

# VOCABULARY

<b>Abiotic</b>	Relating to nonliving agents, including physical and environmental factors. Examples: precipitation, temperature, mechanical, and chemical influences.
<b>Active ingredient</b>	The ingredient in a pesticide product that controls the target pest.
<b>Alkaline</b>	Having basic (non-acidic) properties; a pH greater than 7.
<b>Alternate leaf arrangement</b>	Only a single leaf is attached at each stem node.
<b>Alternate host</b>	One of two kinds of plants on which a pathogenic fungus must develop to complete its life cycle. Example: cedar-apple rust.
<b>Annual</b>	A plant that normally completes its life cycle of seed germination, vegetative growth, reproduction, and death in a single year.
<b>Appressed</b>	Lying flat or pressed closely against something.
<b>Arthropod</b>	A group of animals characterized by having an exoskeleton made of chitin, bilateral symmetry, and segmented appendages.
<b>Asexual</b>	A type of reproduction in the absence of males.
<b>Balled and burlapped</b>	Nursery trees or shrubs that have been dug with soil surrounding the roots and wrapped with material.
<b>Bare root</b>	Pertaining to tree seedlings raised in open fields and lifted from the soil prior to transplanting.
<b>Beneficial organism</b>	An individual plant, animal, or microorganism that can provide a benefit to an aspect of plant growth, pollination, or pest management.
<b>Biological control</b>	The action of parasites, predators, or pathogens in maintaining another organism's population density at a lower average level than would occur in their absence.
<b>Biotic</b>	Relating to living organisms. Examples: pathogens (fungi, bacteria), insects, mites, and vertebrates.

<b>Blight</b>	Sudden, severe withering of leaves, flowers, shoots or fruit.
<b>Broadleaf</b>	Plants with leaves that have a flat, relatively wide surface compared to those with needle-like leaves.
<b>Broad-spectrum</b>	Insecticides that lack selectivity to a particular insect.
<b>Canker</b>	Dead, discolored, often sunken area (lesion) on a root, trunk, stem, or branch.
<b>Candle</b>	The new growth on pine and spruce trees.
<b>Catkin</b>	A tassel-like spike of closely clustered, small, unisexual flowers without petals. Examples: birch and willow have catkins.
<b>Chlorosis</b>	Yellowing of leaves, veins, or areas of leaves between the veins.
<b>Complete metamorphosis</b>	An insect's change in form during development that involves egg, larval, pupal, and adult stages.
<b>Compound leaf</b>	A leaf divided into discrete leaflets.
<b>Conifer</b>	Cone-bearing plant.
<b>Contact insecticide</b>	A pesticide that is intended to directly contact the insect and that is absorbed through the exterior of the insect.
<b>Corymb</b>	A flat-topped flower cluster.
<b>Crawlers</b>	Scale insects in their active stage.
<b>Crown</b>	The part of the tree where the trunk or main stem joins the roots and the upper canopy.
<b>Deciduous</b>	Trees or shrubs that lose their leaves every year.
<b>Dioecious</b>	Male and female flowers on separate plants; both must be present for the female to produce fruit.

<b>Disease cycle</b>	Stages of disease development and the effect on the host.
<b>Dormant oil</b>	A horticultural oil that is applied prior to bud break to target overwintering insects.
<b>Drupe</b>	Fleshy fruit with one or more stony seeds.
<b>Evergreen</b>	Plants that retain most of their leaves throughout the year.
<b>Exclusion</b>	The use of barriers to separate pests and diseases from susceptible plants.
<b>Exit holes</b>	The area of a tree or branch from where an adult wood-boring insect emerges.
<b>Frass</b>	Excrement produced by insects and other arthropods.
<b>Fungus</b>	A multicellular organism lacking chlorophyll, such as mold, mildew, smut, or rust.
<b>Gall</b>	Swelling or outgrowth of plant tissue, often formed in response to the action of a pathogen or other pest.
<b>Galleries</b>	Etchings in the wood formed from the larvae of wood-boring beetle feeding and activity.
<b>Girdling</b>	Injury to the bark, cambium, and sapwood that completely encircles the trunk or branch of a tree.
<b>Gummosis</b>	The reaction of a tree to outside stimuli like weather, pathogens, or insects, resulting in the discharge of a gummy substance.
<b>Herbicide</b>	A pesticide designed to control or kill plants.
<b>Honeydew</b>	A waste product excreted from sap-sucking insects, such as aphids, mealybugs, whiteflies, and soft scales.
<b>Horticultural oil</b>	Highly-refined oil used to control soft-bodied insects and insect eggs in the summer and the dormant season.
<b>Host</b>	A plant or animal that provides nourishment for another organism.

<b>Inflorescence</b>	The arrangement of flowers on a plant.
<b>Lanceolate</b>	Leaf shape that is longer than wide, with the widest point below the middle of the leaf.
<b>Larvae</b>	The immature stage of an insect that goes through complete metamorphosis.
<b>Least toxic</b>	Pest management products and techniques that have low or no toxicity to humans or are formulated and/or applied in a manner that minimizes exposure to humans and other nontarget organisms.
<b>Lenticel</b>	Pores in the bark of woody plants that allow gases to pass between the outside atmosphere and the interior of the plant.
<b>Microorganism</b>	An organism of microscopic size, such as a bacterium, virus, or fungus.
<b>Monitoring (scouting)</b>	Regular collection of information related to the activity, growth, development, and abundance of organisms or other factors.
<b>Monoecious</b>	Having both, male and female flowers, on the same plant.
<b>Mosaic</b>	A symptom of a plant viral disease that displays regular, light green, or yellow patches of tissue on leaves.
<b>Mulch</b>	A layer of material placed on the soil surface to prevent weed growth and reduce moisture loss.
<b>Natural enemy</b>	An organism known to control a pest species, including a predator, parasitoid, or pathogen.
<b>Necrosis</b>	Death of plant tissue accompanied by dark brown discoloration usually occurring in a well-defined part of a plant.
<b>Necrotic</b>	Dead or discolored brown plant tissue.
<b>Nutlet</b>	A small nut.

<b>Nymph</b>	The immature stage of an insect that goes through simple metamorphosis.
<b>Opposite leaf arrangement</b>	Two leaves are paired at the same node, one on each side of the stem.
<b>Organic</b>	A production or management system that utilizes fertilizers and pesticides that are naturally derived; a compound that contains molecules of carbon.
<b>Ovate leaf</b>	Egg-shaped leaf that is broadest at the base.
<b>Overwinter</b>	A stage of reduced activity and metabolism for an insect during the dormant season.
<b>Palmate</b>	Pattern of leaf veins radiating from a common point at the base of the leaf to the tips of the leaf lobes or leaflets.
<b>Panicle</b>	A branched flower cluster or inflorescence where flower stalks attach individual flowers to the stem.
<b>Pathogen</b>	A microorganism capable of causing disease. Examples: fungi, viruses, and bacteria.
<b>Perennial</b>	A plant that can live three or more years and flowers at least twice.
<b>Persistent</b>	Attached to the plant beyond the usual time of falling.
<b>Pest</b>	An organism that causes a problem to humans concerns. Examples: insects, mites, pathogens, nematodes, plants, vertebrates, microbes.
<b>pH</b>	Numerical designation of acidity and alkalinity.
<b>Phenological</b>	Related to the stages of the life cycle of a plant. Examples: bud break, leafing out, or flowering.
<b>Phloem</b>	A layer of living cells below the bark responsible for transporting nutrients and plant food compounds; the innermost layer of bark.
<b>Pinnate</b>	A compound leaf that has leaflets arranged on either side of a common stalk, sometimes in pairs opposite each other.

<b>Predator</b>	An animal that feeds on other living organisms.
<b>Preventive insecticide</b>	A pesticide applied to inhibit the infestation of insects on susceptible trees or woody ornamentals.
<b>Pupa</b>	The stage of an insect between the larva and the adult that is primarily inactive and does not feed.
<b>Resistance</b>	A change in the sensitivity of a pest population to a pesticide, which results in a failure of the pesticide to control the pest.
<b>Samara</b>	Dry, winged fruit that does not split at maturity.
<b>Sapwood</b>	The living outer portion of the wood between the cambium and heartwood.
<b>Scorch</b>	Burned appearance of leaf edges caused by either environmental factors or infection.
<b>Senescence</b>	Aging or death of plant tissue.
<b>Serrated</b>	Leaf margin with continuous, forward-pointing teeth.
<b>Sign</b>	The pathogen or its structures or products that are visible on a host plant.
<b>Simple leaf</b>	An undivided leaf where the blade is not divided into leaflets.
<b>Simple metamorphosis</b>	An insect's change in form during development that involves egg, nymph, and adult stages.
<b>Skeletonizing</b>	A pattern of insect damage that involves chewing mainly on one side of the leaf while also leaving the main vein intact.
<b>Soil drench</b>	An application of a chemical solution directly to soil at the base of the tree or woody ornamental.
<b>Sooty mold</b>	Black, powder-like fungi that grow on the honeydew secretions of sap-sucking insects.

<b>Spike</b>	A flower cluster or inflorescence that is not branched; each flower is attached directly to the main stem with no stalk.
<b>Stippling</b>	Small, white flecking injuries to leaf surfaces due to sap-feeding insects.
<b>Stomata</b>	Tiny pores in plant leaves and needles that facilitate gas exchange.
<b>Sunscald</b>	Trunk and limb tissue injury resulting from rapid temperature changes, most commonly occurring in the winter.
<b>Symptom</b>	Internal or external reaction of a plant as a result of disease or injury.
<b>Systemic</b>	A pesticide that is absorbed through the leaves and roots of the plant and moves within the plant.
<b>Target pest</b>	A pest species that a control action is intended to destroy.
<b>Threshold</b>	A set level of insect or disease infection that must be reached before treatment is required. Examples: economic or aesthetic thresholds.
<b>Two-ranked</b>	Leaves or needles arranged in two vertical lines on opposite sides of the stem.
<b>Two-valved</b>	Fruit splits down both sides when ripe.
<b>Vector</b>	An organism able to transport and transmit a pathogen to a host.
<b>Whorled leaf arrangement</b>	More than two leaves are found at the same node.
<b>Wilt</b>	The loss of water from leaves, causing collapse.