HOW TO PREVENT WEEVIL DAMAGE TO PINE SEEDLINGS IN THE SOUTH

by Charles F. Speers and Edward P. Merkel

U.S. Department of Agriculture
Forest Service
Southeastern Forest Experiment Station
Asheville, North Carolina
WHAT ARE PALES AND PITCHEATING WEEVILS?

Pales and pitcheating weevils are dark colored, robust, oblong, hard shelled snout beetles, \( \frac{1}{4} \) to \( \frac{1}{2} \) inch long. In the South these are the two principal species that damage pine seedlings.
Weevils feed on trees at night.

Weevils hide in the soil during the day.

Weevils feed on the bark of seedlings above or below ground level, girdling the tree and causing its death. Weevils are seldom seen because they feed at night and hide in the soil during the day.
Light weevil feeding creates a series of pits in the bark which fill with resin and heal over. If feeding is heavy, the pits merge, the stem is girdled, and the tree is killed.

Heavy weevil feeding kills seedlings.
Logging

WHERE DO THE WEEVILS COME FROM?

Fire

Weevils are common throughout the South. They breed principally in the stumps and roots of recently cut pine trees, but they also breed in dying trees.

Lightning

Bug kills
Weevils developing in logging material and dying trees throughout the forest are attracted to cutover areas by the odor of fresh resin. If the area is planted shortly after cutting, seedlings are heavily attacked by the adult beetles.
Adults are attracted into areas cutover in the spring and early summer. The brood of these weevils develops in the roots of stumps and emerges as new adults in the fall.

When unmerchantable trees are bulldozed during site preparation in the fall, these pines and the new slash attract weevils. These weevils, plus adults emerging from roots of the pines cut in the spring, are held in the area by the new material.

If pine seedlings are planted in the winter, extremely heavy weevil feeding will generally occur the following spring, summer, and fall.
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WEEVIL DAMAGE CAN BE MINIMIZED BY TIMING OF CUTTING AND PLANTING
Adults are attracted into cutover areas in the spring after winter cutting, and at the time of cutting in the spring and early summer.

Brood develops in the roots of stumps during the spring and summer.

Weevils emerge from stumps and roots in the fall and disperse to new cutting areas.

Plant during the winter and little or no weevil damage will occur. If seedlings are planted early in the fall, the weevils may feed on and kill seedlings before they disperse.
IF PINE IS CUT FROM JULY TO NOVEMBER

Adults are attracted into areas at the time of cutting,

Brood develops in the roots of stumps during the fall and winter

Plant your pine seedlings the following winter and they should be relatively safe from weevil damage

Let the land lie fallow the first winter and the new weevils will emerge and disperse the following spring, summer, and fall

Caution: If seedlings are planted the first winter after harvest, heavy weevil damage to the trees will usually occur the following spring, summer, and fall from attracted and newly emerging weevils.
Seedlings can be protected from weevil damage by dipping them in an insecticide prior to planting.

Chemicals used for insect control are constantly being replaced by more effective or safer compounds, and their use may be restricted in some states. Therefore, for the latest control recommendations in your State please contact your County Agent, State Forester, or Forest Service office.