tachometer [Ag Mach] An instrument indicating rotating speeds. Tachometers are sometimes used to indicate crankshaft rpm.

Tail Boom [Gen Eng] A strut that holds the tail (vane) to the wind generator frame.

Tail Lamps [Ag Mach] A non-interruptible (as opposed to flashing) red colored light source used to identify the rear of machinery on public roads for approaching traffic.

Tailwater [Soil & Water] 1) Water, in a stream or canal, immediately downstream from a structure. 2) Excess irrigation water which reaches the lower end of a field.

Tailwater Recovery System [Soil & Water] A system modification to achieve greater efficiency in agricultural irrigation by collecting runoff for reuse in irrigation.

Tallow [Gen Agri] The fat extracted from adipose tissue of cattle and sheep.

Tandem Disk Harrow [Ag Mach] Consists of two or more gangs, in which a set of two gangs follows behind the front gangs and is arranged in such a way that the discs on the gear gang throw the soil in the opposite direction.

Tangential [Ag Struc] Coincident with or generally parallel to a tangent at the circumference of a tree or log, or growth rings. A tangential section is a longitudinal section through a tree perpendicular to a radius.

Tank Capacity [Ag Mach] Maximum allowable volume of the liquid to fill the sprayer tank, when equipped with all its internal counting.

Tannin [Gen Agri] That portion of the water-soluble matter of certain vegetable materials which will precipitate gelatin from solution and which will form compounds with hide fiber that are resistant to washing, Tannins are amorphous or crystalline solids of astringent taste having wide occurrence and general distribution in the tissue of most higher plants.

Tap [Ag Mach] A cutting tool used to cut threads in a bore.

Tape Drive Motor [Gen Eng] A type of permanent magnet DC motor often used as a generator in small wind generator systems.

Taper [Gen Eng] The change in wind turbine blade width (chord) along the length.

Taproot [Gen Agri] A single central root.

Tariff [Ag Mach] A tax or levy imposed by the government on imported/exported goods.

Tassel [Gen Eng] The staminate inflorescence of maize composed of panicle spikes.

Tax [Gen Agri] Is the fund collected by the government to finance its activities.

Taxonomy [Gen Agri] Is the science of classification.

TDS [Gen Agri] Total Dissolved Solids

Teasing [Gen Agri] Bringing the stallion into the presence of the mare to see if she will mate.

Teeth [Ag Mach] Projections on tillage tools, which serve to penetrate, grip, cut, or tear soil.

pea.

Telescopic Cartons [Ag Struc] Cartons in which the cover is separated and fits snugly over the bottom part.

Temper [Gen Eng] Is a condition produced in a non-ferrous metal by mechanical or thermal treatment: for example, annealed temper (soft), hard temper, spring temper.

Temperature [Ag Struc] Is the thermal state of a body considered with reference to its ability to communicate heat to other bodies.

Temperature, Dewpoint [Soil & Water] The temperature of an air mass at which the condensation of water vapor begins as the temperature of the air mass is reduced.

Temperature Difference [Gen Eng] Refers to the degree of change between two temperatures.

Temperature, Dry-bulb [Soil & Water] The temperature of a gas or mixture of gases indicated by an accurate thermometer protected from or corrected for radiation effects.

Temperature Stratification [Ag Struc] Air zones of different temperatures located from floor to ceiling; caused by nonuniform mixing of air.

Temperature, Wet-bulb [Soil & Water] Wet-bulb temperature is the temperature indicated by a wet-bulb sensor of a psychrometer constructed and used according to instructions.

Tempering [Ag Proc] Temporarily holding the grain between the drying passes, allowing the moisture content in the center of the grain and that on the surface of the grain to equalize.

Temporary Fasteners [Ag Struc] Include screws, nuts and bolts.

There are externally threaded to allow fastening in which the part to be assembled together can easily be dismantled without any damage.

Temporary Greenhouse [Ag Struc] A structure used for short term production, over wintering or hardening of plants.

Temporary Magnet [Gen Eng] A material that shows magnetic properties only while exposed to an external magnetic field.

Temporary Safety Sign [Ag Mach] Information affixed to the product or its container to warn of a temporary hazard created by situations such as shipment, setup, service, or repair.

Tendril [Gen Agri] A leaflet or stem modified for climbing or anchorage, as in the **Tensile Stresses** Are those tending to pull an object in two, or to stretch it.

Tensiometer [Soil & Water] A type of soil moisture probe used to monitor soil moisture conditions to help determine when water should be applied.

Tension Members [Gen Eng] Are slender structural members subjected to tensile stress (e.g. tie rods, hangers).

Tension Meter [Soil & Water] An instrument consisting of a porous cup filled with water and connected to a manometer or vacuum gauge, used for measuring the soil-water matric potential.

Tension Set [Ag Proc] Occurs during tension, depends to give the wood a larger than normal dimension after drying, usually occurring in the outer layers during the first stages. Also caused by external restraint during drying of wet wood.

Tension Wood [Ag Proc] A type of wood found in leaning trees of some hardwood species, characterized by the presence of fibers technically known as “gelatinous” and by excessive longitudinal shrinkage. Tension wood fibers tend to “pull out” on sawed and planed surfaces, giving so-called “fuzzy grain”. Tension wood causes crook and bow and may collapse. Because of lower than normal drying, tension wood zones may remain wet when the surrounding wood is dry.

Terminals [Ag Elec] Refer to the 2 prongs of an extension cord, 2 terminals of convenience outlet or 2 terminals of battery.

Terminal Market [Gen Agri] Is a metropolitan market that handles all agricultural commodities.

Terminal Sire [Gen Agri] The sire used in a terminal crossbreeding program. It is intended that all offspring from a terminal sire be sold as market animals.

Terminal Velocity [Irrig & Drain] Final steady-state fall velocity of raindrops or sprinkler discharge drops.

Terrace [Soil & Water] A broad surface running along the contour. It can be a natural phenomenon or specially constructed to intercept

runoff, thereby preventing erosion and conserving moisture. Sometimes they are built to provide adequate rooting depths for plants.

Terrace Height [Soil & Water] Difference in elevation between the bottom of the terrace channel and the top of the terrace ridge at a given cross section.

Terrace Inlet Riser [Soil & Water] Vertical pipe installed in a terrace channel and connected to an underground drainage pipe.

Terrace Interval [Soil & Water] Vertical or horizontal distance between 2 adjacent terraces.

Terrace Outlet Channel [Soil & Water] Channel, usually having a vegetative cover, into which the flow from 1 or more terraces is discharged and conveyed from the field.

Terrace System-Bench Terrace [Soil & Water] Level terraces built in stair-step fashion with a level top and a steep, vertical embankment between successive terraces, used to improve distribution of rainfall or irrigation water.

Terrace System – Broadbase Terrace [Soil & Water] A type of terrace constructed so that crops can be planted and machinery safely operated on the net cross section.

Terrace System – Channel-type Terrace [Soil & Water] Terrace which is constructed by moving soil for the embankment from the uphill side only.

Terrace System – Conservation Bench Terrace [Soil & Water] A broad level or flat channel terrace constructed below a sloping runoff, with erosion control as the primary objective.

Terrace System – Grade Terrace [Soil & Water] A terrace whose back and front slopes are constructed with steep but stable slopes and kept in permanent vegetation.

Terrace System – Level Terrace [Soil & Water] A terrace constructed along the contour with no slope and with either closed or open channel ends. Used primarily to retain runoff.

Terrace System – Mangum Terrace (Obsolete) [Soil & Water] Named for the originator of the broadbased terrace.

Terrace System – Narrow-base Terrace [Soil & Water] A terrace whose back and front slopes are constructed with steep but stable slopes and kept in permanent vegetation.

Terrace System – Nonparallel Terraces [Soil & Water] Terraces fitted to the contour of the land, which are not parallel to each other.

Terrace System – Parallel Terraces [Soil & Water] Terraces, not necessarily on the contour, aligned so that the adjacent terraces are nearly parallel to each other.

Terrace System – Ridgeless-Channel Terrace [Soil & Water] A terrace constructed usually by excavation on nearly flat to gently sloping land to remove excess surface runoff water at nonerosive velocities.

Terrace System- Ridge-Type Terrace [Soil & Water] Terrace embankment constructed usually by excavation on nearly flat to gently sloping land to remove excess surface runoff water at nonerosive velocities.

Terrace System – Steep-Backslope Terrace [Soil & Water] A terrace constructed with the front slope and channel to be farmed and a steep but stable backslope, which is usually seeded to permanent grass.

Terrace Width [Soil & Water] Combined width of the terrace channel and ridge as measured horizontally from the upper edge of the channel to the edge of the lower slope of the terrace ridge.

Terracing [Soil & Water] Is the construction of earth embankment or ridge and channel across the slope at an acceptable grade to control the flow of runoff as well as soil particles.

Test [Ag Mach] All the events and data of the test combine and the comparison combine that define their performance during the test runs on each combine.

Test Barn [Gen Agri] The subject forced-air tobacco curing structure.

Test building [Ag Struc] Structure in which the test is conducted.

Test Combine [Gen Agri] The combine or combine configuration to be tested.

Test Hole [Soil & Water] A bore hole drilled through underground formations to map the geology of the area or to evaluate the site as a potential well location.

Test Machine [Ag Mach] The term used in this standard to identify the agricultural machinery on which braking performance is measured by test.

Test Mass (Weight) [Ag Mach] A means for determining wheel loads with an accuracy of $\pm 3\%$

Test Media [Soil & Water] Materials used to determine the performance of an air filtration system.

Test Period [Ag Mach] A test period has a 15 minutes duration.

Test Run [Gen Agri] The events necessary to record a single set of measurements.

Test speed [Ag Mach] A means of measuring the test speed with an accuracy of $\pm 2\%$.

Test Sieve [Gen Eng] A sieve, intended for the particle size analysis of the material to be sieved, that conforms to a test sieve standard specifications.

Tether [Gen Agri] To tie an animal with a rope or chain too allow grazing but prevent straying.

Tether Stall [Ag Struc] An area in which livestock movement is restricted by attaching a chain or harness about its neck or girth to a floor anchor.

Tetraploid [Gen Agri] Having four times the primary chromosome member.

Texture [Gen Agri] Refers to the size and the proportional amount of woody elements. In relation to the size of pores, texture can be described as: very fine, when pores are visible only with hand lens; fine, pores are just or barely visible to the naked eye; moderately coarse, pores readily available to the naked eye; and coarse, very distinct to the naked eye.

Theissen Polygon [Soil & Water] Is the location of the rain gauges that are plotted on the map of the area and stations and are connected by straight lines.

Thermal Aerosol [Ag Mach] Any device using thermal energy which produces liquid dispersion which has a volume median diameter less than 50 μm .

Thermal Break [Ag Proc] Insulating material between two heat conductors which reduces conduction heat transfer.

Thermal Conductivity [Ag Proc] Is the amount of heat transmitted in unit time across the unit area through unit thickness for unit temperature change.

Thermal Environment [Gen Agri] Those environmental components that affect the heat content of an animal's body.

Thermally Induced Pressures [Gen Agri] Pressures induced in the filled bin when subjected to a decline in ambient temperature.

Thermal Neutral Zone [Gen Agri] Environmental temperature at which an animal's body is at equilibrium.

Thermal Pollution [Ag Waste] It is the impairment of water quality through temperature increase; usually occurs as a result of industrial cooling water discharges.

Thermal Protector [Ag Elec] Device which protects the motor against overheating due to overload or failure to start.

Thermal Radiation Transmittance [Ag Struc] The ratio of the heat that is radiated through a glazing material to the thermal radiation incident upon the inside surface.

Thermal Vaporizer [Gen Agri] An apparatus consisting of a container for chemical and a heater to maintain the vessel at a temperature sufficiently high to accelerate evaporation or sublimation of the pesticide.

Thermocouple [Gen Agri] Metal device used to measure temperature accurately.

Thermophilic Bacteria [Ag Struc] Bacteria which are found in a temperature range of 40-70 °C. They are most active in a temperature range of 49-60°C.

Thermophilic Digestion [Ag Struc] Anaerobic digestion in the temperature range of 45-60°C.

Thermophilic Stage [Ag Waste] A stage in the composting process characterized by active bacteria which favor a high temperature range of 45° to 75°C (113° to 167°F); it occurs early, before the mesophilic stage, and is associated with a high rate of decomposition.

Thermophyllic Bacteria [Ag Struc] Bacteria which have optimum activity between about 45 degrees and 55 degrees C.

Theoretical [Ag Mach] Rate of performance obtained if a machine performs its function 100% of the time at a given operating speed using 100% of its theoretical width.

Theoretical Field Capacity [Ag Mach] Computed rate of being able to plant a given area per unit of time.

Thermal Expansion [Ag Proc] The increase in volume of a substance caused by temperature change.

Thermal Power Plant [Ag Power] A plant which burns fossil fuels (coal, petroleum, natural gas) to generate electricity.

Thermal Radiation Transmittance [Ag Struc] The ratio of the heat that is radiated through a glazing material to the thermal radiation incident upon the inside surface.

Thermal Resistance [Ag Struc] The insulating ability of a material or the resistance of the material to the flow of heat.

Thermal Vaporizer [Ag Proc] An apparatus consisting of a container for chemical and a heater to maintain the vessel at a temperature sufficiently high to accelerate evaporation or sublimation of the pesticide. The apparatus may contain a blower to disperse the pesticide vapor into a treated area, or may rely upon natural turbulent diffusion for dispersion.

Thermocouple [Ag Proc] The part of a pyrometer which consists of two dissimilar metal wires welded together at the inner end and held in a protective housing.

Thermodynamics [Gen Eng] Is the science of energy and entropy. It deals with heat and work and these properties of substances that bear a relation to heat and work; it deals with transformation of energy of all kinds from one form to another.

Thermoplastic [Gen Eng] Substances that melt on heating and are processes in this state by a variety of extrusion and molding process.

Thermosets [Gen Eng] Substances that cannot be melted and remelted.

Thermostat [Ag Elec] A temperature-responsive mechanism used for controlling heating systems, cooling systems, etc., usually with the object of maintaining certain temperatures without further personal attention.

Thin-layer [Ag Proc] A layer of material exposed fully to an airstream during drying.

Three-Phase [Ag Elec] Three voltages or currents displaced from each other by 120 electrical degrees.

Three-Point Linkage [Ag Mach] Combination of one upper link and two lower links, each articulated to the tractor and the implement at opposite ends in order to connect the implement to the tractor.

Threshold Level [Soil & Water] Level established as the average rate of water use.

Threshold Velocity [Soil & Water] The minimum velocity required to initiate movement of soil particles by direct pressure from water or wind.

Threshing [Ag Mach] The detaching of seed from the head, cob or pod.

Threshing Cylinder [Ag Mach] A rotating element, which in conjunction with a stationary element adjacent to it, is fitted primarily to promote threshing. The crop being threshed is contained between rotating and stationary elements for less than 360 deg.

Threshing Efficiency [Ag Mach] The threshed grain received at all outlets with respect to total grain input expressed as percent by weight.

Threshing Element [Ag Mach] Attachments of the threshing cylinder such as pegtooth, wire-loop and rasp-bar that detaches the grains from the panicles.

Threshing Recovery [Ag Mach] Threshed grain at main grain outlet with respect to total grain input expressed as percent by weight.

Threshing Rotor [Ag Mach] A rotating element similar to a threshing cylinder except that the crop is contained for 360 degree and may pass around the rotor axis one or more times.

Threshing Unit (Threshing Chamber) [Ag Mach] Part of the thresher where the grains are attached and separated from the panicles.

Throat [Soil & Water] Constricted flow area in a hydraulic structure.

Throat Height [Ag Struc] Maximum height of the livestock side of a feedbunk or manger; the actual dimension depends on livestock size as it feeds comfortably.

Throttling Bolt [Ag Mach] Term usually applied to the stress rod passing through the engine frame to carry combustion stresses.

Through Fall [Irrig & Drain] Precipitation reaching the ground beneath a vegetative canopy such as a forest; includes drip from the leaves and twigs, but not stem flow.

Through Flow Thresher [Ag Mach] Throw-in type of thresher wherein cut plants are fed between the rotating cylinder and stationary concave and the threshed materials/straws are discharged out of the threshing chamber tangentially.

Throughput Capacity [Ag Mach] The amount of paddy which flows through a continuous-flow dryer in one hour. If the holding capacity is 6t, and it uses a 30-minute pass, then the throughput capacity is 12t.

Throw [Ag Mach] The movement of soil in any direction as a result of kinetic energy imparted to the soil by the tillage tool; Movement of soil in any direction as a result of kinetic energy imparted to the soil by the tillage soil.

Throw (or Inlet Air Thrust) [Ag Mach] The distance incoming air travels from air inlet before it slows to a low velocity.

Throw-in Thresher [Ag Mach] Type of thresher which detaches the grains by feeding the cut plants into the machine.

Throw-In Type [Ag Mach] A type of thresher where the cut crops are fed into the machine is full.

Thrust [Gen Eng] In a wind generator, it refers to the wind forces pushing back against the rotor. Wind generator bearing must be designed to handle thrust or else they will fail.

Thrust Bearing (Washer) [Ag Mach] A bearing or washer of bronze or steel which restrains endwise motion of a turning shaft, or withstands axial loads instead of radial loads as in common bearings.

Tick [Gen Agri] Is any of the various blood-sucking arachnida, which fasten themselves to warm blooded animals.

Tidal Gate [Gen Agri] Precipitation reaching the ground beneath a vegetative canopy such as a forest; includes drip from the leaves and twigs, but not stem flow.

Tie Stall [Ag Struc] Stall for restraining an animal with neck chains attached to a low pipe or horizontal rail arches; used primarily with dairy cows.

Tiered Pricing [Gen Agri] Increasing block-rate pricing.

Tie-up Type [Gen Agri] Pugnacious animals are tied within the pen while awaiting to be slaughtered.

Tight Eave Bins [Ag Struc] Dins in which free passage of air between the sidewall and the roof is restricted.

Tile Alignment [Soil & Water] Degree to which the centerline of a tile falls in line with the centerline of adjacent lines.

Tile Cradle [Soil & Water] Support laid underneath a tile line in unstable soil to keep horizontal and vertical alignment of the tile line.

Tile Density [Soil & Water] Quality of a tile that determines its crushing strength, and its ability to resist water absorption and damage by freezing and thawing.

Tile Drain [Soil & Water] Short lengths of concrete or pottery pipes placed end to end at a suitable depth and spacing in the soil to collect water from the soil and lead it to an outlet.

Tile Joint [Soil & Water] Opening between 2 drain tiles through which water from the surrounding soil flows.

Till [Gen Agri] An unstratified or crudely stratified glacial deposit consisting of a stiff matrix of fine rock fragments and old soil containing sub-angular stones of various sizes and composition, many of which may be striated. It forms a mantle from less than 1 m over 100 m in thickness covering areas which carry an ice sheet or glaciers during the Pleistocene and Holocene periods.

Tillability [Ag Mach] The degree of ease with which a soil may be manipulated for a specific purpose.

Tillage [Ag Mach] Mechanical manipulation of soil for any desired purpose: - The mechanical manipulation of soil for any desired purpose, but in agriculture the term is usually restricted to the changing of soil conditions for the enhancement of crop production.

Tillage Action [Ag Mach] Action of tillage tool in executing a specific form of soil manipulation.

Tillage, Deep [Ag Mach] A primary tillage operation which manipulates soil to a greater depth than 300 mm. It may be accomplished with a very heavy-duty moldboard or disk plow which inverts the soil, or with a chisel plow or subsoiler which shatters soil.

Tillage Depth (Tool Depth) [Ag Mach] Vertical distance from the initial soil surface to specified point of penetration of the tool.

Tillage Depth [Ag Mach] Vertical distance from the initial soil surface to a specified point of penetration of the tool.

Tillage Implement (Machine) [Ag Mach] Single or groups of soil-working tools together with power transmission structure, control, and protection systems present as integral parts of the machine.

Tillage Objective [Ag Mach] Desired soil condition produced by one or more tillage operations.

Tillage, Primary [Ag Mach] That tillage which constitute the initial major soil working operation. It is normally designed to reduce soil strength, cover plant materials, and rearrange aggregates.

Tillage Requirement [Ag Mach] Soil physical conditions which can be produced by tillage And is necessary based on utilitarian and/or economic considerations.

Tillage, Secondary [Ag Mach] Any of a group of different tillage operations, following primary tillage, which are designed to create refined soil conditions before seeding to create specific soil surface configurations or to control weed growth.

Tillage Tool [Ag Mach] An individual soil-working element.

Tillage Tools, Multipowered [Ag Mach] Tillage tools powered by more than one form of power, such as draft and rotating power, or draft and rotating power, or draft and electrical power.

Tilling wheel [Ag Mach] Consists of a single or pair of wheels with radially mounted tilling blades attached to a common shaft or axle, supported and powered by the transmission.

Tilt Angle [Ag Mach] The angle, in a vertical plane perpendicular to the direction of travel, between a tool axis and the soil surface.

Tilt Door Ventilation [Ag Struc] Wall ventilation inlet or outlet which opens inward at the top.

Tilth [Gen Agri] Is used in reference to the overall physical condition of a soil, frequently regarding its suitability as a seedbed.

Tilting Hopper [Ag Mach] Powered hopper which raises to approximately vertical to clear a driving lane through the normal operating position.

Tilt-Up [Gen Eng] A tower that is hinged at the base and tilted up into position using a gin pole and winch or vehicle.

Timber [Ag Struc] Refers to freshly cut trees, raw logs, and large sizes of sawn logs usually more than 4 in. thick.

Timeliness [Gen Agri] Ability to perform an activity at such a time that crop return is optimized considering quantity and quality of product.

Timeliness Coefficient [Gen Agri] A factor used to estimate the reduction in crop return due to lack of timeliness in performing an activity.

Time-of-day Pricing [Gen Agri] Pricing that charges users relatively higher prices during utilities' peak use periods.

Time or Concentration [Soil & Water] It is the time required for precipitation excess to flow from the most remote point of a watershed to the outlet.

Time to Peak (t_p) [Soil & Water] It is used for flood forecasting and water quality studies; watershed response time.

Timing Gears [Ag Mach] Gears attached to the crankshaft, camshaft, idler shaft, or injection pump to provide a means to drive the camshaft and injection pump and to regulate the speed and performance.

Tip [Gen Eng] The end of a wind generator blade farthest from the hub.

Tip Speed Ratio [Gen Eng] It is the ratio of how much faster than the windspeed that the blade tips are moving. Abbreviation TSR.

Tire Pressure [Ag Mach] A means of measuring tire inflation pressure with an accuracy of $\pm 5\%$

Tissue Culture [Gen Agri] The technique of growing a whole plant from a single engineered cell or piece of plant tissue.

TMDL [Ag Mach] Total Maximum Daily Load

Toe [Ag Mach] The portion of the bevel gear tooth near the inner end.

Toeboard [Ag Struc] A barrier erected along the exposed edges of a landing platform or catwalk to prevent falls of materials or tools that would present a hazard to persons below.

Toe Drain [Soil & Water] Subsurface drain across the toe of an earth dam, designed to intercept water moving through the embankment.

Toe Wall [Soil & Water] Downstream wall of a hydraulic structure.

Toilet Displacement Device [Ag Struc] Object placed in a toilet tank to reduce the amount of water used per flush.

Tolerance [Ag Mach] Is the total permissible variation in size of a dimension.

Tom or Gabbler [Gen Agri] Is a breeding male turkey.

Ton of Refrigeration [Ag Proc] Is the equivalent for removal of heat at the rate of 12,000Btu/Hr or 200 Btu/min.

Tool Clearance [Ag Mach] The minimum distance in a specified direction between a point on the tool and the nearest potentially obstructing implement element.

Tool-Operating Width [Ag Mach] The maximum horizontal distance perpendicular to the line of motion over which a tool performs its intended function.

Tool Overlap [Ag Mach] The distance perpendicular to the direction of travel in which a tool-operating width coincides with the operating width of another tool.

Tool-Skip Area [Ag Mach] The area of soil surface left undisturbed during the passage of a tool.

Tool Width [Ag Mach] Maximum horizontal projection of a tool in the soil perpendicular to the line of motion.

Tooth Depth [Ag Mach] The radial distance between the addendum circle and the dedendum circle.

Tooth flank [Gen Agri] The portion of the surface of a tooth laying between the teeth surface and the root surface.

Tooth Profile [Ag Struc] The line of intersection of a tooth flank with any defined surface cutting and reference surface.

Tooth Space [Ag Mach] Space between teeth measured along the pitch circle.

Tooth Thickness [Ag Mach] The width of the tooth measured along the circular pitch.

Tooth Trace [Ag Struc] The line of intersection of a flank with the reference surface.

Top-dressing [Gen Agri] A broadcast fertilizer application in which the fertilizer is applied overhead on already growing seedlings. This should be followed by overhead watering to remove fertilizer lodging on the leaves.

Topline [Gen Agri] Includes the back, loin and rumps (in horses).

Toposequence [Gen Agri] A sequence of soils whose properties are determined by their particular topographic situation.

Topsoil [Gen Agri] Is the surface soil, usually the plow depth of the A horizon.

Top Width [Soil & Water] Horizontal distance across the top of a ditch or embankment.

Torpedo [Ag Mach] Channel forming head of mole plow. (Preferred term is Bullet.)

Torque [Ag Mach] Product of the force and the perpendicular distance from the line of action of that force to the axis of rotation and is expressed in kg-m.

Torque Wrench [Ag Mach] A wrench used to measure the turning force being applied.

Total Connected Load [Ag Elec] Refers to the total of all watts.

Total Cost [Ag Mach] The sum of ownership and operating cost.

Total Deflection Angle [Ag Mach] The angle which is the sum of the permanent set angle and the estimated springback.

Total Digestible Nutrients (TDN) [Gen Agri] Includes the total amounts of digestible protein, nitrogen-free extract, fiber, and fat (multiplied by 2.25), all summed together.

Total Discharge Head [Soil & Water] Is the reading of a pressure gage at the discharge of the pump, converted into feet of liquid and referred to datum, plus velocity head at the point of gage attachment.

Total Dissolved Solids (TDS) [Gen Agri] It is the total amount, in milligrams, of solid material dissolved in one liter of water.

Total Dynamic Head [Soil & Water] Is the sum of total static head, pressure head, velocity head and friction head.

Total Feed Rate [Ag Proc] The sum of grain feed rate and material-other-than-grain feed rate expressed in metric tons per hour.

Total Grain Input [Ag Proc] Sum of the weights of collected threshed grains and all grains loss during threshing.

Total Head [Soil & Water] Is the measure of energy increases per pound imparted to the liquid by the pump and is therefore the algebraic difference between the total discharge head and the total suction lift exists, the total head is the total discharge head minus the total suction head.

Total Heat Content [Ag Proc] Is the total heat energy in the air, which includes the heat due to the temperature of the air, the heat required to change whatever water vapor was in the air from water into water vapor, and the heat energy in the water vapor itself.

Total Kernel Input [Ag Proc] Sum of the weight of collected shelled kernels and all the shelling losses.

Totally Slotted Floor [Ag Struc] Floor having openings for waste passage over entire area inhabited by livestock.

Total Maximum Daily Load (TDML) [Ag Waste] It is the total waste (pollutant) loading from point and non-point sources that a water body can assimilate while still maintaining its water quality classification and standards.

Total Milling Recovery [Ag Proc] This is the weight of rice obtained in a milling operation expressed as a percentage of the original paddy weight.

Total Milling Yield [Ag Proc] Total rice, including the head rice and broken rice milled from paddy. Usually expressed as a percent.

Total Mixed Ration [Gen Agri] A diet where all the feed ingredients are blended together to ensure every bit is nutritionally balanced.

Total Solids [Ag Waste] Residue remaining after water is removed from waste material by evaporation.

Total Suction Head [Soil & Water] It is the head required to lift water from the water source to the centerline of the pump plus velocity head, entrance losses and friction losses in suction pipeline.

Total Suction Lift [Soil & Water] Sum of static lift, friction and entrance losses in the suction piping.

Total Surface Area [Gen Eng] Is the sum of the primary surface area and the secondary surface area.

Total Suspended Solids (TSS) [Gen Agri] The concentration of all substances suspended in water (solids remaining after filtering of a water sample).

Touch Potential [Gen Agri] The potential difference between a grounded metallic structure and a point on the earth's surface separated by a distance equal to the normal maximum reach.

Toughening [Ag Mach] A form of tempering used to enhance the toughness of a hardened steel where high hardness is not particularly needed in service.

Toughness [Gen Eng] Is the term applied to the capacity of a material to resist fracture under impact loading.

Towed Agricultural Machine [Ag Mach] An implement that is designed to perform agricultural operations and is pulled by an agricultural tractor or self-propelled agriculture machine.

Towed Implement [Ag Mach] An implement that is pulled by a tractor and is usually equipped with wheels for transport.

Tower [Gen Eng] A structure that supports a wind generator, usually high in the air.

Towing Machine [Ag Mach] A towing machine with sufficient power and mass to pull the test machine.

Towing or Towed Force [Ag Mach] The force required to move a machine in a specified manner by another machine which has the motive power.

Towing Vehicle [Ag Mach] A tractor, self-propelled implement of husbandry or motor vehicle.

Toxic [Gen Agri] Refers to a substance which is harmful to living organisms.

Toxic Ingredients or Materials [Gen Agri] Specific ingredients or materials in a solution or formulation having the ability to inhibit or destroy the life processes of living organisms.

Toxicity [Gen Agri] Adverse biological effect due to toxins and other compounds.

Toxicity Classifications and Warning [Gen Agri] Signal words adopted for the following various levels of toxicity.

Toxicity Category I [Gen Agri] Signal word used to describe is "Danger". Highest hazard indicator.

Toxicity Category II [Gen Agri] Signal word used to describe is "Warning".

Toxicity Category III [Gen Agri] Signal word used to describe is "Caution".

Toxicity Category IV [Gen Agri] Signal word used to describe is "Caution:."

Toxic Materials [Gen Agri] Materials that inhibit the normal growth of pathogens in the digester such as mineral ions, heavy metals and detergents.

Toxic Substance [Gen Agri] A substance that is present in the soil or above the ground atmosphere that inhibits the growth of plants and ultimately may cause deficiency symptoms or their death.

Toxic Waste [Ag Waste] A waste containing a material that either directly poisons living things or alters their environment so that they die.

Toxemia [Gen Agri] Refers to the generalized blood poisoning, specially a form in which the toxins produced by pathogenic bacteria enter the blood stream from a local lesion and are distributed throughout the body.

Toxins [Gen Agri] Are poisonous substances produced by certain microorganisms capable of causing toxicosis.

Trace Metals [Gen Eng] Trace elements regulated because of their potential for human, plant, or animal toxicity, including cadmium, copper, chromium, mercury, nickel, lead, and zinc.

Trace Minerals [Gen Agri] Are minerals normally present at low levels in animal body or needed in very small amount in the diet. Include Cu, Zn, Co, F, I, Fe, Mn, Se, and are toxic at large quantities.

Tracheids [Ag Struc] Elongated cells that make up the greater part of the wood of softwoods; frequently referred to as fibers.

Track [Ag Mach] Guide for lift arm for undercarriage support.

Traction Device [Ag Mach] A device for propelling a vehicle using the reaction forces from the supporting surface; may be a wheel, tire, track, or belt.

Tractive Efficiency [Ag Mach] The ratio of output power to input power; The ratio of drawbar power to wheel axle power..

Track or Belt Width [Ag Mach] The overall width of an individual track or belt.

Track or Lug Pitch [Ag Mach] The distance between corresponding points on adjacent shoes in the same plane. On a belt, it is the lug pitch and is the distance between corresponding points on adjacent lugs on a flat section of belt.

Tractor, Agricultural [Ag machine used to draw and agricultural field implement equipment.

Tractor-driven Generator electric generator so



[Ag Mach] A propel and farmstead

[Ag Mach] an constructed

that its rotor is driven by the PTO of a farm tractor through a PTO speed changer and drive shaft.

Tractor Mass [Ag Mach] The mass of unloaded tractor in operating order under with tanks and radiators full,. Including protective structure with cladding and additional front-wheel drive components equipment.

Tractor Weight [Ag Mach] Total weight of the tractor excluding tools with the fuel tank filled to 80 percent capacity and with normal amounts of cooling water and lubricating oil when the tractor is at work.

Tract Width [Ag Mach] The overall width of an individual track.

Traditional Variety [Gen Agri] Refers to the indigenous or native varieties of rice and corn other than fancy rice varieties.

Trailing [Ag Mach] Multiple connected chain links dragging rearward on top of the seeded row.

Trailing Edge [Gen Eng] The edge of a blade that faces away from the direction of rotation.

Trailing Plug [Ag Mach] A plug following the mole plow torpedo, smoothing and strengthening the wall of the mole channel.

Trailing Type Implement [Ag Mach] An implement which is attached to the tractor hitch and are being controlled mechanically both vertical and horizontal.

Training Rails [Ag Struc] May be placed across the top rail of the free stall partition to keep the cows from standing too far forward in the stall.

Trajectory Angle [Irrig & Drain] Angle of the liquid stream above a horizontal plane, as discharged from the sprinkler nozzle operating at the test pressure.

Transactional Function [Gen Agri] Involves selling, financing, risk-taking in product storage for future sales.

Transferable Development Rights [Gen Agri] Compensation awarded to landowners whose use of land is restricted because of classification as prime farmland, floodplain, etc.

Transfer Pump [Ag Mach] A mechanical device for moving fuel from one tank to the injection pump.

Transfer Switch [Ag Elec] An automatic or manual device for transferring one or more conductor connections from one power source to another.

Transformer [Ag Elec] An electrical device used to transfer electrical energy from one circuit to another circuit by means of electro-magnetic induction.

Transformer Losses [Ag Elec] Power losses in a transformer. Caused by Hysteresis, eddy current, and winding resistance.

Transition Grate [Ag Power] A permeable element that provides transition from the concave grate extension to the next separating device.

Transition Grate Area [Ag Power] Product of the transition grate width and length.

Transition Grate Length [Ag Power] The contour length of the upper surface of the transition grate.

Transmission [Ag Mach] Process of delivering energy from the generating station to a distribution substation. This includes a network of overhead lines or cables designed to transmit large amounts of power over long distances; An act or process of transporting electric energy in bulk from a source of supply of other principal parts of the system or to other utility systems.

Transpiration [Gen Agri] It is the process by which the water vapor escapes from living plants, principally leaves, and enters the atmosphere.

Transplant [Gen Agri] Small plants grown in a plant bed or plot or are removed from a seeded row for resetting in a new location.

Transponder [Ag Elec] Electric control used to identify livestock in a controlled, automatic feeding system.

Trap [Soil & Water] An enlargement in a conduit or hydraulic structure which reduces the flow velocity allowing sediment to be deposited.

Trapezoidal Flume [Irrig & Drain] A calibrated open-channel structure with sidewall inclined to the horizontal, used to measure the flow of water.

Trapezoidal Weir [Irrig & Drain] A sharp-crested weir of trapezoidal-shaped.

Trash Rack [Irrig & Drain] Screen or gate at the intake of a channel, drain, or pump structure for the purpose of stopping debris.

Travel Reduction [Ag Mach] One minus travel ratio. The value depends on the specified zero condition. Travel reduction is the preferred term; slip and travel reduction are sometimes used synonymously and are often expressed in percent.

Tray-type Separator [Ag Mach] A type of paddy separator that makes use of the difference in specific gravity and length.

Tread [Ag Struc] The walking surface of the stair.

Tree Fruits [Gen Agri] Are plants/trees yielding edible, fleshy fruits, usually perennials.

Trench Silo [Ag Struc] Horizontal silo located mostly below ground, typically with one end or one sidewall embedded into a hillside.

Threshing [Ag Mach] The detaching of seed from the head, cob or pod.

Triangular Hydrograph [Soil & Water] Is the approximation of the basic hydrograph. It is developed mainly to simplify flood routing procedures in the US.

Triangular Weir [Soil & Water] A sharp sided 90 deg. V-notch weir.

Tributary [Soil & Water] A stream that contributes its water to another stream or body of water.

Trickle Irrigation [Irrig & Drain] A method of microirrigation wherein water is applied to the soil surfaces as drops or small streams through emitters.

Trickle Spillway [Soil & Water] A pipe or other conduit through an embankment to carry low flows to maintain a constant water level in a reservoir.

Trickling Filter [Ag Struc] A biological treatment unit consisting of an artificial bed of coarse material, such as broken stone, clinkers, slate, slates brush, or plastic materials, over which wastewater is distributed or applied and through which it trickles to the underdrains, giving opportunity for the formation of biological slimes which oxidize organic matter in wastewater.

Trier [Ag Proc] Small metal probe for taking samples of paddy or rice from bags or from bulk containers.

Triple-disc Opener [Ag Mach] A combination of a coulter preceding a double-disc opener or a staggered double-disc opener, but all integrally mounted to a common assembly to maintain fixed relative positions between the subcomponents.

Triploid [Gen Agri] A specific case of polyploidy in which there are 3N chromosomes.

Troubleshooting [Ag Mach] The act of analyzing, testing, and measuring the engine to remedy the cause of trouble.

Trombe Wall [Ag Struc] Concrete, brick, or adobe wall on the south side of passively heated solar structures; solar energy heats the wall during the day and heat is released to the structure at night.

Trough [Ag Struc] Device holding feed from which livestock eats. [ASAE] lighting assembly housing which is open at the top and essentially "U" shaped in cross section.

True Protein [Gen Agri] Is composed of amino acids.

Truss [Ag Struc] Structural framework used to support the roof. [ASAE] structural supporting framework.

Truss Anchors [Ag Struc] End attaching point for truss.

Truss Rafter [Ag Struc] Single-sloped or symmetrically sloped gable rafter with integral designed open bracing support system.

Truss Rod or Cable [Ag Struc] The between truss anchors and truss support.

Truss Support [Ag Struc] Stand off brace for truss.

Tube flighting assembly housing which is essentially round in cross section.

Tube Auger [Ag Mach] An auger in which the enclosure is essentially a cylinder.

Tuber [Gen Agri] A short, thickened subterranean branch.

Turbidity [Gen Agri] Cloudiness caused by the presence of suspended solids in water; an indicator of water quality.

Turbine [Ag Mach] A series of curved vanes mounted on a shaft and actuated by the action of a fluid or gas under pressure.

Turbine Aerator [Ag Struc] A submerged axial flow pump in which the manure discharge is directed toward the surface where it breaks the surface and results in air movement.

Turbine Pump [Gen Eng] A type of pump having 1 or more stages, each consisting of an impeller on a vertical shaft, surrounded by stationary and usually symmetrical guide vanes.

Turbocharger [Ag Mach] An exhaust-gas-driven turbine directly coupled with a compressor wheel.

Turbulent Flow [Soil & Water] A flow in which the fluid particles move in an irregular random manner, in which the head loss is approximately proportional to the second power of the velocity.

Turkey Hen [Gen Agri] A breeding female turkey.

Turn [Gen Eng] In winding stator coils, this is one loop of wire around a form. A coil will often be referred to by how many turns of a certain gauge wire are in each coil.

Turning Radius [Ag Mach] The distance from the turning center to the center of tire contact of the wheel describing the largest circle while the vehicle is executing its shortest turn without turning brakes in operation.

Turning Tools [Ag Mach] Are tools used to turn nuts, bolts, or screws (i.e. screwdrivers and bits, wrenches, sockets and drivers).

Turnout [Irrig & Drain] It is the structure built at the point where a farmditch branches out from a distributary canal to regulate or control the water flowing into the farmditch.

TSS [Gen Agri] Total Suspended Solids

Twin Ditch [Irrig & Drain] See W-ditch.

Twist [Gen Eng] In a wind generator blade, it is the difference in pitch between the blade root and the blade tip. Generally, the twist allows

more pitch at the blade root for easier startup, and less pitch at the tip of better high-speed performance.

Two Phase Flow [Gen Eng] Change in phase (liquid to gas, gas to liquid), due to the changes in pressure and temperature, that takes place while the fluid is circulating through the heat exchanger.

Two-Stage Drying [Ag Proc] A drying strategy wherein et grains are pre-dry to skin-dry condition and finally to 1 percent moisture content through either sundrying or mechanical drying.

Two-Stroke Cycle [Ag Mach] Cycle of events which is complete in two strokes of the piston or one crankshaft revolution.

Two-Way Plow [Ag Mach] Plow used to eliminates back and dead furrows and is used for surface irrigation.

Two-Wheel Drive [Ag Mach] A type of four wheel tractor where power is transmitted to rear wheel with small front wheels being pushed along.

Tyloses [Gen Eng] Foam-like structures that may swell to occlude or partially fill the vessel lumen.

Type [Gen Agri] The make up or structure of a group of animals that were developed to perform a certain function or purpose.

Type NM [Ag Elec] Factory assembly of two or more insulated conductors having an outer covering of a flame retardant, moisture resistant and non-metallic material, permitted for installation in normal dry installations.

Type NMC [Ag Elec] Factory assembly of two or more insulated conductors having an outer covering of a flame retardant, moisture resistant, corrosion resistant and non-metallic material, permitted for installation.

Type Test [Ag Mach] Test carried out into a machine to prove conformity to the requirements of the relevant specification.

Type UF [Ag Struc] Underground feeder cable permitted for use underground including direct burial in the earth; commonly used in surface mount installation in moist corrosive environments such as livestock housing.

U

“U” Factor [Ag Struc] Measure of heat flow through a building structure in SI units, $W/m^2 \cdot K$.

Ultimate Bending Strength [Gen Eng] Maximum bending stress developed in a material before rupture caused by a flexural load.

Ultimate Shear Strength [Gen Eng] Maximum shear stress that can be sustained by a material before rupture caused by a shear load.

Ultimate Strength [Gen Eng] It is the unit stress occurring when a material is carrying its maximum load; the amount of stress which produces failure by increasing the unit stress until breakage or rupture occurs.

Ultrasonic Nozzle [Ag Mach] A pneumatic or vibratory atomizer in which energy is imparted to the liquid at high frequency. (Common usage refers to frequencies within or above the human auditory range, but practice should be restricted to frequencies above 20 kHz.)

Ultrasound [Gen Agri] A process used to measure fat thickness and rib-eye area in swine and cattle. The machine sends sound waves into the back of the animal and records these waves as they bounce off the tissues. Different wavelengths are recorded for fat than for lean. Also used to diagnose pregnancy.

Unavailable Nutrients [Gen Agri] Are plant nutrients that are present in the soil but cannot be taken up by the roots because they have not been released from the rock or minerals by weathering or from organic matter by decomposition.

Unavailable Soil Water [Gen Agri] That portion of water in a soil held so tightly by adhesion and other soil forces that it cannot be absorbed by plants rapidly enough to sustain growth. Soil water at permanent wilting point.

Unavailable Water [Gen Agri] Water that is present in the soil but cannot be taken up by plant roots because it is strongly adsorbed onto the surface of particles.

Unconfined Aquifer [Soil & Water] An aquifer whose upper boundary consists of relatively porous natural material that transmits water readily and does not confine water.

Undercarriage [Ag Mach] Assembly that supports auger and provides mobility.

Undercutting [Soil & Water] Erosion of material at the base of a steep slope, overfall, or cliff by falling water, stream, wind, or wave action; produces an overhanging cliff.

Underflow [Soil & Water] 1) Movement of water through a pervious subsurface stratum. 2) Flow of water under a structure or ice.

Underfloor Ventilation [Ag Struc] Ventilation system designed to vent the air between slotted floor and waste in underfloor storage; part or all of the building's ventilation may be accomplished by the system.

Underground Outlet [Ag Struc] A means of removing water from a terrace, consisting of an inlet riser and underground pipe that discharges water through or under the embankment.

Underground Storage Tank [Ag Struc] A tank located all or partially underground that is designed to hold gasoline or other petroleum products or chemical solutions.

Undermilled Rice [Ag Proc] Milled rice which has less bran removed than normal.

Underpinning [Gen Agri] A collective term denoting the four legs of an animal.

Under Reinforced Design [Ag Struc] Is a design in which the steel reinforcement is lesser than what is required for a balanced design. It causes the steel bars to reach its limiting stress first while the concrete remains under stressed. Once ultimate load is reached, large cracks become visible in the tensile zone of concrete and will give warning to the occupants to decrease the load.

Underrun Disc Sheller [Ag Proc] Machine used to remove the husk from the paddy grain. It consists of two horizontal discs, the top one stationary and the lower one rotating.

Under-Runner Disk Husker or Huller [Ag Proc] A type of paddy husker consisting of two horizontal discs partly coated with an abrasive layer, the upper disc usually being stationary and the lower disc rotating and vertically movable for adjusting the clearance between the discs and by abrasive action, removes the husk of the paddy fed between the discs.

Undersoundness [Gen Agri] This term denotes a malformation of a part of an animal, or a malady, which may not disturb the health of the animal but adversely influences its service ability.

Unearned Increment (Income) [Gen Agri] Consists of income received in advance for which goods/services will be provided in the future.

Uneven-aged [Gen Agri] Applies to a stand in which there are considerable differences in age of trees and in which three or more age classes are represented.

Undersize [Gen Eng] That portion of the charge that has passed through the apertures of a stated sieve.

Uniform Flow [Soil & Water] Flow in which the velocity and depth are the same at each cross section.

Uniformity Coefficient [Ag Proc] The ratio of the D40 size to the D90 size of a granular material.

Uniformity Index [Ag Proc] A rating of the uniformity of size of particles of a granular material.

Uniformly Distributed Load [Ag Struc] Is a load of uniform magnitude, for each unit of length, that extends over a portion or the entire length of a member.

Uniformly Index [Ag Proc] A rating of the uniformity of size of particles of a granular material. It is a dimensionless ratio of the particle size corresponding to 95% retained by weight to the particle size corresponding to 10% retained by weight in a cumulative sieve analysis of the material.

Uniparous [Gen Agri] Refers to producing only one egg/one offspring at a time.

Unisexual [Gen Agri] Containing either stamens or pistils, but not both.

Unison Flashing [Ag Struc] Two or more lamps that flash on and off simultaneously.

Unit Cooler [Ag Proc] A direct cooling factory made encased assembly that includes cooling element, fan and motor.

Unit Cost [Gen Agri] Is the average cost to produce a single item. The total cost divided by the number of items produced.

Unit Heater [Gen Eng] Air heater suspended within a room; air is drawn by fan over a heat exchanger heated either by electricity, steam, hot water, or direct burning petroleum fuel.

Unit Hydrograph [Soil & Water] Is a hydrograph with a unit volume of direct runoff for a given storm duration. It represents the response of the basin on a given storm duration and characteristics, and enables one to synthesize hydrographs for complex storms by superimposing the hydrographs resulting from the individual components of the storm.

Unit Stream [Soil & Water] Amount of water, per unit of width, turned into each border strip or basin during irrigation.

Unit Stress [Gen Eng] Is the internal resistance per unit area that results from an external force.

Unit Surcharge [Soil & Water] A surcharge imposed for all water use above a threshold level for excess consumption established based on average per capita or per –household.

Universal Milling Machine [Ag Mach] A milling machine designed and constructed that the table may be swiveled to a considerable angle in a

horizontal plane to permit the milling of spiral (twisted) grooves, such as are cut in twist drills, spiral mills, etc.

Unladen Machine [Ag Mach] A machine completely serviced with fuel, coolant and lubricants, carrying a driver having a minimum weight of 75 kg but no optional accessories, weight ballast or material load.

Unspliced Column [Ag Struc] A mechanically laminated column in which each layer is comprised of a single piece of dimension lumber.

Unsaturated Flow [Soil & Water] Movement of water in soil in which the pores are not completely filled with water.

Unsaturated Zone [Soil & Water] That part of the soil profile in which the voids are not completely filled with water.

Unshelled Kernels [Ag Proc] Kernels that remain in the cob after shelling.

Unshelled Loss [Ag Proc] Ratio of the weight of corn kernels that remained in the cobs of the corn fed into the shelling chamber, to the weight of the total corn kernel input of the sheller, expressed in percent.

Unsteady Flow [Soil & Water] A type of flow in which discharge is not constant with respect to time.

Unthreshed Heads [Ag Proc] Any pod, cob part of same from which all or part of the seed has not been detached.

Unthreshed Loss [Ag Proc] Ratio of the weight of grains that remained in the panicles of the plants fed into the threshing chamber, to the weight of total grain input of the thresher, expressed in percent.

Unvented Heater [Ag Proc] Fuel burning unit heater exhausting combustion products into the heated air stream instead of outdoors.

Upland [Soil & Water] An area where soils are generally relatively well drained such that the water table is significantly below the soil surface most of the year.

Upper Hitch Pin [Ag Mach] Pin that connects the upper link to the implement.

Upper Link Pin [Ag Mach] Pin that connects the upper link to the tractor.

Upright Freezer [Ag Proc] A freezer in which access is gained through a side opening door.

Urban [Gen Agri] A concept defining an area that has a population of 2,500 or more inhabitants.

Urban Runoff [Soil & Water] Storm water from city streets and adjacent domestic or commercial properties that may carry pollutants of various kinds into the sewer systems and/or receiving waters.

Useful Life of Filter Media [Gen Agri] Length of time when filter media functions effectively in removing contaminants without the need for replacement.

Uterus [Gen Agri] That portion of the female reproductive tract where the young develop during pregnancy.

Utility [Soil & Water] Public water service provider.

Utility Auger [Ag Mach] A mobile auger which is not equipped with an auxiliary transport support.

V

“v” bottom [Ag Struc] An open or covered rectangular tank with a V-shaped bottom.

Vaccine [Gen Agri] A suspension of attenuated or killed microbes or toxins administered to induce active immunity in the recipient.

Vaccination [Gen Agri] To inoculate – with a mildly toxic preparation of bacteria or a virus of specific disease to prevent or lessen the effects of that disease.

Vacuum [Ag Proc] A perfect vacuum in space entirely devoid of gas, liquids or solids.

Vacuum Filter [Ag Struc] A horizontal mounted, rotating perforated cylinder with a cloth fiber cover that uses vacuum to draw liquids out of manure.

Vacuum, Final [Ag Proc] The vacuum applied as final operation in pressure process for preserving timber. It is used to recover surplus preservative and to dry the surface of the timber.

Vacuum Gauge [Ag Proc] A gauge used to measure the amount of vacuum existing in a chamber or line.

Vacuum, Initial [Ag Proc] The vacuum applied to remove air from wood before treating with preservative.

Vacuum Relief Valve, Drain Valve [Soil & Water] Valve used to prevent a vacuum in pipelines and avoid collapsing of thin-wall pipe.

Vacuum Tanker [Soil & Water] Airtight container on a truck or trailer to transport liquid, and loaded by suction.

Vadose Zone [Soil & Water] Zone of unsaturated soil that extends from the soil surface to the ground-water table.

Vagina [Gen Agri] The copulatory portion of the female’s reproductive tract. The vestibule portion of the vagina also serves for passage of urine. The vagina also serves as a canal through which young pass when born.

Value Added [Gen Agri] Is the amount of economic value generated by the activity carried on within each production unit in the economy.

Value-added Resellers [Gen Agri] Are those who buy from the producer and resell basic products after having added value to them by product modification or expression.

Value Added Tax [Gen Agri] Is an indirect tax (also known as *ad valorem tax*) levied at the time of each exchange of goods and services from primary production to consumption, generally stated as a proportion of the value added at each stage of production.

Valve [Ag Proc] Any device or arrangement used to open or close and opening to permit or restrict the flow of a liquid, gas, or vapor: A device to control flow.

Valve-Air Relief Valve [Ag Proc] Device that release air from a pipeline, automatically without permitting loss of water.

Valve-Air Vacuum, Air Relief Valve [Ag Proc] Device that releases air from a pipeline automatically without permitting loss of water or admits air automatically if the internal pressure becomes less than atmospheric.

Valve-Check Valve [Ag Proc] Valve used in a pipeline to allow flow in only one direction.

Valve-Drain Valve [Ag Proc] (1) Automatic: Spring-loaded valve that will automatically open and drain the line when the pressure drops to near zero. 2) Flushing type: Valve on the end of a line for the purpose of flushing out dirt and debris. This may be incorporated into an end plug or end cap.

Valve – Foot Valve [Ag Proc] Check valve used on the bottom of the suction pipe to retain the water in the pump when it is not in operation or prevent backflow.

Valve Float [Ag Mach] A condition where the valves are forced open due to valve-spring, vibration or vibrating speed.

Valve-Pressure Relief Valve [Ag Proc] Spring-loaded valve set to open at pressure slightly above the operating pressure, used to relieve excessive pressure and surges.

Valve Timing [Ag Mach] The positioning of the camshaft (gear) to the crankshaft (gear) to ensure proper valve opening and closing.

Valve-Vacuum Relief Valve [Ag Proc] Valve used to prevent a vacuum in pipelines and void collapsing of thin-wall pipe.

Vane [Gen Eng] A large, flat piece of material used to align a wind turbine rotor correctly into the wind. Usually mounted vertically on the tail boom. Sometimes called a tail.

Vapor [Ag Proc] The gaseous phase of substances that are liquid or solid at atmospheric temperature and pressure.

Vapor Barrier [Ag Proc] Material to retard or prevent the passage of water vapor through a structure.

Vapor Compressor [Ag Proc] Removes the vapor from the evaporator and raises the temperature and pressure of the vapor to a point such that the vapor can be condensed with normally available condensing media.

Vapor Drift [Ag Mach] The dispersion of vaporized chemical to the atmosphere and areas surrounding the target area during and following application.

Vaporization [Gen Agri] Though not strictly a homoeothermic reaction, this is the most important process by which the animal losses heat to maintain a constant body temperature.

Vapor Pressure [Ag Proc] Is when the water molecules in the air exert a particular pressure.

Vapor Pressure Deficit [Soil & Water] Difference between the existing vapor pressure and that of a saturated atmospheric vapor pressure at the same temperature.

Variable Cost [Ag Mach] Those cost vary with the volume of production, eg. fuel, labor, electricity, etc.

Variable Pitch [Gen Eng] A type of wind turbine rotor where the attack angle of the blades can be adjusted either automatically or manually.

Variable Speed Fan [Ag Mach] Fan with controller that permits operating at a range of speeds, typically between 20 to 100% of maximum capacity.

Variation [Gen Agri] Refers to the occurrence of differences among individuals of a species or variety.

Variety [Gen Agri] Is a group of individuals within a species that differ with the rest of the species.

Variety Meats [Gen Agri] Edible organ by-products (eg. Liver, heart, tongue, tripe).

Vasopression or Antidiuretic Hormone (ADH) [Gen Agri] Is a hormone secreted by the neurohypophysis or posterior pituitary lobe which is important in conserving body water by reducing urine formation.

Veal [Gen Agri] Cattle, one year or less.

Veal Calves [Gen Agri] Young cattle raised only to a weight of about 500 lbs.

V-Belt [Ag Mach] Flexible machine element used to transmit motion and power between two shafts, the cross section of which is shaped roughly like a regular trapezoid outlined by the base, sides and top of the belt.

"V"-Bottom [Ag Struc] An open or covered rectangular tank with a V-shaped bottom.

V-Belt Drive [Ag Mach] Power transmission device, which consists of one or more V-belts, mounted on two or more V-pulleys.

Vector [Gen Agri] In biology, a carrier. A vector is generally an insect that carries pollen or disease-causing organism from plant to plant.

Vegetative Cover [Gen Agri] Trees or perennial grasses, legumes, or shrubs with an expected lifespan of 5 years or more.

Velocity Head [Soil & Water] Is figured from the average velocity obtained by dividing the discharge in cubic feet per second or cubic

meter second by the actual meter and determined at the point of the gage connection; Head or energy due to the velocity of a moving fluid equal to the square of the mean velocity by twice the gravitational acceleration.

Venison [Gen Agri] Meat products of a deer.

Vent [Ag Mach] An opening into a cooling or holding tank for maintaining atmospheric pressure during filling, emptying and cleaning.

Vent [Soil & Water] An appurtenance to the pipeline which permits the passage of air to or from the pipeline.

Vented Heater [Ag Power] Fuel burning unit heater exhausting combustion products outdoors via a chimney; building air is heated by a heat exchanger around the fire box.

Ventilating Efficiency Ratio, VER [Ag Elec] An efficiency rating for ventilation fans measuring air moving capacity per unit of energy input; units are cfm per watt.

Ventilation [Ag Struc] The process of exchanging air inside the greenhouse with outside air to control temperature, humidity and carbon dioxide levels.

Ventilation Rate [Ag Struc] The volume of air exchanged per unit time per unit floor area.

Venturi [Ag Mach] A specially shaped tube with a small or constricted area used to increase velocity and reduce pressure.

Venturi Flume [Soil & Water] Flow measuring flume with a contracted throat that causes a drop in the hydraulic grade line (preferred term is Parshall flume).

Vermicomposting [Ag Waste] The biological degradation of organic matter contained in agricultural, urban and industrial wastes, occurring when earthworms feed on these materials.

Vermiculture [Ag Waste] Composting by the activity of earthworms; material is eaten by the worms, leaving air passages which maintain aerobic conditions the process is completed with a curing stage.

Vertical [Ag Struc] Foundation design for post frame resistance to upward or downward loads such as wind, snow, and building mass that tend to cause vertical displacement.

Vertical Abrasive Whitener [Ag Proc] Is available with the cone directed either up or down, but with no difference in performance or capacity.

Vertical Axis Wind Turbine [Gen Eng] A wind generator design where the rotating shaft is perpendicular to the ground, and the cups or blades rotate parallel to the ground.

Vertical Bin Type (Columnar Type) [Ag Proc] Batch type dryer wherein a fixed volume of grain is held stationary in a vertical grain holding bin.

Vertical Boring Mill [Ag Mach] A machine for finishing purposely designed for finishing holes, the work table revolves on a vertical axis and the cutting tool (which may be a drill or a boring tool or turning tool) is arranged above the table and may be fed laterally (toward or away from the center of the table) or up or down in any position.

Vertical Clearance [Ag Mach] Distance measured from the cutting edge of share to nearest potentially obstructing member such as main truss (backbone), frame, beam, release mechanism, etc.

Vertical-Disc Row Cleaners [Ag Mach] Two opposed concave disc blades with a smooth or notched sharpened circumference to remove surface residue and/or soil from the row area.

Vertical Drain [Soil & Water] Vertical shaft to a permeable substratum into which surface and subsurface drainage water is channeled.

Vertical Entry and Exit Platform [Ag Struc] An elevated horizontal surface area specifically designed to allow access/egress through a hinged door.

Vertical Interval [Soil & Water] Is a vertical interval between corresponding points on successive terraces or from top of slope to the bottom of the first terrace.

Vertically Laminated Assembly [Ag Struc] An assembly primarily designed to resist bending loads applied parallel to the planes contact between individual layers.

Vertical Mulching [Ag Mach] An operation in which a vertical band of mulching material is injected into the slit immediately behind a tillage tool shank.

Vertical Shaft Pump [Soil & Water] A centrifugal transfer pump which utilizes a power source above the manure level and is connected to the centrifugal impeller by a vertical drive shaft.

Vertical Shaft Turbine Pump [Ag Mach] A centrifugal pump with one or more impellers discharging into one or more bowls and column pipe used to connect the bowls to the discharge head on which the pump driver is mounted.

Vertical Shear [Ag Struc] Is the tendency for one part of a beam to move vertically with respect to an adjacent part.

Vertical-Spindle Milling Machine [Ag Mach] A machine used to of any end-milling and face milling operation. It is more adaptable than the machine with the horizontal spindle because the cutter and the surface being machined are in plain view, instead of over in back of the work.

Vertical Tool Spacing [Ag Mach] The vertical distance between corresponding points on adjacent tools when projected upon a vertical plane parallel to the direction of travel.

Very Poorly Drained [Soil & Water] A soil that remains wet and waterlogged for most of the year so that most of the horizons are blue, olive or gray due to the reducing conditions.

Vessel [Gen Agri] An articulated tubelike structure of indeterminate length porous woods, formed through the fusion of the cells (vessel elements) in a longitudinal row.

V-shaped [Ag Mach] A v-shaped or modified V-shape on the circumference of the tire or wheel to concentrate soil firming directly over the seed.

Vessels [Ag Struc] Wood cells in hardwoods of comparatively large diameter that have open ends and are set one above the other so as to form continuous tubes. The opening of the vessels on the surface of a piece of wood are usually referred to as pores.

Vibrating Needle Atomizer [Ag Mach] An atomizer in which liquid under pressure is supplied through a vibrating hollow needle to form a jet which is broken into uniform droplets.

Vibrating Reed Atomizer [Ag Mach] A vibratory atomizer in which individual droplets are ejected from a liquid reservoir by a needle point attached to an oscillating reed.

Vibrating Screen [Ag Proc] A circular or square shallow container with a replaceable screen bottom.

Vibration Induced Pressures [Ag Proc] Pressures induced by ground or machinery vibrations.

Vibratory Atomizer [Ag Mach] The class of devices wherein an oscillating solid surface is the primary source of energy.

Virus [Gen Agri] An ultramicroscopic protein bodies, the presence of certain types of which cause mosaic and other diseases in plant tissue.

Virus Resistant Plants [Gen Agri] Are plants that have been genetically modified so that they are resistant to a particular disease-causing virus.

Viscera [Gen Agri] Internal organs and glands contained in the thoracic and abdominal cavities.

Viscosity [Ag Mach] The property of an oil by virtue of which it offers resistance to flow.

Viscosity Index [Ag Mach] Oil decreases in viscosity as temperature changes. The measure of this rate of change of viscosity with temperature is called the viscosity index of oil.

Visible Grain Damage [Gen Agri] Kernel damage where the seed coat appears broken to the naked eye.

Visual Task [Gen Agri] Conventionally designates those details and objects that must be seen for the performance of a given activity, and includes the immediate background of the details or objects.

Vitamin [Gen Agri] An organic catalys, or a component thereof, that facilitates specific and necessary functions.

Viticulture [Gen Agri] The science and practice of growing grapes.

Volatile [Ag Mach] Evaporating readily at average temperature on exposure with air.

Volatile Acids [Ag Proc] Fatty acids containing six or less carbon atoms, which are soluble in water and in which can be steam-distilled at atmospheric pressure.

Volatile Material [Ag Power] Material that vaporizes readily at ambient air temperatures.

Volatile Matter [Ag Power] This includes absorbed gases and tarry materials, some of which escape as smoke when charcoal is burnt and some are deposited as soot on surfaces in contact with the smoke. This is the loss in weight that occurs when charcoal is heated out of contact with air.

Volatile Solids [Ag Struc] The portion of the total solids driven off as volatile gases at a specified temperature and time.

Volatile Suspended Solids [Ag Power] That portion of the suspended solids driven off as volatile (combustible) gases at a specified temperature and time.

Volatility [Ag Proc] A measurement of the ease with which a liquid may be vaporized at relatively low temperature.

Voltage [Gen Eng] A measure of electrical potential difference. One volt is the potential difference need in a circuit to make one ampere flow, dissipating one Watt of heat.

Volt-Amp [Gen Eng] In an AC circuit, this Volts * Amps, without factoring in the power factor, derived from the phase angle. See also Watt.

Volume Weight (apparent sp. gravity) [Gen Eng] It is the ratio of the weight of an equal volume of water.

Volute Pump [Ag Mach] Type of centrifugal pump with a casing made in the form of spiral or volute curve.

Volt [Ag Elec] Base unit of voltage (joule per coulomb)

Voltages [Ag Elec] Potential energy difference (electrical pressure).

Voltage Drop [Ag Elec] Voltage loss due to added resistance caused by undersized wire, poor connection, etc.

Voltage Gradient Ramp [Ag Elec] An area where a gradual change in potential from the equipotential plane to the surrounding area is provided by installation of conductive elements.

Voltmeter [Ag Elec] Device used to measure voltage.

V-Pulley [Ag Mach] Wheel with one or more grooved rims used to transmit motion and power by means of one or more V-belts.

W

Walk [Gen Agri] A four-beat gait of a horse in which each foot strikes the ground at a time different from each of the other three feet.

Walk-in Freezer [Ag Power] A freezer chamber large enough to walk into.

Walking-Type Agricultural Tractor [Ag Mach] Self-propelled machine having a single axle designed primarily to pull and propel trailed or mounted agricultural implements and machinery.

Walk-through [Ag Struc] Type of stalls that allow the animals to proceed directly forward after milking is completed.

Wall [Ag Struc] Is a vertical element used primarily to enclose or separate spaces.

Wall-Plank [Ag Struc] Fixed walkway or catwalk over open space, stored product, or easily damaged materials.

Wall Switch [Ag Elec] Is a single pole, single-throw tumbler or toggle switch.

Wane [Ag Struc] Presence of bark or the lack of wood from any cause on edge or corner of a piece.

Warehouse [Ag Struc] Building used for storing paddy or rice, either in bulk or bag form.

Warm Barn [Ag Struc] A well-insulated livestock housing unit; supplemental heat may be added and indoor temperature is kept above freezing.

Warning [Gen Agri] Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

Warp [Ag Struc] Any variation from a true or plane surface; warp includes cup, bow, crook, twist and diamonding, or any combination thereof.

Wash Load [Soil & Water] That part of the sediment load of a stream that is composed of suspended clay and silt particles.

Waste [Ag Waste] Manure plus feed, waterer wastage, washwater and other by-products of livestock production.

Waste Disposal System [Ag Waste] A system for the disposing of wastes, either by surface or underground methods; includes sewer systems, treatment works, and disposal wells.

Waste Storage Structure [Ag Struc] A structure constructed for the purpose of storing waste products.

Waste Treatment Lagoon [Ag Struc] An impoundment for liquid and solid organic wastes designed to accomplish some degree of biochemical treatment of the wastes.

Wastewater [Ag Struc] Water is reduced quality that has been used for some purpose and discarded.

Wastewater Treatment Plant [Ag Struc] A facility containing a series of tanks, screens, filters, and other processes by which pollutants are removed from water.

Wasteway [Ag Struc] Channel for conveying or discharging excess water from a canal to a river.

Water (H₂O) [Gen Agri] An odorless, tasteless, colorless liquid formed by a combination of hydrogen and oxygen; forms streams, lakes, and seas, and is a major constituent of all living matter.

Water Amendment [Soil & Water] 1) Fertilizer, herbicide, insecticide, or other material added to water for the enhancement of crop production. 2) A chemical water treatment to reduce emitter clogging.

Water Application Efficiency [Soil & Water] It is the ratio between the water stored in the soil root zone during irrigation and the water delivered to the farm expressed in percent.

Water Audit [Soil & Water] Program involving sending trained water auditors to participating family homes, free of charge, to identify water conservation opportunities such as repairing leaks and installing lowflow plumbing and to recommend changes in water use practices to reduce home water use.

Water, Bound (Adsorbed, Hygroscopic) [Soil & Water] Moisture that is bound by adsorption forces within the cell wall, that is, the water in wood below the fiber saturation point.

Water Bowl [Ag Struc] Bowl-shaped drinking device for livestock.

Water Brake [Ag Mach] A device for engine testing in which the power is dissipated by churning water.

Water Conservation [Soil & Water] Protection and management of water resources for maximum sustained benefits.

Water Contamination [Soil & Water] Impairment of water quality to a degree which reduces the usability of the water for ordinary purposes, or which creates a hazard to public health through poisoning or spread of diseases.

Water Conveyance Efficiency [Soil & Water] Ratio of the volume of irrigation water delivered by a distribution system to the water introduced into the system.

Water-Cooled [Ag Mach] System in which water/liquid-coolant serves as the cooling medium which circulates in the water jackets to absorb the heat of the engine.

Water Cooled Condenser [Ag Proc] A condenser that removes the heat of the refrigerant by water flowing over or through condenser surfaces.

Water Cushion [Soil & Water] Pool of water maintained to absorb the impact of water flowing from an overall structure.

Water Defrosting [Ag Proc] Defrosting by spraying or pouring water over

Waterer [Ag Struc] Device to automatically provide water to livestock.

Water Fabrication Rinse Sink [Ag Elec] An apparatus used during manufacturing to rinse debris and contamination from the circular configuration of semiconductor chips.

Water, Free [Gen Agri] Moisture held in the cell cavities of the wood, not bound in the cell wall.

Water Hammer [Soil & Water] That phenomenon which occurs when the velocity of water flowing in pipelines is rapidly changed, usually by a rapid or sudden gate or valve closure, starting or stopping of a pump, or sudden release of air.

Water Harvesting [Soil & Water] Any practice that enhances the runoff from a watershed or catchment area for collection and beneficial use.

Water Holding Capacity [Soil & Water] Amount of soil water available in plants.

Water Horsepower [Ag Power] It is the power theoretically required to lift a given quantity of water each second to specified height.

Watering, Volume [Soil & Water] The addition of water to the substrate specified as to the source, the times, the amount, and the distribution method.

Water Jacket [Ag Mach] The enclosure directing the flow of cooling water around the parts to be cooled.

Water Leveling [Soil & Water] A method of land grading wherein fields are divided into segments, flooded, and the highs are scraped down until all soil is beneath the water surface.

Waterline [Soil & Water] Pipe that conveys water from supply to storage or use.

Waterlogged [Soil & Water] Saturated with water.

Water Management [Soil & Water] The study, planning, monitoring and application of quantitative and qualitative control and development techniques for long-term, multiple use of the diverse forms of water resources.

Water Pollution [Soil & Water] Industrial and institutional wastes, and other harmful or objectionable material in sufficient quantities to result in a measurable degradation of the water quality.

Water Power [Ag Mach] Theoretical power required for pumping.

Water Quality [Soil & Water] A term used to describe the chemical, physical, and biological characteristics of water with respect to its suitability for a particular use.

Water Quality Guidelines [Soil & Water] Specific levels of water quality which, if reached, are expected to render a body of water suitable for its designated use.

Water Recycling [Soil & Water] Refers to the reuse of water for the same application for which it was originally used.

Water Reuse [Soil & Water] Using wastewater or reclaimed water from one application for another application.

Water Rights [Soil & Water] Legal rights to use water supplies derived from common law, court decisions, or statutory enactment.

Water-table Control Structure [Soil & Water] An appurtenance placed in the drainage pipes, usually in the main which contains adjustable flow.

Water-table Management System [Soil & Water] A subsurface drainage system equipped with a water-table control structure.

Water-table Observation Well [Soil & Water] A vertical hole which may be protected by a perforated conduit that enables inspection of the location of the free water surface in the soil profile.

Water Vapor Deficit [Soil & Water] the difference between saturation water vapor pressure at ambient temperature and actual vapor pressure at ambient temperature.

Water Vapor Density [Soil & Water] the ratio of the mass of water vapor to a given volume of air, also called absolute humidity.

Watershed [Soil & Water] Is a topographically delineated area which drains into a reference point in the stream.

Watershed Gradient [Soil & Water] The average slope in a watershed measured along a path of water flow from a given point in the stream channel to the most remote point in the watershed.

Water Spreading [Soil & Water] 1) Application of water to lands for the purpose of storing it as ground water for subsequent withdrawal. 2) A specialized form of surface irrigation accomplished by diverting flood runoff from natural channels or water courses and spreading the flow over relatively level areas.

Water Storage Efficiency [Soil & Water] It is the ratio of water stored in the root zone during the irrigation to the water needed in the root zone prior to irrigation, expressed in percent.

Water Supply System [Soil & Water] The collection, treatment, storage, and distribution of potable water from source to consumer.

Water Surcharge [Soil & Water] Imposition of a higher rate on excessive water use.

Water Table [Soil & Water] The upper surface of a saturated zone below the soil surface where the water is at atmospheric pressure.

Water Tight [Soil & Water] Constructed so that moisture will not enter.

Water-use Efficiency [Soil & Water] It is the ratio of water beneficially used on the project, farm or field to the amount of water delivered to the farm expressed in percent.

Water Way [Soil & Water] Refers to any open or close ground or surface for the passage of water.

Water Yield [Soil & Water] Volume of water discharged from a watershed by both surface runoff and ground-water flow.

Watt [Ag Elec] Base unit of power (joule per second)

Watt [Gen Eng] One Joule of electrical energy per second. In DC circuits, Watts = Volts \times Amps. In AC circuits, Watts = Volts * Amps * the cosine of the phase angle.

Watt-Hour [Ag Elec] Unit of energy (36000 joules)

Watt Meter [Ag Elec] An electrical meter that measures true power.

Wean [Gen Agri] Remove permanently from nursing mother's milk.

Weaner [Gen Agri] Piglet that has been recently separated from its mother.

Weaning [Gen Agri] The act of separating the young from the dam.

Weanling [Gen Agri] A young pig separated from their dam, about 2 months old.

Weathering [Gen Agri] All the physical, chemical and biological processes that cause the disintegration of rocks at or near the surface.

Weatherproof [Gen Agri] Constructed or protected so that exposure to the weather will not interfere with successful operation.

Web [Ag Struc] Internal structural component or member between flanges or chords, e.g., in a beam or truss.

W-Ditch [Soil & Water] Two closely spaced, parallel single channels having the spoil from construction placed between them.

Weed [Gen Agri] Is a plant that, in its location is more harmful than beneficial.

Weir [Soil & Water] Structure across a stream to control or divert the flow; Device for measuring the flow of water.

Weir Head [Soil & Water] Vertical distance from the crest of a weir to the water surface in the forebay above the weir, not including the velocity head of approach.

Weld [Ag Mach] Is a localized coalescence is produce by heating to a suitable temperature, with or without the application of pressure and with or without the use of filler rods.

Well [Soil & Water] A pit, hole, or shaft sunk into the earth to tap an underground source of water.

Well Abandonment [Soil & Water] The process of sealing and filling the well bore so that contamination cannot occur between aquifers or from the land surface.

Well Capping [Soil & Water] Capping of abandoned artesian wells whose rusted casings spill water in a constant flow into drainage ditches.

Well Casing [Soil & Water] A pipe installed within a borehole to prevent collapse of sidewall material, to receive and protect pump and pump column, and to allow water flow from the aquifer to pump intake.

Well Development [Soil & Water] It is the process of removing fine formation materials or materials introduced during well construction from the well intake zone for the purpose of stabilizing and increasing the permeability of the well intake zone and the filter pack material.

Well Efficiency [Soil & Water] Ratio of theoretical drawdown to measured drawdown. Theoretical drawdown is estimated from adjacent observation well data obtained during well test.

Well Filling [Soil & Water] Process of placing disinfected gravel into the well bore during well abandonment.

Well Inlet [Soil & Water] That part of a well which has a screen or perforated casing through which water enters.

Well Intake Zone [Soil & Water] The portion of the well surrounding the well inlet that is modified by the well construction and development processes.

Well-Milled Rice [Ag Proc] Rice grain from which the hull, the germ, the outer bran layers, and the greater part of the inner bran layer have been removed, but part of the lengthwise streaks of the bran layers may be still present on less than 15% of the sample grains.

Well Screen [Soil & Water] That part of the well casing which has openings through which water enters.

Well Sealing [Soil & Water] Process of placing a material with extremely low permeability into the well bore to prevent commingly of water between different aquifers and movement of water into an aquifer from the land surface.

Well Test [Soil & Water] Determination of well yield vs. drawdown relationship with time.

Well Yield [Soil & Water] Discharge rate can be sustained from a well for some specified period of time.

Wet [Gen Agri] Used to describe a milking female (e.g. wet cow or wet ewe).

Wet Bulb Depression [Soil & Water] The difference between the dry- and wet-bulb temperatures.

Wet Bulb Temperature [Ag Proc] Is the temperature at which liquid or solid water, by evaporating into air, can bring the air to saturation adiabatically at the same temperature.

Wet Bulb Thermometer [Soil & Water] Is an ordinary thermometer whose bulb is enclosed in a wetted cloth sac or wick.

Wet Deposition [Soil & Water] See acid rain.

Wether Sheep [Gen Agri] A male sheep which is castrated while young, preferably between one to three weeks of age.

Wether Goat [Gen Agri] A castrated male goat which has unsexed before the secondary sex characters have developed.

Wetlands [Soil & Water] Area of wet soil that is inundated or saturated under normal circumstances and would support a prevalence of hydrophytic.

Wetness Index [Soil & Water] Numerical quantity to designate the relation of precipitation or annual runoff for a given year to the long term average.

Wetted Area [Soil & Water] The average irrigated soil area in a horizontal plane located at or below the emitter.

Wetted Diameter [Soil & Water] Diameter of the wetted circle created by a single sprinkler head.

Wetted Perimeter [Soil & Water] Length of the wetted contact between a conveyed liquid and the open channel or closed conduit conveying it, measured in a plane at right angles to the direction of flow.

Wheatstone Bridge [Ag Elec] Circuit configuration used to measure electrical qualities such as resistance.

Wheel Slip [Ag Mach] Ratio of the difference between the speed of wheels with load, to the speed without load.

Wheel Tread [Ag Mach] Center to center distance between two front or rear wheels.

Wheel Trencher [Ag Mach] An excavator which uses a rigid round wheel with attached buckets and cutters to carry spoil out of the trench.

Whether [Gen Agri] A castrated male sheep.

White Belly [Ag Proc] Chalkiness in the milled rice kernel.

White Corns [Gen Agri] Are corn grains of white color with not more than the permitted percentage of corn of other colors as indicated in the grade requirement for corn. A slight tinge of color other than the white shall not affect their classification as white corn.

White Corn grits [Gen Agri] Are milled corn grits which may include not more than 5% of corn grits of other color.

Whitener [Ag Proc] Component of a rice mill that removes the bran layer in the brown

Whitening [Ag Proc] Process of removing the bran layer during milling.

White Soil [Gen Agri] Is poor in organic matter, or very low in iron. In low rainfall areas may contain excess calcium Chloride (CaCl_2) or Calcium Sulfate (CaSO_4).

Whole Grain [Gen Agri] Mature unbroken grain.

Whole Kernels [Gen Agri] Unbroken kernels after shelling.

Whole Rice [Ag Proc] Head rice. A full kernel or piece of kernel which is 3/4 size or larger.

Wide Presswheel [Ag Mach] A single semi-pneumatic or steel wheel which is typically wider than 100 mm (3.9 in.) centered over the seeded row.

Wide-fluted Coulter Loosener [Ag Mach] A coulter for loosening a strip of soil behind a soil and residue cutting component.

Wide Presswheel [Ag Mach] A wide, single semi-pneumatic or steel which is typically wider than 100 mm centered over the seeded row.

Wide-sweep Opener [Ag Mach] A shank-mounted sweep shovel with lowlift-angle wings spanning a lateral width of 1.5-1.8 m.

Width of Cut [Ag Mach] Transverse distance between the top or bottom cutting edges of the end discs.

William Gilbert [Gen Eng] Father of Electricity, an English Physicist.

Wilting Percentage [Soil & Water] Is held with a force of 15 atm.

Wilting point of wilting coefficient also indicates the percentage moisture content of a soil at which a plant wilts and will not be able to recover.

Wilting Point [Gen Agri] (Synonymous with Permanent wilting point.)

Wind Erosion [Soil & Water] Detachment, transportation, and deposition of soil by the action of wind.

Wind Velocity [Soil & Water] A means of measuring wind velocity with an accuracy of $\pm 3\text{km/h}$ ($\pm 2\text{mph}$)

W-Index [Soil & Water] An index of water efficiency used as a device for evaluating residential water savings and as a management tool to motivate water-saving practices. The index provides a calculated numerical value for each dwelling unit, derived from the number and kind of water-saving features present, including indoor and outdoor water savers and water harvesting or recycling systems.

Wind Load [Ag Struc] Pressure or suction on structure surface caused by wind flow.

Wild AC [Gen Eng] Alternating Current that varies in frequency.

Wild Flooding [Soil & Water] The method is suitable where the water is available in bulk. Water is allowed to cover large areas during high floods so that the area is completely saturated.

Wilting Percentage [Gen Agri] It can be estimated by dividing the field capacity by a factor varying from 2.0-2.4 depending upon the amount of silt in the soil.

Wilting point [Soil & Water] Synonymous with a permanent wilting point.

Winch [Ag Struc] Drum type lifting device to achieve desired angle of elevation.

Winch Cable [Ag Struc] Wire rope used for raising and lowering the auger.

Wind Break [Soil & Water] Refers to the several rows of trees of various sizes to reduce air velocities and dust.

Wind Erosion [Soil & Water] Detachment, transportation, and deposition of soil by the action of wind.

Wind Generator [Gen Eng] A device that captures the force of the wind to provide rotational motion to produce power with an alternator or generator.

Wind Loads [Ag Struc] Occur when structures block the flow of wind converting the wind's kinetic energy into potential energy of pressure.

Windmill [Gen Eng] A device that uses wind power to mill grain into flour. But informally used as a synonym for wind generator or wind turbine, and to describe machines that pump water with wind power.

Windrow Composting [Ag Waste] Involves the arrangement of compost mix in long, narrow piles or windrows that are periodically turned to maintain aerobic conditions.

Windrow System [Ag Waste] Waste/bulking agent mixture is placed in elongated piles, windrows, and aerated by mechanically turning the piles with a machine such as a front-end loader or specially designed equipment.

Wind Turbine [Gen Eng] A machine that captures the force of the wind. Called a wind generator when used to produce electricity. Called a windmill when used to crush grain or pump water.

Windward [Gen Eng] Toward the direction from which the wind blows.

Wings [Ag Mach] Projections attached to the sides of tillage tools to increase the volume of soil, which can be disturbed, or to control the nature and distance of soil movement. Wings usually have lift, tilt, and side angles, which are different from those in the orientation of the main tool and standard.

Winking [Gen Agri] Indication of estrus in the mare in which the vulva opens and closes.

Wire-loop Cylinder [Ag Mach] Type of threshing cylinder wherein wires of the same arc and size are attached on the periphery of the cylinder in tandem arrangement with or without the threshing concave.

Withdrawal-type Connection [Ag Struc] Refers to a nail connection in which the load is applied parallel to the length of the nail and the load attempts to pull the nail out of the holding member. It is weaker and less desirable than connections subjected to lateral load.

Withdrawal from End Grain [Ag Mach] Is a withdrawal-type connection wherein the nail is driven parallel to the grain of holding member.

Withdrawal from Side Grain [Ag Mach] Is a withdrawal-type connection wherein the nail is driven perpendicular to the grain of the holding member.

Withdrawal Time [Gen Agri] Is the length of time before slaughter that a drug should not be given to an animal.

Withdrawal Use [Soil & Water] The act of removing water from surface or groundwater sources in order to use it.

Withers [Gen Agri] Top of the shoulders.

Wood [Ag Struc] Is one of the most common construction materials.

Wood [Gen Agri] The hard material between the pith and the bark in the stems and branches of trees, made up of a variety of organized hollow cells and consisting chemically of cellulose, hemicelluloses, lignin, and extractives.

Wood Substance [Gen Agri] The extractive-free solid material of which the cell walls of oven-dried wood are composed, having essentially the same specific gravity in all species.

Wood Waste [Ag Waste] Finished lumber, wood products and prunings or stumps six inches or greater in diameter.

Wool [Gen Agri] The fibers that grow from the skin of sheep.

Woolens [Gen Agri] Are clothes made from short and highly crimped wool fibers called carding wools.

Workability [Gen Eng] Is the characteristic of a material that measures the ease with which it can be worked or shaped.

Working Chute [Ag Struc] Passage for controlling livestock traffic during sorting, weighing and treatment, narrow enough to prevent bunching and turning.

Working Fluid [Gen Eng] The heat transfer fluid that changes the temperature of another fluid by the absorbing energy or supplying energy.

Working Stress/Allowable Unit Stress [Gen Eng] Is the highest unit stress to which a material should be subjected for a specific purpose.

Working Width [Ag Mach] The actual measured width of the working element of the machine, measured at a right angle to the direction of travel.

Work Plane [Ag Struc] The plane at which work is done, and on which, illuminance is specified and measured.

Worsted [Gen Eng] Are cloths made from combed wool fibers laid parallel to each other by passing through metal comb.

Woven Wire Cloth [Gen Eng] A sieving medium of wires medium of wires that cross each other to form the apertures.

Woven Wire Floor [Gen Agri] Type of slotted floor made of heavy gauge woven wire mesh; usually for young or small animals.

Wrought Alloy Steel [Gen Eng] Is a steel that contains significant quantities of recognized alloying metals, the most common being aluminum, chromium, etc.

Wye Connection [Ag Elec] Connecting the phases of a three-phase system at a common point so that the line and phase currents are equal.

XYZ

Xeriscape Landscaping [Soil & Water] An innovative, comprehensive approach to pollution prevention and water use efficiency that incorporates all of the following: planning and design, soil analysis, appropriate plant selection, practical turf areas, efficient irrigation, use of mulches, and appropriate maintenance.

Xerophyte [Gen Agri] Is a plant adapted to arid conditions.

Xylem [Gen Agri] Is the woody part of a fibrovascular bundle containing vessels; the water-conducting tissue.

Yard Waste [Ag Waste] Grass clippings, leaves and weeds, and prunings from residences or business six inches or less in diameter.

Yaw [Gen Eng] Rotation parallel to the ground. A wind generator yaws to face winds coming from different directions.

Yaw Axis [Gen Eng] Vertical axis through the center of gravity.

Yearling [Gen Agri] Livestock between one and two years of age.

Yeld Mare [Gen Agri] Is a dry mare that do not produce any young during the breeding season.

Yellow Corn [Gen Agri] Is a corn grain of yellow color with not more than the permitted percentage of corn of other colors as indicated in the grading requirements for corn. A slight tinge of color other than yellow shall not affect their classification as yellow corn.

Yellow Corn Grits [Gen Agri] Are milled corn grains, which may include not more than 5% of corn grits of other color.

Yellow or Damaged Kernels [Gen Agri] Are yellowish milled rice damaged by fermentation or heat and/or by water, insects or mechanical means.

Yield Grades [Gen Agri] The grouping of animals according to the estimated trimmed lean meat that their carcasses would provide; cutability.

Zeroth Law [Gen Eng] States that when two bodies have equality of temperature with a third body, they in turn have equality of temperature with each other.

Zone Cooling [Ag Struc] Localized cooling within a larger room by ducts transporting cool air.

Zone Embankment [Soil & Water] Earth embankment having sections such as cores and diaphragms of varying permeability to control seepage.

Zone Heating [Ag Struc] Localized heating of a small area within a larger room.

Zone of Saturation [Soil & Water] A subsurface zone in which all the pores or the material are filled with groundwater under pressure greater than atmospheric pressure.

Zone Ventilation [Ag Struc] Controlled ventilation of a particular part of a space; for example, zone cooling around a sow or snout cooling of a sow.

Zooplankton [Gen Agri] Tiny aquatic animals eaten by fish.

Zygote [Gen Agri] Is the product of united gametes.

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