

Treatment and Protection from Bagworms

Bagworms construct their "bags" by spinning silk with the foliage of the tree they are feeding on. Bags are often confused with cones when they are on conifer trees



Bagworms damage trees by feeding on the foliage, often causing severe defoliation beginning in midsummer and continuing through early fall

What are Bagworms?

Native to the United States, the bagworm (*Thyridopteryx ephemeraeformis*) is a defoliating caterpillar related to moths and butterflies that commonly feeds on the foliage of many coniferous and deciduous trees east of the Rocky Mountains. The bagworm's self spun bag, which can be found hanging from the host plant by mid-summer is unsightly. Excessive feeding can strip away large quantities of leaves, causing branch dieback, and dead patches on the host plant.

The bagworm is a common pest east of the Rocky Mountains. In recent years reports suggest that the range for bagworms is moving further north. For example bagworm is becoming more of a problem in northern Ohio, whereas in the past outbreaks were confined more to southern Ohio.

What Trees do Bagworms Feed On?

Bagworms are not a host specific pest and thus feed on a number of common shade trees and ornamental plants. Unlike many insects, bagworms

are able to eat the foliage of hardwood trees and conifers.

The list of trees susceptible to bagworm includes: arborvitae (*Thuja*), fir (*Abies*), hemlock (*Tsuga*), juniper (*Juniperus*), pine (*Pinus*), spruce (*Picea*), baldcypress (*Taxodium*), black locust (*Robinia pseudoacacia*), honeylocust (*Gleditsia triacanthos*), sweetgum (*Liquidambar styraciflua*) and sycamore (*Platanus occidentalis*), boxelder (*Acer negundo*), cotoneaster (*Cotoneaster*), maple (*Acer*), elm (*Ulmus*), buckeye (*Aesculus*), willow (*Salix*), crabapple (*Malus*), linden (*Tilia*), poplar (*Populus*), and many more.

How Do I Know if Bagworms are on My Tree?

The most common symptom of a bagworm infestation is defoliation of the canopy, coupled with seeing the actual silk bags, which are spun from the foliage of the host plant by the caterpillar, and used as a protective site when not out feeding on foliage.



Honeylocust tree with heavy bagworm infestation.



Honeylocust tree with uninfested canopy.

Treatment: Bagworms

Management Strategy Summary

Bagworms are difficult to control because they often go undetected until it is too late in the season to treat effectively. It is important to treat the larvae before they mature because young larvae are more sensitive to chemical treatments. This means treatment in early spring to midsummer. Picking bags off by hand can help to reduce populations, but is not always feasible. Look for bags during the winter to identify plants for treatment the following year.

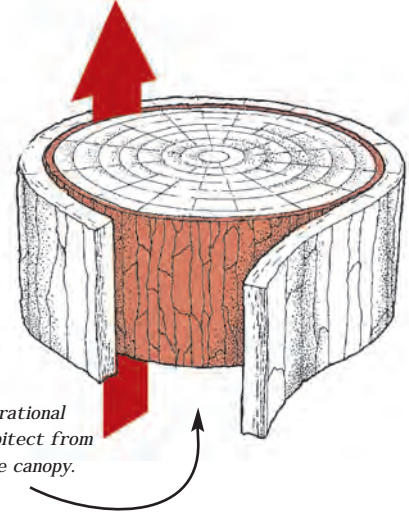
Management Options

Products: Lepitect (*soil injection*), Conserve SC (*foliar spray*), Bisect (*foliar spray*), Lepitect Infusible (*tree injection*), Aracinate (*tree injection*)

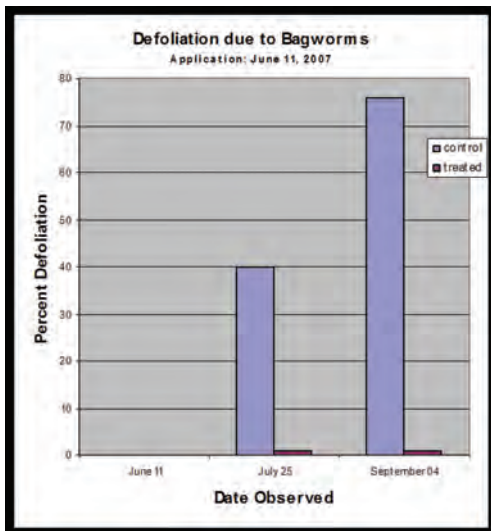
Timing:

- Apply Lepitect annually 14 days prior to anticipated pest outbreak.
- Foliar sprays with Conserve and Bisect should occur as larvae are crawling out of the bags to feed in midsummer. Begin foliar sprays when catalpa, Japanese lilac, and mock orange are in full bloom. Repeat applications 7-14 days.
- Lepitect Infusible and Aracinate should be applied just prior to or as insects first appear.

Lepitect™



Treatment of trees with Lepitect is done via soil injection.



Research has shown Lepitect provides excellent control of bagworms. The graph shows an untreated tree suffering 75% defoliation from June through September. A tree treated with Lepitect in June showed less than 5% defoliation during the same period. Research data provided by Dr. Dan Herms, Ohio State University.