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Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants, and Extension Personnel

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June 24, 2004 No. 16

Got CHIGGERS ?

Chigger larvae are already out in the grass and waiting for you. Chiggers are parasitic and predatory mites. They are very small; you can barely see them with naked eye as a tiny dark spots (when they are attached to your skin). There are many species of chiggers, however, almost all chiggers found on people are represented by only one species. Chiggers develop in four stages: eggs, larvae, nymphs, and adults. Only larvae are parasitic and feed on people and animals. (Nymphs and adults feed on insects, other mites, and mite eggs). Chiggers survive the winter as adults and lay eggs in the spring. Hatched larvae hide in the grass and seek a human or animal host. Once they attach, they start feeding but not on the blood. Chigger larvae attach their mouthparts to the skin surface, usually around hairs or pores and feed on skin cells. The bites result in itching (about 4-8 hours after chigger attachment/removal) that is caused by histamines that are released from broken skin cells. In the United States, chiggers do not transmit any known pathogenic microbes/diseases.

One of the best preventative steps on your property is cutting grass short, so the sunlight can reach the ground. Chiggers (as well as ticks) don't like direct light and low humidity and they will move out from sunny sites. I do not recommend spraying insecticides on the grass, unless you have a chronic problem with chiggers in a particular shady area. If you do need to treat some small areas that produce large numbers of chigger larvae, products on the market include for example, Advanced Lawn & Garden Multi-Insect Killer, Power Force Ant Killer Ready-to-Use Granules or Power Force Multi-Insect Killer Ready-to-Spread Granules (all from Bayer).

When outdoors, it's a good idea to avoid walking or sitting in tall grass or even short grass that is not directly exposed to sun. Repellents based on DEET or permethrin are very effective (also against ticks and mosquitoes). Dusting with sulfur works as well but results in very undesirable odor. Make sure to follow the label instructions. For chigger protection, spraying the shoes and (legs up to the knees if in tall grass) should be good enough.

Attached chiggers should be washed away with warm soap water. To stop itching you need to seal the bite from the air. Applying the combination of a sealant with antihistamine is the best approach. I would recommend, for example, using Caladryl brand that contains calamine lotion and antihistamine benadryl. Sunscreens with benzocaine, vaseline, or baby oil are also good first aid to stop itching.

Chigger (CREDIT: Jerry F. Butler, University of Florida)

Reaction to chigger bites (CREDIT: Jerry F. Butler, University of Florida)

Ludek Zurek

Soybean Stem Borer:

Emergence of Dectes texanus adults (a.k.a the soybean stem borer) began in Hays this week, but likely will not peak for another week or two. This is somewhat later emergence than observed last year, possibly due to cooler spring weather. Adults (Fig. 1) will require about two weeks to mate and mature eggs before attacking sunflower and soybean crops. The larva (Fig. 2) will bore down the plant stalk and eventually girdle the base of the plant from the inside, leading to yield losses through lodging of plants.

Figure 1

Figure 2

JP Michaud

Sorghum—Sugarcane Rootstock Weevil:

These small, black weevils are becoming very noticeable in central Kansas because of their feeding activity. The white, legless, grub like larvae are the damaging stage because of their stalk tunneling/excavations at or near the base of the plant. This feeding damage often weakens the plant and may cause lodging, especially under dry conditions. Feeding and egg-laying also create sites where diseases, such as charcoal rot may enter the stalk.

Adult weevils overwinter in plant residue, emerging in early spring to infest wild grasses then moving to sorghum and occasionally, corn. If you find small pin holes in young sorghum, look for the adult weevils which usually can be found on the ground between plants or at the base of infested plants. Larvae feed within the stalk for 3-4 weeks then pupate and the adults emerge 10-14 days later. It has not been determined yet as to how many generations occur per year in Kansas. They rarely cause significant damage under good growing conditions. Due to the sporadic nature of this pest insecticide trials have not been extensive enough to gather sufficient data to recommend treatment for this insect.

Larva - photo by G. Cronholm

Adult - photo by G. Cronholm

Potato Leafhoppers:

They're back! Picked up 2 leafhopper adults from sweep net samples of soybeans. They do feed on soybeans in Kansas, but alfalfa is more at risk, usually. Please start checking alfalfa fields for these tiny, lime green insects and consult the Alfalfa Recommendations (2004) for treatment threshold/economic injury levels as it just doesn't take very many potato leafhoppers to delay or stunt alfalfa.

Adult leafhopper

Stunted Alfalfa

Corn:

Early season feeding damage from armyworms, fall armyworms, and corn earworms is often similar, and thus may be confusing. To accurately determine which insect is causing the damage the larva needs to be identified. These three larvae do look similar but if you refer to the head capsules (see photo) they can usually be distinguished. Additionally, the armyworm has two orange stripes on each side and two dark stripes on the back. The fall armyworm has three yellowish lines on the back with a wider dark line on each side of these yellow lines. Below this dark stripe on both sides is a wavy yellow stripe with reddish blotches. The white inverted Y on a dark head capsules is characteristic. Corn earworms have hairs (micro spines) on their cuticle. All have varying colors from brown to green with all shades in between.

Fall Armyworm and Corn Earworm

Jeff Whitworth

Weekly Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostic Laboratory from June 16 through June 23, 2004:

6-16-2004, Riley County: Lecanium Scale on Sycamore.
6-16-2004, Miami County: Phylloxera leaf galls on Pecan.
6-17-2004, Pottawatomie County: Phylloxera leaf galls on Hickory.
6-18-2004, Harvey County: Mealworm adult in Brome hay bales.
6-21-2004, Graham County: Harlequin Bugs.
6-21-2004, Brown County: Possible Leafhopper damage to Bur Oak.
6-21-2004, Shawnee County: Lone Star Tick off person.
6-21-2004, Shawnee County: Thyreocorid Bugs on Cilantro, Daisies.
6-22-2004, Riley County: Mealworm adults in hay.
6-22-2004, Sedgwick County: Winged Termites from home.
6-22-2004, Shawnee County: Garden Webworm in Swiss Chard.
6-22-2004, Sheridan County: Carpenter worms in Ash.
6-23-2004, Rooks County: Sac Spider in home.

If there any questions regarding these samples or about the identification of any arthropod please contact the Insect Diagnostician at 785-532-4739 or at bbrown@oznet.ksu.edu.

Bobby Brown

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Sincerely,

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