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Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants, and Extension Personnel

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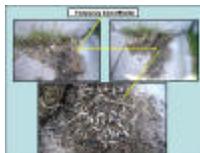
What are they???

As sure as Kansas rains return in September, they reappear --- **HUGH GRUBS!** And 2007 is no exception. The grubs in question are those of green June beetles. Although they are but a recent memory, green June beetle activities began in late June and early July when they flew close to the ground as they swarmed and buzzed over grassy areas. Although perfectly harmless, their numbers, size and audible buzzing sent many people scurrying.



Clustered Green June Beetles - Note color variations

Green June beetles deposited eggs in grassy areas. Larvae (grubs) have been developing (unnoticed) ever since. Their current appearance (for instance, on paved areas such as driveways and sidewalks) has been due to recent rains which have saturated soils and forced grubs out of their underground abodes. Grubs may seek temporary cover under any debris offering such. Eventually they reenter the soil, sometimes in seemingly illogical areas such as joints between concrete surfaces, but mostly back to grassy domains.



Temporary Cover/Shelter



Seeking "shelter/soil" in pavement cracks

Currently, partially grown grubs range in size from 1.5- to 1.75 inches in length and with a diameter of 5/16-inch. Larvae will continue to feed until cold temperatures force them

deeper into the soil where they will become inactive during the overwintering phase of their life cycle. They will resume feeding next spring. By June, they will have matured (i.e. 2-inches in length and ½ inch in diameter) after which they will build individual earthen cocoons in which they transform into their pupal phase. Adult emergence will begin in late June at which time they deposit eggs to begin a repeat of their seasonal life cycle.



Grubs demonstrate an unusual form of locomotion



Mature grub

Other than the nuisance of “buzzing beetles” and the unsettling appearance of grubs, green June beetles and their larvae are of little consequence. Unlike typical “annual white grubs” that feed on grass roots causing “dead spots” in turf, green June bug larvae prefer feeding on dead organic matter in the soil. Sometimes at night, large grubs may crawl to the soil surface to forage on dead/decaying organic matter. Thus, damage attributed to green June beetle larvae is more mechanical, caused by their continual burrowing and tunneling activities, as well as small soil mounds at emergence openings leading to their underground burrows. In rare instances, loss of turf is attributed to desiccation and disease possibly abetted by the activities of green June beetles grubs.



No visible damage to turfgrass

Bob Bauernfeind

Soybeans:

Late maturity soybeans still are at risk for infestations by corn earworms (often called soybean pod worms), bean leaf beetles, and stink bugs. Bean leaf beetles and corn earworms may feed on about any part of the plant often causing noticeable defoliation. But our primary concern is the damage potential of these insects when they start feeding on the marketable product, i.e. the pods and seeds contained within. These insects will continue to feed in the late maturity fields until frost. Thus, scouting should continue until plants reach the R7-R8 stage for the bean leaf beetles and corn earworms but are probably most at risk only during the R5 stage for stink bugs. Because these insects damage the pod itself, the economic injury level is quite low. Thus, if you have 1 small to medium sized corn earworm/row foot from beginning bloom, or if you are losing 3+ seeds (not pods) per plant due to either corn earworms or bean leaf beetles, treatment

would probably be warranted. Stink bugs may require an insecticide application if you find 3 per 10 ft. of row or 10/30 row ft when the pods are filling. Many different insecticides are registered for control of all three of these pests thus if you are concerned about more than on these pests, the same insecticide should control all three if properly timed. For more information about corn earworms, bean leaf beetles, stink bugs, or any other soybean insect pests, please consult your local county extension office or the soybean insect management guide, 2007, available from the same office or at <http://www.oznet.ksu.edu/>



Pod worms

Jeff Whitworth and Aqeel Ahmad

Oak Leaf Itch Mites

Populations of oak leaf itch mites (*Pyemotes herfsi*) reached epidemic levels in cities such as Lincoln, NE and Pittsburg, KS in 2004-2006; whereas, populations in Manhattan, KS were lower in comparison. This year, populations of mites in Lincoln and Pittsburg are significantly lower than before, whereas in Manhattan there are non existent as we have not found a single one of the galls that house the prey of the itch mite, the gall-forming midge larva. Reasons for these extremes in population fluctuation of itch mite populations are unknown, but we suspect two possible reasons are the effects of increased populations of a wasp parasitic on the midge larvae and the negative effect freezing spells had on the midges and forming oak leaves.

Outbreaks of epidemic proportions of mysterious bites in West Chicago-Western Illinois during late July-early August of this year led to the consideration of *P. herfsi* as the probable cause of these bites. Dermatology clinics in some of these areas reported seeing high numbers of patients with similar bites as those reported in KS and NE. Personnel at the University of Nebraska and at K-State assisted Illinois government agencies in efforts to identify *P. herfsi* in these areas; and although oaks were common in these areas, the lack of leaf galls made it difficult to point at this mite as the culprit. Ed Zaborski of the Illinois Natural History Survey searched at other potential host sites, finally discovering *P. herfsi* mites feeding on the eggs of the 17-year periodical cicada, Brood XIII, which this year made its appearance in Western and Northern Illinois. Mated female cicadas insert their eggs into slits made in the bark of new shoots of trees, remaining there for 6-10 weeks until they hatch. Nymphs drop and burrow into the ground where they will feed on the sap of tree roots and emerge in unison after 17 years. This demonstrates the opportunistic, parasitic-predatory nature of these mites; capable of maintaining their populations at extremely low densities; and once a suitable host is found in significantly

high levels, itch mite numbers rapidly increase to epidemic levels. Brood XIV of the 17-year periodical cicada will emerge in mass in 2008 in Southern and Eastern Illinois, and in Indiana, Tennessee, and other states east of Illinois. In the past, we have documented the presence of this mite in Indiana, Tennessee and Kentucky; thus we will have to wait to see if the same situation as this year in Illinois is repeated.

Alberto B. Broce

Insect Diagnostic Report for August 30 – September 19

8/30 – Greenwood Co.; longnecked seed beetle indoors
8/30 – Harvey Co; moth fly
8/31 – Geary Co; blow fly larvae (Phaenicia spp)
8/31 – Harvey Co; blow fly larvae (Phaenicia spp)
8/31 – Montgomery Co; spiny oak-slug caterpillar
* 9/4 – Johnson Co; Argiope yellow garden spider
9/4 – Johnson Co; jumping spider (from MO)
9/4 – Johnson Co; Schistocerca grasshopper
9/5 – Osage Co; Achemon sphinx caterpillar on grapes
9/5 – Rush Co; immature German cockroaches
9/5 – Norton Co; Indianmeal Moth in home
9/5 – Sherman Co; springtails in yard/home
9/5 – Johnson Co; square-necked grain beetle (suspected)
9/5 – Butler Co; bumble bee
9/5 – Riley Co; nymph lone star ticks
9/6 – Riley Co; male lone star tick
9/10 – Harvey Co; larval lone star ticks
9/11 – Mitchell Co; lone star ticks
9/11 – Leavenworth Co; mealybugs on violet
9/12 – Riley Co; Formica spp. ants
9/12 – Reno Co; spider mites on tomato
9/12 – Reno Co; spider mites on squash
9/14 – Johnson Co; ‘scab’ believed to be insect
9/14 – Sumner Co; fleas
9/17 – unknown Co; thread-waisted wasp
9/17 – Ford Co; warehouse beetles
9/18 – Butler Co; lone star tick larvae
9/18 – Illinois; drugstore beetles in home
9/19 – Johnson Co; Scutigera centipede

* photos and description are included as the “Featured Arthropod” on our Entomology “Diagnostician” webpage

Elizabeth Murray

Sincerely,

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