

Post Rock Answers
By Cassie Thiessen May 15th, 2025
Post Rock Extension District Horticulture Agent

If you live in Kansas and have evergreen trees, you have probably dealt with bagworms. Most of us are familiar with their brown bags made of leaf matter that hang off trees like Christmas ornaments, and the devastating defoliation these pests can cause. By the time you see these brown bags and start to notice you have a problem, it's too late. Let's get a jump start on them this year!

Bagworms overwinter as eggs protected in the females' bags. The larvae hatch and emerge from the old bag from mid-May through the end of June. It is a continual hatch during that time period. The larvae immediately construct their own bag and begin feeding. These new bags are covered with bits of foliage, but are very small, initially only 1/25th of an inch long.

The bagworms continue feeding and growing until mid-August. Then, the larvae anchor their bags to a branch and seal themselves inside. At this point, no chemical treatment is effective because it cannot get through the barrier created by the sealed bag. The larvae pupate into adults. The males are black moths with clear wings, and the females are worm-like in appearance and remain inside their bags. The males mate with the females in their bags, the females lay the eggs in the bags and then die. The cycle is repeated with the overwintering eggs.

Most of us are familiar with bagworms in cedar and juniper trees. However, they may also attack other evergreens, such as arborvitae, spruce, and pine. They can also feed on deciduous trees and shrubs, such as: willow, maple, oak, box elder, sycamore, poplar, locust, rose, barberry, cherry, peach, and blackberry. If the bagworms defoliate one host plant, the larvae can migrate to another host plant nearby. It could be the same species or a completely different host.

Most of the time, we don't notice that a bagworm problem is present because the smaller larvae do not feed as much or as rapidly as larger larvae. Then, in a short amount of time, a tree is defoliated, seemingly overnight. Deciduous trees are better able to withstand foliar feeding damage than evergreen trees because deciduous trees can replenish their foliage faster. If evergreen trees experience successive years of heavy foliar feeding by large bagworm populations, even well-established trees could be lost.

If the previous year's bagworm feeding was severe, you should consider two insecticide applications. The first should be applied when the larvae are emerging in mid- to late-May, followed by a second application approximately 3 weeks later to get any larvae that hatched after the first treatment. If the infestation was slight, you could get by with one application in late-June. If you can only spray once per year, then the late-June spray is recommended.

Thorough spray coverage of the tree's foliage is critical for controlling these pests. Insecticides must be applied with sufficient sprayer pressure in adequate amounts of water to ensure both the interior and exterior foliage are covered. This can be difficult to do, especially on a windbreak, but it is crucial to the success of the application.

Insecticides commonly used for controlling bagworms include spinosad, acephate, cyfluthrin, or permethrin. Products containing *Bacillus thuringiensis* (Bt) are effective when the larvae are small.

Make sure to take precautions early this year and treat your trees before bagworms get out of hand. For more information on controlling bagworms, contact your local Post Rock District Extension office.

Post Rock Extension District of K-State Research and Extension serves Jewell, Lincoln, Mitchell, Osborne, and Smith counties. Cassie may be contacted at cthiessen@ksu.edu or by calling Beloit (785-738-3597). Find us online at www.postrock.ksu.edu