Leaf & Needle Drop

A well-cared-for plant in the landscape that suddenly begins dropping leaves or needles can be a very troubling sight. There is usually no need to be alarmed, since leaf and needle drop often occurs as a natural part of the yearly growth cycle of many plants. Most evergreens will naturally drop their older needles or leaves (closest to the trunk) after a number of years, making the term "evergreen" plant misleading. Examine your plant closely to determine if leaf drop is occurring due to natural causes or is a result of an environmental stress.

Broad-Leaved Evergreens

Spring Leaf Drop: In the spring many broad-leaved evergreens such as holly and Southern magnolia, drop many of their oldest leaves as new growth begins. The older leaves seem to turn uniformly yellow suddenly throughout the entire plant before dropping. The younger leaves at the branch tips remain healthy and green. New growth at the tips of the branches is often evident at this time. Once the yellow leaves drop off, no further yellowing or leaf drop occurs.

Summer or Fall Leaf Drop: Other broad-leaved evergreens such as rhododendron and euonymus shed their leaves at times of the year other than spring. Leaf drop usually occurs in the summer or early fall when the leaves are two to three years old. This period of leaf drop occurs following the maturing of the current season's growth.

Narrow-Leaved Evergreens

Needles of narrow-leaved evergreens, such as junipers, pines and arborvitae, may shed their oldest leaves or needles in the late summer or early autumn. Most pine trees drop their needles in the fall, but some species may drop needles at other times also. The natural yellowing of the older needles occurs uniformly from the top to the bottom of the tree. Needles at the tips of the branches stay green. This is a normal part of the plant's growth cycle, so nothing needs to be done.

The needles on narrow-leaved evergreens usually last about three years, although some juniper needles may last for 10 years or more. Arborvitae and white pine needles turn brown or yellow and drop in the autumn of the second year. Yew (Taxus species) needles commonly turn yellow and drop in the late spring or early summer of the third year. During this time, older needles should be shed and not the current season's growth. If the new growth is turning yellow or brown, it may be caused by other stresses such as insects or disease.

Other Causes of Leaf Drop

Various environmental stresses can also cause leaf and needle drop of evergreen and deciduous plants. The most common of these is drought or too much soil moisture. Nitrogen deficiency causes the older leaves of a plant to turn yellow. Air pollution, insect infestations or disease can all cause similar symptoms. Always check your plants closely to determine the true cause of its leaf or needle drop.

Prepared by Nancy Doubrava, HGIC Horticulture Specialist, and Bob Polomski, Extension Consumer Horticulturist, Clemson University. (New 05/99.)

This information is supplied with the understanding that no discrimination is intended and no endorsement by the Clemson University Cooperative Extension Service is implied. All recommendations are for South Carolina conditions and may not apply to other areas. Use pesticides only according to the directions on the label. All recommendations for pesticide use are for South Carolina only and were legal at the time of publication, but the status of registration and use patterns are subject to change by action of state and federal regulatory agencies. Follow all directions, precautions and restrictions that are listed.