

Effective Bagworm Control

In 2018 and 2019, we saw an astounding number of bagworms in Shawnee County. As with most insects, populations rise and fall with weather conditions and food availability. The last two years were particularly favorable for the bagworm. Typically, we see bagworm infestations on evergreen trees and shrubs, especially juniper and arborvitae, with an occasional bagworm on a different host plant. Last year bag worms coated many deciduous trees as well.

In Kansas, May is when we typically see young bagworms hatch and begin feeding on trees and shrubs. These larvae are only 1/25 of an inch long. The larvae emerge and begin to spin their silken bags that they carry with them as they feed. These bags are made up of leaf material from their host plant which often allows them to blend into their surroundings. Larvae often stay on their original host plant but can use a long silken thread to carry them like a kite to new hosts.

The male bagworm is a small, gray, clear-winged moth that resembles a wasp. In September males are emerging and mating. Female bagworms live their entire lives in their bags. The female lays eggs inside her bag and dies. Eggs overwinter inside the bag, emerge in spring and the cycle continues next year.

As bagworms feed they can defoliate entire branches, shrubs or even entire trees if the infestation is bad enough. Established plants often survive a heavy infestation, but not for multiple years. Plants need their leaves to photosynthesize and multiple years of restricting this function can lead to the plants decline and eventual death. Even light infestations cause brown spots and bare branches.

The camouflage of their bag means bagworms often go unnoticed until they are 1-2 inches long. The bags will hang down like ornaments from tree branches. It is important to note if your tree has even a single bag as these are the females that will produce offspring in May and should be removed.

If you spot bagworm females (the bags) the simplest control is to hand pick them off the tree or shrub. The tricky part of this control method is that you have to dispose of or destroy these bags completely. If you toss them in a plastic bag, they will chew their way out. If you trim the bags off the branches and let them fall, they will climb back up. The dried up leaves may make the females look inactive, but make no mistake, they want their young to survive and will do everything possible to ensure their offspring's success.

Although hand picking these bags (and destroying them) can be effective control any time of year, spraying is only effective when the larvae are young and vulnerable. Mid-May, start looking for the larvae's emergence. A few weeks after you notice the larvae—spray. This is generally mid to late June. Spinosad (Conserve; Fertlome Borer, Bagworm, Leafminer & Tent Caterpillar Spray; Captain Jack's Dead Bug Brew, Bonide Caterpillar Killer), acephate (Acephate, Orthene, Bonide Systematic Insect Control), cyfluthrin (Tempo, Bayer Vegetable & Garden Insect Spray) and permethrin (numerous trade names) are all effective for bagworm control. Products containing *Bacillus thuringiensis* are effective on small bagworm larvae. For thorough control, coverage of all foliage is as essential as the timing. Applications at other times of the year, or applications that only reach parts of the tree or shrub, are a waste of time and money as the mature bagworms are tough and resilient against sprays and sprays require contact for effectiveness. As always, follow the label instructions exactly as the label is the law!