

Signs and Symptoms Glossary

Symptoms are changes in plant growth or appearance in response to biotic or abiotic factors. Examples of symptoms include dieback, flagging, wilting, and chlorosis. The same symptom, such as dieback, can be produced by multiple causes. Additionally, symptoms on one part of the plant can appear due to damage on a different part of the plant. For example, leaf wilt can be caused by hail damage to the stem. Often plants show symptoms of stress when more than one factor is affecting its growth.

Signs are the evidence of the damaging factor. Examples of signs include: chemical residue, egg masses, frass, mycelium, and spores.

Below are the most common signs and symptoms used to describe plant problems.

BLIGHT: The rapid decline and death of young plant parts. This term is often used with the name of a pathogen or the name of the host part affected (e.g., Botrytis blight, blossom blight).

BLOTCH: Dead areas of tissue on the foliage, irregular in shape and larger than leaf spots.

BROWSING: Nibbling or feeding on twigs and leaves of woody plants by animals.

CANKER: A defined, necrotic, often sunken or cracked lesion on a twig, branch, stem, or trunk of a plant. The canker may be surrounded by living tissue or it may enlarge to girdle the affected plant part, killing all plant parts beyond it.

CHLOROSIS: The yellowing or whitening of green plant parts as a result of chlorophyll breakdown or production failure.

CLIPPING: Nibbling or biting the end of a stem or branch into short sections, typically less than three inches, by animals.

CONK (also Conch): A term to describe the large fruiting bodies (sporophores) of wood-rotting fungi that form on tree trunks, branches, or stumps.

CURL: Rolling, cupping, or puckering of leaves.

DEFOLIATION: The loss of plant leaves.

DIEBACK: The progressive death of shoot or branch tips. This symptom may be caused by a root or stem-related disease, insect injury, nematode feeding and a number of abiotic factors, such as winter injury or moisture stress.

DISAPPEARANCE: The removal of plant parts (stems, leaves, fruit, etc.) by animals without any plant material debris being left behind.

DISCOLORATION: A change in leaf color.

EPINASTY: An abnormal, downward-curving growth or movement of a leaf resulting from more rapid growth of cells on the upper side than on the lower side of the leaf stalk.

EXCAVATION: Movement of soil due to animals digging while in search of food or harborage.

EXUDATE: A plant product (often a liquid) that is released from inside the plant to give the tissue surface a shiny and sticky appearance.

FLAG: A symptom describing a drooping branch with dead leaves intact on an otherwise healthy plant.

FRUITING BODY: Various shaped structures that contain the spores of a fungus.

GALL: A plant symptom describing an overgrowth or swelling of some plant part.

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GIRDLE: The enlargement of a disease canker or a plant wound that results in an encircling of the plant.

GNAWING: Biting or chewing on a woody stem, branch, or trunk by an animal.

HYPHA (pl. hyphae): A filament or thread-like structure that composes the body of a fungus (mycelium).

LEAF SPOT: An obvious, defined lesion or area of diseased tissue, on a leaf.

LESION: A localized area of diseased tissue.

MOSAIC/MOTTLE: Diffuse light and dark green or yellow and green coloration on foliage.

MYCELIUM (pl. mycelia): The vegetative body of a fungus, composed of slender strands (hyphae).

NECROSIS/NECROTIC: Dead plant tissue. Color may be brown, black, tan, or gray.

MILDEW/MOLDY: Fungal disease of plants in which the mycelium and spores of the fungus can be physically seen growing on the plant. It is typically a fuzzy growth on a damp or decaying surface.

PUSTULE: A blister-like symptom that may cause the epidermis to rupture, revealing the spores of the pathogen.

RINGSPOT: Chlorotic or necrotic ring patterns (with green centers) on plant tissue.

RUBBING: Damage to woody stems or trunks as a result of animals rubbing their antlers, horns, trunks or other body parts against the plant.

RUGOSE: The blistered or warty, crinkled foliar parts of an affected plant.

RUSSET: A tan-to-brown, rough-skin discoloration of fruits, tubers, or leaves.

RUST: A disease giving a “rusty” appearance to a plant. The pustules formed have a reddish-brown coloration.

SCLEROTIUM: Small, hard overwintering fungal structures composed of tightly woven hyphae. These may be variable in size and color.

SCORCH: A marginal, tip, or interveinal pattern of tissue burn exhibited on foliage.

SHOT-HOLE: Small fragments of leaves falling off and leaving small holes in the leaf tissue. Can also be used to describe some insect feeding injury.

STRIPPING: The removal of bark from a woody stem or branch by an animal using its teeth and/or feet.

STUNTING: Abnormally small plant growth.

VASCULAR DISCOLORATION: Darkening of the plant’s vascular elements.

VEIN BANDING: Tissue along leaf veins is darker in color than the tissue between veins.

WILT: The loss of rigidity and drooping of plant parts, usually resulting from insufficient water transport to the aerial portions of the plant.

WITCHES’ BROOM: A broom-like growth or mass proliferation caused by the dense clustering of branches and leaf tissue.