

2009

Bagworms, Webworms and Tent Caterpillars

Laurie Stepanek
Nebraska Forest Service

Mark Harrell
Nebraska Forest Service

Follow this and additional works at: <http://digitalcommons.unl.edu/nebforestpubs>



Part of the [Forest Sciences Commons](#)

Stepanek, Laurie and Harrell, Mark, "Bagworms, Webworms and Tent Caterpillars" (2009). *Publications, etc. -- Nebraska Forest Service*. 15.

<http://digitalcommons.unl.edu/nebforestpubs/15>

This Article is brought to you for free and open access by the Nebraska Forest Service at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Publications, etc. -- Nebraska Forest Service by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

Mimosa Webworm

Identification

- Leaflets of honeylocust turn brown; leaflets webbed together.
- Small, tan, brown or greenish caterpillars within webbing.



Mimosa webworm caterpillar

Common Host Trees

honeylocust

Life cycle

Mimosa webworm overwinters in cocoons under bark scales of host trees or in leaf litter. Moths emerge in early summer and lay eggs on leaves. Larvae web together leaflets and feed within the protective shelter. Two generations occur per year. First-generation larvae feed in early to midsummer (June-July), and second-generation larvae feed in late summer (August-September).

Control

Damage by mimosa webworm is mostly aesthetic, and trees are generally not heavily infested in consecutive years. Control with insecticides can be difficult because the larvae are well protected and usually feed only on the inner surface of the webbed leaflets. If control is desired, spray foliage in early June and in August. See back panel of this brochure for a list of insecticides.

Insecticides

Several insecticides are available for control of caterpillars on ornamental trees. **Read the label carefully to determine if your tree and pest is listed, and apply the product according to label directions.** Trade names are given as examples of available products. No endorsement is implied.

Bt or *Bacillus thuringiensis* (*Dipel*; *Thuricide*)

Spinosad (*Ferti-lome Borer, Bagworm, Leafminer & Tent Caterpillar Spray; Monterey Garden Insect Spray; Conserve**)

Permethrin (*Eight; Hi-Yield 38 Plus; Astro**)

Cyfluthrin (*Bayer Advanced Multi Insect Killer; Tempo**)

Tebufenozide (*Confirm; * Mimic**)

Deltamethrin (*DeltaGard; * Suspend**)

Malathion (*Malathion*)

Acephate (*Orthene*)

*Some chemicals are for professional use only or may need to be ordered from a chemical distributor.

Photo Credits, Front Panel:

Mimosa webworm: Joe Boggs, Ohio State University
Eastern tent caterpillar: Cornell University

Photo Credits, Middle Panel (from Bugwood.org):

Multiple tents: Steven Katovich, USDA Forest Service
Tent with caterpillars: Tim Tigner, Virginia Department of Forestry
Mature caterpillar: Clemson University, USDA Cooperative Extension
Egg mass: Brian Kunkel, University of Delaware

Laurie Stepanek and Mark Harrell
Nebraska Forest Service

For more information: www.nfs.unl.edu



The University of Nebraska-Lincoln does not discriminate based on gender, age, disability, race, color, religion, marital status, veteran's status, national or ethnic origin, or sexual orientation.



Bagworms, Webworms and Tent Caterpillars



Bagworm



Mimosa webworm



Fall webworm



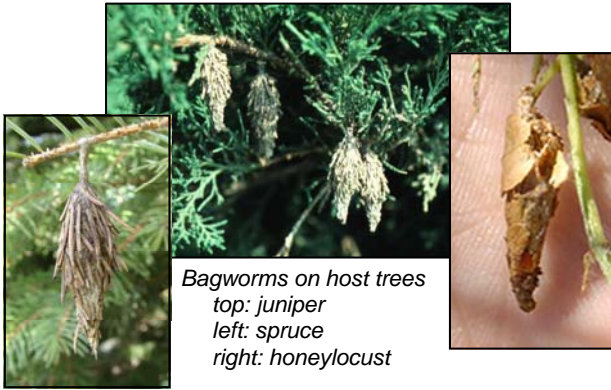
Eastern tent caterpillar

Many caterpillars that feed on trees produce webs, tents or bags, which provide the insects protection from predation and poor weather. This publication will discuss the identification and management of these common pests.

Bagworm

Identification

- Bags up to 2 inches long hang from twigs.
- Bags covered with bits of needles or leaves.



Bagworms on host trees
top: juniper
left: spruce
right: honeylocust

Common Host Trees

- | | |
|------------------|-------------|
| juniper | crabapple |
| redcedar | sycamore |
| spruce | honeylocust |
| pine | maple |
| arborvitae | elm |
| many other trees | |

Conifers can be seriously damaged or killed by bagworm



Life cycle

Eggs overwinter in bags and hatch in late May to June. The tiny bagworms build cone-shaped bags, which are enlarged as the caterpillars feed and grow. Pupation occurs inside the bag in late summer. Adult male moths emerge in September and seek out females. Mating and egg-laying occurs within the bag.



Control

Small trees: Remove and destroy bags before May.
Large trees: Thoroughly spray foliage with an insecticide while the larvae are small (mid-June). Better control may be achieved with a second application in early July. See back panel of this brochure for a list of insecticides.

Eastern & Prairie Tent Caterpillars

Identification

- Silken tent within the fork of major branches.
- Tents present spring to early summer.
- Mature eastern tent caterpillars 2 inches long with white stripe along back and bluish spots along sides.
- Prairie tent caterpillars are similar with bluish sides.



Tents in branch forks built by eastern tent caterpillar

Mature eastern tent caterpillar



Common Host Trees

- | | |
|----------------------------|-----------|
| plum | apple |
| cherry | crabapple |
| many other broadleaf trees | |



Egg mass on cherry twig

Life cycle

Eggs overwinter in egg masses attached to twigs. Eggs hatch in April and the caterpillars construct a small tent in the fork of branches. The tent serves as a resting place and provides shelter during wet weather. The caterpillars leave the tent to feed on leaves, and the tent is enlarged as the caterpillars grow. Pupation and adult emergence occurs late June to July (eastern tent) or August (prairie tent).

Control

Cultural control: Before April, prune and destroy egg masses on twigs. In spring when caterpillars are present in tents, remove tents with a stick or a gloved hand and drop in soapy water.
Chemical control: Thoroughly spray foliage and tents with insecticide when tents appear (April). See back panel of this brochure for a list of insecticides.

Fall Webworm

Identification

- Silken webs enclose leaves at end of branch.
- Webs present late summer to fall.
- Caterpillars tan, pale yellow, or greenish, and covered with hairs.



Web at end of branch typical of fall webworm



Fall webworm caterpillars in web

Common Host Trees

- | | |
|----------------------------|--------|
| cottonwood | redbud |
| crabapple | elm |
| walnut | maple |
| many other broadleaf trees | |

Life cycle

Fall webworms overwinter in cocoons on the ground in soil or leaf litter. Adult moths emerge in summer and lay eggs on leaves of host trees. Young caterpillars feed in colonies on leaves enclosed in webbing. More leaves are enclosed as the caterpillars grow, and webs become more noticeable in late summer. One generation generally occurs per year.

Control

Damage from fall webworm is mostly aesthetic, and control may not be necessary.
Cultural control: Small webs may be pruned out when they appear, or the webs and caterpillars may be stripped off by hand.
Chemical control: An insecticide can be sprayed *within* the webs for best control. The entire crown does not need to be sprayed. See back panel of this brochure for a list of insecticides.