

BAGWORMS ON LANDSCAPE PLANTS
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Bagworm caterpillars make distinctive 1.5 to 2 inch long spindle-shaped bags that can be seen hanging from twigs of a variety of trees and shrubs.

Sometimes the bags are mistaken for pine cones or other plant structures.



Bagworms prefer juniper, arborvitae, spruce, pine, and cedar but also attack deciduous trees. Female moths cannot fly but the larvae can disperse. Very small caterpillars can spin strands of silk and be carried by wind, an activity called “ballooning”. Larger larvae may crawl to adjacent plants.

Description and Habits

Bagworms pass the winter as eggs (300 or more) inside bags that served as cocoons for last year’s females. The eggs hatch in mid- to late May in central Kentucky and the tiny larvae crawl out to feed. Each uses silk and bits of plant material to make a small bag that protects and camouflages it as during feeding and growth.



Newly hatched bagworm feeding on oak leaf surface. Larger larvae will chew holes in the leaves.

Bagworm caterpillars feed for about six weeks, enlarging the bag as they grow and withdrawing into it when disturbed. Older larvae strip evergreens of their needles and devour whole leaves of susceptible deciduous species leaving only the larger veins. When abundant, the caterpillars can defoliate plants. Heavy infestations over several consecutive years, especially when coupled with other stresses, can lead to plant death.

In early fall, the mature larvae attach their bags to twigs and transform into the pupa or resting stage before becoming an adult. Males emerge from their bags in early fall. They search for bags containing immobile females. After mating, the female lays several hundred eggs, leaves the bag and dies. The eggs remain in the bag until they hatch the following May.

Bagworm Control

If only a few small trees or shrubs are infested, handpicking and destroying attached bags may provide satisfactory control. This must be done effective during fall, winter or early spring before the eggs hatch.

When many small bagworms are present and feeding, an insecticide may be needed to prevent serious damage. The best time to apply an insecticide is while the larvae are still small (less than 1/2-inch long), usually in early June. Small larvae are more vulnerable to insecticides, and feeding damage is relatively minor. Carefully inspect susceptible landscape plants. Young bagworms are hard to see at first; look closely for the small, upright bags which have the appearance of tiny ice cream cones made of bits of plant material.

Example insecticides for control of caterpillars on home landscape trees. (Products in **bold** are for use by commercial applicators only.)

Active ingredient	Brand names
Organophosphate / Carbamate	Broad-spectrum, relatively short residue on foliage
Acephate	Orthene Tree and Shrub Insecticide
Carbaryl	Sevin, Carbaryl
Botanicals	Relatively broad-spectrum, short residue on foliage
Azadiractin	Azatin XL, Bon-Neem (+insecticidal soap)
Microbials	
<i>Bacillus thuringiensis</i> (Bt) toxin - Caterpillar specific	Bonide Bacillus Thuringiensis Concentrate, Dipel, Green Light BT Worm Killer, Thuricide
Spinosad	Captain Jack's Deadbug Brew Concentrate ferti-lome Borer, Bagworm, Leafminer & Tent Caterpillar Spray; Green Light Lawn & Garden Spray Spinosad Concentrate; Conserve SC
Pyrethroids	Broad-spectrum, relatively long residue
Bifenthrin	Ortho Max Lawn & Garden Insect Killer Concentrate, Onyx TalstarOne
Cyfluthrin	Bayer Multi-Insect Killer, Tempo
Gamma-Cyhalothrin	Bonide Caterpillar Killer, Spectracide Triazicide Once & Done Insect Killer, Scimitar
Permethrin	Bonide Eight Insect Control Yard & Garden, Astro

Read the product label carefully before purchase and use

Issued: 4/98

Revised: 5/10

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Of course, **ALWAYS READ AND FOLLOW LABEL DIRECTIONS FOR SAFE USE OF ANY PESTICIDE!**