

Diseases of Leyland Cypress

Leyland cypress (*Cupressocyparis x leylandii*) is a feathery-leaved evergreen that has rapidly gained popularity in Mississippi. A reputation for rapid growth and hardiness have made Leyland cypress a popular choice for Christmas trees, privacy hedges, and windbreaks. These uses, coupled with the climate and site conditions common in Mississippi, can reduce the vigor of Leylands and make them more susceptible to certain diseases.

Diseased Leylands in Mississippi often are seen growing on low-lying sites or sites that have heavy clay soils and poor drainage. Leylands require well-drained soil and do not appear to tolerate “wet feet.” Poorly drained soils increase plant stress and susceptibility to disease. Trees on sites with poor drainage often have severe twig dieback problems, whether they are open-grown or in hedges.

Needle and Twig Dieback

Several fungi, including *Cercospora sp.* and *Pestalotiopsis sp.*, can cause browning of foliage and dieback of twigs and branches. These fungal pathogens favor moist, humid leaf conditions. Air circulation often is poor in hedge and Christmas tree plantings, providing an ideal environment for fungi to thrive.

Damage from *Cercospora* is characterized by leaf browning that begins near the branch base and progresses toward the branch tip. Infections usually begin near the base of the tree. *Cercospora* infections can be severe and lead to tree death if left unchecked.

Damage from *Pestalotiopsis* is usually minor and is characterized by brown spots that progress backward from the tip of the needle.

Control

Space trees adequately. Leylands grow quickly, so consider tree growth when spacing plantings. You can thin dense plantings by removing every other tree. Proper spacing promotes air circulation and reduces stress from root competition.

Applying a copper fungicide (Kocide, Southern Ag Liquid Copper Fungicide, or Monterey Liqui-Cop) or thiophanate methyl (Ferti-lome Halt) is helpful in prevention, especially when environmental conditions encourage disease. You should apply fungicides every 7 to 14 days from bud break until the new growth is mature. Commercial growers may wish to use azoxystrobin (Heritage) or myclobutanil (Eagle) applied according to label directions.

Canker Diseases

Two cankers occur on Leylands grown in Mississippi: *Seiridium* and *Botryosphaeria*. Both cankers are caused by fungi that grow beneath the bark of the tree, disrupting the water flow. Eventually the fungus will completely circle (girdle) the tree. As the canker grows, everything above the canker turns brown and dies from lack of water and nutrients.

Seiridium Canker

Cankers caused by *Seiridium unicorne* appear on twigs, branches, and the trunk. Cankers are oval-shaped (longer than they are wide), dark brown to purple, and may have small, black pimple-like structures embedded in them. The black structures are the spore-producing fruiting structures of the fungus. Spores produced during moist conditions are spread by water splash and contaminated pruning tools.



The cankers often ooze resin. Resin flow is less pronounced on older trees or trees in poor vigor. Needles on affected branches become bronze-colored as they die, typical symptoms of water stress.

Botryosphaeria Canker

Stressed trees are more susceptible to *Botryosphaeria* canker, caused by *Botryosphaeria dothidea*. The cankers often are very long, and the surface of the canker may look flat. Fruiting bodies of the fungus are usually evident as black pustules embedded in the outer surface of the canker. Needles on affected branches become bronze-colored. Unlike *seiridium* canker, resin does not typically flow from *Botryosphaeria* canker.

Control

Maintaining vigorous trees is important in preventing both canker diseases. Avoid water and root stresses caused by watering too much or too little, planting too deep, and overcrowding.

Chemical controls are not available. You should prune infected limbs at least 1 inch below the canker. Sterilize pruning equipment with rubbing alcohol or a 10 percent bleach solution between every cut to avoid spreading the pathogen.

Note: Chemical labels change; always get current information about usage, and examine a current label before applying any chemical. Always follow label directions when applying chemicals.

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By **Clarissa Balbalian**, Plant Pathology Diagnostic Laboratory Manager

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Information Sheet 1658

Extension Service of Mississippi State University, cooperating with U.S. Department of Agriculture.
Published in furtherance of Acts of Congress, May 8 and June 30, 1914. MELISSA J. MIXON, Interim
Director

(POD-09-09)