Diplodia Tip Blight

DAVEY Institute

TREE DOCTOR TIPS

Diplodia Tip Blight
(Diplodia pinea)

DESCRIPTION:

Diplodia tip blight of pines (formerly known as Sphaeropsis tip blight) is caused by the fungus *Diplodia pinea*. The fungus can live in dead needles, branches, and cones of the tree all year round.

HOSTS:

The disease is primarily seen on Austrian, Mugo, Red and Scots pines, but sometimes attacks other conifers like spruce and fir as well.

BIOLOGY AND SYMPTOMS:

Symptoms include:

- Brown, stunted new shoots with short, brown needles
- Needles on infected shoots turn tan to dark brown
- Close inspection of the dead needles' base reveals fungal fruiting bodies in the form of resin drops and black specks

Diplodia pinea spores develop in the black fruiting bodies formed on needles, fascicle sheaths, second year cones and bark scales. In early spring, spores spread during a string of rainy days or days with high humidity. From April through November, fungal spores develop, but the current year pine needles are only susceptible for infection during early spring when the shoots are actively elongating.

Second year seed cones are susceptible to infection. Cone damage is rarely severe and the black fruiting bodies can be seen by closely inspecting the cone scales and provides a good diagnostic tool.

MANAGEMENT:

Fungicide applications help reduce infections in new shoots. New growth must be protected from bud swell to full expansion of the candle. It's important that the first application is administered on the tree prior to bud break and before candles emerge out of the sheath. Two or three fungicide applications may be needed.

Removing blighted shoots won't decrease spore numbers because the spores are produced on the cones. However, blighted shoot removal helps the tree look better and may increase its vitality.

Trees should be kept in good health with regular maintenance, watering during droughts and routine fertilization.

Individual trees vary in their susceptibility to this disease. Trees with heavy levels of disease are best removed from the landscape.

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FIGURE A. SHORT BROWN NEEDLES ON NEW SHOOTS STUNTED BY TIP BLIGHT

*The scientists at **The Davey Institute** laboratory and research facility support our arborists and technicians in diagnosing and prescribing based on the latest arboricultural science. For specific treatment and application details, your arborist may consult The Davey Institute PHC Handbook.*