

# Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel



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July 2, 2010 No. 15

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## Twolined Spittlebug...They Are Out-And-About!

The adult stage of the twolined spittlebug (*Prosapia bicincta*) is out-and-about and likely feeding on one of its favorite plant hosts, redbud (*Cercis* spp.). The nymphs and adults feed on bermudagrass and remove plant fluids with their piercing-sucking mouthparts. Adults feed on both holly and redbud. Adults are approximately 1/6 inches long, oval to wedge-shaped and dark brown in color. They have red eyes and legs, and two distinct orange bands extending across the wings. However, the orange bands are not always present. Nymphs, which are yellowish in color and lack wings, resemble the adults and are covered in a mass of spittle. This protects them from sunlight and natural enemies (e.g., predators).

Eggs are typically laid in bermudagrass and hatch in late spring, with the emerging nymphs moving about and then settling down to feed at the base of plants. The nymphs also start producing the spittle mass. Development from nymph to adult takes about a month. Adults feed on woody shrubs such as redbud. There is usually one generation per year. Since the adults don't really cause significant damage to plants there is really no need to apply any insecticides. Also, due to their mobility, adults are difficult to control with most contact insecticides.



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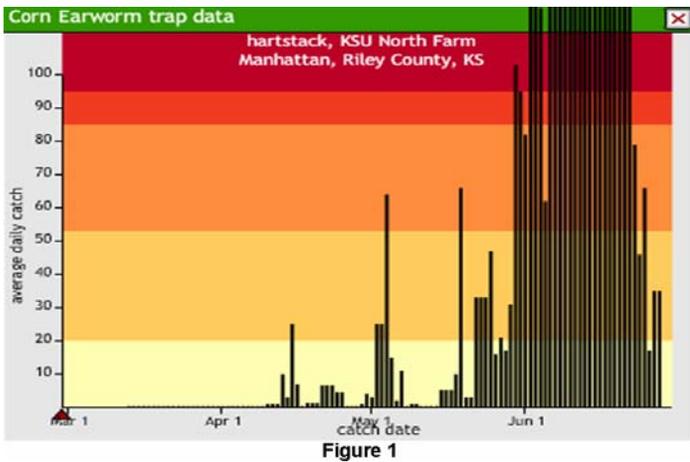
Raymond Cloyd

# Kansas Insect Newsletter

July 2, 2010 No. 15

## Corn Earworms

Alysha Soper, a Master's student in the Field Crops IPM lab ([www.ksu.edu/ipm](http://www.ksu.edu/ipm)), has been tracking corn earworm adult activity in central to eastern Kansas since early April. Moth activity has been high compared to previous years and growers should be aware of possible infestations in sorghum, corn or soybean later this summer (Figure 1). For a list of other traps in the network, please visit [www.pestwatch.psu.edu](http://www.pestwatch.psu.edu). It's unclear what the offspring from these migratory moths are feeding or developing on this early in the season. In any case, these are most likely migratory populations moving in from the southern US. We'll be monitoring activity throughout the summer.



Alysha is currently using Hartstack pheromone traps (Figure 2) to corroborate male moth catches with field-level caterpillar infestations. To do this, a pheromone trap is placed on each edge of a sorghum field. In addition to sampling the sorghum heads for corn earworm, she will be sampling insect populations in nearby crops (corn and soybean) to help determine whether alternate hosts influence where infestations occur in a sorghum field. She is currently looking for fields to sample and for cooperators (extension agents, growers, field consultants). If you or someone you know are interested in participating, please contact Alysha ([alyshaso@ksu.edu](mailto:alyshaso@ksu.edu)) or Dr. Brian McCornack ([mccornac@ksu.edu](mailto:mccornac@ksu.edu) or 785-532-4729).

Brian McCornack

Alysha Soper

## Garden Webworms

Webworms continue to cause considerable concern to soybean producers. These insects have at least 2-3 generations per year in Kansas. Young soybeans (maybe up to about the R2 stage) are most at risk for

# Kansas Insect Newsletter

July 2, 2010 No. 15

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defoliation by these larvae, but once the beans have a well established canopy they should be able to withstand the feeding damage (See photos).



Thus, most of the early planted beans should be reaching the point where webworms won't affect development and most larvae are about finished feeding and are ready to pupate. The beans at risk over the next 3-4 weeks then are the later, double cropped beans. Dr. Doug Shoup, (Sorry Doug, for the misspelling in the 11 June issue!) SE Agronomist, continues to report significant infestations from all 26 counties in the SE area. Thresholds are approximately 4-8,  $\frac{3}{4}$  inch or fewer worms per row ft. and 50% plant defoliation.

## Grasshoppers

Grasshoppers are starting to cause concern throughout the state. So far they are limited to the weedy/grassy areas around crop fields. However, as the nymphs continue to feed and grow they will consume more and more vegetation. If the weather provides good growing conditions, most often these areas can replenish the lost tissue – but if conditions stay hot and dry, the grasshoppers can quickly eat their way out of food and move to crops. Therefore, if you suspect you may need to treat for grasshoppers, now is the best time, while they are still nymphs and thus, not nearly as mobile as they will be when they become adults. Plus, right now they are still mostly confined to the non-crop areas which make it easier to control them over a small area.

*Jeff Whitworth*

*Holly Davis*

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## Rotation-Resistant Corn Rootworms in Kansas?

We received a report from Thomas County of high numbers of rootworm larvae (presumably western corn rootworm) infesting a half-pivot of corn that was in soybeans the previous year. This is noteworthy because western corn rootworm has evolved 'rotation resistance' in parts of Illinois, Indiana and Iowa; beetles emerging

# Kansas Insect Newsletter

July 2, 2010 No. 15

---

from corn fields lay their eggs in the soil of nearby soybean fields instead of in the corn, leading to problems when corn is planted in the field the following year. It is not uncommon for corn rootworms to enter soybean fields adjacent to corn fields, especially when soybeans are in bloom, or when particular conditions make the current year's corn field unattractive for adult beetles. Some feeding damage to soybean roots has also been noted on occasion, but the actual amount of oviposition in soybean has always been a subject of speculation. Although the current report may represent an isolated event resulting from unique local conditions, there could be serious implications for corn production in Kansas if rotation-resistant rootworms become problematic and widespread. Thus, we are requesting that county agents, crop consultants and growers report any cases of heavy rootworm populations they happen to observe in fields of corn that were in soybeans (or some crop other than corn) the previous year. Reports can be emailed to [jpmi@ksu.edu](mailto:jpmi@ksu.edu).



Western corn rootworm, *Diabrotica virgifera virgifera*.

*J.P. Michaud*

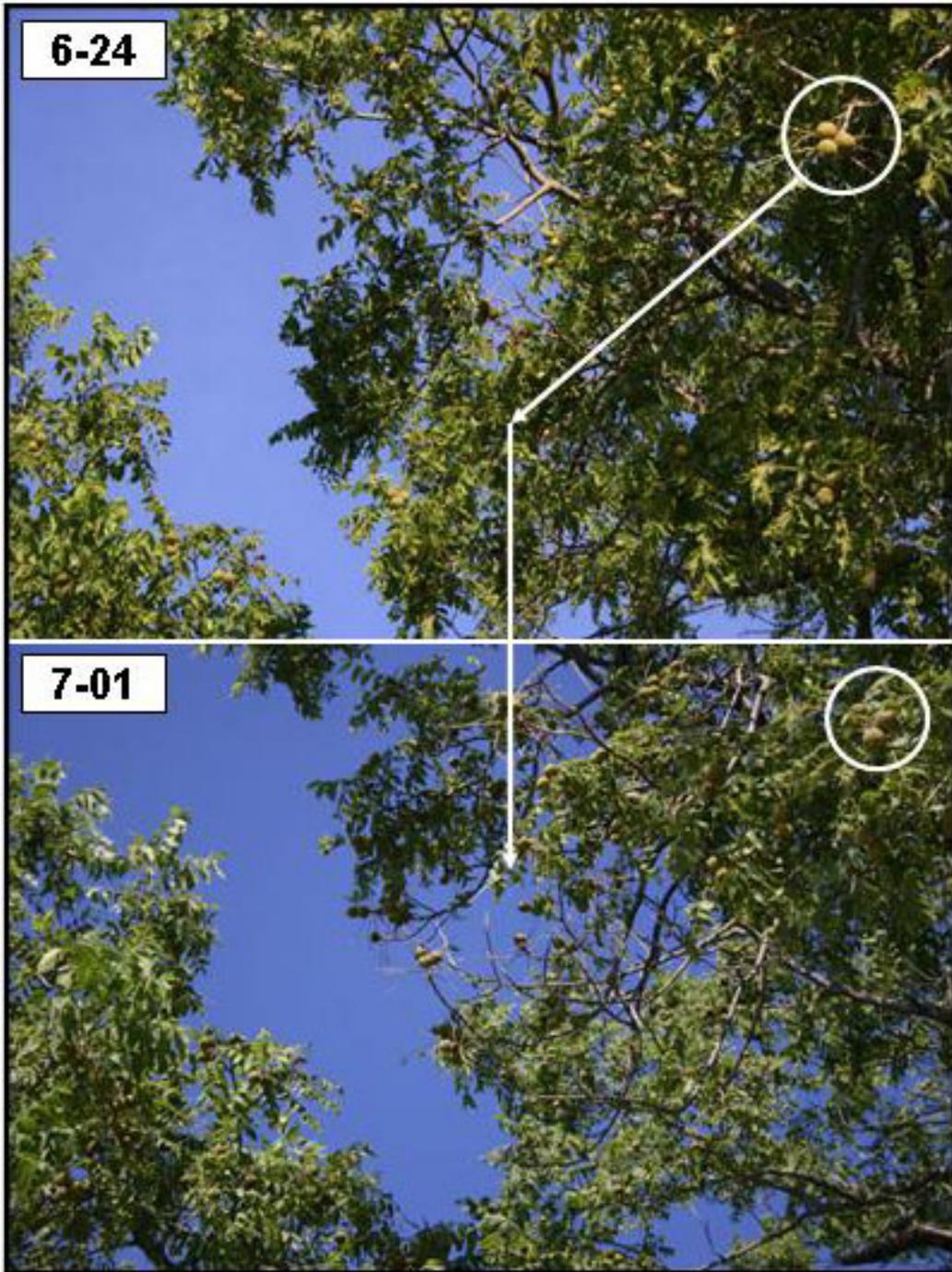
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## A Patch of Blue ..... Walnut Caterpillars, July 1

“A Patch of Blue” probably evokes movie memories only for “older folks” who recall this 1965 movie. But I bring forth this title to re-introduce the 2010 walnut caterpillar situation. Last week, I was able to pick out a terminal (white circle) that showed walnut caterpillar feeding/defoliation. As of today, the defoliation continues to the point of seeing a patch of blue sky which (last week) was obscured by intact foliage (Figure 1).

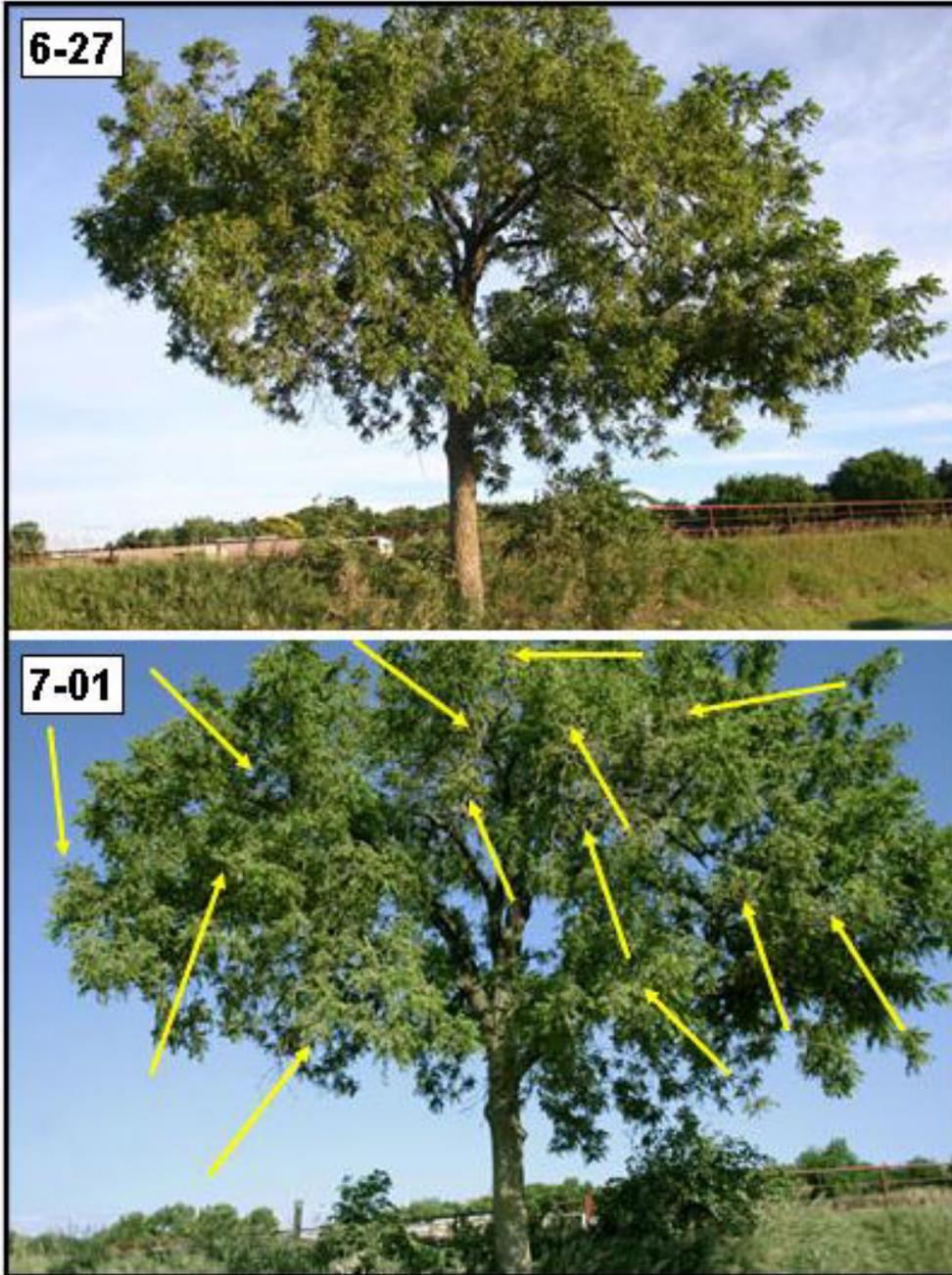
# Kansas Insect Newsletter

July 2, 2010 No. 15



**Figure 1**

Also in last week's article, I mentioned that I would find it hard to believe that a single group of caterpillars confined to a single terminal could defoliate a whole tree. What I failed to mention was that probably there were other walnut caterpillar clusters that I was not detecting. And apparently that was the situation because currently, there are many clusters in that tree and that defoliated areas are easily seen (Figure 2).



**Figure 2**

This becomes more evident when viewed close-up, as do clusters of larvae (Figure 3).

# Kansas Insect Newsletter

July 2, 2010 No. 15

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**Figure 3**

Yellownecked caterpillars also continue to grow and defoliate (Figure 4 and 5).

# Kansas Insect Newsletter

July 2, 2010 No. 15

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**Figure 4**



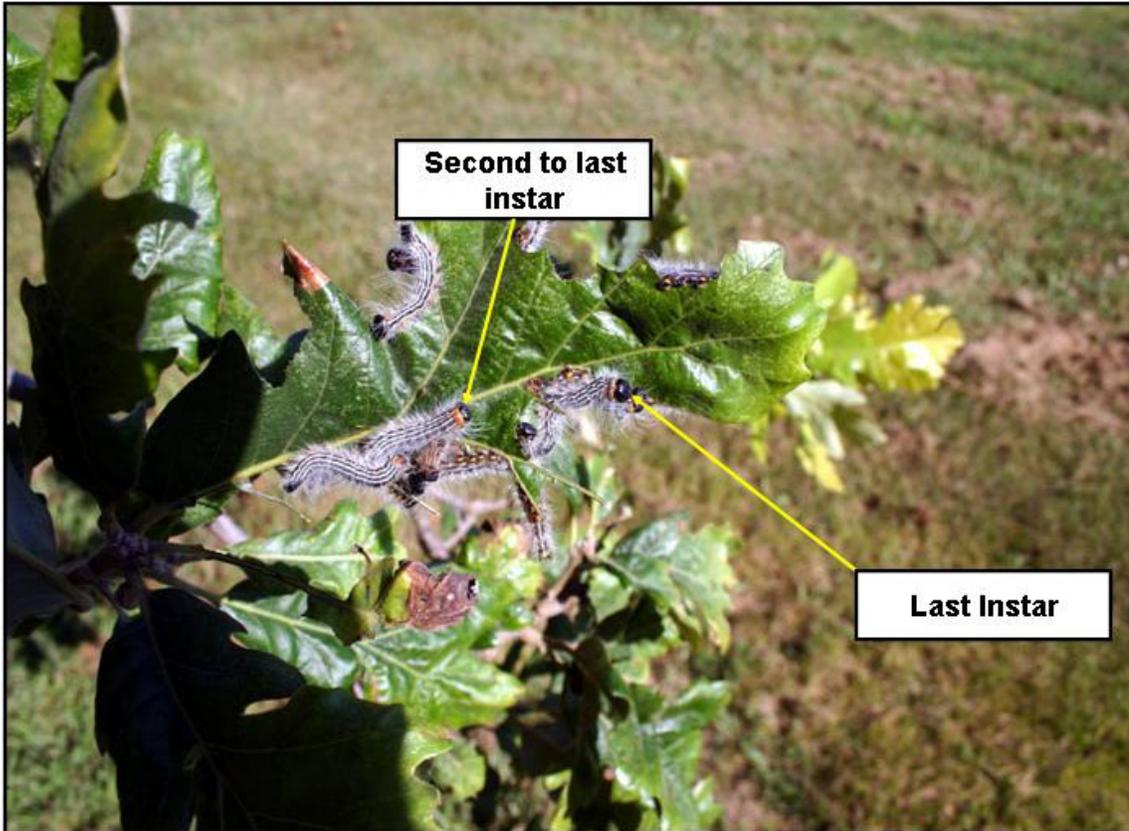
**Figure 5**

# Kansas Insect Newsletter

July 2, 2010 No. 15

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Some caterpillars have entered their final developmental stage. This is based on the head capsule size which exceeds the width of the prothoracic shield (“yellowneck”)(Figure 6).



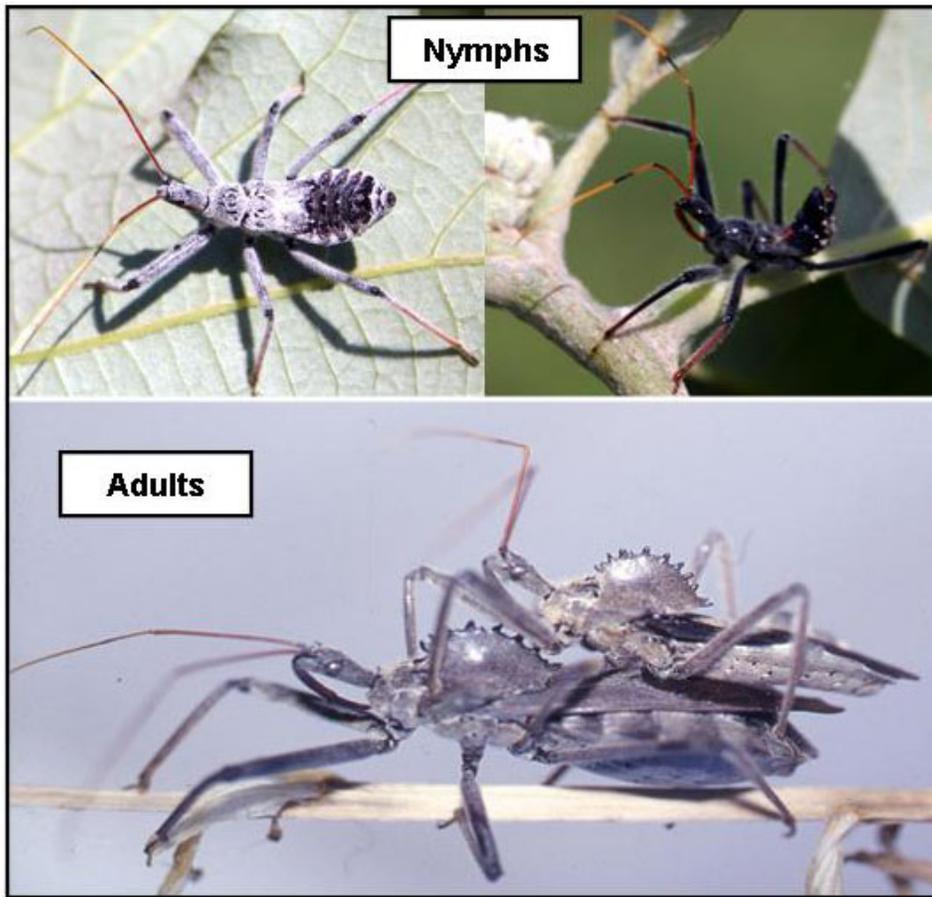
**Figure 6**

What this means is that both walnut caterpillars and yellownecked caterpillars will soon go into their feeding frenzy as they mow through any available foliage. Thus expect there to be increased reports of caterpillars “destroying trees”. But also, reassure people that established trees withstand these defoliations quite well and are not being killed.

As an aside: as is often the situation when caterpillar populations explode, assassin bugs seem to be plentiful. The most prevalent assassin bug is the wheel bug. Currently, it is their spidery-like nymphs that are commonly observed (Figure 7). But they will develop into their more recognizable adult form and be present throughout the remainder of the summer and into fall.

# Kansas Insect Newsletter

July 2, 2010 No. 15



**Figure 7**

When handling wheel bugs, you can avoid a painful defensive jab with their sharp proboscis if you use your index finger and thumb to hold them on the thorax just behind their head.

*Bob Bauernfeind*

## **Report from the Kansas State University Insect Diagnostic Laboratory:**

The following samples were submitted to the Insect Diagnostic Laboratory from June 25<sup>th</sup> to July 1<sup>st</sup>.

- June 25 2010 – Ford County – Spruce spider mites on Spruce
- June 25 2010 – Gove County – Spruce spider mites on Spruce Pine
- June 25 2010 – Johnson County – Brown dog tick nymph
- June 28 2010 – Sedgwick County – Ailanthus webworm moth around home
- June 28 2010 – Johnson County – Redheaded ash borer adults on maple
- June 29 2010 – Pottawatomie County – Twolined spittlebugs on shrubs

# Kansas Insect Newsletter

July 2, 2010 No. 15

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June 29 2010 – Jackson County – Burrowing bugs and plant bug nymphs on corn  
June 29 2010 – Leavenworth County – Mimosa webworms in locust  
June 29 2010 – Jefferson County – Springtails in home  
June 29 2010 – Shawnee County – Drugstore beetles in home  
June 29 2010 – Shawnee County – Fungus gnat maggots around yard  
June 29 2010 – Shawnee County – Wood roaches outside house  
June 29 2010 – Nemaha County – Possible fruit flies in home  
June 29 2010 – Nemaha County – Broad nosed weevils (root weevils) in home  
June 29 2010 – Riley County – Broad nosed weevils (root weevils) in home  
June 29 2010 – Riley County – Sunflower moth larvae in Echinacea

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](mailto:GotBugs@ksu.edu).

*Holly Davis*

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**Sincerely,**

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