



Woody Ornamental IPM

Fall Webworm

The Fall Webworm, *Hyphantria cunea* (Drury), is a native of North America, and feeds on many species of deciduous forest, shade, and fruit trees. It is one of the few American insect pests that has been introduced into Europe and Asia. This pest is common all across Pennsylvania though it seems to have major outbreaks every few years.



Plants Attacked

In Pennsylvania, the fall webworm causes damage to approximately 90 species of deciduous trees. Preferred host plants include hickory (*Carya*), walnut (*Juglans*), birch (*Betula*), cherry (*Prunus*) and crabapple (*Malus*).



Early instar larvae of the "blackheaded race" of fall webworm



Late instar Fall Webworm larva photo by Eric Vorodi

Insect Identification

There are two races of fall webworm in western Pennsylvania, the black headed and the redheaded races. The larvae of the black headed webworm are light greenish-yellow to pale yellow with two rows of black tubercles and the larvae of the red headed webworm are tan in color with orange to reddish tubercles. Both are covered in long whitish hairs. The adult moth is about one inch long and ranges from pure white to white with a few black spots. The eggs are small, yellow or light green and are usually found on the underside of leaves.

Life History

- Over-winter** The pupae over-winter in cocoons in the ground. Pupae may also be found under loose bark and in leaf litter.
- Spring** Adults emerge from early-June through July and lay several hundred eggs are deposited on the underside of a leaf (the blackheaded webworm deposit their eggs in a single layer and the redheaded in a double layer). Scales from the female's abdomen lightly cover the eggs which hatch a week later. The larvae immediately spin webs and feed on the enclosed leaves.
- Summer** The larvae mature in about six weeks, at which time they drop to the ground to pupate.

Damage Symptoms

The larvae spin unsightly light grey webs, starting at the tips of the branches and slowly extending down the branch towards the trunk, feeding on the foliage enclosed by their web. Damage to the host plant is primarily aesthetic, as leaves are usually eaten late in the season and is not usually a threat to the health of the tree.



Management Options

Biological	The webworm has many predators and parasites. Among them are social wasps, birds, predatory stink bugs and parasitic flies and wasps. The bacterial insecticide 'Bacillus thuringiensis' is effective if applied when the larvae are small.
Mechanical	On small trees, nests may be cut out and destroyed.
Chemical	If detected early, insecticide applications should be applied to the nest and nearby foliage. Tall trees may be treated systemically.

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