

Bagworms

by Bob Bauernfeind

Although most Kansas residents are familiar with the bagworms, in most instances, bagworms go unnoticed until late in the summer after bags are of sufficient size to be noticed (Figure 1). Then people want to “take action” against the larvae/worms (Figure 2) residing in the bags. However, by that time, bagworms may have caused substantial damage and are usually very difficult if not impossible to control.



Figure 1
Bagworm Infestation



Figure 2
Bagworm larvae

While recognized as a major pest of *Juniperus* trees and shrubs in landscape and windbreak plantings (Figures 3-5), it should be remembered that many deciduous tree species also serve as suitable hosts for bagworms (Figures 6-9). However, unlike deciduous trees and shrubs which have auxiliary buds from which new foliage is produced, evergreen species lack auxiliary buds. Thus they are slower to recover from the severe feeding damage inflicted by massive bagworm populations.



Figure 3



Figure 4



Figure 5



Figure 6
On willow



Figure 7
On locust



Figure 8
On blackberry



Figure 9
On barberry

Bagworms overwinter as eggs in female bags. Eggs tolerate low temperatures. In addition, they are further protected by the tough outer bag casing which encloses the pupal case inside of which the eggs per se are further cushioned/protected against the cold by fine body hairs which the female used to nestle the eggs after she deposited them. While the time of egg hatch varies from year to year depending on prevailing springtime temperatures, generally speaking, mid- to late May is considered to be when larvae hatch and begin emerging from their protected “home”. Geographic location in Kansas is also a factor for the initiation of bagworm hatch, beginning sooner in the southeast as compared to the northwest. It should be noted that not all larvae emerge from the various bags simultaneously, but that eggs may hatch over a 4-6 week period of time.

People who have bagworm concerns should take time to closely inspect/check their trees and shrubs for the presence of small bagworms in early June. At this time of the year, lush foliar growth (Figures 10-12) makes it difficult to easily/casually observe small bagworms. However, with patience and close inspection, small “pencil lead” size bagworms (Figure 13) can be detected. And once a person recognizes the small bagworm, amazingly enough, others seem to magically jump-into-view as they move about while feeding.



Figure 10



Figure 11



Figure 12



Figure 13

The best time to control bagworms is while they are small and most susceptible to insecticide treatments. Another advantage to controlling bagworms early in the season is that they will be eliminated before they reach their larger and more damaging larval stages.

People often ask for an insecticide recommendation to control bagworm. The specific active ingredient/insecticide is probably the least important factor to consider in a bagworm control program. All products labeled for use against bagworms kill bagworms. More important is when and how a product is used.

A two-spray schedule is recommended in situations where the previous season’s bagworm activities caused serious damage. Precious regrowth needs to be protected. Therefore, Spray #1 should be applied during the first week or week and a half into June for the purpose of eliminating those bagworms which emerged early during the hatching period. It is essential that Spray #2 be applied 3 to 4 weeks later to eliminate those larvae emerging in the latter part of the hatching period.

Where the previous year’s bagworm population caused minimal damage the previous season and where there is ample foliage to support populations of small larvae early in the season, a single spray applied during the first week of July should be adequate for controlling bagworms. While some of the early-emerging bagworms may be a third grown, they will not have caused noticeable

feeding damage, and will be eliminated with the smaller bagworms which emerged late in the hatching period.

Insecticide applications must be thorough. Misperceptions about insecticide efficacy arise when mist-like applications to the outer foliage of infested plantings eliminate only those bagworms feeding on the peripheral fringes. The main portion of the population feeding on inner portions of the plantings go unscathed, and eventually move out to the periphery.

Ease of control is also regulated by the size and number of infested plantings. Thus once they are eliminated on small plantings, bagworm damage is quickly “repaired” (Figure 14 versus Figure 15).



Figure 14 - July 8



Figure 15 - October 11

However on larger trees, or where there are many trees (Figure 16), complete insecticide coverage is more difficult to attain. In these situations with less-than-successful spray programs, whole trees or portions of trees may be killed (Figure 17).



Figure 16



Figure 17

For more information refer to the publication MF728 - [Bagworms](#)

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