

Leyland Cypress—Flawed Beauty

by Susan Camp

“They aren’t looking too good”, I told my husband a few weeks ago, as I surveyed our three remaining Leyland cypress trees. There had been six trees, planted by the original owners as a screen between their property and the one next door. When we bought the property in 1994, all six trees were strong and healthy. We lost the first one in the 1998 ice storm. Heavy accumulations of ice and snow can damage branches and split the multiple trunks of Leyland cypress. The other two trees were destroyed during Hurricane Isabel in 2003. Now, we are noticing changes in the remaining three, primarily browning of the needles on lower branches.

Leyland cypress (*x Cupressocyparis leylandii* or, more recently, *Callitropsis x leylandii*) is a fast-growing, attractive evergreen with feathery, blue-green foliage. It is frequently planted in rows to form either a windbreak or a privacy screen. Leyland cypress can grow 3-4 feet a year to reach a height of 60-70 feet. The trees can be left to grow naturally or topped to form a thick hedge.

The popularity of Leyland cypress has led to increasing incidence of disease and ultimate tree death. Because the trees often are planted in close proximity, sometimes in inappropriate soil environments, what were once relatively infrequent diseases are now commonly seen. Leyland cypress requires full sun and well-drained, acidic soil with average moisture and does not tolerate drought conditions, according to Virginia Cooperative Extension publication HORT-18. Stress caused by drought or winter ice and snow also contributes to the development of disease.

Seiridium canker, caused by the fungus *Seiridium unicorne*, damages the most trees. Cankers, which are purplish or brownish lesions, appear on the bark of stems and branches, exposing the tree’s internal tissue. Resin may be observed oozing from the cankers, although resin alone may not be diagnostic of disease. Branches turn reddish-brown and die. Fungal fruiting bodies may be seen on careful inspection as black dots on the branches. Spores spread to other trees primarily by dirty tools or from water splashing.

Botryosphaeria canker or “Bot” is caused by the fungus *Botryosphaeria dothidea*. The appearance of a Leyland cypress infected with *Botryosphaeria* canker is similar to that of a *Seiridium*-infected tree, although resin usually is not observed seeping from the cankers. Bot cankers may be a foot or more in length. Bot spores look like pimples on the canker surface. They may be spread by wind, as well as by water or dirty tools.

North Carolina State Plant Pathology Extension publication “Diseases of Leyland Cypress” recommends cleaning gardening and pruning tools with either rubbing alcohol or a solution of 1 part household bleach (sodium hypochlorite) to 9 parts water. All diseased and dead branches should be removed and destroyed, preferably by burning. There currently are no chemicals available to destroy either *Seiridium unicorne* or *Botryosphaeria dothidea*.

Cercospora needle blight is a third fungal disease of Leyland cypress, caused by *Cercosporidium sequoiae*. Needles on the lower crown turn brown first, from the inside out and from the bottom up. Cercospora needle blight may be misdiagnosed as severe stress. The infection occurs more frequently during rainy periods in the spring and summer. Spores are spread by wind. Fruiting bodies look like small, green pustules on twigs or needles. Copper-containing fungicides are effective. Contact a Gloucester Master Gardener at (804) 693-2602 on Thursdays between 2:00-4:00 p.m. for information on safe use of pesticides. Master Gardeners also are available at the Gloucester Main Library on Tuesdays between 11:00 a.m. and 1:00 p.m.

In addition, two types of fungal root rot may cause the demise of Leyland cypresses: Phytophthora root rot, caused by *Phytophthora cinnamomi* and Annosus root rot, caused by *Heterobasidion annosum*. Often, by the time symptoms of root rot appear on the foliage, too much damage has occurred to the roots to save the tree.

That is the bad news. The good news is that thousands of Leyland cypresses thrive and live long, healthy lives without evidence of fungal disease. If disease necessitates removal of your Leyland cypresses, Clemson University Home and Garden Information Center publication 1025 suggests alternative plantings, including Green Giant arborvitae (*Thuja plicata* 'Green Giant') for moist sites and Arizona cypress (*Cupressus arizonica*) for dry, full sun environments. Other possibilities are varieties of hollies, Southern magnolia, and wax myrtle (*Myrica cerifera*), native to our area and tolerant of sand and salt.

If you observe changes to the foliage or bark of your Leyland cypress or other trees, you can contact Tree Stewards through the Gloucester Extension Office. Tree Stewards are Master Gardeners who have completed an advanced course of study in arboriculture. Tree Stewards make home visits and can provide you with scientific resources to help identify diseases, stress, or other tree problems. The service is free. In recent months, several visits we have made to Gloucester properties have involved problems with fungal disease in Leyland cypress trees.

Do our Leyland cypress trees suffer from fungal disease? After reading the articles cited above and observing diseased trees, I don't think so. As other trees on our property have grown up and out, our Leyland cypresses are no longer in full sun. The lower branches have become shaded by the expanding foliage of other trees and are turning brown. If I begin to suspect fungal disease, I will call on my fellow Tree Stewards to help me identify the organism. For now, we will practice watchful waiting and hope these lovely evergreens will survive and thrive.

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