

News Column for use 6/14/2021
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6/10/2021

Controlling Bagworms

The time has come to start looking and treating bagworms. If you noticed the bags on your tree last fall, you will want to spray this spring. Although the cool weather we have experienced this spring might slow the hatching from eggs, bagworm caterpillars will eventually be present throughout Kansas feeding on broadleaf and evergreen trees and shrubs. Therefore, be prepared to act against bagworms once they are observed on trees and shrubs.

Young bagworms normally hatch in May and initially are about 1/25 of an inch long. The young larvae begin to spin silken bags around themselves which they carry as they feed. Larvae usually feed on the original plant or those nearby. Young larvae may be transported to other hoses via a long silken thread that can be carried by the wind. As the larvae grow, leaf fragments are added to the bag providing a natural camouflage. The visual appearance of the bag will vary depending on the type of foliage the larvae are feeding on. Bagworms are primarily a pest of evergreens; however, they feed on a wide range of host plants including several broadleaf plants, such as; rose, honey locust, hackberry, and flowering plum.

Often the bags are not noticed until the larvae are nearing maturation and the bags approach 1 to 2 inches in length. Mature bags hang off the tree or shrub-like Christmas ornaments. Bagworms reach maturity in August. The now mature larvae attach their bags to branches or other objects and change into adults. The adult male is a small, gray, clear-winged moth that resembles a wasp. The female is wingless and legless and never leaves the bag. Males emerge in September and mate with the female through the bag entrance. The female produces her eggs (500-1,000) and dies. The eggs then overwinter inside the bag and the cycle repeats itself the following year.

Now for the question everyone asks, how do I kill bagworms? The key to managing bagworms with insecticides is to apply insecticides early and frequently enough to kill the highly susceptible young caterpillars feeding on plant foliage. It is important to apply insecticides when bagworms are less than 1/4-inch-long to maximize the effectiveness of insecticide applications and subsequently reduce plant damage. When spraying your trees, you will want to thoroughly cover all of the plant parts, especially the tops of the trees and shrubs, where bagworms commonly start feeding.

Insecticides commonly used for controlling bagworms include cyfluthrin (Tempo, BioAdvanced Vegetable & Garden Insect Spray), permethrin (Eight Vegetable, Fruit & Flower Concentrate; Lawn, Garden, Pet, & Livestock Insect Spray), and acephate (Acephate, Orthene, Bonide Systemic Insect Control). Also, products containing *Bacillus thuringiensis* are effective when used against bagworm larvae while they are still small. Products containing *Bacillus thuringiensis* and spinosad are organic controls. The best time to spray for bagworms is a couple of weeks after the larvae have hatched. Typically, in Kansas June is the best time to apply insecticides. Frequent applications are essential in achieving sufficient suppression of the population. The reason multiple applications are needed is that bagworm larvae do not hatch from eggs simultaneously, but hatch over time depending on temperature.

If left unchecked, bagworms can cause significant damage and ruin the aesthetic quality of plants. In addition, bagworms may kill plants, especially newly transplanted small evergreens, since evergreens do not usually produce another flush of growth after being fed upon or defoliated by bagworms. If you have any questions feel free to stop by or contact me in the Washington office, 785-325-2121 or khatsohl@ksu.edu.