Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel

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July 1, 2011 No. 12

Bagworms Are Out-And-About

It is that time of year in which you need to consider dealing with that "notorious" insect pest called the bagworm, *Thyridopteryx ephemeraeformis*. Bagworms are out-and-about feeding on trees and shrubs (both evergreen and broadleaf). So, how can you minimize the damage caused by bagworm caterpillars? Well, first you can hand-pick the bags and place into a container of soapy water. This is very therapeutic and will quickly remove large populations before they cause significant plant damage. You can also hire someone and pay them 25 cents per bag. Not only will this impact the unemployment rate but will "stimulate" the economy. For those not interested in hand-picking there are a number of pest control materials labeled for control or suppression of bagworm populations including acephate (Orthene), *Bacillus thuringiensis* spp. *kurstaki* (Dipel and Thuricide), cyfluthrin (Tempo), trichlorfon (Dylox), indoxacarb (Provaunt), chlorantraniliprole (Acelepryn), and spinosad (Conserve). Most of these active ingredients are often available and sold under different trade names. However, several of these pest control materials may not be available to homeowners. It is critical to make applications early and frequently enough to kill the young caterpillars. Older caterpillars, in the bags, may be 3/4-inches long, and are more difficult to kill or obtain sufficient mortality to prevent plant damage. In addition, females tend to feed less as they prepare for reproduction, which reduces their susceptibility to spray applications and any residues. The bacterium *Bacillus thuringiensis* is highly active on young caterpillars; however, the active ingredient must be consumed to be effective, so thorough coverage of all plant parts is important. Spinosad works by contact and ingestion (stomach poison), and is very effective in suppressing bagworm populations. Cyfluthrin, trichlorfon, and indoxacarb are typically used against the older (larger) caterpillars. Again, thorough coverage of all plant parts is important, especially the tops of trees and shrubs, where bagworms commonly start feeding. Also, several applications will be required since bagworms may "blow in" from neighboring plants. If left unchecked, bagworms can cause significant damage that ruins the aesthetic quality of plants or they may actually kill plants, especially newly transplanted or small plants.

Raymond Cloyd

Hessian Fly

If you have known infestations of Hessian flies please e-mail me (jwhitwor@ksu.edu) with the field location. We would like to collect several trash bags full of infested stubble from various locations around the state to identify what the most common biotype is in Kansas.

Potato Leafhoppers

Potato leafhopper populations continue to increase in alfalfa fields. Eggs are hatching and the very small nymphs are becoming quite active. These young nymphs are very difficult to see because of their small size and ability to move rapidly to the underside of leaves or hop to the ground. These small potato leafhoppers will continue to feed and that feeding and consequent plant stress will continue until the plants are swathed or the field is treated. This feeding will put stress on the plants, and coupled with the normal hot and dry Kansas summer, can make it very difficult for alfalfa to regrow. Please see the Alfalfa Insect Management Guide, 2011, for treatment thresholds and options:

http://www.ksre.ksu.edu/library/ENTML2/MF809.pdf

Corn Rootworms

Most corn rootworm larval feeding is completed or nearing completion by now. If you had rootworm problems and/or have a significant adult rootworm infestation, please e-mail me (jwhitwor@ksu.edu).

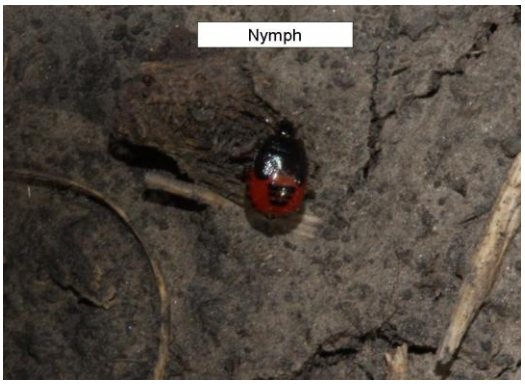
Chinch Bugs

We have looked at several sorghum fields and have received reports from both south and north central parts of the state with chinch bug infestations. All fields were adjacent to wheat fields and had infestations ranging from 2-3 bugs/plant to 15+/plant. Sorghum was generally in the 3-9 leaf stage, depending upon the field. Generally, 7-10 bugs/seedling are required to cause stunting, etc. However, with the hot, dry weather we have experienced, and that is predicted to continue for the foreseeable future, fewer chinch bugs are required to cause enough additional stress on these already struggling plants to result in wilting, stunting, and plant death. Several insecticides are labeled for chinch bug control and probably should be considered as soon as soon as possible. These treatments work best when the insecticide is applied with enough gallonage to reach the base of the plants and thoroughly wet plants. See the Sorghum Insect Management Guide, 2011, for insecticide recommendations:

http://www.ksre.ksu.edu/library/ENTML2/Mf742.pdf

Burrowing Bugs

Burrowing bugs are small, (1/4 inch long) shiny, black, stinkbug-shaped insects with a white border around the thorax and abdomen. Unlike true stinkbugs, however, their tibias (lower legs) are covered with easily seen spines.



Biology

Very little is known relative to the biology of this insect in Kansas. They overwinter as adults, mate in the spring, lay eggs, which usually hatch in mid-may. These bugs are very secretive but live and feed primarily above ground. They are especially abundant on henbit and other mints and nettles in late spring, but adults can be found throughout the summer on these plants.

Damage

These bugs can often be found in huge numbers after herbicide treatment kills their natural host, most commonly henbit. This is usually about the same time as the burrowing bug populations peak and is composed of mostly nymphs with a few adults. These large numbers are often a cause of concern but have not resulted in crop injury.

Management

No management recommendations have been justified.

Jeff Whitworth *Holly Davis*

Who Loves Irises?

Check the membership rolls of any Iris Growers Association to answer the question above. Of course, one name that will not appear will be, *Macronoctura onusta*, commonly known as the iris borer. BUT THEY DO LOVE IRISES! I had a recent opportunity to observe their destructive capabilities.

The situation came to light when examining an iris bed that was anything but healthy (Figure 1). While some plants were green, many were browned/dead, and others showed discolored foliage.

Figure 1

Was there a disease or an insect involved? Selecting and severing a plant displaying signs of decline (Figure 2), there was nothing evident in terms of an insect.

Figure 2

However, when separating the outer leaves away (Figure 3A), the leaf enclosed in the outer left leaf showed feeding damage. When slitting the outer leaf, an iris borer was exposed (Figure 3B).

Figure 3

The exposed larva did not hesitate to seek concealment as it did a 180-degree turn and slid back into the hollow of the leaf (Figure 4).

Figure 4

As leaves die, an iris borer will move downwards towards its next feeding site: the rhizome (Figure 5). Often times, rhizomes become oozy and smelly due to fecal contamination and bacterial soft rot organisms.

Figure 5

While many people think of most borers as the legless larvae of wood boring beetles, iris borers possess legs because they are the larvae/caterpillars of the iris borer moth (Figure 6).

Figure 6

Iris borer moths appear in late summer and fall. They deposit eggs on iris foliage and debris on the soil surface. Eggs hatch the following spring. A newly emerged larva crawls up a leaf and bores into the leaf. Feeding within, the borer larva works/feeds downward and eventually enters the rhizome. Larvae (up to 1 ½-inches in length) mature in summer and leave the rhizome to pupate in the soil. Moths emerge to repeat the yearly life cycle.

There are different approaches to controlling iris borers. If insecticide treatments are considered, they must be applied before larvae bore into plants where they would be protected from sprays. Initial applications should be timed to coincide when new shoots are 4-6-inches long. A follow-up treatment should be applied 10-14 days later.

Because at this time of year the window for insecticide treatments is past, sanitation practices should be considered. Rogue out and dispose of heavily damaged plants. When dividing irises, discard damaged rhizomes. In the late fall, remove plant debris ---- this will aid in the elimination of overwintering eggs. In springtime, check plants for the presence of larvae which can be squashed (depending on the number of plants, this may or may not be practical). If you inspect plants/leaves and detect small water-logged spots, or tips of plants have turned yellow, be suspicious of iris bore activity. Prune the leaf below the damaged point ---- the borer larva will be confined to the cut foliage which can be discarded.

FYI - Yellownecked caterpillars

While (this year) I have picked up many walnut caterpillar moths up in my blacklight traps, I have not recorded and yellowneck caterpillar moths (the two usually occur simultaneously). None-the-less, I have periodically visited a stand of oak trees (pictured many times in previous Kansas Insect Newsletters) with a history of yellownecked caterpillars. A week ago today (too late to incorporate into last week's Kansas Insect Newsletter), I encountered yellowneck caterpillars that were approximately 1week old. Because of their small size and small mouthparts, their feeding damage is more of a grazing off of the tender epidermal leaf tissue (Figures 7 & 8).

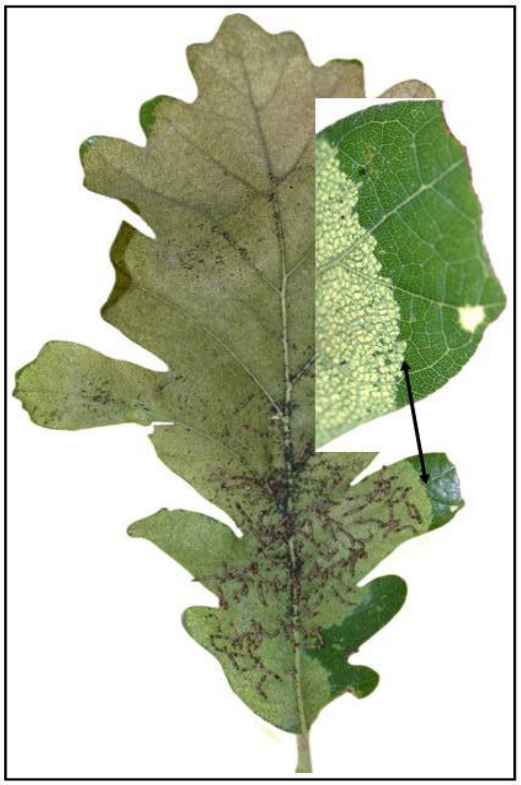


Figure 7

Figure 8

With the passage of time (another 3-4 weeks) larvae will have attained sufficient size and ability to consume entire leaves resulting in defoliation. That is the usual point-in-time that people first become aware of caterpillars, prompting the thought of applying a spray treatment. However, the damage will have been done. And past experiences have taught that although defoliations may be startling in appearance, established trees are able to withstand (even) repeated defoliations with little harm to them

Bob Bauernfeind

Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostic Laboratory from June 24th to June 30th.

June 24 2011 – Miami County – Pecan phylloxeran gall
June 27 2011 – Riley County – Multicolored Asian lady beetle and Oriental cockroach in home
June 27 2011 – Ellis County – Scolytid beetle larvae in Eastern red cedar
June 28 2011 – Norton County – Varied carpet beetles in building
June 28 2011 – Linn County – Kermes scale on oak
June 28 2011 – Jefferson County – Leaf beetles (*Rhapdopterus* sp.) on raspberries

June 28 2011 – Miami County – Broad-nosed weevil (*Sciaphilus* sp.) around home
June 28 2011 – Riley County – San Jose scale on apples
June 28 2011 – Riley County – Brown dog tick
June 30 2011 – Wyandotte County – Yellowstriped armyworm on barberry

If there are any questions regarding these samples or about the identification of any arthropod please contact the Insect Diagnostician at (785) 532-4739 or GotBugs@ksu.edu.

Holly Davis

Sincerely,

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