

Canker Worms

by Stanley Rachesky

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For more than two centuries outbreaks of cankerworms have periodically defoliated shade and fruit trees in various sections of the United States. In unsprayed or poorly sprayed orchards they may cause complete defoliation and loss of the crop; but they are of no importance in well-sprayed orchards.

The foliage of the trees is eaten and skeletonized by these measuring worms. The injury occurs just about the time the trees have come into full foliage. Silken threads are spun from branch to branch on the tree and from the branches to the ground.

Brown and brownish-green measuring worms about an inch long spin down from the tree when it is jarred or shaken. Heavily infested orchards have much the appearance of having been scorched by fire.

Trees attacked include apple, elm, and many other fruit and shade trees. Distribution is generally east of the Rocky Mountains, southeastern Canada; also in California and Colorado.

Life History, appearance, and habits of cankerworms are as follows:

The winter is passed in the form of naked brown pupae about half inch long by one-eighth inch thick. These pupae are found in the soil from 1 to 4 inches below the surface, and in greatest numbers close to the base of the trees.

The moths begin emerging during warm periods in February and continue coming out until the end of April. The male moth is strongly winged and is of a dull-gray appearance, being much the color of a well-weathered piece of board. These moths may be seen flitting out from tree to tree at dusk and after dark on spring evenings.

The female moth is wingless, with a gray spider body. She differs from the fall cankerworm female by having a dark stripe down the middle of the back and two transverse rows of small reddish spines across each abdominal segment on the upper side.

On emerging from the ground, the female crawls to a tree and up the trunk, or onto the branches, where she mates with the male and deposits her oval dark-brown eggs in irregular masses under the loose scales of bark.

These eggs hatch in about a month into small greenish or brownish measuring worms, which at once begin to feed on the foliage. These worms can be distinguished from the fall cankerworm by having only two pairs of prolegs, near the end of the body. They vary from light-brown to nearly black and usually have a yellowish stripe below the spiracles and under parts are partly black.

When not feeding, the larvae tend to rest upon the twigs more than upon the leaves. They feed for three weeks to a month and, if abundant, may completely strip the foliage from the trees. At the end of the feeding period they crawl or spin down to the ground where they excavate the small cells in which they change to the pupal stage and pass the remainder of the summer and the following winter.

CONTROL MEASURES The University of Illinois recommends Sevin (Carbaryl) for the control of the inchworm. This chemical is available as a 50 per cent wettable powder and can be purchased at a local garden center or hardware store. Recently the disease organism, **Bacillus Thuringiensis** (Biotrol, Dipel,

Thuricide) used as a spray has received legal clearance for use. It's very effective.

A band of sticky material such as tanglefoot around the trunk of the tree, from 2 to 4 feet off the ground may help to control this worm. However, this is impractical in a heavily wooded area, because of all the trees. If all trees within 200 feet were treated as some people recommend, this would also be impractical because the moths and small larva may be blown into the banded trees by strong winds from infested trees nearby.

Treatment of large trees with Sevin is really not necessary because these large deciduous trees will leaf out 3 or 4 times a year, so those trees which are defoliated now, in a couple of weeks will be leafed out again. Spraying of smaller shrubs that are infested with the inchworm on a homeowner's property and also young saplings probably is a good idea.

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