



ENTFACT-405

MAPLE PETIOLE BORER

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Symptoms

A sudden drop of many sugar maple leaves in June may be due to injury by a small wasp larva that burrows in leaf petioles (stems). The stems usually break at a darkened area near the leaf blade. Usually infestations are limited to sugar maples and only about 25% to 30% of the leaves fall to the ground. While spectacular, the leaf drop has little effect on tree health. Buildups of scales or aphids, or drought stress can cause leaf loss but these typically occur later in the year. Leaf drop due to borers is seen earlier in the season and the leaf blades may still be green. Leaves from trees stressed by sucking insects or drought usually have turned yellow before they drop. Splitting the petiole carefully near the leaf blade should reveal the larva or the tunnel.

Biology

There is one generation each year. Infestations begin as the adults, small wasps about 1/6" long, appear in May and lay their eggs in petioles near the leaf blades. Legless, white grubs with distinct light brown heads hatch from the eggs and tunnel inside the leaf stem for 20 to 30 days. The weakened stem breaks and the leaf floats to the ground.

The borer larvae generally remain in the portion of the stem left on the tree. About 10 days after leaf drop, the rest of the stem falls to the ground. The mature larva, about 1/3" long, leaves the stem through a hole in the side and burrows into the soil. It will change to the pupal stage and remain in the soil until the following spring.

Control

Maple petiole borer infestations are infrequent and unpredictable. Also they do not appear to harm tree health so insecticidal control is not recommended. In addition, probably preventive treatments, applied well before leaf drop, would be necessary. It may be possible to reduce future infestations by picking up and destroying infested stems, the short sections without leaves, about 7 to 10 days after the first leaves fall. This sanitation program needs to be continued throughout the leaf drop period and must include all infested trees in the vicinity to be most successful. Raking and disposing of the leaves will not reduce the population because the insects are not in that portion.