

Bagworms

Bagworms (*Thyridopteryx ephemeraeformis*) are native to North America and are serious pests of shrubs and woody ornamentals. Since their spindle-shaped, protective bags are made of silk, debris and portions of foliage, they're camouflaged and often go unnoticed until serious plant damage has occurred.

LIFE CYCLE AND HABITS: Bagworms overwinter as eggs within the bag of the adult female (Figure 1). Eggs hatch in mid to late April (may vary by location), and the larvae begin to look for food. Larvae disperse by first producing silk strands that are attached to branches. They then swing down and are caught in wind currents (ballooning). Once on a host plant, larvae feed and begin construction of tiny, cone-shaped bags around themselves. By adding plant material and silk, growing larvae increase their bag size and are protected from predators through pupation. In early August, adult males emerge as black moths with fuzzy bodies, while adult females remain wingless and never leave the bag. Mated females may produce up to 1,000 eggs, and bagworms have one generation per year.



Figure 1. Adult female bagworms.

HOSTS: Bagworms attack more than 120 species of both deciduous and evergreen trees and shrubs. Some of these hosts include juniper, arborvitae, cedar, spruce, honeylocust, linden, willow, maple, oak, birch, elm and poplar.

SYMPTOMS: Bagworm caterpillars consume foliage, and heavy infestations may lead to defoliation (Figure 2). In evergreens, no re-growth occurs and attacked branches often die.



Figure 2. Defoliation caused by bagworm infestation.

Management

CULTURAL: Management of bagworms by homeowners may involve hand picking. Make sure that all bags are removed and destroyed, since even one bag left behind could lead to re-infestation.

BIOLOGICAL/CHEMICAL: When hand picking is not practical, foliar applications of Bt (*Bacillus thuringiensis*), or any insecticide recommended by Davey Tree, should be made when young larvae are first observed. While spraying, thorough coverage of the foliage is critical. Two applications, two weeks apart, may be necessary for heavy infestations.