

Landscape and Ornamental

Department of Entomology

FALL WEBWORM

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In late summer, the outside branches of many of the more commonly planted deciduous trees can become covered with webs produced by fall webworm caterpillars. These white to tan fuzzy caterpillars have black dots on their back and can be up to 1.5 inches long. When unchecked by the wide variety of insects and birds that feed on them, caterpillars can defoliate entire trees in late summer. Although this late season defoliation is too close to the time of leaf drop to harm plant health, most homeowners prefer to keep unsightly webs off their trees.



Caterpillars feed on leaves and live inside webs.



Large webs of fall webworm on branch edges of tree.

Life Cycle

Two races of fall webworms, the red headed and the black headed, are present in Indiana. The black headed race has a lighter body color and emerges from a single layer of eggs deposited on the undersides of leaves near the branch tip. The red headed race can have more of a tan color and emerges from a double layer of eggs.

As early as May and into July, white adult moths of both races may emerge from cocoons in the soil and leaf litter to lay eggs on the tips of branches. Caterpillars feed for 6 weeks on leaves while surrounding themselves with webs that protect



Close-up of redheaded race of fall webworm.

them from predators. In most of Indiana, south of U.S. 30, a second generation of moths will emerge and continue to feed into September.



Adult fall webworm moth and eggs.



Small webs can be pruned off and destroyed.

Control Measures

Control of fall webworm caterpillars is best achieved if actions are taken before the tree is covered with webs from either the first, or the second generation. Small webs can be simply pruned off and destroyed if easy to reach, and only a small proportion of the tree is affected. Pesticides (Table 1) should be used when the extent of the webbing or number of webs is too large to make pruning practical. Applications of the bio-based insecticides acelepryn and *Bacillus thuringiensis*, which conserve the webworm's insect natural enemies, are especially effective when applied early in the infestation process.

Although the biorational insecticides indoxacarb, spinosad, and tebufenozide can kill wasp parasites of fall webworm, it does not affect the predatory insects that contribute to control of this pest. Further, like the other materials listed, it can be used to rescue trees from caterpillars on extensively webbed trees.

Pesticides alone are not enough to remove the webs from the trees. Trees with heavy webs can remain unsightly well into the winter. Webs will be removed if pesticides are applied with a high pressure sprayer by a professional applicator. Homeowners seeking to remove webs after caterpillars have been killed could use a strong stream of water from a garden hose that is fitted with a spray nozzle.

Table 1. Pesticide List					
Insecticide	Formulation	Amount per 100 gallons	Amount per gallon	Suggested Use	General Use Restriction (Check label) H=Homeowner C=Commercial
Acephate (Orthene)	75% S 15.6% EC	1/3 lb. 1 1/5 cup	1/3 tsp. 1 1/2 Tbsp.	Rescue	H, C
Acetamiprid (TriStar)	30 SG	2.7-5.3 oz.	-	Rescue	H, C
Azadirachtin (Azatrol, Azatin-o and others)	1.2% SEC	96-160 fl. oz.	1-1.6 fl. oz.	Biorational	H, C
<i>Bacillus thuringiensis</i> (Kurstaki) (Dipel, Biotrol, others)	See label	See label	See label	Biorational	H, C
Beta-Cyflurin (Tempo)	20 WP 0.75 EC	1.9 oz. -	- 1 Tbsp.	Rescue	C H (Bayer)
Bifenthrin (Talstar L&T and other site specific products)	0.7 F	5.5 - 10.9 oz.	1/3 - 2/3 tsp.	Rescue	H, C
Carbaryl (Sevin and others)	4 F 2 F	1 qt. 2 qt.	2 tsp. 4 tsp.	Rescue	H, C
Chlorantraniliprol (Acelepryn)	1.67 SC	1-2 fl. oz.	-	Biorational	C
Cyfluthrin (Decathalon) (Bayer Lawn & Garden)	20 WP 0.75 EC	1.9 oz. -	- 1 Tbsp.	Rescue	C H (Bayer)
Deltamethrin (Deltagard T&O) (Suspend SC)	4.75% EC	4 - 8 oz.	1/4 - 1/2 tsp.	Rescue	H, C
Dinotefuran (Safari)	20 G	See label	See label	Rescue	C
Fluvalinate (Mavrik)	2 F	5 - 10 oz.	1/4 - 1/2 tsp.	Rescue	H, C
Indoxacarb (Provaunt)	2.4 SC	1.2-2.5 fl. oz.	-	Biorational	C
Lambda-cyhalothrin (Scimitar, Demand)	9.7% EC	1.5 - 5 oz.	-	Rescue	H, C
Malathion	57% EC	2 - 4 pt.	2 tsp.	Rescue	H, C
Permethrin (Astro EC) (Spectracide Bug Stop) (Eight)	36.8% EC 2.5% EC	4 - 8 oz. -	1/4 - 1/2 tsp. 2 Tbsp.	Rescue Rescue	C H
Spinosad (Conserve) Bulls-Eye Bioinsecticide Fertilome Borer, Bagworm, Leafminer & Tent Caterpillar Spray	SC SC	6 oz. -	1/2 tsp. 4 Tbsp. 4 Tbsp.	Biorational	C H H
Tebufenozide (Confirm)	25% EC	4 - 8 oz.	1/4 - 1/2 Tsp.	Biorational	C

READ AND FOLLOW ALL LABEL INSTRUCTIONS. THIS INCLUDES DIRECTIONS FOR USE, PRECAUTIONARY STATEMENTS (HAZARDS TO HUMANS, DOMESTIC ANIMALS, AND ENDANGERED SPECIES), ENVIRONMENTAL HAZARDS, RATES OF APPLICATION, NUMBER OF APPLICATIONS, REENTRY INTERVALS, HARVEST RESTRICTIONS, STORAGE AND DISPOSAL, AND ANY SPECIFIC WARNINGS AND/OR PRECAUTIONS FOR SAFE HANDLING OF THE PESTICIDE.

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