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Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants, and Extension Personnel

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ALFALFA:

Alfalfa weevils continue to hatch throughout central Kansas. There are a few 2nd instar (medium sized) larvae which probably hatched before the recent cold spell but the majority are very small (1st instars). Some fields have a considerable number of weevil larvae in the leaf litter which indicates they have not returned to feeding on the plants. Thus, if you are monitoring your fields using the stem count method you may underestimate the population. From fields sampled in central Kansas, probably treatments applied the week of 10 April would be ideal, if populations warrant it. Egg hatching may still occur so field monitoring should continue and any treatment decision needs to take into account the preharvest interval for the insecticide used. Have found pea and cowpea aphids in all fields examined but no populations approaching treatment thresholds. For treatment recommendations please see the **2006 Alfalfa Management Guide** available at your local County Extension office.

Jeff Whitworth

Weevils and Aphids – Keep Watch on Alfalfa Fields:

Alfalfa Weevil Growing Degree Day accumulations at our WDL web site (<http://www.oznet.ksu.edu/wdl/alfdd06.asp>) suggest strongly that we should be encouraging scouts, agents, and farmers in many areas to be looking closely at alfalfa for alfalfa weevil larvae. Based on sampling earlier this year, it was possible to find weevil larvae at sites where 150 GDD or more have accumulated. The reason: the relatively mild winter weather apparently allowed good survival of fall-laid eggs. If the winter had been more severe, the guideline of scouting after 200 to 300 GDD had been accumulated (as suggested in many other states) probably would have applied. Alfalfa Weevil Growing Degree Days as of April 5, 2006 GDD (calculated from January 1, 2006 – 48 degree F base) are as follows:

Colby 96 GDD; Garden City 149 GDD; Hays 121 GDD; Hesston 183 GDD; Hutchinson 187 GDD; Manhattan 112 GDD; Ottawa 170 GDD; Parsons 269 GDD; Powhattan 93 GDD; Rossville 146 GDD; St. John 191 GDD; Scandia 88 GDD; Silver Lake 128 GDD; Tribune 105 GDD.

Pin-hole feeding from alfalfa weevil larvae will first be detected in the newly developing folded leaves at the tip of the stem when the oldest alfalfa weevil eggs in the field have hatched. Be sure to separate clover leaf weevils from alfalfa weevil larvae when making counts. Both have white stripes down their back, but clover leaf weevil larvae possess brown head capsules while alfalfa weevil larvae have black heads. Clover leaf weevils are more likely to be encountered near the base of the plant.

Treatment of alfalfa 3 to 7 inches tall may be justified when feeding is evident on the top inch of growth and one to two alfalfa weevil larvae per stem are present. Refer to our **Alfalfa Insect Management 2006 (MF809)** recommendations, particularly the stem count discussion in the alfalfa weevil section, for more information on scouting thresholds (stem count basis) and to review our currently recommended treatment options. This document can be retrieved electronically by searching for it at <http://www.entomology.ksu.edu> or is available in print form from most K-State County/District Extension offices. Heavy survival of fall-laid eggs may be an indicator that large numbers of larvae from spring-laid eggs may eventually develop in some areas. If this happens and a grower chooses to treat small alfalfa, it is possible that re-treatment could be necessary in some fields. When compared with northern states, Kansas often experiences an extended larval damage interval following sequential and partly overlapping hatch of fall- and spring-laid eggs. In addition to weevils, pay attention to aphids. Our counterparts in Missouri are now reporting significant levels of aphids in some locations. Pea aphids have a dark band encircling the base of each antennal segment. Blue alfalfa aphids do not possess this antennal banding characteristic. Evaluate plant vigor and aphid densities to determine if treatment is warranted. Fifty pea aphids per 10 inch tall alfalfa is thought to justify treatment, whereas 20 blue alfalfa aphids should be considered threatening. Fewer aphids would likely be required to trigger concern on smaller alfalfa. In past years, we have sometimes seen aphids develop to significant levels in Kansas when cold weather held back or killed the initial alfalfa growth. At low levels, aphids may not cause the crop significant harm and they can serve as important food sources for beneficial insects that over-wintered in the field before the latter disperse into other crops.

A wide range of insecticides are registered that provide excellent alfalfa weevil and aphid control. Refer to **MF809** for more information. Note that some products limit treatment to once per cutting. In all cases, follow the instructions on the label for the product being considered.

Randy Higgins

African Honey Bees:

There has been a great deal of recent publicity relative to the **Africanized honey bee** (AHB). Most of what has been written or said is true, but a little more information is needed to put it into context. First, a little about the biology. These bees are indistinguishable from the common **European honey bees** (EHB) we are used to as far as appearance. They have to be collected and sent to a lab to determine whether they are AHB or EHB's. The AHB's are more aggressive at defending their territory, however, and thus the problem. All

bees defend their territory and release a chemical upon stinging which stimulates the other members of the colony to attack at the site of the stinging. Thus, if stung by a bee—run. While running, try to scrape away the stinger, and attached chemical emitter, as that is what the bees are keying on. The AHB is no more toxic than the EHB but because of their more aggressive nature more stings may occur. The average, non-allergic human can withstand approximately 10 stings/lb. of body weight. The AHB seems to be a little less tolerant of intruders thus, if you notice a swarm of bees it is best to give it a wide berth, at least 100 feet, and be careful not to do anything to disturb the swarm. AHB have been positively identified from specimens collected in Oklahoma, the most recent from a swarm in Jan. 06 which occurred in southern Oklahoma. It has been variously reported that AHB's can migrate anywhere from 30-300 miles per year during swarming. Bees swarm to find new sites for colonization where food and water are available. Thus, it is difficult to determine exactly how far they will swarm but probably, and as their history indicates, closer to the 30-60 mile range, or even less if they find suitable nesting sites. The AHB does differ from the EHB however, as it may swarm more often during the growing season. EHB's usually swarm once a year but, under the right conditions, an established colony of AHB's may produce one or two swarms every six weeks. Thus, at least the chance of encountering a swarm of AHB's is greater. The Kansas Dept. of Agriculture (KDA) has established several monitoring stations along the KS./OK. Border. These stations utilize a chemical called a pheromone which attracts bees, both EHB and AHB. Bees may be attracted to this chemical from various distances, depending upon the weather, but probably from a mile or less. Thus, if bees do find these stations they will not necessarily be AHB's and, if a swarm should cross the border chances are better that they won't find these stations. These stations are being monitored periodically by KDA personnel. The bottom line is: AHB have never been found in Kansas. They have been positively identified from counties in north central Oklahoma in 2005 and southern Oklahoma in Jan. 06. They appear to not be able to overwinter from central Oklahoma north thus, if they do reach Kansas they will have had to traverse considerable distances without finding suitable nesting sites. If you live near the Kansas/Oklahoma border, see a large number of bees in a given area, see bees swarming, or hear loud buzzing coming from an enclosed area, and suspect that they could be Africanized honey bees DO NOT attempt to collect a sample of the bees or to destroy the colony yourself. Instead, contact the Kansas Department of Agriculture at (785) 862-2180 or your county's K-State Research and Extension Office. All honey bees are great pollinators and if left alone will leave you alone while pollinating our crops and plants. If you are stung by a bee—run and scrape away the stinger/chemical attractor ASAP to help avoid attracting other bees which may lead to more stings. Seek medical attention if you receive multiple stings, feel sick, or if breathing becomes difficult. For additional information regarding either EHB or AHB's please contact your local K-State Research and Extension Office.

Jeff Whitworth, Phil Sloderbeck and Sharon Dobesh

In the “dirt”

While working the ground in vegetable gardens and flower beds, homeowners often expose various soil inhabitants: wireworms, cutworms and grubs, and strange-looking “pods”.



White Grubs



Wireworms



Cutworms



Tomato Hornworm Pupa



Tomato Hornworm Moth

White grubs are the larvae of May/June beetles or “masked chafers”. Wireworms are the larvae of wireworm beetles (commonly referred to as click beetles). Two types of damage are attributed to these two pests: (1) they feed on and destroy newly planted seeds resulting in reduced germination and poor plant stands; and (2) their feeding and tunneling activities degrade the quality of root crops and tubers, and also (possibly) introduce soft-rot organisms which further degrade produce.

Cutworms are the larvae of various species of noctuid moths (sometimes referred to as “miller moths”). Some species deposit eggs in the fall, and their larvae begin their development in the fall of the year, often times on weedy host plants in gardens and flower beds. Thus by springtime, they may be substantially grown and capable of severing transplants and newly emerged seedlings. Evidence of their presence is freshly cut plants lying on the soil surface.

The “strange pods” are the overwintered pupae of tomato and tobacco hornworm moths. The moths lay eggs which develop into the large green hornworms which are commonly found defoliating tomato plants.

There are non-chemical control tactics against these pests. Control/remove weeds thus depriving grubs, wireworms and cutworms of a food source. When exposed, collect and dispose of grubs, wireworms, cutworms and tomato/tobacco hornworm pupae. As a prevention against cutworms, place aluminum foil “collars” around transplants as well as newly-emerged plants after they have gained sufficient size.

Chemical control options include granular insecticides to be incorporated into the soil, as well as liquid and dust insecticide formulations. Some products include: Bayer Advanced Season-Long Grub Control, Bayer Advanced Power Force Multi-Insect Killer, Bayer Advanced Complete Insect Killer for Soil and Turf, Eliminator Sevin Lawn Insecticide Granules, Ferti-lome Quik-Kill Home, Garden & Pet Spray, GardenTech Sevin Lawn Insect Granules, Hi-Yield RTU Rose and Flower Spray, Hi-Yield Tomato and Vegetable Spray, Natural Guard Natural Insect Spray, Ortho Bug-B-Gon MAX Insect Killer for Lawns, Ortho Bug-B-Gon MAX Lawn and Garden Insect Killer, Ortho Bug-B-Gon Garden & Landscape Insect Killer, Ortho Bug-B-Gon Garden, Insect Dust, Ortho Bug-B-Gon Bug-Geta Plus, Ortho Ant, Flea & Tick Killer for Lawns RTU Granules, Ortho Lawn and Garden Insect Killer Granules, Ortho Insect Killer Granules and Scotts GrubEx.,.

It is important to read product labels to determine their use sites (flower beds or vegetable gardens only, or for common use in both) and the specific pest controlled.

Bob Bauernfeind

Within the past week.....

Just a brief mention that people with concerns about European pine sawfly and eastern tent caterpillars need to check their landscape plantings for these early-season pests. In the Manhattan area (as of Wednesday, March 29), the current-season hatch had not yet begun. Upon rechecking Sunday, April 2, the hatch had begun. More about these two pests will be presented in the next edition of the Kansas Insect Newsletter.

Bob Bauernfeind

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

Sincerely,

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