

COMMON SAP FEEDING PINE PESTS

Lee Townsend, Extension Entomologist

The sap feeding insects that attack pine usually build up gradually and large numbers are present before obvious . The symptoms that they cause can range from stunted, discolored needles to white spots on needles to snow-like patches on trunks and main branches. Some produce large amounts of a sugary liquid waste " honey dew" that supports the growth of sooty mold fungus. Usually, the aesthetic impact of these insects is greater than the threat to plant health.

Pine Needle Scale



Pine needle scales are easily recognized by their narrow white waxy covering with a yellow spot at one end. Mugho and Scots pine are most commonly attacked but nearly all needle-bearing conifers can become infested. Moderate infestations can give a gray cast to the entire tree or shrub and needles may be yellow and stunted. Heavy scale infestations can kill entire branches. In extreme cases, small trees or shrubs Eventually, the entire tree can develop a sickly appearance and may die.

There are two generations each year so proper timing of insecticide treatments is essential for best results. This scale overwinters as a red egg underneath the white covering of the female. The eggs hatch in late April to early May and the mobile "crawler" stage of the first generation moves to feeding sites on the needles. Crawlers do not have a waxy protective covering and are the stage most susceptible to control measures. Once settled, the crawler remains in place and continues development to the adult stage. Crawlers of the second generation are active in mid- to late July.

Insecticidal soap, diazinon, Dursban (chlorpyrifos), malathion, or Orthene (acephate) may be used to control

the crawlers. Thorough spray coverage is needed for control. A dormant oil spray in late March or early April before new growth develops also can be an effective control measure. Apply a dormant oil only when temperatures will not go below 40° F for 12 to 24 hours. Oil-sensitive plants listed under the Precautions section of the label should not be treated.

Egg hatch can vary from year to year so careful examination of needles for the small crawlers is necessary to determine when treatment should be made. Use a hand lens to examine the needles carefully for these small insects.

Pine Bark Adelgid



Pine bark adelgids are small, dark, aphid-like insects that are covered with a cottony wax secretion. They occur on the smooth bark of trunks and limbs; heavy infestations look like a covering of whitewash. While some can be found at the bases of needles or on terminal buds, these insects feed only on bark.

Females overwinter and lay their eggs in the spring. The adelgids reproduce

repeatedly and there can be as many as five generations in a year. Trees in home landscapes, parks, and recreational areas can become heavily infested by this insect but there appears to be no permanent damage to healthy trees.

Use a dormant oil in the spring before new growth develops. Insecticidal soap or malathion can be used in mid- to late May to reduce the population. A strong stream of water also can be used to wash many adelgids from small trees.

Pine Aphids

Aphids are soft-bodied insects that are easily identified by the two tail pipes extending back from the abdomen. Feeding by large numbers of white pine aphids removes plant sap and disrupts food movement within the needle. This stunts the growth of branches on larger trees and may result in the death of small trees. "Honey dew", the liquid waste produced by aphids and some other sucking insects, can build up and support the growth of sooty mold. This fungus gives trees a dirty appearance.



Infestations begin in the fall as the dark, winged female aphids arrive and lay groups of five to six eggs in a row on needles during the fall. The eggs will hatch in the spring; the wingless aphids that emerge from them will bear live young. The population can increase rapidly to damaging levels. Watch for winged aphids and eggs in the fall. In the spring and summer, examine the tender terminal foliage for clusters live aphids.

These soft bodied insects are exposed on the tips of branches and spray coverage is easy to obtain on small to moderate-sized trees. Insecticidal soap can provide excellent control as well as products such as acephate (Orthene), Diazinon, and malathion. All of these work by direct contact with the pest so good coverage is necessary.