How to Control Bagworms

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Fast Facts

- Bagworms are caterpillars than live and feed on many different landscape plants but are particularly prevalent in evergreen plants such as spruce and juniper.
- Bagworms construct a tough bag out of silk they spin and leaves, needles, and berries they find in the tree they are feeding in. This provides them protection and camouflage as they feed and grow.
- Control is best achieved earlier in the season with Bt products but you can also simply pick out bags, prune them away, or use synthetic insecticides against this pest

Life cycle of bagworms

Adult bagworms are active in August and September. Males mature into brown fuzzy moths that can fly, while females mature into a wingless moth that stay inside of their bag. Males fly around and mate with females through the bag and she will lay her eggs inside of her bag and perish. The eggs will hatch next spring, in May or June, and new caterpillars will either infest the tree they are currently in or they will "balloon" away to a new site. They begin their bags as soon as they start to feed and grow the bag as they increase in size.

Diagnosis and Management of Bagworms

When bagworms feed on evergreen plants they often create a bronzed appearance while deciduous trees will look thinner than nearby un-infested counterparts. The most obvious sign though is when you find the mature bags hanging from tree branches, fences, clotheslines, or other structures.

The best control will be obtained if you catch the infestation early in the year. If you have dealt with bagworms before you should start monitoring your trees in May or June for small bags moving on branches and foliage. You can treat these early stages with a Bt product and achieve great control. If you miss this early application window and find large bags later in the year carbaryl, bifenthrin, cyfluthrin may help to eliminate some of the pests. You can also wait until fall or winter to pick out bags left in the tree to eliminate eggs and limit chances of reinfestation for next year.

Figure 1

Figure 2

Figure 1 shows young bagworm caterpillars infesting an evergreen tree. They create small bags that appear to be moving brown triangles. Figure 2 shows large, mature bagworms. This is when most people discover their issue. These bags can be pruned out and destoyed to prevent new infestations.

Photos: Jim Kalisch, UNL Entomology