http://www.oznet.ksu.edu/entomology/extension/extensio.htm

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants, and Extension Personnel

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Soybean aphids again detected in Kansas

For the 2nd year in a row soybean aphids have been detected in Kansas. KSU Research and Extension entomologists discovered soybean aphids in several counties during the last week while monitoring for these insects as part of a program of continuous monitoring supported in part by the KS Soybean Commission. Small populations of aphids were discovered in Riley, Pottawatomie, Clay, Cloud, Wabaunsee, Republic, Shawnee, and Washington counties. In 2002, small populations of soybean aphids were discovered in Riley, Franklin, Geary, Douglas, and Miami counties. First populations were discovered on 20 Aug last year so this is a little earlier and thus, we're asking growers and consultants to be aware of the potential presence of this insect. If you observe any aphids on soybeans in any counties other than those where we have indicated that we found aphids already in 2003 or if you observe large populations of aphids (200 + per plant) on soybeans any where in Kansas please contact the K-State Research and Extension office in your county or send us an email (jwhitwor@oznet.ksu.edu) so we can track this potentially serious pest.

The soybean aphid (*Aphis glycines*), originally a native of China and Japan, was first identified in the US in the summer and fall of 2000. Infestations were confirmed in several Midwestern states from Ohio to West Virginia and Kentucky, west into Missouri and Iowa. By 2002, heavy populations were located in Michigan, Minnesota, and Illinois.

Photo by Greg Zolnerowich, K-State

Soybean aphids are very small, yellow-green aphids with black "tail pipes" (known as cornicles) at the tip of their abdomen. It is the only aphid in North America to develop large colonies on soybeans. Soybean aphids can have many generations (15-18) each year but apparently must have buckthorn (a *Rhamnus* sp.) to successfully overwinter. Two wingless generations are completed in spring on buckthorn. Then winged forms are produced which fly to soybeans and many more generations are produced and fly back to buckthorn where they mate with winged males and lay eggs in the buckthorn which overwinter until the next growing season.

Soybean aphid populations can build at any time from early vegetative through bloom. Most colonies will initially be found on newer leaves in the outer canopy. But, the aphids move deeper into the canopy, most commonly on the underside of leaves, as the plants mature. Eventually, aphids may be found on stems and pods. Some reports indicate populations may rapidly increase from late August through

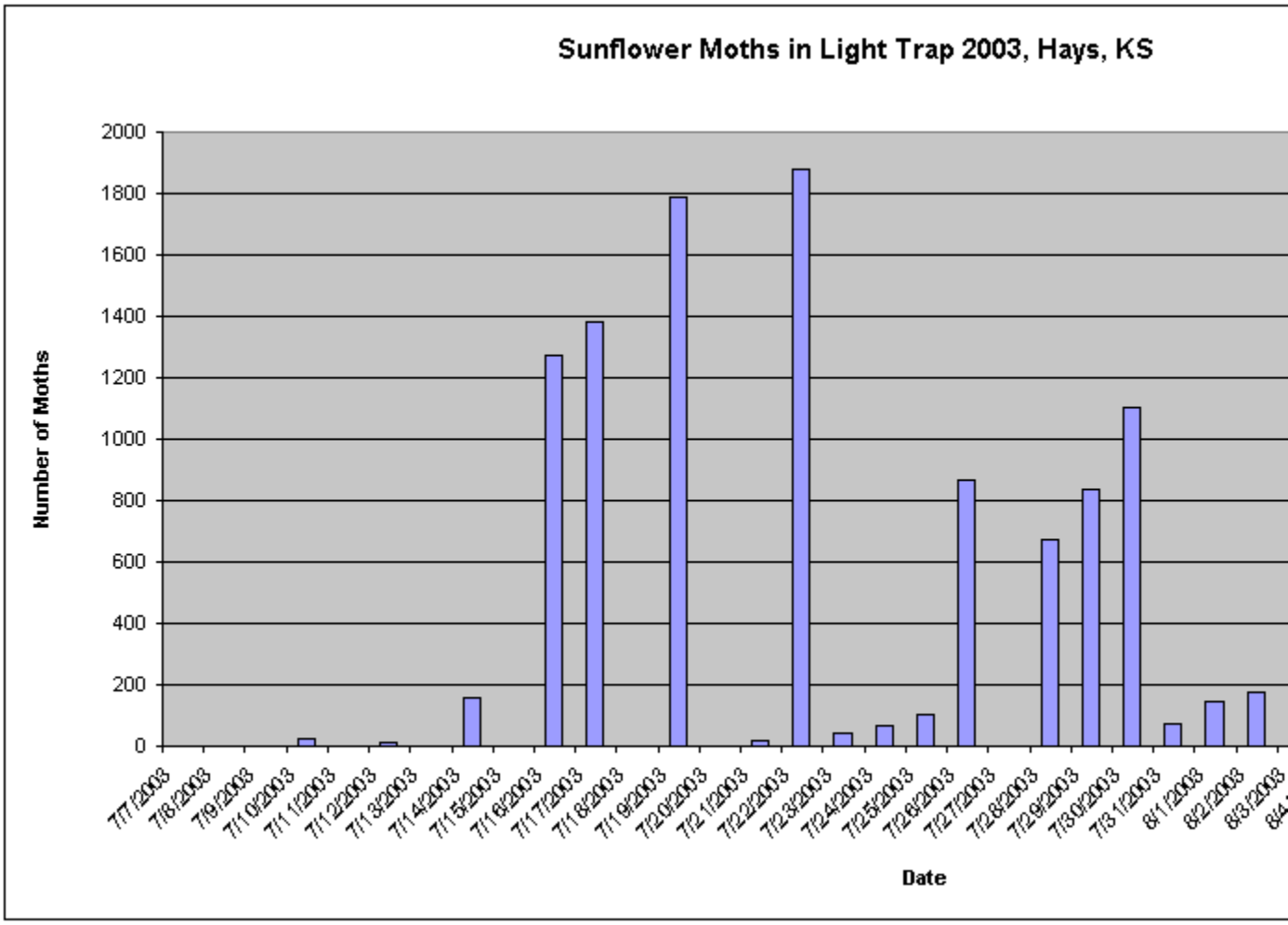
early September. Infested plants may have distorted, yellow leaves and plant parts may become covered with a dark, sooty mold which grows on the "honeydew" or waste produced by the aphid's feeding. Ants seem to be attracted to this "honeydew", thus if you notice ants crawling on soybean stems it may be an indicator of the presence of aphids. These aphids may also transmit many virus diseases including soybean mosaic, bean yellow mosaic, peanut mottle, peanut stunt, and peanut stripe.

For more information see the new publication on the soybean aphid sponsored by the Kansas Soybean Commission at http://www.oznet.ksu.edu/library/entml2/MF2582.pdf . In addition the North Central Region Pest Management Center; http://www.ncpmc.org/NewsAlerts/soybeanaphid.html Soybean Aphid Watch; and the Plant Health Initiative; http://planthealth.info/soyaphid.htm have a variety of information and images on this aphid, its hosts, management and distribution. Again, if you observe populations of aphids on soybeans, please contact the KSU Research and Extension office in your county or e-mail jwhitwor@oznet.ksu.edu. Additional information on the current soybean aphid distribution in Kansas will be posted at http://www.oznet.ksu.edu/entomology/extension/insectinfo/soybeanaphid.htm, as it becomes available.

Jeff Whitworth and Phil Sloderbeck

Sunflower Moths

Sunflower moth populations are on the decline, but fields that are just now entering the boom phase should still be monitored for activity since populations have been fairly high this summer and moths are still being detected in significant numbers in the light trap at Hays.

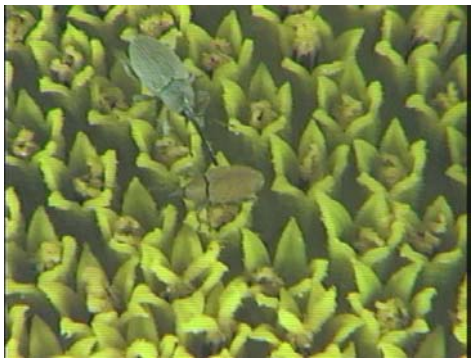


PhilSloderbeck and JP Michaud

Sunflower Seed Weevil Alert

Significant numbers of seed weevils are being reported from some sunflower fields. Kansas has at least 2 species of these snout-nosed beetles, which damage sunflowers. One is reddish-brown and about 1/8 inch long, whereas the larger seed weevil is gray and approaches 1/4 inch in length. Female weevils insert an egg (occasionally more than one) directly into the developing seed. Egg laying begins in seeds at the outer edge of the head and progresses inward following seed development. Hatching occurs in about a week and the larvae feed internally until fully grown. After feeding stops, the majority of larvae cut exit openings through the seed coat and drop to the soil to overwinter. Insecticides, when necessary, must be directed against adults rather than the damaging larvae because of the protection larvae derive by feeding internally. In fields nearing 85% bloom, 5 sets

of 5 plants (away from the field margin) should be fully examined for seed weevils. If populations on oil seed varieties reach 15 to 25 seed weevils per head treatment should be considered. However on confectionery flowers the economic threshold drops to one adult per head (or less).



Producers often key in on head moth and don't worry too much about other pests. However, in the past, some producers have indicated that they had significant seed weevil damage in later planted sunflowers that were not sprayed for head moth. Thus even if head moth numbers appear to be on the decline producers need to continue to monitor fields for seed weevils.

See the Sunflower Insect Management 2003; http://www.oznet.ksu.edu/library/ENTML2/MF814.PDF for information on products, rates, and pre-harvest waiting interval restrictions.

Phil Sloderbeck

Sincerely,

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