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Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants, and Extension Personnel

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Flight of Wheat head Armyworm in Western Kansas:

The wheat head armyworm, Faronta diffusa, was responsible for minor damage to last year's wheat crop and generated considerable concern because of the frequency of insect-damaged kernels (IDC) detected early on in the harvest. Adults are beige with a conspicuous chocolate brown stripe running the length of each forewing (Fig. 1). Larvae range from light brown to greenish with a dark head capsule and longitudinal lines along the body (Fig. 2). Using a blacklight trap, we monitored flights of adult moths emerging from this larval cohort that peaked around 90 moths per night in late August. We continued to catch moths through September, with a single moth caught on Oct 17.

This year, the first wheat head armyworm adults were caught on April 7. Apparently, overwintering survival has been good because we are presently observing a substantial flight of adult moths (Table 1). The cold, wet and windy conditions over much of the past week likely suppressed moth flight on many nights, leading to the observed daily variation in catch. These moths will be laying their eggs in wheat fields over the next few weeks. The larvae hide around the base of plants during most of the day, but can be found up on the plants feeding on the developing wheat kernels in early morning and evening hours. Fortunately, most damage seems concentrated around field margins and there is no indication that any efforts to control the wheat head armyworm are economically justified.

Figure 1

Figure 2

Table 1

Date	No. moths caught
5/3/2004	0
5/4/2004	4
5/5/2004	20
5/6/2004	75
5/7/2004	0
5/8/2004	0
5/9/2004	20
5/10/2004	8
5/11/2004	0
5/12/2004	0
5/13/2004	0
5/14/2004	0
5/15/2004	3
5/16/2004	0
5/17/2004	243
5/18/2004	21

J.P. Michaud

Alfalfa:

Few samples of aphids have been sent in. Both pea and spotted aphids were identified from the samples. **Pea aphids** are larger and usually more active during March/April/May, so should be less noticeable soon. **Spotted aphids** are smaller with highly visible rows of spots (under magnification) and usually do better under hotter, dryer conditions. Lady beetles will feed on both species so

please monitor for aphid numbers (50 +/stem in 10 inch alfalfa) of either species. And, note the presence of lady beetles prior to treating. Good growing conditions have been prevalent the last few days and will probably allow the plants to outgrow any effect aphids may have.

Jeff Whitworth

Current Unseen Happenings:

As is the usual situation at this time of year, several foliar insect “pests” are currently active. People are unaware of what is underway because at this time of year, trees/plantings appear lush and healthy. Nothing appears amiss. However, in several weeks, people may notice the cumulative damage caused by several pests. At that point in time, there will be little reason to attempt a spray program to eliminate the pests because either the insects will have completed their cycles for the year and/or because a flush of new foliage from auxiliary buds will mask the damage.

It is difficult to prevent damage by these insect pests. They are unpredictable from year to year as well as which tree(s)/plant(s) they will attack. Larger trees (especially) given their size makes monitoring impractical. Lastly, it would be impossible for homeowners to achieve thorough spray coverage of their trees (thus the cost expenditure of hiring a tree service to apply treatment(s). In the end, overall tree health does not suffer, and thus the insect pests’ “workings” are more of an aesthetic concern.

Lace bugs are widespread and produce (at least) two complete generations each year. Lace bugs are aptly named for the lacy appearance of their wings (Figure 1). They overwintered as mature bugs. Lace bugs are specifically named for their selected host. For example sycamore lace bugs (Figure 2) are specifically associated with sycamore/London plane, hackberry lace bugs (Figure 3) with hackberry and egg plant lace bug (Figure 4) on egg plant. Other common species are oak lace bugs, Hawthorne lace bugs and penstemon lace bugs.

Figure 1

Figure 2

Figure 3

Figure 4

Lace bugs feed on the undersides of leaves as evidenced by the presence of black eggs, nymphs and their skin castings, adult lace bugs and the many black flecks or dried fecal matter (Figure 5, lower leaf). Leaf discoloration is expressed on upper leaf surfaces (Figure 6, right leaf). Eventually, leaves take on a bronzed cast. Lace bugs eventually leave trees/plants (as early as August) to search for overwintering sites.

Figure 5

Figure 6

Honeylocust plant bugs (Figure 7) feed on the leaves/leaflets of their namesake tree. Heavily infested trees take on a sparse appearance (Figure 8, right) as compared to a sparsely infested or uninfested neighboring tree (Figure 8, left). Upon closer inspection, infested foliage (Figure 9) versus healthy foliage (Figure 10) is readily apparent. The distorted growth is caused by

salivary secretions injected into leaf tissues when utilizing their piercing sucking mouthparts to withdraw liquid nourishment from leaves.

Figure 7

Figure 8

Figure 9

Figure 10

Honeylocust plant bugs complete their seasonal cycle by late spring and early summer. Trees put out a new flush of foliage. Although they may appear lighter in color and more sparse (Figure 11, foreground) than an uninfested tree (Figure 11, background), the foliage will fill out and darken and blend in well. Given the unpredictability of the year-to-year appearance of honeylocust plant bugs as well as which tree(s) in particular will be heavily infested, there is little to be done to head-off these situations. And again, recovery is complete.

Figure 11

Woolly briar aphids commonly appear each year on silver maple. Trees have not been observed to be infested in successive seasons or over a series of years. Therefore one never knows which tree will be the site of a current year infestation. Woolly briar aphids congregate in the twigs and branches of trees (Figure 12). Woolly aphids produce white waxy flocculent wax filaments which give them they namesake appearance (Figure 13). Despite their massive numbers (Figure 14), trees appear “normal”, apparently suffering no damage (Figure 15).

Figure 12

Figure 13

Figure 14

Figure 15

The major objection to woolly briar aphid infestations is the tremendous amounts of honey dew which they produce. Woolly briar aphids feed continuously, withdrawing large amounts of plant sap. The resultant sticky liquid excrements covers tree foliage (Figure 16) as well as anything positioned beneath trees (cars, swing sets, picnic tables, sidewalks, people, etc). The honeydew also serves as a substrate for the growth of distracting sooty molds (Figure 17).

Figure 16

Figure 17

Little is known about the exact specifics of this aphid's life cycle. But apparently by mid-June, winged female woolly briar aphids depart maple trees in search of their primary alternate host plants --- green briar. There they parthenogenically produce several generations for the remainder of the summer. In the fall, newly formed alates fly back to silver maples and produce sexual forms. Females then deposit overwintering eggs on the bark.

Bagworms 2004, Chapter One:

Mid-May is the usual time frame assigned to the beginning of current season bagworm activities. Larvae begin their emergence from female bags where they overwintered as eggs. Roughly speaking, the period of egg hatch extends over a 4-6 week period of time with peak hatch occurring the first two weeks of June.

People who are truly concerned about bagworms need to begin inspecting trees and shrubs for the first signs of bagworm activities. It takes a keen eye and patience to detect the newly developing bagworms. It will not suffice to stand away from a bush (Figure 18) to detect small bagworms. Rather one must look much closer (Figure 19) to detect the newly formed bags which may be but the size of a pencil lead (Figure 20). But once you finally recognize what you are looking for, others seem to "jump into view".


Figure 18


Figure 19


Figure 20

The severity of damage suffered last season will determine whether one adopts a two-spray or a single-spray control program for this season. Where damage was severe in 2003, consider the two-spray approach to preserve all current foliar growth: apply an initial spray the first week of June to eliminate the front end of the hatch and then a second “clean-up” “spray to eliminate the remainder of the hatch. Where bagworms were not a serious problem the previous year and there is adequate foliage to support feeding activities without causing noticeable damage, a single application applied the last week of June or first week of July should adequately control bagworm infestations.

Any number of insecticides are registered for use against bagworms ----- more important than “What is the best material?” (and they are all, essentially, equally effective) is timing and thorough coverage. Merely waving a wand and misting the outer portions will provide disappointing results in efforts to control bagworms. Much of a bagworm infestation may be hidden deeper in the thick interior portions of trees/shrubs. Therefore, thorough coverage is the most important factor in any bagworm combating bagworms.

Bob Bauernfeind

Weekly Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostic Laboratory from May 14 to May 20, 2004:

5-14-2004, Johnson County: Lone Star Tick on person.
5-17-2004, Saline County: Lone Star Tick nymph on person.
5-19-2004, Cheyenne County: Mourning Cloak larvae on poplar.
5-20-2004, Jackson County: Lone Star Tick nymph on person.

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

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Sincerely,

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