

BEWARE: BAGWORMS IN THE LANDSCAPE

If you see tiny spindles hanging like Christmas ornaments on your pines, cypress, arborvitae, spruce or junipers, the tiny woven cocoons contain the caterpillars that can defoliate and even kill these and over 125 species of trees and shrubs. We have found Bagworms feeding on roses, St John's Wort, basil, deciduous trees, and even on the underside of the bird bath!

The silken bags start out very small and contain the moth larvae of Bagworms (*Thyridopteryx ephemeraeformis*). The complete metamorphosis from egg, larval or caterpillar, pupal, to adult stages usually have one generation in Oklahoma but, if eggs are laid earlier than late August, there could be two generations (this is rare). The adult small black male moth leaves the cocoon or "bag" in mid-August in search of the female who spends her whole life in the cocoon. She lays eggs in the bag and then dies. Any Bagworm cocoons left to over-winter on trees and shrubs can contain 500-1000 eggs each which hatch in the Spring. We see first signs of the eggs hatching and emerging most anytime from late May to early July when the larvae or caterpillars spin the cocoon from nearby vegetation, attach to a limb with silk, and begin to feed.

There are insect predators like the Tachinid Fly and Parasitic Wasp that control some of the Bagworms. To attract these beneficial insects, it is suggested to plant members of the aster family (*Asteraceae*) and Shasta daisies near susceptible plants. Sparrows, sapsuckers, finches, woodpeckers, cardinals, and other bird species also pull the bags off to puncture and remove the caterpillars for food, then toss the empty bags onto the ground. Place bird feeders, bird baths and bird houses in your yard to attract birds.

It is said that "an ounce of prevention is worth a pound of cure". Finding Bagworms in early June when the cocoons are tiny and removing them by hand is very practical if numbers are not large. It is also the time to use an organic insecticide like Bt (*Bacillus thuringiensis*) which is a soil-borne bacterium that will not harm beneficial insects, humans, pets, or wildlife. Keep off the treated area until the solution is dry. Larvae soon die after ingesting the Bt so make sure to thoroughly cover all sides of foliage and needles and apply when no rain is forecast for 24 hours. Repeat application in 10 to 14 days. More insecticide is not better, so follow label directions closely.

To be effective, treat Bagworm infestations as early as possible. It is recommended to spray only bags that are smaller than ½ inch long. Once the Bagworms stop eating and begin to pupate inside the bags, insecticides are no longer effective. In other words, at that point if it's practical, it's back to picking them off by hand.