Kansas State University Extension Entomology Newsletter

For Agribusinesses, Applicators, Consultants, Extension Personnel & Homeowners

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Eastern Tent Caterpillar

Eastern tent caterpillar, *Malacosoma americanum*, larvae (caterpillars) are emerging (eclosing) from eggs and feeding on the leaves of trees and shrubs. After emerging from the eggs, the caterpillars create a white, silken nest in the branch crotches of trees and shrubs (Figure 1) including: birch, crabapple, hawthorn, mountain ash, poplar, willow, and flowering cherry, peach, and plum. The silken nest protects caterpillars from cold temperatures and natural predators.

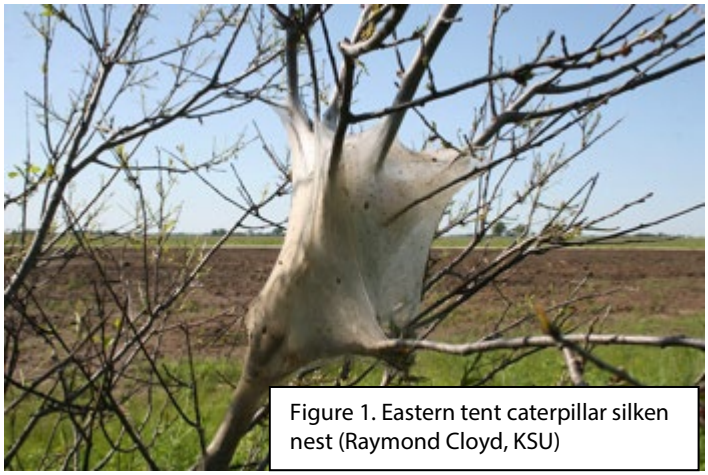


Figure 1. Eastern tent caterpillar silken nest (Raymond Cloyd, KSU)

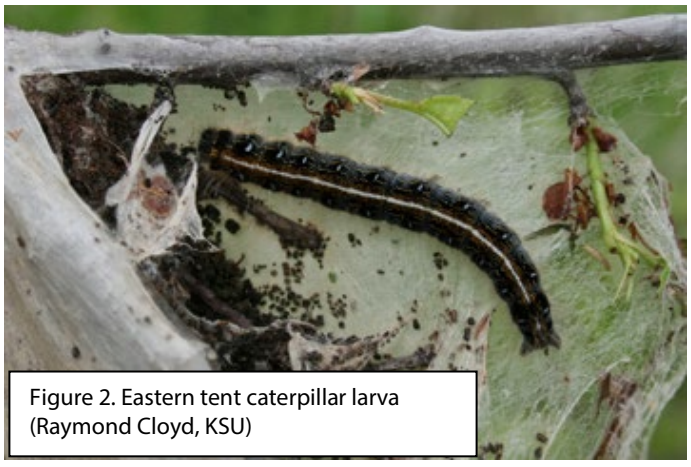


Figure 2. Eastern tent caterpillar larva (Raymond Cloyd, KSU)

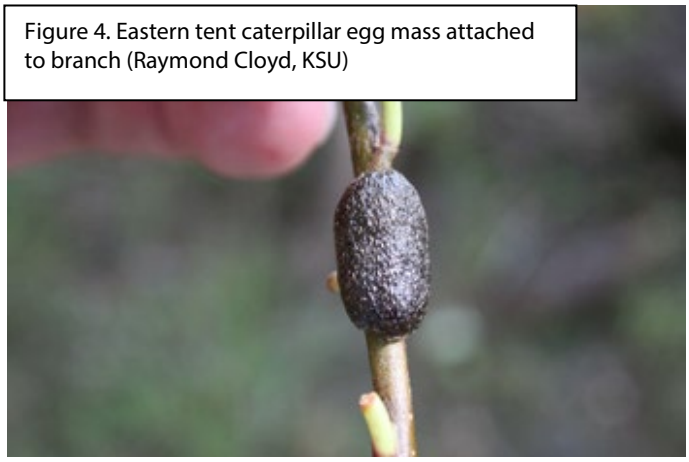
Eastern tent caterpillars are black with a white stripe that extends the length of the body. In addition, there are blue markings on both sides of the body (Figure 2). Eastern tent caterpillar has five larval instars (stages between each molt). Eastern tent caterpillar is one of our earliest caterpillar defoliators, feeding on

newly emerged leaves, which can reduce the ability of trees and shrubs to produce food by means of photosynthesis. Although feeding damage caused by Eastern tent caterpillar may not directly kill a tree or shrub, any decrease in photosynthesis can predispose plants to secondary pests such as wood-boring insects. Leaf quality can influence tree and shrub susceptibility. For example, black cherry, *Prunus serotina*, trees growing in the shade are fed upon less by Eastern tent caterpillars than those growing in full sun due to a lower leaf nutritional quality.

The young or early instar (first through third) caterpillars are active during the day and reside in the silken nest at night. Caterpillars emerge from the silken nest during the day and feed on plant leaves. Caterpillars remain inside the silken nest on over-cast or cloudy days. The final instar (fifth) caterpillar feeds only at night. The extent of feeding by caterpillars depends on temperature with caterpillars feeding for longer durations when exposed to warmer temperatures than when exposed to cooler temperatures. Eastern tent caterpillar overwinters as an egg mass attached to branches or small twigs (Figures 3 and 4). There is one generation per year in Kansas.

Figure 3. Eastern tent caterpillar egg mass attached to branch (Raymond Cloyd, KSU)

Figure 4. Eastern tent caterpillar egg mass attached to branch (Raymond Cloyd, KSU)



The management of Eastern tent caterpillar involves removing the silken nest by hand or using a rake. In addition, a high pressure water spray will destroy the silken nest. Consequently, any young exposed caterpillars are susceptible to predation by birds. However, the older caterpillars are fed upon less because they have hairs on their bodies that deters birds from feeding on them.

Spray applications of insecticides containing the bacterium, *Bacillus thuringiensis* subsp. *kurstaki*, or spinosad, as the active ingredient can be used to kill young caterpillars. These insecticides are stomach poisons so the caterpillars must ingest the material to be negatively affected. When caterpillars are older and approximately 2 inches (5 cm) long then pyrethroid-based insecticides, such as those containing the active ingredients, bifenthrin, cyfluthrin, lambda-cyhalothrin, or permethrin, should be applied. It is important to apply insecticides when caterpillars are active during the day, which will increase exposure to the insecticide spray residues. However, pyrethroid-based insecticides are harmful to pollinators (e.g. honey

bees) and beneficial insects. Therefore, do not apply pyrethroid-based insecticides when pollinators are active. For more information on managing Eastern tent caterpillar populations contact your county or state extension specialist.

Raymond Cloyd – Horticultural Entomology

HOME

Bug Joke of the Week

Q: What did the dog say to the flea?
A: Stop bugging me!

Sharon Schroll

HOME

Sincerely,

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