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## GLOSSARY

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- AMINO ACID:** organic acid containing a nitrite group, important as a constituent of proteins.
- BACKCROSS:** a cross of a **hybrid** with one of its parents. Widely used as a technique to introduce a single desirable trait from a primitive plant into an otherwise desirable plant.
- CANOPY:** the combined structure of leaves, stems and branches of a population of plants covering the soil surface, usually at some distance above.
- CHROMOSOME:** a structure in the cell which carries most of the hereditary information.
- CORTEX:** tissue in the root between the vascular bundles and the epidermis.
- CULTIVAR:** a named variety of cultivated plant.
- DENITRIFICATION:** the decomposition of nitrates in the soil by bacteria, resulting in the production of nitrogen.
- DETERMINACY:** the degree to which the shoot of a plant continues growth indefinitely, e.g. — a dwarf tomato exhibits determinate growth and a pea vine indeterminate.
- EMPIRICAL:** based on observation or experiment not on theory.
- EPICOTYL:** part of the seedling stem above the seed leaves but below the first foliage leaves.
- ERUCIC ACID:** an organic acid found in rapeseed oil.
- EVAPOTRANSPIRATION:** loss of water to the atmosphere by the combined processes of evaporation from soil and transpiration by plants.
- F1, F2 etc:** symbols used to designate number of generations after a cross.
- F.A.Q:** Fair Average Quality — a specified quality grade used in describing export consignments.
- FIELD CAPACITY:** the maximum amount of water a soil is able to hold.
- FRAGIPAN:** compact, massive or near-massive soil horizons rich in silt, sand or both, and generally low in clay. Where well developed, they interfere with moisture and root penetration.
- GENE:** the unit of inheritance located on the **chromosome**.
- GENOTYPE:** the total genetic constitution of an organism.
- GLUCOSINOLATE:** an organic component of rapeseed.
- GRAVIMETRY:** measurement of weight.
- HARVEST INDEX:** ratio of economic yield (usually seed) to total above ground plant yield at maturity.
- HEADER:** combine harvester.
- HYBRID:** the offspring of a cross between two parents of unlike genetic constitution; also used commercially to describe a variety which results for a controlled cross of two inbred lines.
- INOCULATION:** application of disease organism to host. Also application of *Rhizobium* bacteria to seed of legumes to effect nodulation.
- INOCULUM:** disease material which can infect plants or soil.
- INTEGRAL:** summing of given function over time.
- LODGING:** flattening of a crop to the ground - generally due to a combination of bad weather and weak stems.
- LUTEOVIRUS:** persistent aphid-borne virus which causes yellow-type disease in plants.
- MAPLE:** type of field pea with red-purple flowers, anthocyanin in the leaf axils, and yellow cotyledoned seeds with brown mottled seed coats.
- MARROWFAT:** type of white-flowered field pea with large irregular-shaped seeds.
- MODEL (physiological):** a simplified version of reality used to predict plant responses.
- MONOGASTRIC:** simple stomached animal; as compared with a ruminant.
- MUTATION:** a sudden variation in the hereditary material of a cell. May be a change in an individual **gene** or in the structure of a **chromosome**.
- MYCELIUM:** a collective term for the growing strands of a fungus.
- NECROSIS:** death of a cell or group of cells, while still part of a living plant.
- NODE:** part of a stem where the leaf emerges.
- PATHOGEN:** an organism causing disease.
- PEDIGREE BREEDING METHOD:** breeding method used in self pollinated crops where selection is within the offspring of single plants.
- PH:** a measure of acidity or alkalinity; pH7 is neutral, lower is acidic, higher is alkaline.
- PHENOLOGY:** study of the developmental phenomena of plants, e.g. the time of flowering in relation to climate.
- PHOTOPERIOD:** daylength, often used specifically to describe the optimum period of illumination required for a particular developmental function of a plant.
- PHOTOSYNTHESIS:** the process by which green plants synthesise carbohydrates (photosynthate) from water and carbon dioxide using energy from sunlight.
- PHOTOSYNTHETIC EFFICIENCY:** the amount of growth per unit of **PAR** absorbed by green plants.
- PHOTOSYNTHETICALLY ACTIVE RADIATION (PAR):** the part of the radiation spectrum which activates **photosynthesis** in green plants. It corresponds closely with light which is visible to the human eye.
- PLANT AVAILABLE WATER:** the proportion of total soil water in the root zone of a plant which can be extracted by the plant.
- PROPAGULE:** that form or part of an organism by which it may be dispersed or reproduced, e.g. spore.
- PULSE:** general term used to describe the dry edible seeds of leguminous plants.
- PYCNIIDIA:** cup or flask-shaped structure containing the spores of a fungus, usually found within disease lesions on affected plants.
- SEMILEAFLESS:** term used to describe pea plant type in which leaflets have been converted to a complex **tendrill** by the action of a single recessive **gene**.

**SENESCENCE:** stage of plant life when metabolic activity declines, and there is a change in physiology prior to death.

**SPORULATION:** production of spores.

**STIPULE:** basal appendage of a leaf or petiole.

**SYMBIOSIS:** the living together of two or more organisms in close association for mutual benefit.

**SYNTHETIC PYRETHROID:** chemical compound which has similar insecticidal properties to natural pyrethroids.

**TARE LEAF:** **mutation** occasionally found in peas causing reduced foliage and seed size.

**TENDEROMETER:** instrument for measuring the maturity of processing peas based on shear press principle.

**TENDRIL:** part of a leaf modified as a branched or filamentous structure, used by many climbing plants for attachment to a support by twining.

**TERMINAL INFLORESCENCE:** floral structure occurring in place of stem apex.

**THERMOGRAVIMETRIC MEASUREMENT:** the determination of moisture content by weight difference, by using heat to evaporate water from a sample after and before weighing.

**VINE:** stem of pea plant.

**VINING:** process of harvesting pea crop at processing stage by cutting and removal of foliage followed by separation of seeds from pods by threshing.

**WINDROWING:** cutting the crop and gathering into swaths prior to vining or combine harvesting. (syn: swathing).