

# Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel



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## Introduction

Well it is time to kick off another season of the Kansas Insect Newsletter. It is produced as needed throughout the growing season usually on a weekly basis. It is currently available on our web site: [www.entomology.ksu.edu/extension](http://www.entomology.ksu.edu/extension) and we send out e-mail reminders to those who subscribe through the web page at: <http://www.entomology.ksu.edu/DesktopDefault.aspx?tabid=721>. This page can also be used by non-agents to unsubscribe from the mailings.

## Staffing Changes

Retirements, job shifts and recent budget short falls have lead to some changes in our staff and their responsibilities. Alberto Broce has retired and Ludek Zurek has taken over his teaching and research responsibilities, leaving us without a Medical and Veterinary Extension Entomologist. With the hiring freeze we don't know when or if this position will be filled. For now, Robert Bauernfeind has agreed to answer Medical and Veterinary Entomology questions that come into the office. Sharon Dobesh recently took another job with the Great Plains Diagnostic Network leaving the Pesticide Training and IPM Program Coordinator position vacant. Since this position is funding on grant dollars, we hope to be able to fill this position soon, but currently Sharon Schroll and Tom Phillips will be handing any IPM or Pesticide training questions or redirecting those questions to other specialists. The following is a list of our current personnel along with their job assignments and contact information:

### Extension Entomology Personnel

(March 2009)

**Robert Bauernfeind** -- Phone: 785-532-4752 E-mail: [rbauernf@ksu.edu](mailto:rbauernf@ksu.edu)

Vegetables, Turf, Fruit, Floriculture, Ornamentals and Woody Plant Insects plus Insect Zoo and Youth Entomology Coordinator

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**Raymond A. Cloyd** -- Phone: 785-532-4750 E-mail: [rcloyd@ksu.edu](mailto:rcloyd@ksu.edu)

Ornamental and Horticultural Entomology/Pest Management (Greenhouse, Turfgrass, Landscape, Nursery, Fruits, Vegetables, Herbs, Conservatory, and Interiorscape)

**Robert J. (Jeff) Whitworth** -- Phone: (785) 532-5656 E-mail: [jwhitwor@ksu.edu](mailto:jwhitwor@ksu.edu)

Crop Pests (Alfalfa, Corn, Cotton, Sorghum, Soybeans, Sunflowers and Wheat) plus Household, Stored Product and Bee Questions.

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## ***Vacant Positions***

Medical and Veterinary Entomologist (Direct Questions to Robert Bauernfeind)

Pesticide Training and IPM Program Coordinator (Direct Questions to Sharon Schroll or Tom Phillips (Tom Phillips – Entomology Department Head -- Phone: 785-532-6154 E-mail: [twp1@ksu.edu](mailto:twp1@ksu.edu))

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## **Off-campus Faculty**

**Phillip E. Sloderbeck** -- Phone: (620) 275-9164 E-mail: [psloderb@ksu.edu](mailto:psloderb@ksu.edu)

Field Crop Insects, Stored Grain Insects and 4-H Entomology  
State Leader for Entomology Extension  
Southwest Area Extension Office - Garden City

**JP Michaud** -- Phone: 785-625-3425 E-mail: [jpmi@ksu.edu](mailto:jpmi@ksu.edu)

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Integrated Pest Management – Sunflowers, Sorghum and Wheat  
Biological Control (Life History and Ecology of Lady Beetles)

Agricultural Research Center - Hays

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## Support Staff

**Sharon Schroll** -- Phone: 785/532-5891 E-mail: [sschroll@ksu.edu](mailto:sschroll@ksu.edu)

Office Professional

**Holly Davis** -- Phone: (785) 532-4739 E-mail: [holly3@ksu.edu](mailto:holly3@ksu.edu)

Insect Diagnostician

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## Highlighted Changes for 2009 Insect Management Guides

Lorsban Advanced is a new water based formulation of chlorpyrifos from Dow AgroSciences. It has less odors and a higher flash point. The higher flash point means fewer restrictions on transportation and storage. Use rates are the same as for Lorsban 4E, however the amount of active ingredient per gallon is slightly lower. Thus, for the tables in the management guides where we list chlorpyrifos we have deleted information about the amount of active ingredient and list the use rate for the formulated product.

Warrior II with Zeon Technology is a new formulation of lamda-cyhalothrin from Syngenta that contains 2.08 lbs. of active ingredient per gallon. Since there are other lamda-cyhalothrin products on the market with different concentrations we have chosen to only list the amount of active ingredient in the management tables, because the amount of product per acre will vary depending on the concentration.

EPA has filled a notice of the intent to cancel the registration of Carbofuran (Furadan). Depending on when the cancellation notice is filled and the length of time given to use existing stocks its use could be cancelled before the 2009 usage season: (Except maybe for Sunflowers where the use should be allowed at least for another year). Thus, we have included a statement to check on current status with manufacture or suppliers before use.

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## Alfalfa

Baythroid XL label has changed to allow applications to grass hay and grass in mixed stands with alfalfa. Plus, the max usage rate per cutting has increased to 5.6 fl. oz./acre and total usage rate per season has increased to 22.4 fl. oz. /acre on alfalfa.

## Corn

Belt SC an insecticide from Bayer CropScience was added as a treatment option for several corn pests.

Onager a new miticide from Gowan was added to list of products for treating Banks grass mites and two spotted spider mites. However, Use is limited to western Kansas (west of Rt. 281).

## Cotton

Belt SC an insecticide from Bayer CropScience was added to the list of materials for cotton bollworm.

Several new imidacloprid product names added to document.

## Sorghum

No major changes except the general changes listed above.

## Soybean

Alias 4F is a new product from Makhtashim Agan of North America (MANA) containing imidacloprid with a 24c label for use to control bean leaf beetle and soybean aphid.

Endigo ZC a new insecticide containing lambda-cyhalothrin plus thiamethoxam from Syngenta was added to the control options for several soybean pests.

Hero a new insecticide containing zeta- cypermethrin plus bifenthrin from FMC was recently labeled for use on several soybean pests.

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Leverage a new insecticide containing imidacloprid plus cyfluthrin from Bayer CropScience was added to the control options for several soybean pests.

## Sunflower

EPA has filled a notice of the intent to cancel the registration of Carbofuran (Furadan), but is proposing to allow the use of existing stocks on sunflowers to continue for a limited time because alternatives are not currently available for planting time treatments for stem weevil control. Check on current status with manufacture or suppliers before use.

## Wheat

Pre-Grazing Interval - for Baythroid is now 3 Days

MANA is now marketing endosulfan as Thionex 3EC and 50 WSB for use on barley, oats rye and wheat to control army cutworm and aphids.

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While this may not sound like a lot of change, and at first glance most of the documents look very similar to last year, there were from 30 to 70 changes made on each document or more than 280 total changes. So it is important to have the latest version in hand when reviewing management options.

Phil Sloderbeck, Jeff Whitworth and J. P Michaud

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## 2009 Field Crop Insect Management Guides

The revised guides are now available on our website and should be available in many of the county Extension offices. In addition to the printed guides, we also have individual web pages developed for many of the common crop pests. These pages often have additional information than what is in the management guide and often have colored pictures of the pests and their damage. Check them out at:

<http://www.entomology.ksu.edu/DesktopDefault.aspx?tabid=379>

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## Update on Carbofuran Cancellation Process

On December 19, 2008, as required under FIFRA, EPA published a Federal Register notice announcing the Agency's receipt of FMC's request to cancel all but 6 of previously-allowed uses carbofuran as a pesticide. (The six not on the list were corn, potatoes, pumpkins, sunflowers, pine seedlings and spinach grown for seed). Unless the request was withdrawn by the registrant, within 30 days of publication of this notice, or unless the Agency determines that there were substantive comments that warrant further review of this request, an order will be issued canceling the affected registrations. The 30-day public comment period closed January 20, 2009. Any carbofuran uses not affected by this voluntary cancellation request, and any uses for which the requested cancellation do not become final, will remain subject to cancellation through the process that the Agency initiated in a draft Notice of Intent to Cancel (NOIC) carbofuran, January 8, 2008. Thus we are currently waiting on the EPA to issue a cancellation order on any or all uses along with the terms of the cancellation process. For more information see:

[http://epa.gov/oppsrd1/reregistration/carbofuran/carbofuran\\_noic.htm#cancel](http://epa.gov/oppsrd1/reregistration/carbofuran/carbofuran_noic.htm#cancel)

## Current Field Crop Insect Report

Some reports of insect activity being received. Brown wheat mites have been reported in wheat fields in western Kansas along with some reports of army cutworms. Not enough information received yet to know if these insects are causing real problems or if they are just abundant enough to be noticed. Brown wheat mites are difficult to manage in that they are dry weather pests and treatment thresholds are not well established. If populations are high enough to severely stress the wheat then treatments early in the season may be justified. However, if drought continues wheat may still not yield well and if heavy rains come soon they can eliminate the mite populations before the wheat is severely damaged. Thus, usefulness of treatments is hard to predict. More information can be found on our website at:

<http://www.entomology.ksu.edu/DesktopDefault.aspx?tabindex=195&tabid=492>.

We have also had reports of Hessian fly injury in far western Kansas. This is unusual, but there were heavy late summer rains in the affected area that produced lush volunteer wheat and encouraged early planting. Prognosis for a spring population of Hessian fly in this area is also hard to predict. If we have a hot dry spring we may see little Hessian fly injury this spring, however if we get moisture at the right times we could see serious damage in some areas this spring. We are currently monitoring some fields on the Kansas Colorado borer in cooperation with Colorado State University to determine if treatment of this spring brood might be worthwhile. For more information on the Hessian fly check out our new Hessian fly publication – MF2866:

<http://www.oznet.ksu.edu/library/entml2/MF2866.pdf>

Phil Sloderbeck

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## 19 days to April 1<sup>st</sup>.....

Perhaps the best thing that can be said for **pine wilt disease** is that it has been in Kansas for nearly 30 years. **WHY IS THAT GOOD?** Because it is not the mysterious stranger that appeared in southeast Kansas in 1979. Kansans have had 3 decades to become familiar with the relationship between the causative agent (the pinewood nematode) and its vector (the “pine sawyer” longhorn beetle), the transmission and disease cycle, and the recommended procedure to reduce the incidence of pine wilt transmission (timely burning of diseased trees to eliminate the beetle vector before it emerges to perpetuate the cycle).

Pine wilt has been described as having its major impact on Scots pines in windbreak and landscape settings (Figures 1 and 2) with (but) minor impact in Christmas tree plantations (Figure 3).



An initial survey of Christmas tree producers might have disputed the characterization between major versus minor. However, because they have a vested interest in a “for sale” commodity of healthy trees to prospective customers, they have (over time) reduced-to-eliminated the within-plantation spread of pine wilt through the faithful monitoring of their trees, and the diligent removal and timely burning of diseased trees before the eventual current-season emergence of the aforementioned beetle vectors.

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Such cannot be said for many diseased trees in windbreak and landscape settings. This is not to say that these diseased trees are not eventually destroyed, but their removal is not “high priority”. The thought may be, “Yes. The trees need to be removed because they are not aesthetically appealing”. However, their removal is more contingent on having a break from other chores and (then) having available time for the task-at-hand. Additionally, homeowners may postpone removal of large trees due to the costs incurred by having to hire professional arborists to safely remove specimen trees.

As a quick overview/review, “pine sawyer” beetles emerge from infested trees beginning in mid-spring. They seek out healthy pine trees for a maturation feed. At this time, the pinewood nematodes exit their beetle vectors and enter the pine hosts through feeding wounds created by beetles. Once within the newly infected tree, pinewood nematodes rapidly multiply and eventually “clog” vascular elements and resin ducts which impedes the flow of liquid “elements” (food and water). The resultant is: **pine wilt disease**. Beetles eventually are attracted back to the stressed trees where eggs are deposited for the next generation of pine sawyer beetles which are assured of reacquiring pinewood nematodes to insure the continuation of the pine wilt disease cycle.

Symptoms of pine wilt disease generally begin by the end of August and rapidly proceed to trees appearing “totally dead” (Figure 4).



Especially in Christmas tree plantations, producers will remove and burn these trees (Figure 5) prior to November to maintain an aesthetically healthy visual appearance for clientele seeking their fresh-cut Christmas trees for the upcoming holiday season.



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Based on a study in which cut trunks of diseased trees were individually maintained overwinter in individual containers (Figure 6)



and monitored for the production of “pine sawyer” beetles (Figure 7),

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**Figure 7 – “Pine Sawyer” Beetles**

the emergence period spanned approximately 1 month (May 22 – June 23) which would account for the diseased trees appearing by late summer and early fall. However, recent trapping surveys conducted by Kansas Department of Agriculture personnel indicated the presence of beetles through October which could account for “late-fall and winter decline” beginning in December (Figure 8) and January (Figure 9).



The bottom line, however, still makes the burning diseased trees by April 1 a valid recommendation. Some people might argue that there is still time to cut-and-burn between April 1 and the beginning of beetle emergence in May. While this may be true, other “unexpected” activities/chores may deter removal-and-burning activities until after beetle emergence has begun and possibly been completed.

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Bob Bauernfeind

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Sincerely,

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