

## Eastern Pine Shoot Moth is a Problem

*We are finding an increase in pine shoot borers. This appears to be a major problem where people have planted monocultures of white pine or Scotch pine. This is seen quite often in commercial grounds. The terminals of pines turn brown and bend down like an inverted 'U'. We think it is a problem with eastern pine shoot borer. What can be done for control?*

—PENNSYLVANIA

Eastern white pine and Scotch pine are favorite trees for eastern pine shoot borer, *Eucosma gloriola*. However, other pines, as well as, occasionally, Douglas fir and other conifers, can also be attacked by this insect.

Adults of this pest, a small moth (14-16 mm), are rarely seen. Their larvae produce characteristic straight tunnels, with frass tightly packed at either end. Also look for oval or oblong exit holes near the tunnel base. This area will be discolored and reddish-brown.

Understanding their biology will help manage them. The borer overwinters as pupa in duff under the host tree. Adults emerge about this time when new candles grow (around late-April or early-May in your area). Adults lay yellow, flat eggs, either one at a time or in groups, for two to four weeks on the new twigs or needle sheaths. After 10 to 15 days, the eggs hatch and the larvae enter the shoot behind needles, boring directly into the pith.

For the next 1½ - 2 months, the larvae make straight tunnels and move downward. They later move upward, packing the frass tightly on both ends of the tunnel. Most feeding activities are completed by late-June and girdle the shoot internally at the base. Damaged shoots may show a typical shepherd's crook (inverted 'U'). The larvae make tiny oblong or oval exit holes, drop to the ground and spin silken cocoons in the duff.

Within two days they pupate and remain dormant until the following spring. This pest has one generation per year.

Early detection of infested terminals is helpful for management, although this can be difficult. Look for slightly yellowed shoots with stunted or retarded needle growth. In some situations, wilting of terminals may be evident. Selective pruning of affected terminals will help manage this pest. Pruning should be done early in the season to avoid pest population build-up. Apply pesticide treatments, Orthene or Talstar, when eggs hatch and larvae are entering the shoots and in mid-summer when larvae are exiting to pupate. *B.t.* can also be used at the time the eggs are hatching.

Read and follow label specifications for best results.

## An Unpleasant Mess

*On the mulch bed once in a while we find some mold-like growth. Its appearance is ugly and resembles like some animal excrement or vomit. What is it? What causes this? Is it harmful to the tree*

*or shrubs growing nearby. Most of these appear as whitish yellow to start and later change to a black, unsightly crust like mess. Some of these range from 6"- 18" in diameter. Is there anything we can do to get rid of this?*

—MICHIGAN

From your description of the mold like growth on mulch, the problem appears to be caused by a slime mold. Their sudden appearance in ornamental beds or other areas cause concern to people. It is not a disease and generally is not harmful to nearby plants. It is primarily an aesthetic problem. It belongs to the class Myxomycetes, a group between bacteria and fungi. They have two developmental stages. The first stage is the slimy, often colorful, plasmodial, mobile stage. Under cool, moist condition it grows rapidly.

The second stage of their life cycle resembles more closely a fungus by producing fruiting bodies. In this stage they produce lots of spores for dispersal. The crust-like ugly 'mess' that you have described is their fruiting body. When disturbed these fruiting structures release spores which will be dispersed into the air.

Generally, there is no need to manage saprophytic slime mold growth. However, for aesthetic reasons the slime molds can be removed by raking, brushing or scooping with a shovel and then washing the affected area with a jet of water. **LM**



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