



Forest Health Protection, Southern Region

WHITE PINE WEEVIL,

Pissodes strobi (Peck)

Importance. - The white pine weevil is the most serious insect pest of eastern white pine. Weevil larvae kill the last two-year's terminal growth and repeated attacks cause trees to become stunted and deformed to the point of being commercially unusable. Trees up to 3 feet tall may be killed. The weevil also attacks Norway spruce and jack pine and, to a lesser extent, pitch pine, red pine, Scots pine, and red spruce. It is found throughout the range of eastern white pine.

Identifying the Insect. - Adult white pine weevils are brown beetles about 1/4 inch (6 mm) long. They have a long snout with antennae attached. White and tan spots of various sizes cover the body. The most conspicuous spots are towards the back of the wingcovers. Full-grown larvae are legless grubs with reddish-brown heads. They are 1/2 inch (12 mm) long.

Identifying the Injury. - In the spring, resin droplets ooze from feeding punctures on the terminal shoot, especially near the terminal bud. The most conspicuous sign of current weevil damage is a drooping of the terminal shoot caused by larval feeding. In the South, this "shepherd's crook" is usually noticeable in early June and by August it turns reddish brown. The terminal shoot dies, and one or more branches in the uppermost whorl will assume dominance. This gives the tree a forked, crooked, or bushy form.



Typical damage to terminal.

Biology. - Adults overwinter in the litter beneath host trees and emerge in the spring to feed on the leaders of their hosts. Females deposit eggs in small punctures in the bark of the leaders. The young larvae bore downward, side by side, in a ring. After feeding for 5 to 6 weeks, the larvae construct pupal chambers in the wood or pith of the terminal shoot, and cover themselves with shredded wood and bark. New adults leave the tree by late summer and do some feeding before overwintering. There is one generation per year.

Control. - Control of the white pine weevil is difficult. It is possible, however, to reduce the damage by making conditions in a young stand unfavorable for egg laying. Pine grown under a canopy of hardwoods is relatively free of weevil damage but requires intensive management. Under certain circumstances, insecticides can be used to protect the tops of trees.
