

G L O S S A R Y

Viticulture

- Bark** - Tough covering of a woody stem or root external to the cambium.
- Berm** - Ridge of soil in the vine row.
- Blade** - Expanded portion of a leaf.
- Bloom** - (1) Flowering as indicated by shedding of the calyptras. (2) The waxy coating on grape berries; gives a frosted appearance to dark-colored varieties.
- Bud** - Rounded organ at the node of a cane or shoot containing an undeveloped shoot protected by overlapping scales. There are typically three buds at each node, a more developed primary bud between less prominent secondary and tertiary buds.
- Basal buds** - Small buds that lie at the base of a cane or spur as part of a whorl.
- Count buds** - Number of buds on a spur or cane not including basal buds. First count bud has 1/4 inch or more separation from a basal bud below. Transitional forms may make determination of first count buds difficult.
- Bud break** - Stage of bud development when green tissue becomes visible.
- Callus** - Parenchyma tissue that grows over a wound or graft and protects it against drying or other injury.
- Calyptra** - Fused petals of the grape that fall off the flower at bloom.
- Cambium** - Thin layer of undifferentiated meristematic tissue between bark and wood. When active, it divides to give rise to the secondary tissues, xylem and phloem, resulting in growth in diameter of stems and roots.
- Cane** - Mature (woody) shoots. See **Shoot**.
- Cap stem** (pedicel) - Stem of individual flowers or berries.
- Certified stock** - Grapevine propagation material certified free of known virus diseases by the California Department of Food and Agriculture, under regulations of the Grapevine Certification and Registration program.
- Chlorophyll** - Green pigment of plants that absorbs light energy and makes it effective in photosynthesis.
- Chlorosis** - Yellowing or blanching of green portions of a plant, particularly the leaves, which can result from nutrient deficiencies, disease, herbicide injury or other factors.
- Clone** - Group of vines of a uniform type propagated vegetatively from an original mother vine.

Glossary (continued)

Cropping

Crop - Amount of fruit borne on vines.

Crop load - Amount of crop in relation to vine's leaf surface.

Crop recovery - Crop produced from new growth following injury by spring frost.

Crossarm - Horizontal or slanting crosspiece, usually 18 to 42 inches long, attached at or near the top of the stake to extend the width of the trellis. Wires are attached at each end of the crossarm. Additional wires may be added between the outer wires on the wider crossarms.

Crown - Point at or just below soil surface where main stem (trunk) and root join. Also sometimes used by growers synonymously with the term, head, but this use should be discouraged to conform with common horticultural terminology.

Crown suckering - See **Shoot thinning**.

Cultivar - A cultivated variety.

Cutting - A portion of dormant cane, usually 14 to 16 inches long, used for propagation; may also refer to a shoot section to be propagated under mist.

Degrees Brix - A measure of the total soluble solid content of grapes, approximately the percentage of grape sugars in the juice.

Deshooting - See **Shoot removal**.

Disbudding - Removal of buds or very young shoots (less than 6 inches long).

Dormant - (1) Plants, buds or seeds not actively growing. (2) Period between normal leaf fall and resumption of growth in spring.

Drop - Abscission of flowers after bloom. When completed, fruit set stage has been reached.

Epinasty - Downward bending of leaves caused by some hormone sprays, water stress, etc.

Eye - Compound bud of a grape.

Fertilization - (1) Application of mineral plant nutrients to soil. (2) During fruit set, the union of sperm cells from the pollen tube with egg cells of the ovary.

Field capacity - Amount of water retained in a soil against the force of gravity, usually measured 24 to 36 hours after irrigation, and about equal to the moisture content at one-third the atmospheric pressure. Also referred to as water-holding capacity.

Filament - Stalk supporting the pollen-bearing stamen in a flower.

Glossary (continued)

French plowing - See **Row plowing**.

Fruit - Mature ovary (berry) or cluster of mature ovaries.

Fruit set - Stage of berry development one to three weeks after blossoming when most flowers have fallen and those remaining have set and develop into berries. Also called berry set stage or shatter stage; fruit set is preferred.

Gibberellin(s) - Plant growth regulator currently used for bloom thinning in Thompson Seedless, berry enlargement of seedless varieties and reduction of berry shrivel in Emperor.

Girdling - Removal of a complete ring of outer and inner bark from a shoot, cane or trunk. Also called ringing. This process temporarily interrupts the downward translocation of metabolites.

Glabrous - Hairless plant surface.

Grass culture - A type of management in which volunteer vegetation, mostly grasses, is allowed to grow without cultivation from late spring until sometime before or beyond harvest. Weeds are mowed periodically to control height. Grass culture differs from sod culture in that the soil is cultivated at least once a year and usually two or three times.

Green-manure crop - A crop grown and plowed under while still green to improve the soil, especially by adding organic matter.

Head - Upper portion of a vine consisting of the top of the trunk and arms. Sometimes the head is called the crown by growers; this usage is discouraged because in common horticultural terminology the crown is at the ground surface.

Indexing - Determination of the presence of disease in a vine by removing buds or other parts and grafting them onto a readily susceptible plant that exhibits symptoms of a transmissible disease.

Inflorescence - Flowering cluster of the grapevine.

Internode - Section of a shoot or cane between two adjacent nodes.

Latent bud - Bud that has remained undeveloped for a season or longer.

Lateral - Branch of the main axis of a cluster. Also a side shoot arising from the main shoot.

Layer - Long cane from an adjacent vine utilized to replace a missing vine.

Leaf - Relatively flat, thin, expanded organ growing from the shoot consisting of a broad blade, a petiole and two inconspicuous stipules at the base of the petiole.

Leaf scar - Scar left on a cane after leaf fall.

Glossary (continued)

Lenticel - Tiny porelike opening surrounded by corky tissue, often prominent on grape berries and pedicels.

Margin - Edge of a leaf blade.

Meristem - Undifferentiated tissue, the cells of which are capable of active cell division and differentiation into specialized tissues.

Node - Enlarged portion of a cane or shoot at which leaves, clusters, tendrils and/or buds are located at regular intervals.

Ovary - Enlarged basal portion of the pistil containing ovules or seeds.

Own-rooted - Vine grown from a cutting that develops its own root system as opposed to a vine grafted or budded onto a rootstock.

Pedicel - Stalk of an individual flower or berry in a cluster.

Peduncle - That portion of the rachis (cluster stem) from the point of attachment to the shoot to the first lateral branch on the cluster.

Petiole - Leaf stalk attaching the leaf blade to the shoot.

pH - Refers to degree of acidity or alkalinity as a scale of numbers from 1 (very acid) to 14 (very alkaline). pH 7.0 is neutral, representing the reciprocal of the hydrogen ion concentration and expressed in gram atoms per liter of a solution.

Phloem - Region of tissue in the plant composed of sieve tubes and parenchyma which translocates food materials elaborated by the leaves.

Photosynthesis - Process by which a plant converts carbon dioxide and water into carbohydrates. Solar radiation is the energy source for this process.

Phytotoxic - Causing injury or death of plants or portions of plants.

Pistil - Female part of the flower, consisting of a stigma, a style, and an ovary.

Pollination - Transfer of pollen from anther to stigma.

PPM - Parts per million. Concentration of a material expressed as the number of units per million units. It is the same as milligrams per liter.

Pruning

Cane - Pruning method whereby canes are retained as fruiting units.

Spur - Pruning method whereby spurs are retained as fruiting units.

Rachis - Main cluster stem including peduncle.

Ringing - See **Girdling**.

Glossary (continued)

Rooting - A young vine produced from a cutting grown for one season developing both roots and shoots.

Rootstock - Specialized stock material to which fruiting varieties of grapes are grafted to produce a commercially acceptable vine. Grape rootstock varieties are used for their tolerance or resistance to root parasites, such as phylloxera and nematodes, or for vigor.

Row plowing - Specialized type of plowing that removes the narrow ridge of soil (berm) and weeds in the vine row. Plow avoids vines and stakes in a row by means of a mechanical or hydraulic lever. A pass on each side of the row is required.

Scion - Fruiting variety that is grafted or budded onto a stock.

Serration - Toothlike indentation at a leaf margin.

Shatter - Detachment of berries from cluster, either with or without the pedicel. Has been used to indicate fruit set but should be reserved for detachment of berries after this stage.

Shelling - Abscission of flowers before or in bloom. Occurs previous to drop after bloom.

Shoot - Current season's succulent and green stem growth. It becomes a cane when more than half of its length becomes woody as indicated by tan or brown color.

Shoot removal or deshooting - Removal of unwanted shoots on the trunk of a vine below the head.

Shoot thinning - Removal of unwanted shoot growth from the head, cordon or arms of a vine when the shoots are short, usually 6 to 15 inches long. (Six-inch or shorter shoots covered under **Disbudding**.)

Shot berries - Very small berries that fail to develop to normal size; usually seedless.

Sinus - Cleft or indentation between the lobes of a leaf blade.

Sod culture - Type of management in which a permanent ground cover is kept at all times and usually mowed periodically during the growing season.

Spur - A short fruiting unit of one-year growth, usually consisting of one or two nodes; retained at pruning.

Stamen - Pollen-producing organ of a flower, consisting of the anther and a filament.

Stigma - Upper surface of pistil, where pollen grain is received and germinates.

Stock - See **Rootstock**.

Glossary (continued)

Stomate (stomata) - Tiny opening(s) bordered by two guard cells in the epidermis of a leaf or young stem which regulates the inward flow of carbon dioxide and the outward flow of water vapor lost in transpiration.

Stylar scar - Small corky area remaining at the apex of a berry after the style dries and falls off following blossoming.

Style - Portion of pistil between stigma and ovary.

Sucker - Shoot arising at or below ground level.

Suckering - Removal of shoots arising at or below ground, but a term often used by growers to include removal of unwanted shoots arising on trunk.

Tendrils - Slender twining organ on a shoot opposite a leaf that can coil around an object for support.

Tomentum - Growth of short, matted, wooly hairs on leaves or stems.

Translocation - Movement of water, nutrients, chemicals or elaborated food materials within a plant.

Transpiration - Water loss by evaporation from leaf surface and through stomata.

Trellis - Permanent vine-supporting system consisting of stakes, wire and, often, crossarms.

Trunk - Main stem or body of a vine between roots and head of vine.

Variety - Group of closely related plants of common origin and similar characteristics within a species.

Véraison - Beginning of fruit ripening.

Vine Training

Bilateral cordon - System of vine training that divides the trunk into two permanent branches, each extending in opposite directions down the vine row and horizontally supported on a trellis wire; commonly referred to as cordon training. Vines are spur-pruned.

Head - Simple system of vine training in which upright trunk is held by a stake; it terminates in short permanent arms that bear spurs or canes.

Wing - Well developed basal cluster branch, appearing separated from main cluster.

Xylem - Woody portion of conducting tissue whose function is to conduct water and minerals.