BARTLETT TREE RESEARCH LABORATORIES
CHARLOTTE, NC
Technical Report

Fall Webworm

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The fall webworm, Hyphantria cunea (Drury), is a native pest of shade and ornamental trees throughout much of North America. It attacks approximately 100 species of deciduous trees and shrubs in the United States. Preferred hosts will vary from region to region, but may include **cherry, persimmon, black walnut, hickory, pecan, sweetgum and ash.** The insect is easily recognized by the silken webs (nests), which larvae construct on branch terminals during mid-to-late summer. These webs serve as protective structures inside which the larvae live and feed on the enclosed foliage. Two or more feet of the branch terminal are often enveloped by the webs, which become filled with cast skins, excrement and pieces of dried leaves as the larvae feed and mature. The webs turn black as autumn progresses and persist on trees long into winter, thereby rendering infested trees extremely unsightly. In addition, because the fall webworm is a sun-loving insect, which prefers open grown roadside or ornamental plantings, webs in even lightly infested trees are extremely conspicuous.

Fall webworm

Fall webworm: larvae

Populations of the fall webworm are usually kept in check by naturally occurring parasites and predators. Subsequently, the main impact of this insect is the reduction in aesthetic value of shade and ornamental plants due to the unsightly webs. Periodically, however, outbreaks will occur resulting in substantial defoliation of host plants. Successive years of defoliation will weaken trees and shrubs and predispose them to attack by woodboring insects and disease-causing organisms.

DESCRIPTION

Larvae of the fall webworm are approximately one to 11/4 inches in length when fully grown. They range in color from

yellow to green to brown and often bear a black stripe down the back and a yellowish stripe along each side. Their backs are marked with black or reddish tubercles (raised spots) from which issue long, light-colored hairs. Adult moths are stout-bodied with a wingspan of 11/4 to 11/2 inches. They may be pure white or white with brown markings. Eggs are present in masses on the underside of host leaves. They are light green in color, but usually covered with white scales from the female moth.

LIFE CYCLE

Moths are present from May to July depending on the region of the country. Following mating, eggs are laid in masses of 400-500 and hatch within seven to ten days. Young larvae immediately begin to construct webs, enveloping the foliage at the branch tips. As more food is needed by the developing larvae, webs are expanded to include more foliage. The larvae are gregarious and live together as a colony within the web until the last instar, at which time they begin to disperse in search of pupation sites. The insect overwinters as pupae within the duff or upper few inches of soil.

One generation per year occurs in the northern latitudes, while two or more generations occur farther south. A partial second generation may occur in the latitudes corresponding to southern New York and New Jersey. In the South, larvae of the first generation are present during June and early July. Second generation larvae and larvae in areas having only one generation per year are noticeable from mid-July until early October.

CONTROL

On small trees and shrubs, suitable control can be obtained by pruning out and destroying webs while they are still small. On large plantings, chemical control is necessary. Application of a labeled insecticide should be made after the eggs hatch, but before the webs become large and conspicuous. Since larvae often emerge over a fairly long time period, more than one insecticide application may be necessary. Consult Bartlett's Pest Management Recommendations for information on insecticide usage and rates.

Plants severely defoliated by the fall webworm should be fertilized in late fall or early spring in order to maintain vigor and offset the debilitating effects of premature foliage loss.