Get the jump on possible bagworm infestations

Last weekend, the weather was nice enough for many of us to get outside and do some yard work and still follow distancing recommendations. I made the first thorough check of the yard and plants in the landscape. I was disappointed to find spindle-shaped bags hanging on the arborvitae, which meant that bagworms had made it to my place.

The bags can be difficult to detect. The bagworm uses material from the host plant as camouflage in making its protective home. Some people mistakenly think they are mini-pine cones.

Often they are discovered when a homeowner notices significantly browned foliage on a tree or shrub and can easily see the bags hanging in that area. But with the trained eye, the bags can be seen and dealt with before severe damage occurs.

The bags seen on plants this week were started last June. Eggs hatched and crawlers emerged from bags that had overwintered to feed on the surrounding foliage. The crawler started to make a protective bag, its house, while feeding. The bag provides camouflage and makes it difficult for predators to get the worm inside.

Most new larvae will feed on the same tree that contained their overwintering home. Others will form silk threads and allow the wind to carry them to adjacent trees. This is the most common way that bagworms spread from tree to tree in a windbreak planting.

Initially the bags are very small, but will continue to become larger as the worm feeds and grows during the summer. At maturity, the bags are generally one to one and a half inch long.

The bags found today were made last August, when the worms attached their protective home to a stem and then pupated inside. Male moths emerged about a month later and mated with females in the bags.

Females never leave the bag. After maturing, a female will lay 300 to 1,000 eggs in the bag, die, and form a mummified body around the egg mass for extra winter protection.

Eggs will hatch the following spring to start the next generation. Tiny emerging larvae (crawlers) will start to emerge late May and early June depending upon air temperature and accumulating heat units.

However, at this time, bags can be removed before eggs are ready to hatch. If the numbers are small enough to be manageable and within arms reach, the bags can be physically removed. This is what I did last Saturday. I removed about a dozen bags off an arborvitae tree. They were still low enough I could reach them with a step ladder.

If all the bags were removed, there will not be any eggs to hatch and crawlers to emerge to feed on foliage. However, I will have to check closely in June to make sure that I did not miss a bag.

Do not pluck and drop bags to the ground. The crawlers will still emerge from the bags and crawl to the tree or shrub. The bags need to be removed from the area and discarded in the trash or other means of disposal.

Insecticides will not work at this time since the eggs are in their protective bag. To work, the insecticide must have physical contact with the worms. If bags cannot be removed now because they are out of reach or numbers are too great, then an individual will have to wait until crawlers have emerged to apply an insecticide.

Hatch and development of crawlers is temperature dependent; thus, a homeowner can predict their activity by following growing degree days or heat units. Eggs begin to hatch when 630 heat units have accumulated about the time that Japanese lilacs are flowering in the area. For most years, this occurs in June.

Ohio State University has a website so one can obtain the number of accumulated heat units in area. It may be found at https://www.oardc.ohio-state.edu/ggd/default.asp. Currently, about 60 heat units have accumulated for the year.

Bagworms will not magically go away and they can become a serious problem in town and on the farm. A few bagworms do little harm. However, many bagworms on a shrub or tree can cause excessive defoliation. A severe infestation may kill the plant within one or two seasons.

Bagworms do the most damage on arborvitae and cedars, but will attack pines, junipers, spruce and at least 130 other trees and shrubs. They may not harm the deciduous trees, but they spread from these trees to more susceptible evergreens.

Check your trees now for bagworms, especially arborvitae, junipers, and Colorado blue spruce. Bags can be removed at this time, eliminating the need for insecticides. Left unchecked, bagworms can eventually kill a row of large trees in windbreaks, evergreen borders, and valuable landscape plants.

For more information on bagworms, visit the following websites: http://ohioline.osu.edu/factsheet/HYG-2149-10 and https://byg1.osu.edu/node/1385 (great pictures).