

Character and Extent of Damage.

The damage caused by the white pine weevil is to the terminal shoots of white pine and occasionally spruce saplings. The trees are not killed, but the killing of the terminal by the miner results in a dwarfed, crooked and many branched tree, thus destroying or greatly reducing the commercial value of the forest tree or the beauty of a shade tree. In neglected young forests, plantations, nurseries and transplanted shade trees this character of damage is often serious. The most favorable condition for serious injury by this weevil consists in a scattering or open pure stand of young white pine. The unfavorable conditions for injury are slow growth, dense pure stands, and mixed stands of pine and hardwood.

Evidence of Infestation.

About the time new growth starts on the terminal shoots of young white pine, the living, one-year-old terminals exude fresh, clear, shining drops of resin. On closer examination, fresh, pinhole-like punctures are found in the bark and, at the same time, the inconspicuous beetles may be found resting on the terminal from which they will fall when disturbed. Later the new growth at the tip of the terminal will present an unhealthy appearance and will wither and die. If such terminals are examined and small white grubs are found mining beneath the bark or in the wood and pith of the one year old terminal, it will indicate infestation with the white-pine weevil.

The Insect.

The adult, winged form of the white-pine weevil is a somewhat elongate, brownish snout-beetle, about one-fifth of an inch in length and marked with irregular brown and white spots.

Seasonal History and Habits.

The winter is passed in the adult stage, in the ground, from which they emerge during warm days in April to June, and, after feeding for a few days on the bark of living white-pine terminal shoots, deposit their eggs in small pits in the bark of shoots of the previous year's growth. The parent beetles are active from about 15 to 20 days. The eggs hatch into grubs or larvae, which feed on the inner bark, girdling and killing the shoot. By the time the larvae have completed their development, they are greatly reduced in numbers by natural enemies and other causes. By July and August of the same year the adults leave the dead terminals and enter the ground.

Remedy.

When the new growth at the tip of the terminals begin to fade and die, cut them out below where they are infested and either burn them at once or, to avoid the destruction of parasites of the weevils, place them in tight barrels or boxes securely covered with wire fly-screen netting over the open ends. Such receptacles should be left on their sides in the groves, so that the parasites and other enemies may escape through the screen, while the beetles which can not escape will die. The barrels with their contents should, however, be left intact until the following June to allow the escape of the parasites developing later. It is necessary, however, if this method be adopted, that it be repeated two or three years in succession in the same locality, in order to catch the successive broods from the old parent beetles that live over from preceding years.

In order to secure the best results, cooperation of the community is necessary in the control operations here outlined.

