Diplodia Tip Blight

Diplodia causing the branch tip to be stunted and brown (2).

Branch canker caused by Diplodia covered in resin (1).

The Fungus

Diplodia tip blight is a common fungus that affects stressed conifer trees. Pines with two- or three-needle fascicles. Austrian pine is most at risk, but Scots pine, Mugo pine, Ponderosa pine and red pine are also susceptible. This disease was previously known as Sphaeropsis tip blight[2].

Signs & Symptoms

- New growth is stunted and turns brown. These needles become glued to the twigs because of excess resin.
- Dead needles can be spotted on the lower end of the tree moving upward.
- White or clear resin will be present on dead twigs and twigs with cankers[1].

Positive Identification

Dead and dying new and old growth will be present, especially amongst the lower branches of infected trees. Spore-producing 'pycnidia' are small black structures found at the base of needles, on cones or bark.

Implications for Minnesota

Diplodia damages older trees and is seen more often in ornamental-type trees, which are found in harsher sites which can prevent a variety of stressors[1]. Dormant Diplodia-causing fungi can exist in a tree for years before attacking once the tree becomes stressed, which causes a gradual but steady decline in tree health[2].

Management & Control Considerations

- Do not fertilize infected trees.
- Sanitize tools in between pruning of conifers.
- Do not stress trees, especially during the growing season.
- Plant native pines from local seed sources.
- Fungicides can protect new growth, but will not prevent cankers.

Sources

1) https://extension.umn.edu/plant-diseases/diplodia-shoot-blight-and-canker
2) https://www.mortonarb.org/trees-plants/tree-and-plant-advice/help-diseases/diplodia-tip-blight

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