

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel



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What Is That Giant Moth?

We have seen adults of the giant (great) leopard moth [*Hypercombe* (formally, *Ecpantheria*) *scribonia*] this week in Manhattan, KS. Adults, which are the largest Tiger Moth in Kansas, are distinctly white with black to blue colored open-circular spots on the forewings. Some spots are hollow whereas some are solid. The adults have a wingspan of 3.0 to 4.0 inches. The wings eventually become translucent at the outer margins with wear. They have a metallic blue abdomen that contains orange markings. Adults are active from May through September and may be found near light sources at night. The larvae or caterpillars, which are often referred to as “Woolly Bears,” are approximately 2.0 inches in length. The caterpillars are black and fuzzy, with tufts of black stiff hairs or bristles that radiate from the body and red to orange colored bands (areas) between the body segments. They are typically present in the spring. Caterpillars may feed on a diversity of broad-leaved plants including maples and willows, and weeds such as dandelion. However, they are not considered a pest. In fact, just like pillbugs, they roll-up when disturbed. The giant leopard moth overwinters as a caterpillar, and there is usually one generation per year.



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Raymond Cloyd

Holes and Ragged Leaves

I never ceased to be amazed at how quickly things change. How the onset of insect activities in 2011 occurred 3-4 weeks ahead of “normal”, and this year, we were running (possibly) 2 weeks behind schedule (although things always seem to eventually fall into line). My earlier current-year visits to the Manhattan Community Gardens were not picture-worthy. Cool and wet weather kept gardeners away. As of the end of April, other than a few rows of leaf lettuce, spinach, radish, cabbage transplants and a couple of potato plants barely breaking the soil surface, most plots simply were barren ----- not even worked. When I revisited late last week, what a transformation ----- gardeners had actively planted, plants were robust, and there was quite a bit of insect activity. Of note:

Throughout the gardens, **bean leaf beetle** feeding was readily apparent in most plots as evidenced by the appearance of “holey” foliage. While individual beetles are small (averaging 3 – 3.5 mm in length), they can “gang up” on plants. If beetles arrive early, they can destroy newly emerged seedling plants. In most plots, bean plants appeared well-developed indicating that beetles may have been late-to-arrive. Looking down on plants, one sees only an occasional beetle. This is because beetles prefer feeding on the undersides of leaves. The control of bean leaf beetles can best be achieved by delivering insecticide treatments to lower leaf surfaces. Liquid formulations might be suggested over dust formulations which (when sprinkled) collect on upper leaf surfaces.



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Colorado potato beetle larvae were having their way on potatoes. Given the size of the largest larvae, they likely have active for several weeks. In this instance the gardener was harvesting leaf lettuce from a row right next to the potatoes. I asked him what insecticide he was going to use to control his CPB --- to which he said that he hadn't noticed them. It is difficult to imagine how this escaped notice, other than this illustrates differences in gardeners ---- ranging from those with a more serious intent who are well-read and versed on the subject, versus those who are more lackadaisical in their gardening practices.



Really tiny, but mighty-in-numbers, flea beetles are ever-present in garden areas. Having overwintered as adults, hungry flea beetles are ready to feed when "food" pops out of the ground. There are many types of flea beetles ---- some are general feeders, while others tend to be more specific, earning them a common name with respect to their preferred host plant. **Eggplant flea beetle** activity is underway, possibly aided by the cooler and moist spring weather which favors flea beetle survival.

Being small (only 1-1 ½ mm in length) and thus possessing small mouthparts, an individual eggplant flea beetle "nibble" produces a seemingly inconsequential pin-hole. However on small plants, the accumulated damage of multitudes of beetles can destroy or set plants back thus reducing produce productivity.



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Eggplant flea beetles currently are patchy, possibly due to where previous year's eggplants were grown. Thus localized flea beetle populations overwintered in those certain plot areas and now are present to attack this year's eggplant crop. Another determining factor might be weed control techniques. One gardener prefers "bare ground" (image left - easy to scrap/hoe weeds); whereas the other (image right) spreads layers of grass mulch to suppress weed growth. However, the latter provides a protective cover possibly favoring flea beetle survival ---- thus the resultant feeding damage attributable to collective flea beetle populations.

Blacklight Trap Happenings

Three blacklight traps are currently being operated in the Manhattan area for the purpose of obtaining "heads-up" information regarding current activities of insects "in the nighttime" skies. While these trap catches provide localized information, other areas throughout Kansas might also be prompted to be on-the-alert for the same insects.

Ashgray blister beetle flights began Monday evening. These beetles are quite common on yellow sweet clover which grows in abundance (especially) along roadsides, in meadows, and where grown for grazing and hay forage. After flowering, as plants dry down (abetted by hot windy weather), blister beetles will seek out other more palatable host plants.

Preferring leguminous and solanaceous plants, blister beetle swarms could move



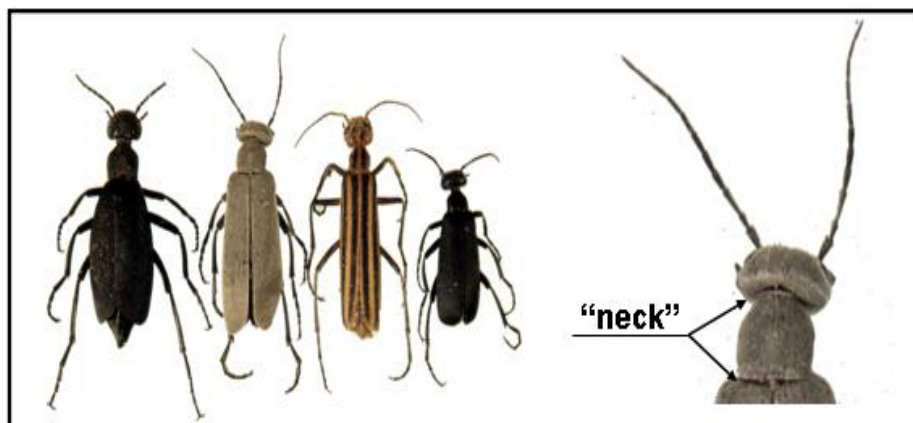
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into gardens during the course of an evening. With their ravenous appetites coupled with limited supply of garden plants, beetles can quickly strip plants of all foliage. Big disappointment is in store for the gardener who may miss several days in the garden, only to return and find his leafless plants. If detected early, blister beetles are easily controlled with insecticides registered for use on vegetable crops.



While blister beetles vary in color and size, all species are identifiable by their elongated and cylindrical bodies in combination with “necked appearance”



Is it “Miller Time”?

For many “sport buffs” (and regular folk), any time may be Miller Time. Waaaaaaay back in time (for myself, so many things seem to be waaaaaaay back in time), the Miller Brewery was a fixture in Milwaukee’s Menomonee River Valley. When going to Milwaukee Brave baseball games (they moved from Boston to Milwaukee in 1953), the old Wells Street trolley car riding-the-rails crossed a rickety trestle high above (seemed like a hundred feet) the valley floor. But I digress. Back to NOW! The “Miller Time” that I now refer to is the appearance of “miller moths”.

This is just a “heads-up” to what really amounts to nothing more than a nuisance. Although several weeks later than normal, this past week, army cutworm moths began appearing in blacklight trap catches. Trap catches cannot be used as a basis upon which to predict impending population levels of moth activity. And, populations will vary from site-to-site throughout the state. Not wanting to reinvent the wheel, I am reusing a previous Kansas Insect Newsletter article to reintroduce the army cutworm story. It will be a review for those who have previously read it, but hopefully informative to first-time readers.

So what is a “miller moth”? A very wide “umbrella term” describing various moth species with powdery/dusty wings. Because virtually all moth species have wings covered with scales, the generic term “miller moth” is applied to almost any plain brown drab moth. Yet upon closer examination, the moths are anything but plain, brown and drab.

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The current “miller moths” in question actually are army cutworm moths, *Euxoa auxillaris*. There are 5 morphological forms (called varieties) of army cutworm moths. Each possesses its own intricate and distinctive wing pattern. Adding more variety, brown forms of each form are males, whereas grayish individuals are females.



Each year in the central plain states, overwintered army cutworm larvae complete their feeding activities in early spring and then pupate towards the end of April and beginning of May. Usually by mid-May, most moths have emerged ---- and this is when they become a nuisance [**this year, they are appearing several weeks later than usual --- larval development possibly retarded by the cooler springtime temperatures, although one might question why (if these are a “cool weather” species), shouldn’t the cool weather have favored their development?**]

With the approach of daylight, army cutworm moths seek shelter/cover in any conceivable space: a car window left open overnight is an example – and when one gets ready to drive to work, he/she will be greeted by a flurry of excited moths; open a polycart to deposit a trash bag and you may be greeted by a rush of moths; take an early morning walk and as you pass a line of shrubs, you may be startled by hundreds of excited moths darting out; and so on. In homes, catch or swat a moth on your wall or curtains/sheers and you will find a coating of “dust”/wing scales left behind.

Because moths can exploit very small openings, it is virtually impossible to exclude moths from entering homes/buildings. However, the nuisance period is short-lived. Simply, as if by magic, moths quickly disappear. On an unknown cue, moths from the entire central plains region form massive westward flights to the Rocky Mountains. Feeding throughout the summer at the cooler higher elevations, moths become sexually mature and also accumulate fat reserves. By fall, moths migrate back to the central plains. Each female moth is capable of producing between 1000 – 3000 eggs. Larvae emerge and begin feeding. Partially grown larvae are then the overwintering stage of the species.

An example of the “dust” produced by army cutworm moths can be seen where moths gathered from a single



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blacklight trap are dumped out of a garbage can. Talk about being up-to-your-neck in army cutworm moths!

Another interesting tidbit about army cutworm moths: Grizzly bears love them. During summer months, bears move to the higher elevations to feast on army cutworm moths. It was determined that single moth possesses $\frac{1}{2}$ calorie of fat content. It was further estimated that bears obtain 20,000 calories of fat on a daily basis by consuming 40,000 moths per day. If a person is concerned about annoying army cutworms when they open in their garage door in the morning, maybe they might want to consider adopting a grizzly bear to control the moths. On second thought, maybe the moths might be a friendlier greeting than the grizzly!



Rob Bauernfeind

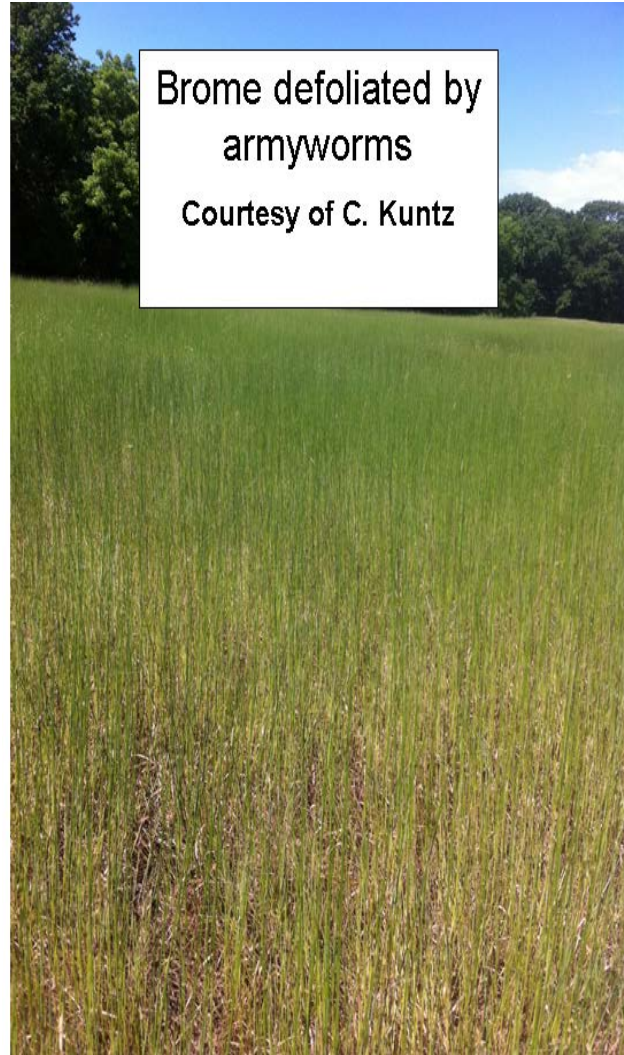
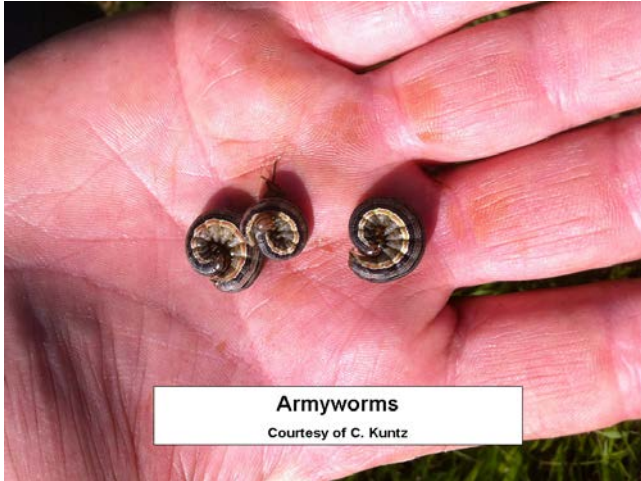
Wheat Update

Wheat is rapidly drying throughout NC/SC KS. Thus, for the most part, the outbreak of English grain aphids and armyworms that we experienced the last 3 weeks has moved. The aphids have migrated to other crops, especially corn. Although we can find no signs of feeding or damage caused by the aphids, they are still infesting the leaves, but numbers seem to be steadily declining. Armyworms have decimated some brome fields (see photos by C. Kuntz) in NE KS, but seemed to have cycled into the pupal stage and therefore most of the

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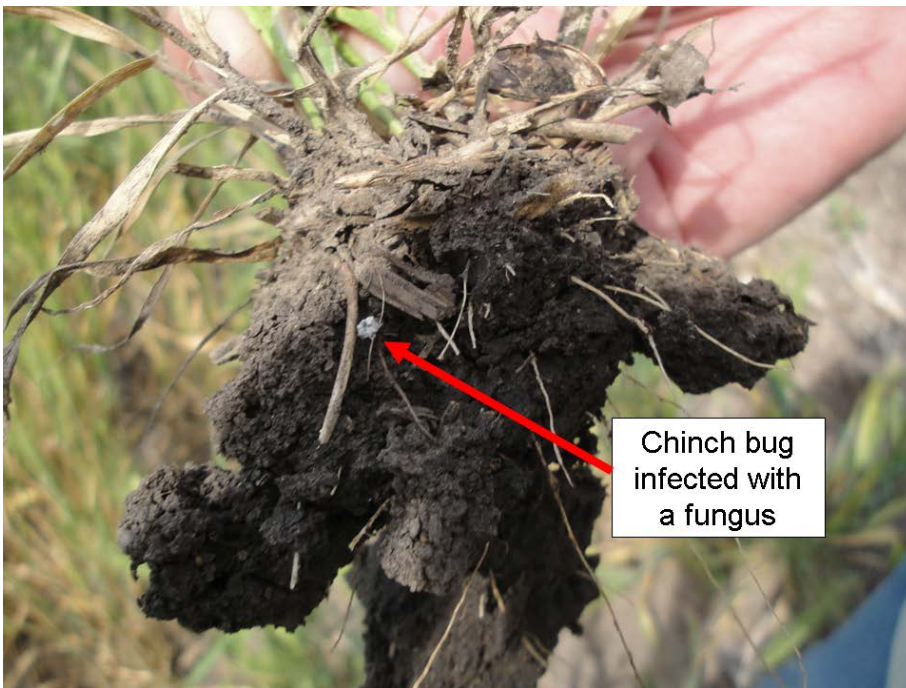
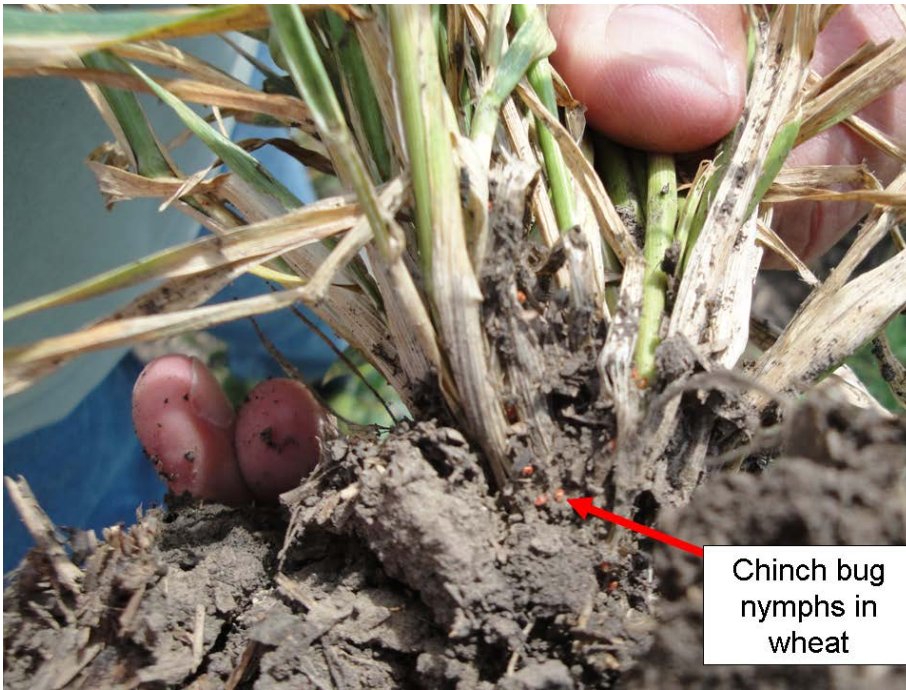
feeding is completed. Armyworms may have 2 or 3 generations/summer so they may continue feeding in a few days but hopefully the next generation(s) will not be as concentrated and thus not as damaging.



Some wheat fields have significant infestations of chinch bugs. The wheat is almost to the point that the bugs cannot get any nourishment from the stems, thus they will migrate. This is the "walking" migration composed mostly of immature nymphs(see photo). They will swarm any adjacent corn or sorghum. Corn is probably far enough along (past the 3 leaf stage) that it can withstand quite a few bugs, and most seedling sorghum will have some protection afforded by any insecticide seed treatment, but if enough bugs attack these plants they can cause some stress before succumbing to the insecticide. Remember, 1 chinch bug/sq.ft in wheat will be problematic for adjacent corn or sorghum fields when the bugs migrate out of the wheat. On the positive side-we did find one chinch bug covered with a fungus(see photo)which is probably an entomopathic fungus, and may have already killed a significant portion of some chinch bug populations. So monitoring wheat as it finishes, and any adjacent corn/sorghum fields, will be prudent for the next couple of weeks.

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Jeff Whitworth

Holly Davis

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Insect Diagnostic Lab Report for June 1 - 13, 2013

Trogoderma beetle in a house – Cheyenne county



Drugstore beetles (*Stegobium paniceum*) and parasitic wasps (*Torymidea*) in an apartment
Miami county



False chinch bugs (*Nysius* spp.) in an alfalfa field
Mitchell county

Indian Meal Moth (*Plodia interpunctuella*) flying
in a garage – Harvey county
credit for identification: Jan Metlevski



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Fruit fly (*Drosophila melanogaster*) on a diseased watermelon plant – Shawnee County

Red Flour Beetle (*Tribolium castaneum*) on kitchen counter – Riley county

Boxelder bug nymphs (Rhopalidae) in a mulch bag from Georgia – Shawnee county

Brown recluse spider – Riley county

English Grain Aphid (*Sitobion avenae*) on corn leaf
Lyon county



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Springtail on a diseased watermelon plant – Shawnee county

Springtail on a mattress – Kansas City, MO

Springtails on a kitchen counter – Riley county

From the gotbugs:



Sawfly larvae *Neodiprion* sp. (possibly Swaine Jack Pine Sawfly) on walls of a house
Johnson county



Margined soldier beetle with spotted wing covers in a soybean field
(*Chauliognathus marginatus*)

Springtail in human hair
Johnson county



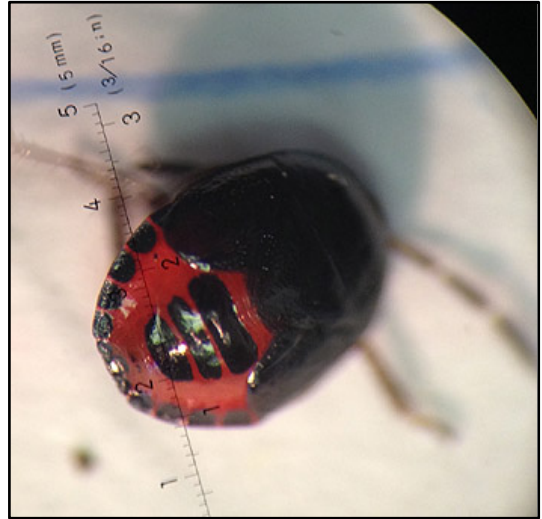
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Possibly Stink bug nymphs (Pentatomidae sp.) on walls of a house Sedgwick county

Burrowing bug nymph brought to an office
Sumner county



Possibly Burrowing or Stink bug nymphs crawling in large numbers on the side of a house
Ellsworth county

Eva Zurek

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Sincerely,

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