Extension

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White Pine Weevil

Pest Fact Sheet 14

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UNH Cooperative Extension Programs	
	Community and Economic Development
	Food and Agriculture ✓
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Introduction

The white pine weevil (*Pissodes strobi*) is one of the most destructive insect pests of eastern white pines in North America. Norway spruce, jack pine, scotch pine, pitch pine, red pine, blue spruce, and white spruce are also susceptible to white pine weevil damage.

Description

The white pine weevil larva is long, yellowish-white, and legless. The adult is a snout beetle about 0.2" in length. Its wing covers (elytra) are marked with brown and white scales and have a white patch of scales at their tip. The resting stage is a creamy-white pupa and is the same length as the adult (0.2").

Life Cycle

Adult white pine weevils overwinter in litter on the ground. From April to May, they emerge and begin feeding on terminal growth. They favor feeding on bark 7-10" below dormant terminal buds. Females deposit eggs in the bark of the terminal growth, which hatch in 7-10 days. The developing larvae feed in the leader until maturity in July. Pupation occurs in larval chambers made of wood chips. Adults emerge in 10-15 days and continue to feed on old and new growth. The white pine weevil often kills 2-3 years of terminal growth. Damage from this weevil results in reduction of lumber yield and poor quality ornamentals for nursery and Christmas trees.

Adult white pine weevil. Credits: Darren Blackford, USDA Forest Service, Bugwood.org.

Management

IPM Strategies:

Monitoring — At the first sign of wilting and drooping of terminals, check for excessive pitch flow from feeding and oviposition wounds. This usually occurs in late spring.

Damage from this weevil results in reduction of lumber yield and poor quality ornamentals for nursery and Christmas trees.

Did You Know?

The white pine weevil is one of the most destructive insect pests of eastern white pine in North America.

Mechanical Control — If excessive pitch is found, cut open the area of pitch exit and look for the larvae. If larvae are found, remove the entire leader. Cut back all but one side shoot to maintain single-stem dominance.

Chemical Control — White pine weevil can be controlled chemically by one to two applications of insecticide when adults emerge (from mid-April to early May). Spray applications should be two weeks apart.

Consult your county Extension Field Specialist for specific recommendations.

White pine weevil larva (top) and pupa (bottom). Credit: Lorraine Graney, Bartlett Tree Experts, Bugwood.org

Early stage of wilting symptom (left) and death resulting from white pine weevil feeding (right). Credits: Whitney Cranshaw, Colorado State University (left) and Dode Gladders, University of New Hampshire (right).

Summary

Table 1 summarizes key information on the white pine weevil.

Table 1: Summary

Summary Table	
Damaging Stage	Adults and larvae
Part of Plant Attacked	Terminal leader
Overwintering Stage	Adults
Number of Generations Per Year	One
Time of Year of Greatest Damage	April - June
Number of Pesticide Applications for Control	One-two
Best Time to Spray	Mid-April

Notes: Refer to the text for more thorough information about the white pine weevil.

Stop! *Read the label on every pesticide container each time before using the material. Pesticides must be applied only as directed on the label to be in compliance with the law. All pesticides listed in this publication are contingent upon continued registration. Contact the Division of Pesticide Control at (603) 271-3550 to check registration status. Dispose of empty containers safely, according to New Hampshire regulations.*

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