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Brief Information on
THE FALL CANKER WORM and ITS CONTROL
on FOREST and SHADE TREES.

Character and Extent of Injury.— Caterpillars which, because of the peculiar loop they make of their bodies, are variously known as "measuring worms", "span worms" or "loopers", are frequently found injuring forest and shade trees in the eastern United States, especially Pennsylvania and Long Island. Of the numerous species of loopers, the fall canker worm is one of the few attacking both fruit and shade or forest trees and occasionally becomes so numerous as to completely defoliate trees on large areas. While as a rule healthy trees replace their foliage, repeated defoliation frequently leads to attack, especially of oaks, by barkboring insects which habitually thrive on weakened trees and ultimately cause their death.

Appearance and Seasonal History.— The fall canker worm is the caterpillar stage of a moth which lays, usually in the fall, 50 - 150 flower-pot-shaped eggs in regular rows and compact patches which are generally exposed on twigs near the ends of the lower branches. At the time the first leaves expand in the spring these eggs hatch into caterpillars which attain full growth in about 3 weeks (about June), descend to the ground by a silken thread, there forming a perfect cocoon of fine, densely spun silk and pupating in it. From these the moths usually emerge late in the fall or during warm days in winter. The males alone are winged, the females - wingless. Soon after emerging the latter crawl up nearby trees and bushes to deposit their eggs.

Natural control.— The fall canker worms are subject to attack by a variety of their insect enemies. Climbing ground beetles devour many caterpillars bodily. Small parasitic wasps and flies lay their eggs in and on the caterpillars and in the eggs of the moth and the ensuing grubs kill even greater numbers of them. Together these insects usually succeed in keeping the canker worms in check, but if these fail, the canker worm becomes seriously injurious.

Artificial Control.— It is impractical to attempt to combat this insect on trees in the forest, but shade trees can be protected as follows: (1) Advantage can be taken of the habit of the wingless female by keeping the trees banded with some sticky substance or cotton bands in order to prevent her from ascending the trees to deposit her eggs. Such bands are most effective where applied towards the end of September and maintained in the spring until the end of May. These bands also prevent the worms that come from the undergrowth from ascending the trees. (2) Where banding has been neglected and evidence of heavy infestation is indicated by numerous perforations in the opening leaves, the foliage can be protected by prompt spraying with lead arsenate at the rate of 6 - 10 pounds to 100 gallons of water.

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