TABLE 1. INSECTICIDES SUGGESTED FOR BAGWORM CONTROL.

Insecticide	Formulation	Amt. per 100 gallons	Amt. per one gallon	Remarks
Bacillus thuringiensis (Kurstaki) (Dipel, Biotrol, other brands)		see label	see label	A biorational pesticide. Will not contribute to other pest problems. For homeowner use.
malathion	57% EC	2 - 4 pt	2 tsp	For homeowner use. Will injure canaert juniper.
diazinon (Spectracide)	25% EC	1 qt	2 tsp	For homeowner use.
acephate (Orthene)	75% S 15.6% EC	1/3 lb (1-1/5 cup)	1/3 tsp 1-1/2 Tbs	Has systemic action. For homeowner use.
carbaryl (Sevin)	4 F 2 F	1 qt 2 qt	2 tsp 4 tsp	For homeowner use.
chlorpyrifos (Dursban)	2 E	1 pt	1 tsp	For certified applicators only.
bifenthrin (Talstar)	10 WP	2 1/4 cup	1 tsp	For certified applicators only.
bendiocarb (Turcam, Dycarb, Ficam)	76 WP	12 - 20 oz	--	For certified applicators only.
cyfluthrin (Decathalon, Tempo)	20 WP	1.3 oz	--	For certified applicators only.
Fluvalinate (Mavrik)	2 F	5-10 oz	1/3 - 2/3	For certified applicators only.
trichlorfon (Dylox, Proxol)	80% SP or LS	1 - 3 pt	1 - 3 tsp	For certified applicators only.

Bagworm: *Thyridopteryx ephemeraeformis* (Haworth)

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.

Revised 3/98

E-27

Ornamentals & Turf

Department of Entomology

BAGWORMS

Timothy J. Gibb and Clifford S. Sadof, Extension Entomologists

During July and August, bagworms may defoliate arborvitae, junipers and other trees and shrubs. Bagworms are caterpillars that live inside spindle-shaped bags which they construct to protect themselves against birds and other enemies. These bags, composed of silken threads and bits of foliage, look so much like a part of the tree that they may go unnoticed until extensive damage has occurred.

Bagworms are most common in southern and central Indiana, but in recent years they also have been reported in northern Indiana. Early in June, the insects hatch from eggs which wintered in the old bags attached to tree branches. As soon as the young worms appear, they start to spin bags and continue to enlarge these as they feed and grow. The caterpillars crawl part way out of the bags to feed. If disturbed, they retreat safely inside, and it is almost impossible to pull them out. Each female bag can produce hundreds of bagworms.

Bagworms mature in late August or early September. At this time the bags are about 2 inches long. The worms then attach the bags firmly to branches or other objects and change into the adult stage. The wingless female never leaves the bag and is fertilized by the winged male. The eggs are laid in the bag where they pass the winter. There is only one generation each year.

CONTROL MEASURES

If only a few small trees or shrubs are infested, bagworms can sometimes be controlled by picking off the bags and destroying them. This method is most effective during the winter and early spring since it destroys the eggs before they hatch.

Bagworms can be controlled chemically by spraying infested trees in late spring when the eggs hatch and young worms appear. Use one of the insecticides listed in Table 1.

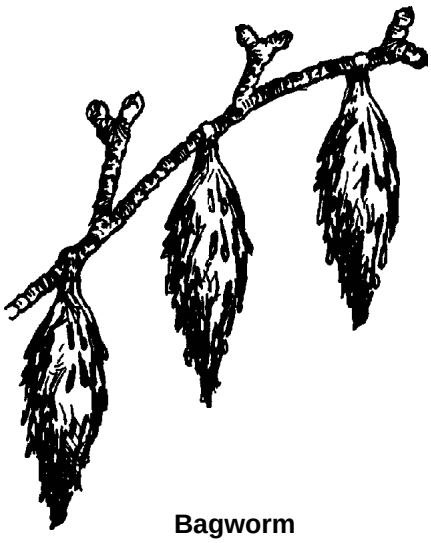
Bacillus thuringiensis is the preferred insecticide because it selectively kills bagworm and not the natural enemies of other pests. These help to prevent other pests from becoming a problem in the landscape.

When to Spray

Look for small (1/4") bags in early June. Apply insecticides when bags are between 1/2" and 1" long. Check two weeks after spraying to look for new live bags to determine if additional treatment is needed.

How to Spray

Satisfactory control with any material cannot be expected unless the spray application is thorough enough to completely wet the trees or shrubs being treated.



Bagworm