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Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants, and Extension Personnel

Department of Entomology
239 West Waters Hall
K-State Research and Extension
Manhattan, KS 66506-4027

Tel: 785-532-5891
Fax: 785-532-6258

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Insect Spectacular 2007

Harvey and Pawnee Counties will be hosting an Entomology Workshop Saturday, June 23, 2007 in the Community Room at the Harvey County Courthouse located at 8th and Main in Newton, Kansas. Activities will run from 8:30 a.m. to about 4:00 p.m. and will include insect games, educational classes, collection trip, contests and special speakers. This workshop is open to anyone interested in insects – 4-Hers, Scouts, Teachers, project leaders, etc. -- for more information and a Registration Form for the event – check our 4-H Entomology Web Site at:
http://www.entomology.ksu.edu/DesktopDefault.aspx?tabid=89 .

Phil Sloderbeck

New Sunflower Web Pages

J. P. Michaud and I have been working to update our sunflower insect web pages.
http://www.entomology.ksu.edu/DesktopDefault.aspx?tabindex=193&tabid=404

J. P. has added additional text and several images to the various web pages and my secretary and I have created pdf versions of each webpage to allow users to view and print the information in a more pleasing format.

Our hope is to do this for each of our crop pest web pages, so that eventually we can reduce the information that we publish each year in our Insect Management Guides and probably eventually eliminate the need to have a printed document.

This system also has the advantage that we can change the web pages and associated documents as we become aware of various changes rather than just once a year. Plus, the web pages allow us to include color images and links to other sites and publications.

If you get a chance to view the web pages please let us know what you think of them.

Phil Sloderbeck and J. P. Michaud

Dectes Stem Borer Distribution

Dr. Larry Buschman and I recently conducted a survey to help document the pest status of *Dectes texanus* (aka **Soybean Stem Borer**). We feel that the importance of this pest in Kansas has been increasing as was predicted in the Handbook of Soybean Insect Pests. The initial infestations in Kansas were in irrigated soybean production in the sandy soils of south central Kansas where tillage was limited due to concerns about soil erosion. As the adoption of no-till farming has increased to other areas of the state so have the reports of the Dectes stem borer. There has also been an increasing acreage of soybean planted in the state and this may well contribute to increasing the area-wide populations of this insect. Thus, we thought it might be interesting to better document the distribution of the pest status of this insect in the United States. This information will also be useful in building a justification for getting a label for an insecticide that could be used to manage this pest.

We found that Dectes stem borers appear to reach pest status on soybeans in three zones: a. Across Texas, Kansas and into Nebraska b. Along the Mississippi and Ohio Rivers and c. Along the Atlantic Coast. In addition, six states (in addition to Kansas) from Texas to North Dakota reported the Dectes stem borer to be a pest of Sunflowers. A summary of a poster presented at the ESA North Central Meeting in Winnipeg, Canada, March 2007 is located at the following url:
http://www.entomology.ksu.edu/DesktopModules/ViewDocument.aspx?DocumentID=4337

Phil Sloderbeck

Question of the Week

Bird cherry-oat aphids are being found in wheat fields in western Kansas. Should I spray? It really just depends on how many aphids are being found. First of all, bird cherry-oat aphids are common this time of year and low numbers don’t cause significant damage. While they can spread barley yellow dwarf virus, that will normally already have happened by the time populations are abundant enough to be noticed and late season inoculations of the virus are not as serious as early inoculations. Treatment could be fairly cheap especially if application could be added to fungicide applications, however treating with little indication of getting a significant return is still a loss. In addition, now that warmer weather has finally arrived predators and parasites are likely to move in and reduce aphid numbers. Thus, if only a few aphids are found, there would be no justification to treat. Even if there were some aphids on most plants, it probably still would not pay to treat. Only if populations are extreme would there be much chance of

making a return from treating. Or management guide indicates that 50 or more aphids per tiller at boot to heading stage may be damaging. So I would guess that even with high wheat prices and no additional application costs, it would still take several aphids per tiller to justify treatment.

Phil Sloderbeck

Seedling Pests

With the weather finally cooperating spring planting is well under way. That means that many crops will soon be emerging and it will be time to start scouting for all types of seedling pests. Cutworms, wireworm, southern corn leaf beetle, billbugs and many others. If you need help identifying these pests remember that samples can be taken to your local county extension office and if they don't recognize the pest they can send samples to our diagnostic lab. For more information on the K-State Insect Diagnostic Service check out our recently revised publication MF960, available on the web at: http://www.oznet.ksu.edu/library/entml2/MF960.PDF -- Don't forget management options for many of the common insects that attack various field crops are on our web site at: http://www.entomology.ksu.edu/DesktopDefault.aspx?tabindex=181&tabid=379

Phil Sloderbeck

Accumulated GDD's – March 1 – May 2……

Baxter Springs – 580.5; Clyde – 381.5; El Dorado – 454.5; Elkhart – 306.5; Ellsworth – 426; Emporia – 457.5; Garden City – 325.5; Hays – 327.5; Hiawatha – 396; Hutchinson – 433.5; Independence – 558; Kansas City – 433; Lawrence – 421; Manhattan – 415.5; Newton – 404.5; Olathe – 423.5; Pittsburg – 577.5; Saint Francis – 197; Salina – 426; Topeka – 465; and Wichita – 449.5.

Referring back to Kansas Insect Newsletter #3 in which GDD's were coupled with certain pests whose activation/activities fell within specific GDD ranges, southeast Kansas is well past the 500 GDD level, and so trees and shrubs should be inspected for the presence of elm leaf beetles (and their eggs) and Euonymous scale crawlers to determine insecticide treatment applications are warranted. For the purpose of timing treatments against peach tree borers, use sticky traps baited with "Clearwing Moth" pheromone plugs/strips to pinpoint the onset of their flight. For the bronze birch borer, and flatheaded apple tree borers which do not lend themselves to inspections for their presence, consider the application of preventative "insurance" treatments against these two pests.

And they're approaching the finishing line (or, "The Happy Wanderers") ……..

The 2007 **European pine sawfly** and **eastern tent caterpillar** activities are nearly completed. Actually, it is not surprising that the relatively cool April temperatures had little effect on the developmental rates of these two early-season insects. Currently, most matured larvae are leaving their hosts and "are wandering about" as they seek secretive sites to form their cocoons within which they pupate.

Eastern tent caterpillar cocoons appear yellow due to the "yellow dust" woven into the silken cocoons. Pupation is immediate and relatively rapid, with moths emerging in late-May through mid-June. After mating, females deposit egg masses (on twigs) which persist through the summer and survive the winter until the larvae emerge in 2008. Egg masses become more detectable after leaf drop in the fall, at which time they may be pruned out.

Eastern tent caterpillar cocoons

Eastern Tent Caterpillar Moth

Similarly, European pine sawfly form cocoons (sometimes on their host, but more often under debris on the ground beneath the host). However, unlike eastern tent caterpillars, European pine sawfly larvae spend most of the summer in a resting stage before finally pupating in late-August and early September. Adult sawfly emergence begins in late September. After mating, females insert eggs into pine needles. Eggs overwinter with the next larval hatch to occur in mid- to late March of 2008.

European pine sawfly cocoons on host plant

Camouflaged European Pine Sawfly Cocoons

May Beetle/June Beetle feeding…….

There have been several reports of May beetles/June beetles causing some leaf loss on trees. Concerns arise regarding the stark appearance of defoliated trees. It is the up to the discretion of homeowners whether they opt to apply an insecticide to reduce May/June beetle numbers. It should be noted, however, that May/June beetle activities are relatively

short-lived, and that that trees compensate for leaf loss by the activation of auxiliary buds to produce new foliage.

May/June beetle defoliation

Dead May/June beetles

	
Defoliated Walnut Trees	Walnut "reflush" 3 Weeks later

Bob Bauernfeind

Bird Cherry Oat Aphids (BCOAs):

BCOA’s seem to be increasing in wheat fields throughout the eastern 2/3rd of the State. This is a relatively large dark colored aphid with black cornicles (tail pipes) and antennae. Younger aphids are lighter in color and most BCOA’s have an orange or reddish brown spot on the abdomen. This may be difficult to distinguish on individual, older aphids but generally, if you collect several from a colony and view them under magnification you can see at least an orange tinge to the aphids. BCOA’s are usually of little concern relative to direct feeding damage on wheat. Lady beetles, parasitic wasps, and other beneficial insects generally keep aphid populations below treatment thresholds. BCOA’s are efficient vectors of barley yellow dwarf virus, but this has not been a major problem throughout Kansas in past years. Foliar insecticide applications are not usually effective in reducing the incidence of the virus and thus, are not usually recommended.

Direct feeding damage by BCOA’s does seem to be of concern this year. Prior to the freeze, lady beetles and other beneficials were present but populations have been slower to recover than the BCOA populations. These aphids seem to be adding to the stress of the already struggling wheat plant. Therefore, the question of whether to treat BCOA’s to reduce feeding damage. There is no magical equation to help you determine a treatment threshold or economic injury level for this year’s situation. As always, your economic injury level is based on plant growth stage, market value, insecticide and application cost, and yield potential, etc., however, if you have a field-wide average of 20+ BCOA’s/tiller and less than 10% of tillers have lady beetles or parasitized aphids (mummies), you may be justified to treat. If you do decide to treat and are considering a tank mix with a fungicide, etc. please check with your applicator to make sure they are compatible and do not cause any phytotoxicity. This may be of concern with some chemicals depending

upon wheat growth stage. For additional information, please refer to the Wheat Insect Management guide at all county extension offices.

Bird Cherry Oat Aphids

Jeff Whitworth and Aqeel Ahmad

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,

Robert J. Bauernfeind
Extension Specialist
Horticultural Entomology

Jeff Whitworth
Extension Specialist
Entomology (Crops)

J.P. Michaud
Integrated Pest Management - Entomology
Agricultural Research Center - Hays, KS

Phil Sloderbeck
Southwest Research and Extension Center
Entomology - Garden City, KS

Aqeel Ahmad
Research Associate
Entomology