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SP290-P White Pine Aphid

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Agricultural Extension Service
The University of Tennessee
SP290-P

Insects

White Pine Aphid

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originally developed by Jaime Yanes, Jr., former Assistant Professor
and Harry E. Williams, Professor Emeritus
Entomology and Plant Pathology

The white pine aphid, Cinara strobi (Fitch), occurs wherever Eastern white pines are grown. This pest uses its needle-like mouthparts to suck sap from twigs and branches. Severely infested parts of trees turn yellow and drop their needles.

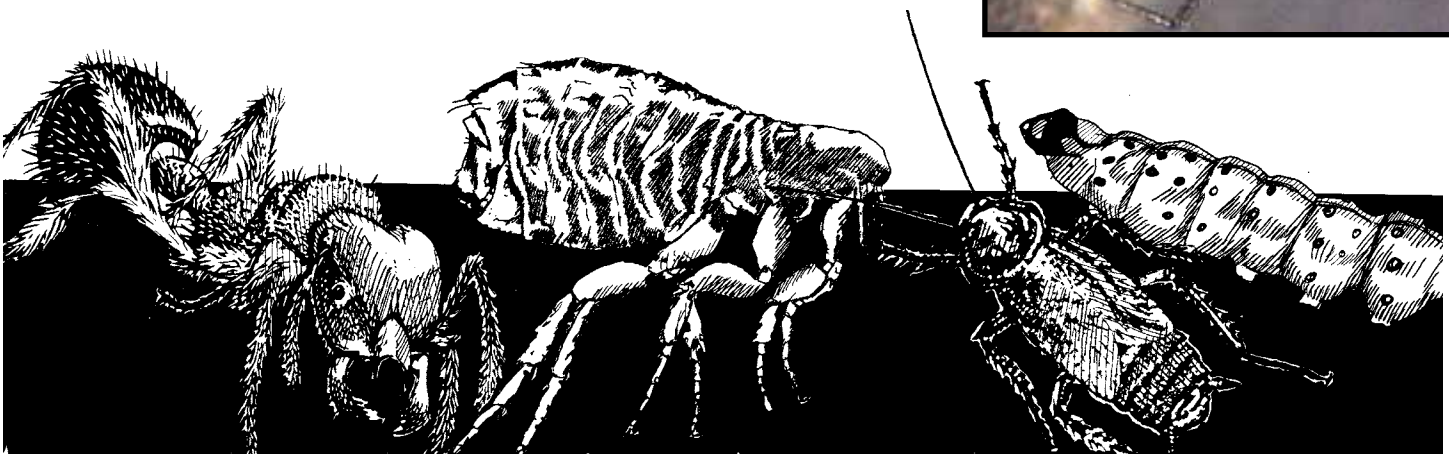
White pine aphid adults are large (¼ inch long), long-legged, and spider-like in appearance. The body is shiny dark brown with a white stripe down the middle of the back. White powdery spots on the sides are often present.

During the fall, winged females lay blackish eggs, end-to-end, in a row of eight or more on the needles. This aphid usually overwinters in the egg stage; however, if the weather is mild, some individuals from the last generation survive through the winter. Eggs hatch in the spring and resulting wingless females produce living young. As the season progresses, several overlapping generations may occur. By late summer, large populations may be present.

Droughty weather at this time will increase needle drop. Each new generation moves to fresh sites on the tree to feed. Adults of the last generation of the summer produce overwintering eggs in the fall.

Heavy infestations of aphids may kill young trees or may cause reduced growth. As the aphid feeds, it excretes honeydew. This sticky substance is the excrement from the aphid. A black sooty mold is commonly found growing on the honeydew. Sooty mold reduces the quality of trees and may reduce the amount of sunlight available to the leaves. Ants may also be found feeding on the honeydew.

White Pine Aphid



Control Measures

White pine aphid infestations may be prevented by treating trees with dormant oil before growth starts in the spring. Do not use oil until the temperature stays above 40F for 24 hours. Control spring and summer infestations by applying sprays of chlorpyrifos, Dursban 50W [50% WSP], beta-cyfluthrin (Tempo SC Ultra [1 lb/gal SC]), cyfluthrin (Tempo 20WP [20% WP], Advanced Garden Lawn and Garden Multi-Insect Killer [0.75% emulsion, oil in water], Decathlon [20% WP]), acephate (Orthene Turf, Tree & Ornamental Spray [75% SP], Orthene [9.4% EC]), insecticidal soap (M-Pede, Safer Insecticidal Soap Concentrate), horticultural oil (SunSpray Ultra-Fine Oil [98.8% paraffinic oil]), naled (Dibrom 8 Emulsive [8 lb/gal EC]), pymetrozine (Endeavor [50% water-dispersible granule]), malathion, diazinon or dimethoate (Cygon 2E [2 lb/gal EC], Dimethoate 2.67 EC [2.67 lb/gal EC]). Treat individually infested trees when more than 30 percent of the shoots have aphid colonies.

Control ant colonies with chlorpyrifos, cyfluthrin, beta-cyfluthrin or diazinon. These ants feed on honeydew and protect aphids by discouraging the natural enemies of the aphids. This protection aids in the buildup of aphid populations.

Images by David Cook

Feeding.

Eggs on needles.

Precautionary Statement

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you mix, apply store or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label. Persons who do not obey the law will be subject to penalties.

Disclaimer Statement

Pesticides recommended in this publication were registered for the prescribed uses when printed. Pesticide regulations are continuously reviewed. Should registration or a recommended pesticide be canceled, it would no longer be recommended by The University of Tennessee. Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others that may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product.

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Charles L. Norman, Dean