

## Appendix B

# Glossary

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- Agricultural variety:** Modern crop or livestock variety or a locally adapted variety produced by breeders. These include older, heirloom varieties now replaced in cultivation practice.
- Air-layering:** Process of scraping the bark or outer surface of a stem, surrounding it with wet sphagnum moss, and wrapping the sphagnum in plastic to induce rooting.
- Artificial insemination:** Introduction of semen into the uterus or oviduct of an animal by other than natural means.
- Biological diversity:** The variety and variability within and among living organisms and the ecological complexes in which they occur.
- Biome:** A regional ecosystem type with similar communities of organisms.
- Biota:** The living organisms of a region.
- Breed:** A group of animals or plants related by descent from common ancestors and visibly similar in most characters. Taxonomically, a species can have numerous breeds.
- Breeding line:** Genetic lines of particular significance to plant or animal breeders that provide the basis for modern varieties.
- Budding:** A form of grafting in which a single vegetative bud is taken from one plant and inserted into stem tissue of another plant so that the two will grow together.
- Centers of diversity:** A region especially rich in the concentration of different plants. Generally associated with richness of species and genes.
- Community:** A group of ecologically related populations of various species of organisms occurring in a particular space and time.
- Cryogenic:** Involving the use of very low temperatures. For germplasm, it refers to the storage of genetic material (seeds, sperm, embryos) at or near the temperature of liquid nitrogen ( $-196^{\circ}\text{C}$ ).
- Cultivar:** International term denoting certain cultivated plants that are clearly distinguishable from others by one or more characteristics and that when reproduced retain their distinguishing characters. In the United States, "variety" is considered to be synonymous with cultivar (derived from "cultivated variety").
- Cuttings:** A plant piece (stem, leaf, or root) removed from a parent plant which is capable of developing into a new plant.
- Ecosystem:** An ecological community together with its physical environment, considered as a unit.
- Espalier:** A plant trained to grow against a flat support, as a wall or trellis.
- Ex-situ:** Pertaining to study, or maintenance of an organism or groups of organisms away from the place where they naturally occur. Commonly associated with collections of plants and animals in storage facilities, botanic gardens, or zoos.
- Exotic species:** An organism that exists in the free state in an area, but which is not native to that area. Alternately, refers to animals from outside the country in which they are held in captive or free-ranging populations.
- Extinction:** Disappearance of a taxonomic group of organisms from existence in all regions.
- Extirpation:** Disappearance of a form from existence in a local or regional area.
- Feral:** A domesticated species that has adapted to existence in the wild state, but that remains distinct from other wild species. Examples are the wild horses and burros of the West, and the wild goats and pigs of Hawaii.
- Gamete:** The sperm or unfertilized egg of animals that transmit the parental genetic information to offspring. In plants functionally equivalent structures are found in pollen and ovules.
- Gene:** A chemical unit of hereditary information which can be passed from one generation to another.
- Genome:** The genes which compose an organism. More specifically this refers to those genes found in the reproductive cells of an organism.
- Genotype:** The genetic constitution of an organism, as distinguished from its physical appearance.
- Genus:** A category of biological classification ranking between the family and the species, comprising structurally or phylogenetically related species or an isolated species exhibiting unusual characteristics.
- Germplasm:** An imprecise term generally used to refer to the genetic information of an organism or group of organisms.
- Grafting:** The technique of bringing the parts of two plants together such that they grow together, one deriving nutrients and growing from the other.
- Grow-out:** The process of growing a plant for the purpose of producing fresh, viable seed and to evaluate its varietal characteristics.
- Habitat:** The place or type of site where an organism naturally occurs.
- Hardiness:** Capability of survival under adverse

environmental conditions (e. g., cold or saline environments].

**Heirloom:** Generally refers to old varieties of crops, not found in general cultivation that have been handed down from one generation to another.

**Hybrid:** An offspring of a cross between two genetically unlike individuals.

**Inbreeding:** Mating between relatives.

**Indigenous:** Organism produced or living naturally in a specific environment.

**Landrace:** Primitive or antique varieties usually associated with traditional agriculture. Often highly adapted to local conditions.

**Minor breed:** A livestock breed not generally found in commercial production.

**Native:** A plant or animal indigenous to a particular locality.

**Newcastle's disease:** A destructive and highly contagious virus disease of birds that affects the respiratory and nervous systems.

**Off-site:** Maintenance or study of organisms away from an organism's native environment.

**Old-growth forest:** A mature forest stand growing on a site which has not been previously cut for timber production.

**On-site:** Maintenance or study of organisms within an organism's native environment.

**Open-pollinated:** Plants which are pollinated by physical or biological agents (e.g., wind, insects) and without human intervention or control.

**Panmictic:** Relating to the random mating within a breeding population.

**Phenotype:** The observable appearance of an organism, as determined by environmental and genetic influences (in contrast to genotype).

**Population:** A group of organisms (of the same species) occupying a specific geographic area.

**Potted culture:** Growing of a plant in a container.

**Predator:** An animal that obtains its food primarily by killing and consuming other animals.

**Species:** A taxonomic subdivision of the ranking genus and includes closely related, morphologically similar individuals that actually or potentially interbreed.

**Taxon:** A taxonomic group or entity (pl, taxa).

**Taxonomy:** A hierarchical system of classification of organisms which best reflects the totality of similarities and differences.

**Variety:** See *cultivar*.

**Variety testing:** Grow-out of a plant cultivar for the purpose of assessing its performance characteristics, such as production, disease resistance, and drought stress.

**Wild relative:** Plant species that are taxonomically related to crop species and serve as potential sources for genes in breeding of new varieties of those crops.

**Wild species:** An organism captive or living in the wild that has not been subject to breeding to alter it from its native state.

**Wildlife:** Living, nondomesticated animals.