

SOUTHERN PINE TIP BLIGHT IN FOREST NURSERIES

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A tip blight and subsequent dieback of loblolly and slash pines have been observed for the past three growing seasons in our southern nurseries. Nurserymen in Florida, Georgia, Texas, Arkansas, Alabama, Mississippi, and South Carolina have reported the problem. Outplanting of infected seedlings revealed good survival (91 percent) after six months.

Symptoms begin as a reddening of the tips of needles near the terminal bud. As the disease develops, the terminal bud is killed and a purplish constriction forms on the dead tissue. In advanced stages, only two to three inches of the terminal dies. Often a seedling will extend the terminal again and thus overcome the infection. Initial needle reddening occurs in late July or early August. Tests to determine the causal agent(s) by the Southeastern Forest Experiment Station have implicated a Diplodia sp., a fungus which has caused a dieback of nursery seedlings in the Lake States and Great Plains. Two additional fungi, Sphaeropsis and Phomopsis, have also been associated with the problem, but these fungi may either be weak pathogens or foliage saprophytes.

Tip blight can be suppressed following initial symptom expression by applying the fungicides Bravo 50F or Bravo 75WP (2 1/2 lbs./100 gals. water at bi-weekly intervals in August and September. Another fungicide, Benlate, can also be used (8 ozs/100 gals. water on the same spray schedule. A cost-benefit analysis conducted at the Ashe Federal Nursery in Mississippi indicated that foliage fungicidal spray costs equalled protected seedling benefits when seedling infection was .6% and Benlate was used. However, the relatively low level of tip blight observed in most nurseries to date along with the high survival rate of outplanted diseased seedlings nullifies any apparent present necessity for control recommendations such as systematic fungicidal sprays and/or diseased seedling culling practices.