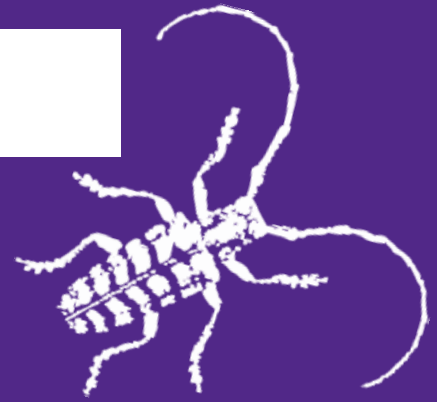


Kansas State University Extension Entomology Newsletter

For Agribusinesses, Applicators, Consultants, Extension Personnel & Homeowners

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June 7, 2019 #9

Time To 'Get Ready' For Bagworms
Alfalfa Weevils
Pea Aphids and Potato Leafhoppers
Corn Rootworms
Bean Leaf Beetles

Time To 'Get Ready' For Bagworms

For those of you that have been waiting patiently or for some...impatiently; it is time to 'get ready' to spray for bagworms. In due time, bagworms will be present throughout Kansas feeding on broadleaf and evergreen trees and shrubs. Therefore, now is the time to initiate action against bagworms once they are observed on plants. Bagworms are primarily a pest of conifers; however, they have expanded their host range to include a number of broadleaf plants, such as; rose, honey locust, and flowering plum. It is important to apply insecticides when bagworms are small to maximize effectiveness and subsequently reduce plant damage.

A number of insecticides are labeled for use against bagworms including those with the following active ingredients (common trade names are in parentheses): acephate (Orthene), *Bacillus thuringiensis* subsp. *kurstaki* (Dipel), cyfluthrin (Tempo),



Fig 1. Young bagworm larvae or caterpillar feeding on conifer (Auth:Raymond Cloyd, KSU)



Fig 2. Product (Thuricide) containing *Bacillus thuringiensis* subsp. *kurstaki* as the active ingredient (Auth:--Raymond Cloyd, KS).

lambda-cyhalothrin (Scimitar), trichlorfon (Dylox), indoxacarb (Provaunt), chlorantraniliprole (Acelepryn), and spinosad (Conserve). Most of these active ingredients are commercially available and sold under various trade names or as generic products. Several insecticides, however, may not be directly available to homeowners.

The key to managing bagworms with insecticides is to apply early and frequently enough to kill the highly susceptible young caterpillars feeding on plant foliage (Figure 1).

Older caterpillars that develop later in the season are typically more difficult to kill with insecticides. Moreover, females feed less as they prepare for reproduction, which reduces their susceptibility to spray applications and any residues. The bacterium, *Bacillus thuringiensis* subsp. *kurstaki*, which is sold under various trade names (Figure 2), is only active on young caterpillars and must be consumed or ingested to be effective. Therefore, thorough coverage of all plant parts and frequent applications are required. The insecticide is sensitive to ultra-violet light degradation and rainfall, which can reduce residual activity (persistence).

Spinosad is the active ingredient in a number of homeowner

products, including: Borer, Bagworm, Tent Caterpillar, and Leafminer Spray; Captain Jack's DeadBug Brew (Figure 3); and Monterey Garden Insect Spray. The insecticide works by contact and ingestion; however, activity is greatest when ingested by bagworms. Last year (2018), I made weekly applications for four-weeks in June and killed nearly 100% of the bagworms on my arborvitae and juniper shrubs. Consequently, the plants looked aesthetically pleasing during the season.

Cyfluthrin, lambda-cyhalothrin, trichlorfon, chlorantraniliprole, and indoxacarb can be used against where bagworms commonly start feeding, and frequent applications are essential in achieving sufficient suppression of bagworm populations. The reason multiple applications are needed is that

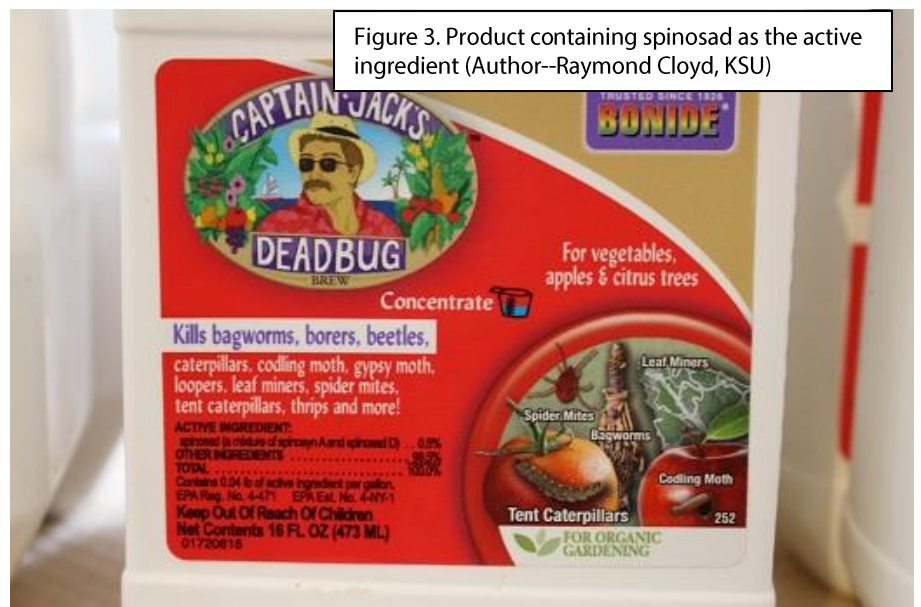


Figure 3. Product containing spinosad as the active ingredient (Author--Raymond Cloyd, KSU)

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bagworm eggs do not hatch simultaneously but hatch over a certain period of time depending on temperature, and young bagworms can ‘blow in’ (called ‘ballooning’) from neighboring plants on silken threads. If left unchecked, bagworms can cause significant damage and ruin the aesthetic quality of plants. In addition, bagworms can actually kill plants, especially newly transplanted small evergreens, since evergreens do not usually produce another flush of growth after being fed upon or defoliated by bagworms

If you have any questions on how to deal with bagworms in your garden or landscape contact your county horticultural agent, or university-based or state extension entomologist.

Raymond Cloyd

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Alfalfa Weevils

Alfalfa has mostly passed the alfalfa weevil vulnerable time of year. However, there are still highly visible signs that there was a significant weevil infestation, i.e. some fields with characteristic striping, which is usually partly attributed to weevil feeding under windows and the “barking” of stems by adults.



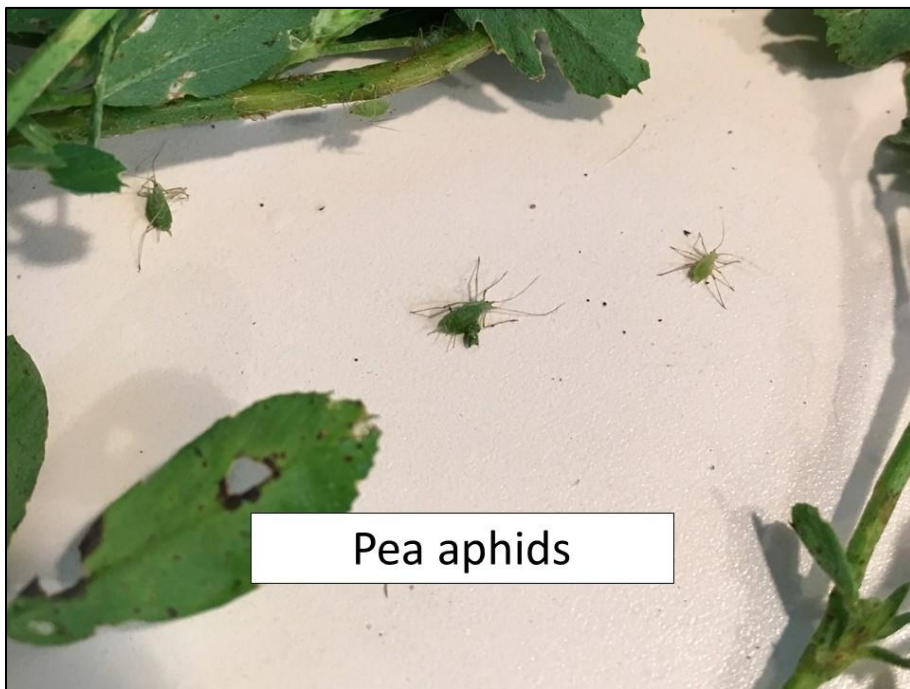
Jeff Whitworth

Holly Davis

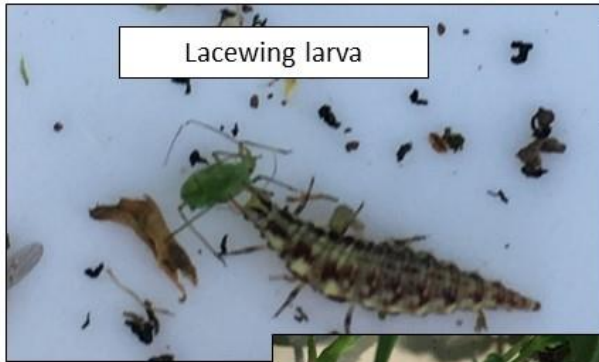
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Pea Aphids and Potato Leafhoppers

Recently mowed alfalfa around north central Kansas still seems to have relatively robust populations of pea aphids. These aphids tend to be more problematic during the cooler weather of spring and fall, but with the cloudy, cooler temperatures so far this spring, they are still doing quite well. Also, most fields treated for alfalfa weevils have few beneficials yet, although they do appear to be coming back. Warmer temperatures and resurgent densities of beneficials should help control these pea aphid populations without the need of an insecticide application. However, if summer temperatures are lower than usual, pea aphid populations may persist and thus monitoring should continue.



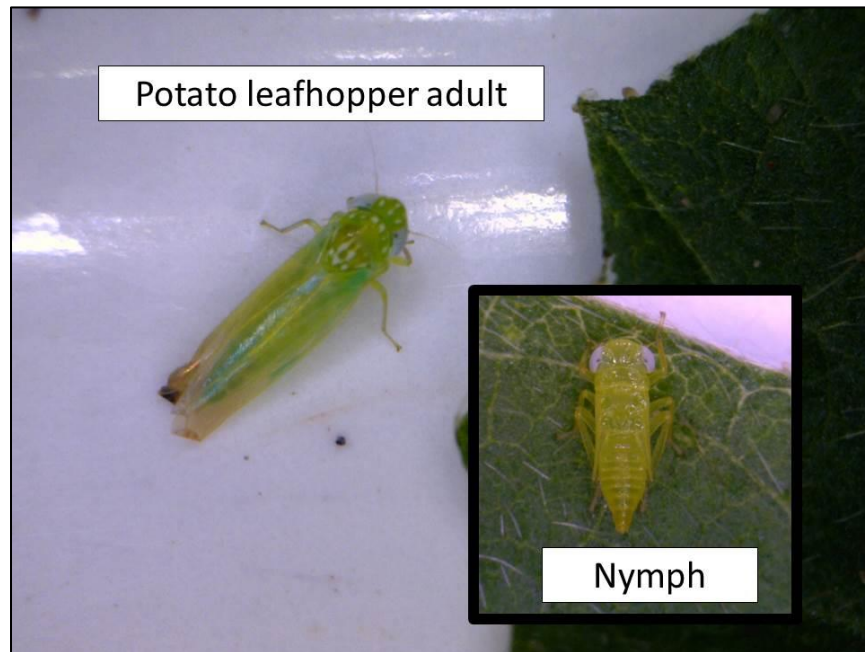
Beneficials in alfalfa



Potato leafhoppers are increasing in north central Kansas. Populations sampled were all adults, which means they have recently migrated into the area. These adults will be depositing eggs in alfalfa stems and the nymphs will emerge to begin sucking plant fluids from the alfalfa. If potato leafhopper populations are at, or exceed, treatment thresholds and the alfalfa has recently been swathed, so that it is a few weeks prior to the next cutting, an insecticide application may be justified.

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Keep in mind that potato leafhopper and pea aphid populations can be greatly impacted by weather so they should continue to be monitored. For more information regarding these and other alfalfa pests, please see the KSU Alfalfa Insect Management Guide: <https://www.bookstore.ksre.ksu.edu/pubs/mf809.pdf>

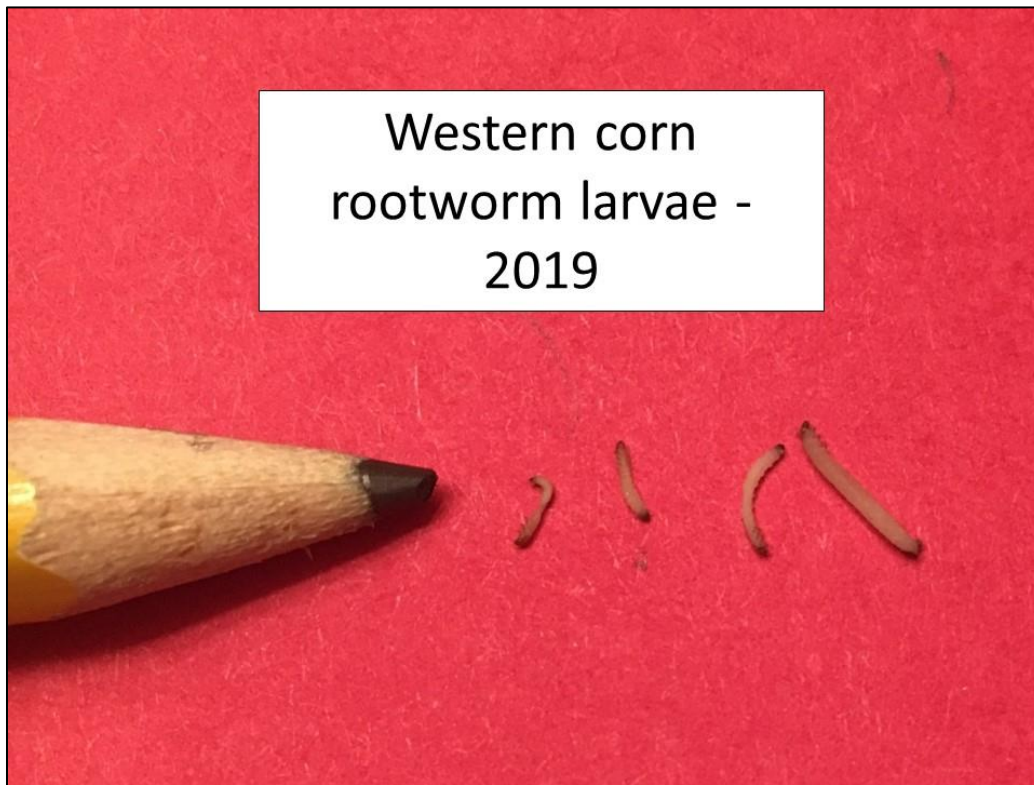
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Corn Rootworms

Western corn rootworm larvae have been detected for the 1st time this year in north central Kansas. All were 1st instar larvae and most were still very small (recently hatched). Thus, if you have any fields of three-plus year continuous corn planted with corn rootworm susceptible varieties, the rootworm feeding may become more and more evident over about the next three weeks.



For more information on corn rootworm management, please see Corn Rootworm Management in Kansas Field Corn: <https://www.bookstore.ksre.ksu.edu/pubs/MF845.pdf>

For more information relative to all corn pests, please see the KSU Corn Insect Management Guide: <https://www.bookstore.ksre.ksu.edu/pubs/MF810.pdf>

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Bean Leaf Beetles

Bean leaf beetle adults that are out and about now have successfully overwintered, probably fed a little in an alfalfa field, and are now eagerly awaiting soybean germination. These adults are amazing at finding the first, small soybean plants where they begin feeding, causing the characteristic round and/or oblong holes

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in the small leaves. These beetles will feed for just a little while and then begin depositing eggs in the soil around the stems of these plants. These young plants are usually very resilient at overcoming this early season leaf feeding, until it reaches 50% defoliation or more. For more information on bean leaf beetle biology and management, please see Bean Leaf Beetle:

<https://www.bookstore.ksre.ksu.edu/pubs/MF2824.pdf>

For more information relative to all soybean pests, please see the KSU Soybean Insect Management Guide:

<https://www.bookstore.ksre.ksu.edu/pubs/MF743.pdf>

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