Pine Tip and Pine Shoot Moths

DAVEY Institute

TREE DOCTOR TIPS

Pine Tip and Shoot Moths *(Rhyacionia frustrana and Rhyacionia buoliana)*

DESCRIPTION:

Pine tip and pine shoot moths are the caterpillars of moths that attack conifer trees, causing a drought-like appearance to the tree.

HOSTS:

Pine trees are the primary hosts for the European pine shoot moth and Nantucket pine tip moth. Specifically, Austrian, lodgepole, loblolly, mugo, Scots, ponderosa and red pine are susceptible.

BIOLOGY AND SYMPTOMS:

Pine tip and pine shoot moth adults emerge in late spring or early summer. The adults lay eggs that hatch into small caterpillars that weave a yellowish-white web for protection, and then proceed to feed on needle bases and eventually tunnel the center of the pine shoot. The insects feed on the inner part of the shoot, causing it to turn brown. This can cause the full branch to droop or curl. In severe cases, the tree will develop a red tint and appear as if it is drought stricken.

MANAGEMENT:

Pruning infested branches can help control damage to the tree. Pine tip and pine shoot moth caterpillars or pupae overwinter in infested shoots until spring. Pruning branches that are currently damaged will help eliminate the pests for the following year. In addition, an insecticide treatment can be used to prevent young caterpillars from tunneling into tree shoots. Talk to a professional arborist about treatment options that are available. Treatment is most effective in late spring and mid-summer when pine tip and pine shoot moth caterpillars are in their adolescent stage.


A


B


C


D

FIGURE A. PINE WITH BROWN, DEAD SHOOT TIPS CAUSED BY THE LARVAE OF THE PINE SHOOT MOTH

FIGURE B. FEEDING LARVAE OF THE PINE SHOOT MOTH
(*Photo credit: Mariusz Sobieski, Bugwood.org)*

FIGURE C. ADULT NANTUCKET PINE TIP MOTH
(*Photo credit: Clemson University - USDA Cooperative Extension Slide Series, Bugwood.org)*

FIGURE D. ADULT PINE SHOOT MOTH
(*Photo credit: Gyorgy Csoka, Hungary Forest Research Institute, Bugwood.org)*

*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.*