August 27, 2004

BAGWORM DAMAGE INCREASING

Walk through your landscape plantings and check for bagworms. I have had several office visits this past week with folks in Saline County experiencing damage to blue spruce, cedars, junipers and arborvitae. The bagworm hides in small, tan, oval-shaped, cocoon-like structures hanging down from your plant's branches. A closer inspection of the plant might also show that some of the leaves have been eaten away. What are these things and what's damaging your plant? The answer is bagworms.

Bagworms feed on shade, orchard, and forest trees of nearly every kind, as well as many ornamental shrubs and perennials, however, severe attacks are unusual and we have had some severe attacks this year in Saline County. Since deciduous plants regrow new leaves each year, the defoliation caused by bagworm feeding is usually not serious. Of concern here is our evergreens.

The adult male bagworm is a small, furry gray moth with clear wings. The adult female does not have wings and never leaves the bag she constructs during feeding. The larva is a brown or tan caterpillar with black markings. Bagworms overwinter in the egg stage inside the female bags, which are fastened to twigs. There may be as many as 300-1,000 eggs in a single bag. Since the female bagworm cannot fly, local populations can build up to damaging levels as succeeding generations of insects emerge. Eggs hatch in late May and early June and larvae feed until late August or early September. There is one generation per year.

By mid August, the mature larvae attach their bag to a branch with a strong band of silk and begin to pupate. Adult males emerge in mid September. Typically, half of the bags are females that stay protected in the bag and half are males that fly out in the fall. The males fly to the female bags and mating occurs. The female never leaves her bag. She dies and the eggs overwinter inside the two inch bag hanging on the trees (sprays will not penetrate the bag). There is our window of time to spray the male moths to prevent next year's crop of bagworms, otherwise, our next window of time to spray is late May to mid June. This is the best time to spray for control because chemicals can come in direct contact with larvae before they begin forming the protective bag in the summer. Be sure to continue checking trees because hatches are often staggered and you may need to spray again.

How can bagworms be controlled now? By August and early September, applying controls can be a waste of time and money because the larvae become so large and tough. Plus, that's when they begin to stop feeding and seal themselves in - to hang like a Christmas tree ornament and work on becoming an adult. The adult males (small, clear-winged moths that look like a wasp) emerge in September. They mate with the females - who stay in their bag and lay eggs, protected from any control except handpicking. Handpicking or the "two brick method" is the best way to control light infestations on small plants. Be sure to remove the bags before eggs begin to hatch next May. Destroy bags by crushing or placing in a container of soapy water. If bags containing larvae are discarded on the ground, the larvae may return to the host plants. If you have been caught by surprise and have a real problem with thousands of bags, you could try chemical control with a

contact spray in mid to late September when the males emerge out of the bags. It's very tricky to know when the male bagworms have emerged this fall and if timing is off, you might waste time and money.

Mark the 2005 calendar in June to spray next year's worms that come out of the bags. Insecticides available include the organic bacillus thuringiensis, BT, which is Dipel, or Thuricide. In the fall, do not use BT. Other insecticides currently labeled for bagworm control include acephate (Orthene), carbaryl (Sevin), cyfluthrin (Tempo), malathion, fluvalinate (Mavrik), dimethoate (Cygon 2E) and permethrin (Eight). In the summer, affected plants must be thoroughly covered with the insecticide so that it is ingested by the insects as they feed. No endorsement is intended when mentioning trade names nor criticism implied if a product is not mentioned. Always read and follow label directions carefully when using pesticides.

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