

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel



Department of Entomology
123 West Waters Hall
K-State Research and Extension
Manhattan, Kansas 66506
785-532-5891
<http://www.entomology.ksu.edu/extension>

July 15, 2011 No. 14

Potato Leafhopper

Potato leafhopper populations are increasing in uncut alfalfa fields throughout north central Kansas. Swathing will remove these pests without insecticide application. However, after swathing, stubble should be monitored to ensure potato leafhoppers have not re-infested in numbers sufficient to retard regrowth. If insecticides are used, results are usually excellent with one application, even at the lowest rate.

Hessian Fly and Western Corn Rootworm Populations

We still need a few fields with significant Hessian fly-infested stubble and corn fields with at least four adult corn rootworms per ear. Please contact Jeff Whitworth (jwhitwor@ksu.edu) as soon as possible if you have either as we need to collect from field populations of both.

Spider Mites

Small infestations of spider mites have been detected in various soybean fields throughout central and eastern Kansas. Spider mites always seem to do best under hot, dry conditions which occur more frequently in western Kansas, although, so far this year, they have occurred intermittently everywhere. These small colonies need to be monitored closely as they can expand rapidly and cause significant problems. Typical progression of mite damage to soybeans would be leaves turning yellow, then a grayish green color, then a bronzing, and finally the leaves drop prematurely. If plants have 50% or more of their leaves killed by mites throughout a field during the vegetative stage, a miticide would probably be justified as mite populations will probably not go away if hot, dry weather continues.

Jeff Whitworth

Holly Davis

Redux #1 – Kermes Scale

In last week's Kansas Insect Newsletter, I may have been a bit cavalier in my treatment of Kermes scale ---- after all, how could one get excited/be concerned with 28 or 29 Kermes on a branch terminal (Figure 1).

Kansas Insect Newsletter

July 15, 2011 No. 14



Figure 1

I also mentioned a report from Hanover, KS, of a bur oak “in trouble” due to a heavy infestation of Kermes scale. Can you say, “244 Kermes on a branch terminal”? (Figure 2).



Figure 2

Kansas Insect Newsletter

July 15, 2011 No. 14

The situation in Hanover is an extreme situation. The trees in question (Figure 3)

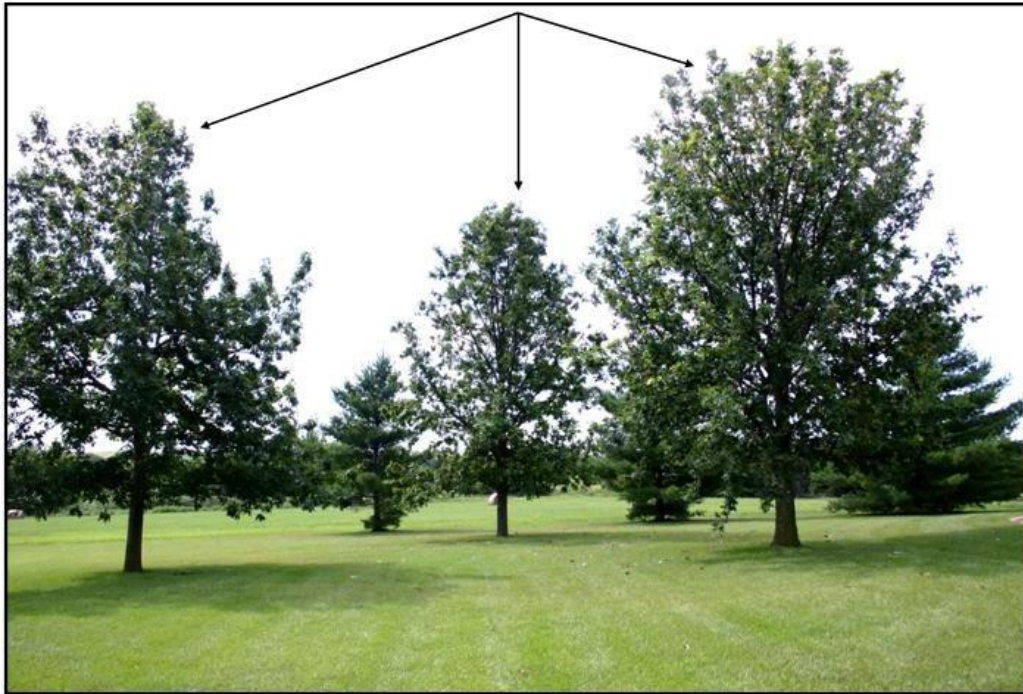


Figure 3

were planted in 1982, prior to the development of the property. How and when the Kermes were introduced is not known. They may have been present on the stock that was transplanted and possibly kept “in check” by naturally occurring phenomena such as adverse weather-related factors and/or beneficial insect predators and parasites. But at some point over time, populations have reached the proportions responsible for the current situation. While the homeowners indicated that they have noticed the gnarled terminal growth and ground litter (Figure 4) for a number of years, that and the overall appearance of the trees have reached a level that prompted them to seek answers/remedies to the situation.



Figure 4

Kansas Insect Newsletter

July 15, 2011 No. 14

Upon closer look at damaged terminals, reasons for the distortions become evident. The heavy concentrations of Kermes have caused petioles to become swollen and convoluted (Figure 5).



Figure 5

When scales were removed, concentrations of orange scale crawlers were easily observed (Figure 6). Petiole distortions, again, were very evident.



Figure 6

Kansas Insect Newsletter

July 15, 2011 No. 14

It was also interesting to note the presence of assassin bug nymphs (Figure 7). In each of the samples, nymphs were actively seeking prey upon which to feed. This is a good example of predator biological control.

However, it also demonstrates the limitations of biological controls: too often, pest populations are beyond the ability of predators and parasites to bring under control. Intervention (in the form of insecticides) is required.



Figure 7

For now, one has to accept that there is little to be done to counter Kermes at this time of the year. As mentioned in last week's newsletter, direct sprays (now) would be futile because crawlers are protected beneath the females. If one sought to spray crawlers as they left their protective cover to migrate to twigs and limbs where they will overwinter, one would have to monitor for that movement (difficult to do) and contend with an extended period of crawler activity which would require several applications. Further complicating the situation would be achieving adequate coverage of large trees. Thus systemic insecticide treatments should be the tact-to-take against crawlers next spring when they return to branch terminals to feed on next year's new foliage.

A fall application of a systemic insecticide would (by springtime) have had sufficient time to have been translocated to branch terminals, and be contained within the vascular systems of the springtime flush of new foliage. This in turn should greatly reduce population levels of Kermes. Vigilance and patience will be required: vigilance in terms of making continual inspections to determine the prevalence/population levels of Kermes; and patience to wait for the return of normal leaf/twig/branch growth which might require several years to override the current appearance.

Redux #2 – Walnut Caterpillars

Although called walnut caterpillars, they also feed on hickory and pecan. In the June 10 issue of this year's Kansas Insect Newsletter, I mentioned that walnut caterpillar moth activities were beginning (June 4 was the date that moths appeared in all 3 blacklight traps being operated in and around Manhattan). In last week's issue, I reported that larvae were beginning to cause noticeable defoliation of a couple of walnut trees that have been regular targets of walnut caterpillars. Earlier this week, I ran across two smaller walnut trees that already

Kansas Insect Newsletter

July 15, 2011 No. 14

have been completely defoliated. Tree 1 (Figure 8A) was completely defoliated --- not a single caterpillar to be found. They had moved 40-feet over to Tree 2 (Figure 8B).

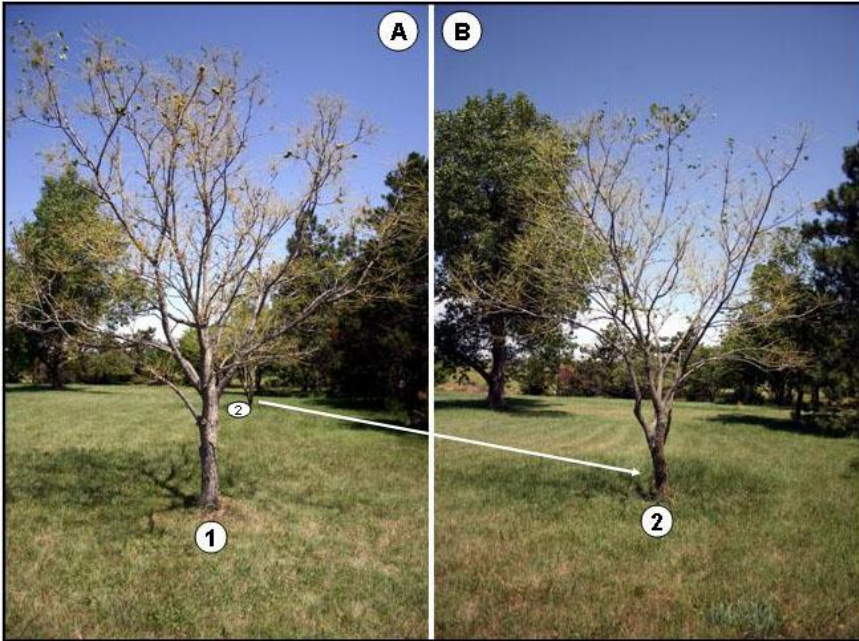


Figure 8

Tree 2 (Figure 9A) has been nearly defoliated. Remaining caterpillars were in competition and making quick meals out of what little foliage remained (Figure 9B).

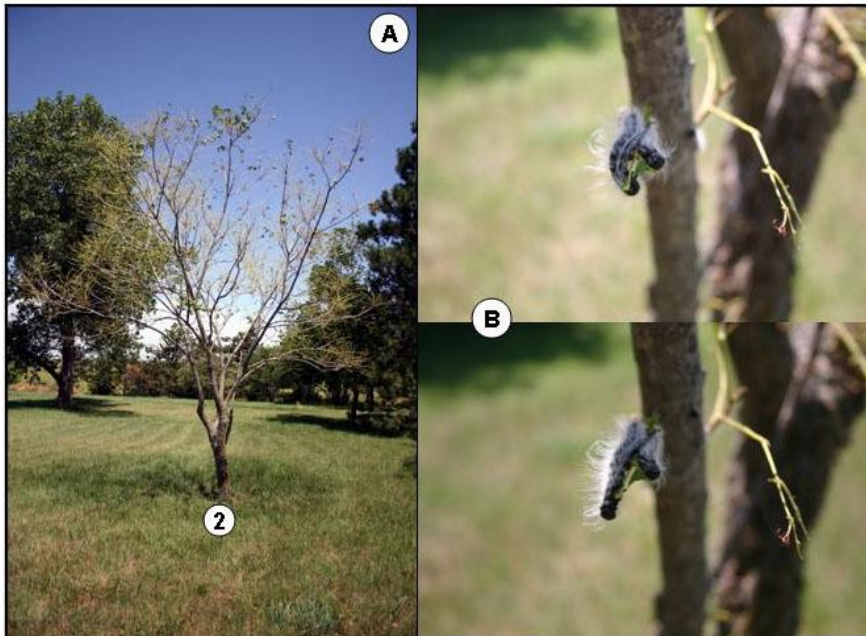


Figure 9

Kansas Insect Newsletter

July 15, 2011 No. 14

Where had most of the other caterpillars gone? They moved another 40-feet over to Tree 3 (Figure 10A &B).

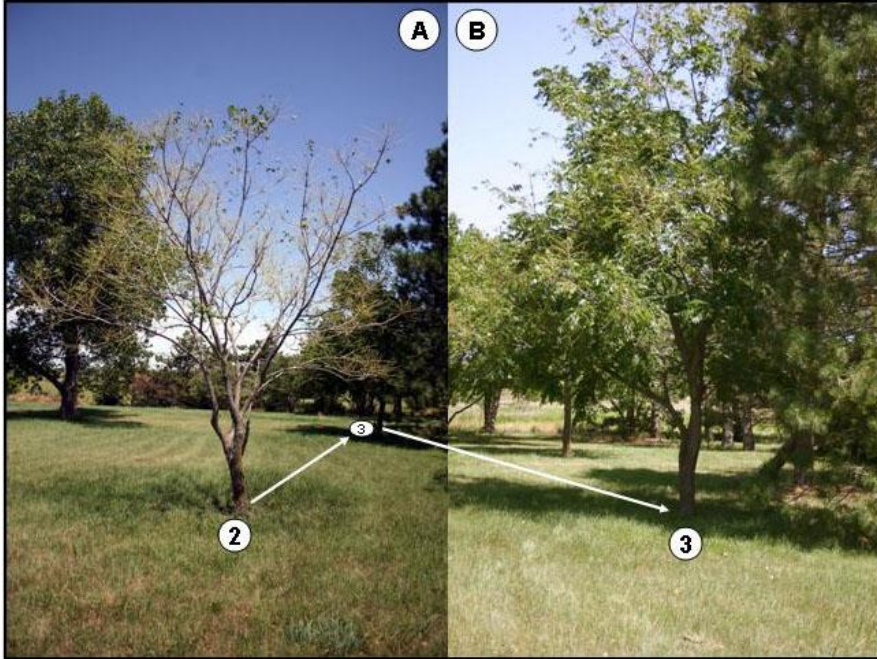


Figure 10

The current situation is that most caterpillars are in their red-brick stage (Figure 11A). As is their habit, at the time they molt, 4th instar larvae move to scaffold limbs and tree trunks of where they gather en masse (Figure 11B). After the molt, all that remains is a mass of shed skins and head capsules (Figure 11C). The 5th instar larvae have a very different appearance: they are grayish black and covered with long white body hairs.

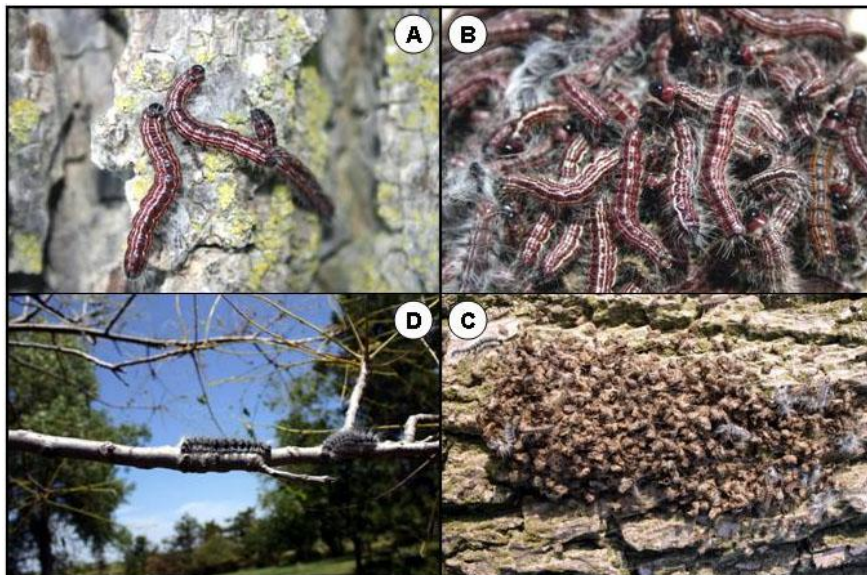


Figure 10

Kansas Insect Newsletter

July 15, 2011 No. 14

In another week, trees will lose foliage even quicker as larvae complete their feeding requirements. They will then move to the ground and bury themselves beneath debris on the soil surface or shallow burrows in the soil. There they will pupate for a 7-10-day period. Moths will emerge and deposit eggs for a second generation of walnut caterpillars which (in the fall) will eventually form overwintering pupae.

Unmanaged walnut trees are those which are most likely to host walnut caterpillars. Most times, defoliations (when detected) are towards the end of the active feeding cycle. While spraying/killing walnut caterpillars is an option at this point-in-time, there is little to be gained. Walnut caterpillars are seldom a problem in nut production orchards (in Kansas, pecan orchards) because they are fortuitously eliminated by sprays treatments applied to control major nut production pests. Thus, summing up, defoliations by walnut caterpillar are objectionable more from an aesthetic perspective than as a detriment to overall tree health.

The Buzz About Town Green June Beetles

It is that time of year (July), and that time following a significant rain (for Manhattan July 6) that green June beetles emerge and create “a buzz” among people who encounter large numbers of them as they merrily skim the surface of grassy areas. Visiting 3 sites (on a daily basis after the June 6 rain) where green June beetles have occurred in large numbers in previous years, they were active at one site June 12 and both others yesterday, (June 13).

Given their large size and the audible buzz created by their wings during their erratic and hectic flights, people often times quickly leave an area ---- thinking, possibly, that they are encountering bumble bees, and fear being stung. However, as menacing as green June beetles may appear (and they may sometimes clumsily bump into a person), they do not possess a stinger, and thus, they are harmless. In fact, after capturing a few, people might actually marvel at the beauty of green June beetles ----- the velvety appearance of their wing covers and the metallic sheen of their “bellies” (Figure 8).



Figure 8

Kansas Insect Newsletter

July 15, 2011 No. 14

In addition to the “harmless” scare, however, there is a negative side to green June beetles: they are attracted to “sweet sources” such as ripening fruits. Favorites are peaches, pears, grapes and berry crops. As June beetles feed, they emit an aggregation pheromone which attracts even more beetles. Timely picking of fruits may stave off beetle attacks. But given the continual presence of green June beetles, and/or the inability of fruit producers or home growers to harvest fruits in a timely manner, insecticides can be used to counter green June beetles. Shop local retail outlets for duly registered insecticides.

Bob Bauernfeind

Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostic Laboratory from July 8th to July 14th.

July 8 2011 – Riley County – *Lasius* sp. ants in commercial building
July 8 2011 – Riley County – Wheel bug nymph in garden
July 11 2011 – Barber County – False chinch bugs entering building
July 11 2011 – Lyon County – Giant silkworm moth cocoon
July 11 2011 – Labette County – Drugstore beetle
July 12 2011 – Geary County – Cottonwood borer
July 12 2011 – Reno County – Sweat bees in pool
July 12 2011 – Miami County – Acrobat ants and jewel beetle around window
July 13 2011 – Haskell County – Brown recluse spider
July 13 2011 – Decatur County – Carpet beetle larvae in home
July 14 2011 – Barton County – Hackberry nipplegalls

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,

Robert J. Bauernfeind
Extension Specialist
Horticultural Entomology
phone: 785/532-4752
e-mail: rbauernf@ksu.edu

Kansas Insect Newsletter

July 15, 2011 No. 14

Jeff Whitworth
Extension Specialist
Field Crops
phone: 785/532-5656
e-mail: jwhitwor@ksu.edu

Holly Davis
Insect Diagnostician
Phone: (785) 532-4739
e-mail: holly3@ksu.edu



K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, Gary Pierzynski, Interim Dean of COA ~ and Interim Director of KSRE.