1973

G73-4 Bagworms (Revised June 1987)

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Bagworms

Bagworms can damage juniper, arborvitae, pine, and spruce. Description, life history, and control are discussed in this publication.

Frederick P. Baxendale, Extension Entomologist

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- Description
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- Chemical Control

The bagworm is native to the United States and is found in eastern Nebraska. Bagworms feed on many species of trees and shrubs, but are most common on junipers. They are rarely a serious problem on deciduous trees, except when larvae move away from evergreens.

Damage

In urban areas, bagworms are most common on evergreen trees and shrubs. Juniper, arborvitae, pine, and spruce may be killed if completely defoliated. Less severe attacks can slow growth.

Fully grown bagworms on juniper (36K JPG).

Bagworms feed on shade, orchard, and forest trees of nearly every kind, as well as many ornamental shrubs and perennials. Severe attacks are unusual. Since deciduous plants grow new leaves, damage to them is usually not serious. The growth of small or newly planted trees, however, could be slowed by leaf feeding.

Description

Newly hatched larvae begin to spin silken bags around themselves shortly after hatching. The first evidence of infestation is the presence of 1/4 inch bags which are carried almost on end by the young caterpillars inside. As larvae grow, leaf fragments are added to the bag, which may reach a length of 2 inches by the end of summer. The adult female moth is wingless and never leaves the bag. Adult males are small, grey moths with clear wings.
Life History

Bagworms overwinter in the egg stage inside female bags fastened to twigs. Eggs hatch in late May and early June, and larvae feed until late August or early September. Males emerge in September and mate with females through the bag entrance.

Cultural Control

Control infestations on small trees and shrubs by removing bags during the winter and spring before the eggs begin to hatch in late May. Destroy bags by burning, immersing in kerosene or by crushing. If bags containing larvae are discarded on the ground, the larvae can return to host plants.

Chemical Control

Chemical controls are effective if applied during early stages of bagworm development. For most effective insecticidal control and prevention of damage, apply sprays from mid- to late-June. The following insecticides are registered for control of bagworms on ornamental plants:

<table>
<thead>
<tr>
<th>Insecticidea</th>
<th>Formulation per gallon water</th>
</tr>
</thead>
<tbody>
<tr>
<td>acephate (Orthene 9.4% EC)</td>
<td>3 Tbsp</td>
</tr>
<tr>
<td><em>Bacillus thuringiensis</em> (Dipel 2X)</td>
<td>1 tsp</td>
</tr>
<tr>
<td>carbaryl (Sevin 50WP)</td>
<td>2 Tbsp</td>
</tr>
<tr>
<td>chlorpyrifos (Dursban 2E)</td>
<td>1 tsp</td>
</tr>
<tr>
<td>diazinon (Diazinon 25EC)</td>
<td>2 tsp</td>
</tr>
<tr>
<td>dimethoate (Cygon 2E)</td>
<td>4 tsp</td>
</tr>
<tr>
<td>malathion (Malathion 57EC)</td>
<td>2 tsp</td>
</tr>
</tbody>
</table>

*a*Do not apply acephate (Orthene) to elm, crabapple, maple, cottonwood, redbud or weigelia. Do not apply malathion to *Canaertia juniper.*

NOTE: Wettable powders are less likely to cause injury than liquid formulations.

Caution: Use all insecticides with caution to avoid injury to bees or other animals, or excessive exposure to humans. Always read, understand, and follow label directions. Store pesticides in original labeled containers out of reach of children. Minimize hazards by rinsing empty metal, glass, and plastic containers with water. Two rinsings eliminate 95% of the removable pesticide. Then place rinsed containers in the garbage or bury.

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