

CHAPTER EIGHTEEN

Tip Blight of Pine

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Tip blight of lodgepole and ponderosa pine seedlings is a disease of unknown cause. *Phoma* species have been isolated, but their actual ability to cause tip dieback has not yet been demonstrated in pathogenicity tests. Tip blight has occurred at nurseries in Oregon, Idaho, and Montana. Death of the upper portion of the shoot is usually seen

Tip blight may be
confused with:
Frost damage
Pesticide damage
Sirococcus tip blight

in the spring and summer of the 1+0 or 2+0 year (Figure 18-1). Terminals and laterals may be affected. Killed shoots may form a crook, and needles on the killed stem die and turn brown. Multiple infections on the main stem and laterals can occur. These symptoms are similar to those caused by *Sirococcus strobilinus*, the cause of Sirococcus tip blight.

Tip blight symptoms appear:
2+0
Spring through summer

The incidence of disease increases after periods of high humidity. The



Figure 18-1. Seedling with upper portion of shoot killed. Infection of stem tissue results in a canker which eventually girdles the stem. Isolations from these stem cankers typically yield *Phoma* species.



Figure 18-2. Field losses due to tip blight of pine.

disease appears randomly throughout the seedbeds, although some seedlots have a much higher incidence of the disease than others (Figure 18-2). Losses are usually minor, with healthy laterals on many of the affected seedlings assuming dominance and growing sufficiently so that the seedlings are shippable at the end of the rotation. Mortality is rare.

Fungicides such as chlorothalonil may reduce the occurrence of tip blight if applied periodically in the spring and early summer of the growing season, beginning before the disease is seen. New infections decrease significantly with the onset of warm, dry weather; treatment is rarely necessary after mid-summer.

Selected references

- James, R.L. 1984. Tip blight of ponderosa pine seedlings at the Fantasy Farms Nursery, Peck, Idaho. Report 84-3. U.S. Department of Agriculture, Forest Service, Northern Region. 7 p.
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