

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel



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Sunflower Stem Weevil

Emergence of sunflower stem weevils is now virtually complete across central and western Kansas. These adults weevils will soon be maturing and seeking suitable plants for oviposition. It is important to remember that these insects are very weak fliers and exploit a variety of weeds as host plants. Thus, double-cropped sunflowers, or any plantings after the first week of June, are not at risk; by this time weevils will have found other plants to attack. Stem weevils should be of increasing concern to sunflower growers as more of the following conditions are met.

1. Sunflowers planted in May.
2. Sunflowers grown without irrigation.
3. Considerable acreage of sunflower grown locally over the past few years.
4. Local history of sunflower lodging problems attributed to stem weevils.

There is no established threshold number of larvae that results in yield loss, so the concern is primarily late-season lodging as a result of larval tunneling and associated *Phoma* black stem infections. How many larvae does it take to make a plant lodge? The answer probably depends on the size and vigor of the plant, as well as environmental conditions, but probably ranges from 50 to 100 per plant. Growers can scout for stem weevils, but this can be exceedingly difficult, especially as plants become larger. Fortunately, stem weevils can be easily controlled with a single properly timed application of various registered foliar insecticides. However, seed treatments do not provide protection. Farmers who consider their fields to be at risk of losses to stem weevils should consider treatment when plants are at the 8 – 10 leaf stage. Please refer to the Sunflower Insect Management Guide 2010 for registered materials and rates. Also note that Furadan no longer has special use exemption on sunflowers.

<http://www.ksre.ksu.edu/library/entml2/MF814.PDF>

You can find more detailed information about this pest here:

<http://www.entomology.k-state.edu/DesktopDefault.aspx?tabid=655>

J.P. Michaud

Carpenter Bees

We have been getting a lot of calls about “big bees swarming around outside of homes”. These are Carpenter bees and resemble bumble bees but have bare abdomens that are a shiny black to iridescent green (Photo1). In the spring these bees, which overwinter as adults, are emerging and looking for other bees to mate with. The male bees can be rather aggressive and may “dive bomb” people in their vicinity. However, they are harmless as they can not sting. The females

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are capable of stinging but generally will not do so unless handled or molested. Males and females can be easily distinguished by looking at the front of their faces. Males will have a bald face, or a patch of gold, while females will have completely dark faces (Photo 2).



Photo 1

After mating in the spring, female carpenter bees tunnel into wood to lay their eggs, producing round holes about ½ inch wide (Photo 3). These eggs will develop throughout the summer and the young adults will spend the winter in these tunnels. The next spring the cycle begins again. The next generation of carpenter bees may use tunnels that are already there, they may enlarge or extend the current tunnels, or they may excavate new ones.



Photo 2

Carpenter bees prefer to attack wood that is bare, weathered, and unpainted. They prefer softwoods such as redwood, cedar, cypress and pine. Common nesting sites are eaves, window trim, siding, decks, and outdoor furniture. The best way to avoid an infestation is to keep all exposed wood surfaces painted. Stains and varnishes will repel the bees to some degree but are not as effective as paint. Once an infestation has been detected, the tunnel entrances can be treated with an insecticide that has residual activity. Treating at night is most effective while the bees are inactive in the tunnels. The holes should be left open for a few days to allow the bees to come in contact with the insecticide and distribute it throughout the tunnels. Then, the holes can be plugged to prevent further use by carpenter bees and reduce the chances of wood decay.

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Photo 3

Jeff Whitworth

Holly Davis

Green now, but for how long? Lace Bugs

For many years, I have operated a blacklight trap on a daily basis at a specific woodland site (Figure 1).



I have passed beneath a particular oak tree (Figure 2) thousands of times on my way to collect the insects in the light trap's collection bucket. At this time of the year, that tree has lush green foliage (Figure 3).

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Figure 2



Figure 3

But as the seasons have progressed, the leaves have taken on a bronzed appearance due to unchecked populations of oak lace bugs. While of but aesthetic concern, people only become aware of lace bugs after-the-fact when their trees become similarly discolored. There are different species of lace bugs, each preceded by the common name of their preferred tree species. All lace bugs in of themselves have a delicate lacey appearance (Figure 4).



Figure 4

While in past years I have cited that the usual, “Overwintered adult lace bugs begin their current season activities in spring”, **this year**, I have examined the lower surfaces of leaves (within reach) on a daily basis as I have collected that particular blacklight trap. As of May 31, there was no evidence of lace bug activity. But on June 1, I saw the first 2010 lace bug eggs: some scattered and some in the more typical egg cluster (Figure 5).

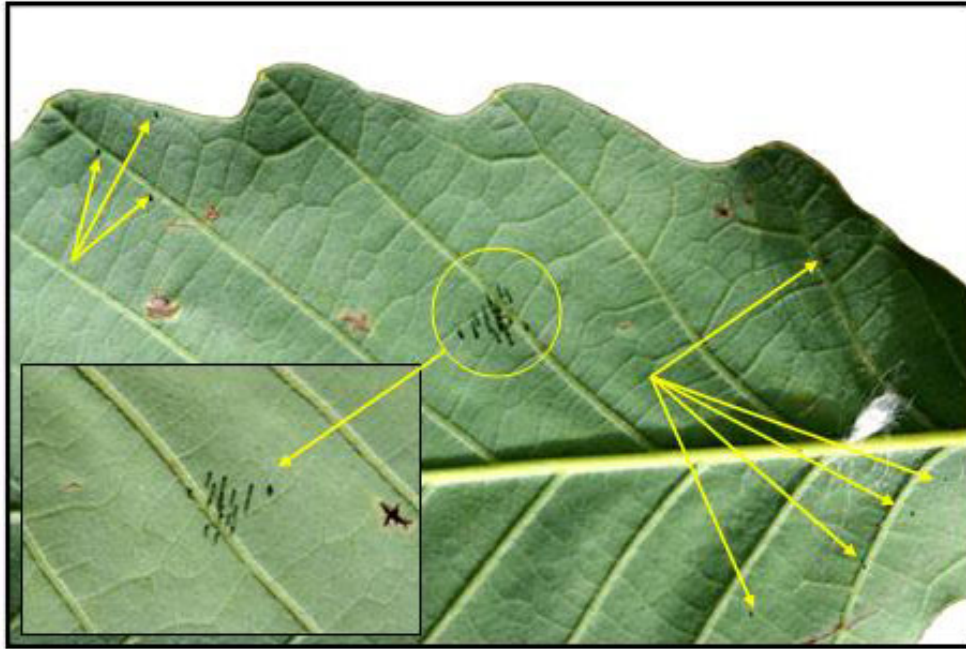


Figure 5

What does this all mean? Well, Entomologists always assert that **IF** people are concerned about certain insect pests, they (the people) need to be on the alert as to the onset of the particular pest, and implement a management strategy. In this instance, it would mean the initiation of insecticide sprays to minimize lace bug populations. It is debatable whether or not this is a feasible approach. One must consider that practicality of spray treatments. Frankly, it is beyond the capability of homeowners to treat large trees. It would require Tree Service Professionals who have the proper equipment to deliver the required high volume applications to ensure through coverage of foliage. This would come at an initial cost for services. And, additional treatments would be required as this is but the beginning of lace bug activities. Because lace bug damage is an aesthetic condition, homeowners must weigh costs for “DOING SOMETHING” to retain desired “green foliage” against LIVING WITH/ACCEPTING “off color” trees.

Like Clockwork Rosy maple moths revisited

A response was received relative to the last week’s May 28 Kansas Insect Newsletter in which I reported the presence of rosy maple moths the evening of May 23. On the evening of May 28 after having read the Newsletter, a person reported 18 rosy maple moths resting next to her porch light. She also mentioned that there is a large silver maple on the property. So maybe, 14 years after my last opportunity to actually observe greenstriped mapleworms, 2010 will be a banner year to record their activities ---- at least I have a lead to follow-up on.

And back to the “Old Bucket” Walnut Caterpillar Moths

In the second blacklight trap which I am currently operating (Figure 6),

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Figure 6

two first-of-the-year walnut caterpillar moths (Figure 7) were collected the evening of May 30th. This is a week earlier than the 2009 collection date.



Figure 7

To paraphrase what was said in last week's Kansas Insect Newsletter related to rosy maple moths/greenstriped mapleworms: What does the current detection of walnut caterpillar moths mean in terms of what can be expected to happen (in the near future) in Kansas? Maybe nothing. Or maybe some walnut and/or pecan trees may be striped of all their foliage in the near future.

It will require 4-5 weeks for small walnut caterpillar larvae to reach their last larval instar during which time (given their large size and insatiable appetites) trees will quickly become defoliated. Add to that a week for the eggs to hatch. The bottom line is that if people have had previous experiences with walnut caterpillars, and have current concerns, they need to begin inspecting their trees 3 weeks from now while larvae are still young – in their “red color phase”. Evidence of the presence of walnut caterpillars is facilitated by the habit of caterpillars to simultaneously molt. That is, they cease feeding, gather/congregate en masse on the sides of large branches or tree trunk, molt, and then ascend trees to resume feeding on foliage. The visual evidence of this unique “community molt” are clumps of caterpillars and masses of shed skins (Figure 8).

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Figure 8

IF detected early, trees can be sprayed and caterpillars thus eliminated before they attain their extremely destructive last instar “grey stage” (Figure 9).



Figure 9

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A person merely has to compare the difference in head capsule size between the red and grey stage larvae (yellow arrows) to realize that up until the grey stage, early instar larvae have been “nibblers”, but are now prepared to **REALLY CHOW DOWN AND CAUSE SOME MASSIVE DEFOLIATION!** And the puny little body behind the head will grow long and fat as leaves disappear. One cannot predict where walnut caterpillars will actually occur. But people who have previously experienced defoliations of their trees would be advised to be on-the-alert. As has already been addressed, large trees would require the services of professional personnel so equipped to address situations in which “large trees” are involved.

Ah the “l’odeur du parfum” ---- Peach Tree Borers and Squash Vine Borers

Perfumes are mixtures of fragrant essential oils and aromatic compounds, fixatives and solvents used to give the human body, animals, objects and living spaces a pleasant scent. Perfumes are something which we can detect.

The insect world has its own perfumes ---- pheromones. While people cannot detect pheromones produced by insects, insects react to very species-specific pheromones. And “sex pheromones” (produced by females) whose molecular structures have been deciphered and can be synthetically manufactured, provide useful tools for detecting the onset of certain insect pests based on presence of trapped males. Thus far in the 2010 Kansas Insect Newsletters, pheromones have been used to detect and report on black cutworm, Nantucket pine tip moth and ash/lilac borer activities. Add to that **peach tree borers** and **squash vine borers**.

While ash/lilac borer activities are on the wane, peach tree borers (attracted to the same pheromone) have begun their yearly activities. The first male peach tree borer (Figure 10) was trapped on Wednesday, June 2, with an additional 6 on June 3.

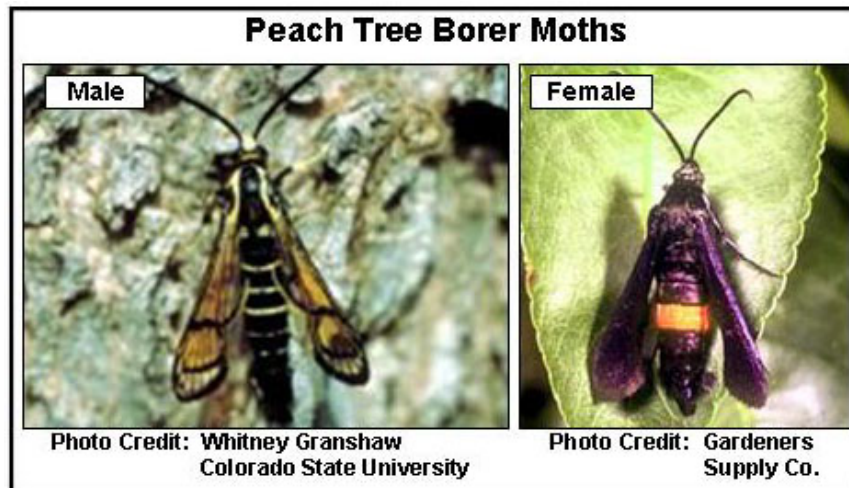


Figure 10

Although name for its preferred host, peaches, peach tree borers also are destructive pests of cherry, plum and apricot trees. Moths deposit eggs at the base of trees. Larvae feed at the soil level to 6 inches beneath the soil. They destroy cambial tissue and the inner bark. Young trees may be girdled and killed. While older trees are less prone to girdling, they can be severely injured resulting in reduced vitality. Weakened trees may then be more prone to other insects,

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diseases and environmental factors that result in eventual tree death. Preventative/protective insecticide treatments should be concentrated on the lower portions of tree trunks.

Jake Weber reported that he had collected his first squash vine borer moth in a pheromone trap on June 1, and another on June 3. Squash vine borer moths are very “hairy” and colorful appearance (Figure 11).



Figure 11

Moths tend to deposit eggs at the base of the major stem of plants (the larger the stem, the better able to house/contain adequate room for the squash vine borer). People usually become aware of squash vine borer when plants become wilted. Only then will people make a closer inspection of afflicted plants. They may note yellowish exudations at the base of plants (this is the frass of the squash vine bore). Cutting into the stem will expose the larvae (Figure 12).



Figure 12

At this stage of larval development, the damage to the plant is done. It obviously would have been better to apply insecticide treatments to the stems of young developing plants to kill larvae before they bored into the plants. Thus, again, the value of pheromone traps to detect the onset/appearance of squash vine borer moths as a signal to initiate preventative spray treatments.

Bob Bauernfeind

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Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostic Laboratory from May 28st to June 27th:

May 28 2010 – Miami County – Aphids and multicolored Asian lady beetle in apple tree

June 1 2010 – Riley County – Ichneumonid wasp around home

June 1 2010 – Reno County – Katydid eggs on cedar

June 3 2010 – Sheridan County – Painted schinia moths on Indian blanket

June 3 2010 – Wyandotte County – Insect feeding on rose leaves

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.

Sincerely,

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