Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel

Department of Entomology
123 West Waters Hall
K-State Research and Extension
Manhattan, Kansas 66506
785-532-5891
http://www.entomology.ksu.edu/extension

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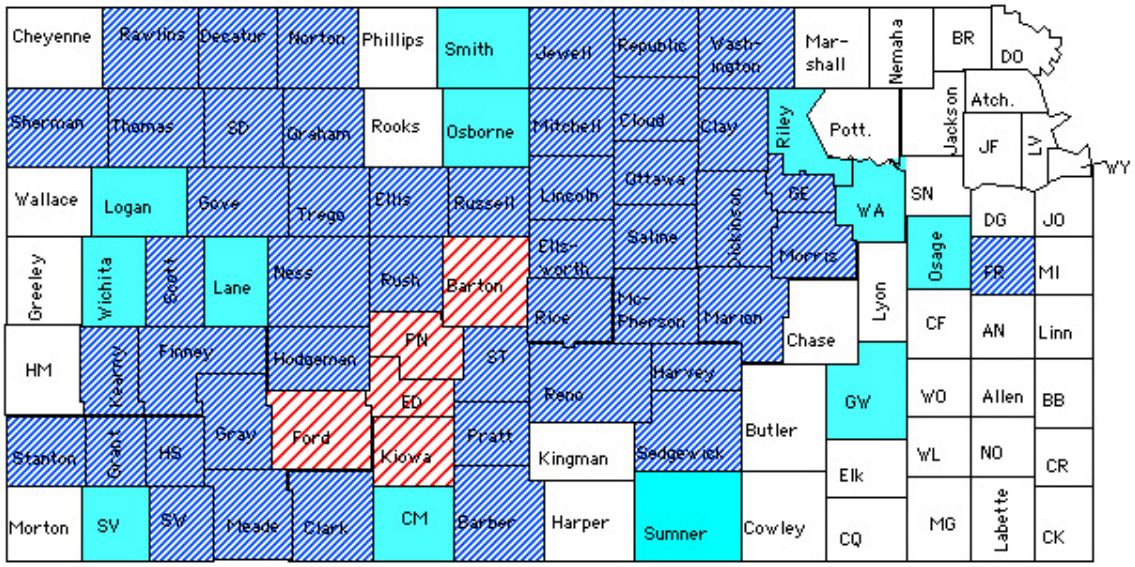
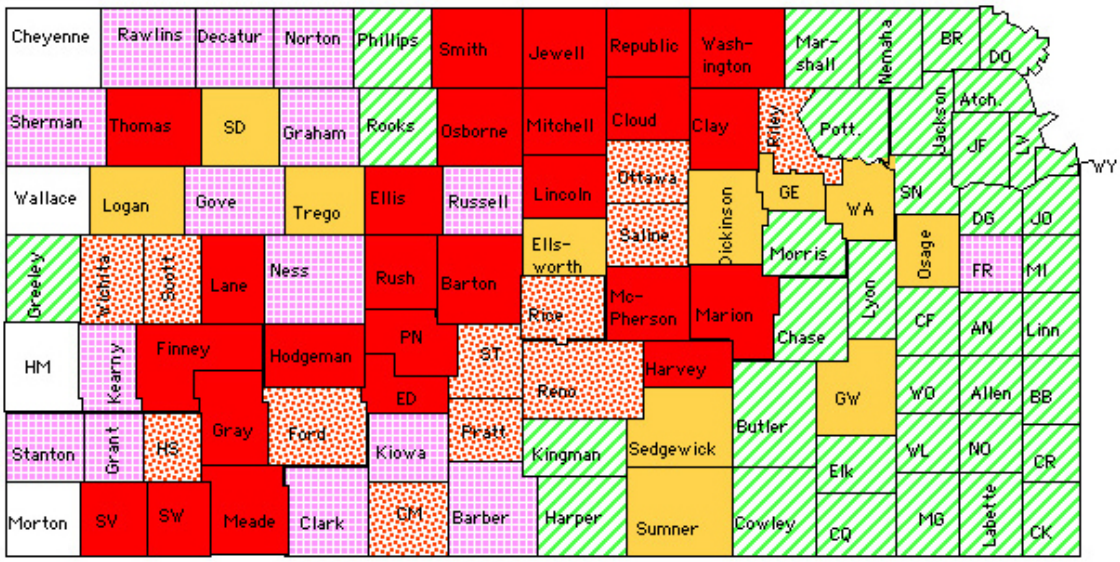
Soybean Stem Borer

The soybean stem borer is now beginning to girdle plants in some soybean fields. Luckily in western Kansas we have had pretty good harvest weather so far and harvest is progressing quickly. However, if harvest happens to get delayed we could notice serious lodging in fields throughout the central part of Kansas.

Larry Buschman and I have just completed a survey of soybean stem borer infestations across Kansas sponsored by the Kansas Soybean Commission and the K-State IPM Mini-Grants Program under USDA-CREES IPM Grant number 41531-0-01600. We continued to find additional counties with infested plants, an indication that populations appear to be expanding. In a 1999 survey we sampled 74 fields and only found 10 to be infested (14%). This year we sampled 220 fields and found 87 to be infested (40%). In 1999 only 3 of the fields (4%) had infestations above 50 percent. However, in 2008, 35 of the fields (16%) had infestations of 50% or greater.



The above map illustrates the known distribution of this pest on soybeans in Kansas. From the initial infestations detected in five counties by the Kansas State Board of Agriculture in 1985 (counties with red diagonal lines), the problem has spread to 64 counties in the state (dark blue counties identified as infested by 2005, teal counties added since 2005).



This map shows the relative infestation levels for the soybean stem borer in Kansas based on a recent survey of soybean fields through out much of the state. The counties in red were found to have infestations where 50% or more of the plants in a sample were infested, thus have high levels of infestation and a high potential of seeing significant lodging. The counties in orange were found to have fields with 20 to 40% of the plants infested and thus also would have the potential to see noticeable lodging. Counties in purple are known to be infested from previous observations and thus also have a potential for noticeable injury. Counties in light yellow had detectable levels of soybean stem borer but at this time we would not expect serious injury. Counties in white (no history of soybean stem borer problems) and green (counties where no stem borers were detected in 2008 survey and no history of infestations) have the least risk from the soybean stem borer at this time, since samples have been negative to this point.

Keep in mind that surveys have been very limited looking at only one to four fields per county and that there is a history of this problem spreading and becoming more serious over time. Thus, counties not yet reported as being infested or with only low infestations are probably at risk especially if they are near counties known to have fields with high infestations. In additions, populations are often quite variable among fields so even in the red counties you may find fields that are uninfested.

If you are in one of the counties shown to be at risk from soybean stem borers and have not harvested your soybeans yet, you might want to split some stems to see if your plants are infested with soybean stem

borers. If you find fields with significant infestations, be sure to harvest those fields as-soon-as possible to avoid harvest losses due to lodging.

In addition we encourage your help in documenting the extent of soybean stem borer infestations in Kansas. If you happen to find it in a county that is not shaded on the map or find much heavier infestations than depicted on the above map. I would appreciate either receiving a sample of the infested plants along with a description of where they were found or directions to the field so that I could check out the infestation. Send samples to Phil Sloderbeck, K-State Southwest Research - Extension Center, 4500 East Mary Street, Garden City, Kansas 67846 or send an e-mail message with the location of the field to psloderb@oznet.ksu.edu. We would also be interested in hearing about any examples of harvest losses caused by this insect. For example if you begin to harvest a field and then get delayed and can document a yield difference between the early harvest and the later harvest along with an estimate of the lodging caused by soybean stem borer girdling. This type of information is needed to encourage additional research into developing management options for this pest.

Phil Sloderbeck

Multicolored Asian Lady Beetles

As cooler weather becomes more predominant one of the annual insect migrations that seems to get people's attention is that of the Multicolored Asian Ladybeetle (MALB). These beetles were introduced into the U.S. by the USDA in the 70's and 80's to help control aphids. They are very good at this and usually hang out in trees and shrubs feasting on these little plant pests. However, they will feed on other aphid species and in 2004 migrated to soybean fields where they found a ready supply of soybean aphids. In the intervening years ('05, '06, and '07) soybean aphid populations didn't amount to much, but this year populations were more like what we saw in 2004 with an associated increase in MALB's. Thus, home invasions by these beetles may be expected in the next 4-6 weeks, depending upon weather, as they are seeking overwintering sites.

Multicolored Asian Lady Beetles overwinter as adults in protected areas including homes, barns, and other outbuildings. They may invade a suitable site by the 1,000's and thus can be a real nuisance. Since they are predators they do have chewing mouthparts and can bite. This habit of biting is harmless, but again, can be a serious nuisance. These beetles are very beneficial in helping to control aphids and other plant pests and therefore there really are no pesticides labeled for lady beetle control. The best way to avoid 1,000's of uninvited lady beetles invading your dwelling this fall is to start preparing now by sealing all cracks around windows, doors, etc. and make sure your screens are tight-fitting if window/doors are left open to enjoy the great fall weather. If invasions do occur, and you'll notice the start when beetles start aggregating on the south and west side of your dwelling during the late afternoon, it is best to sweep them up with a broom or vacuum and remove them a considerable distance – or they may just quickly return.

Multicolored Asian Lady Beetle Aggregation

Jeff Whitworth Holly Davis

Weekly Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostician Laboratory from October 3rd to October 9th.

October 06 2008 – Logan County – Drugstore beetles in home
October 06 2008 – Rush County – Praying mantid ootheca (empty) on eave of home
October 06 2008 – Morris County – Bed bugs in home
October 06 2008 – Riley County – Water Scavenger beetle, Goldenrod soldier beetle, and Black blister beetle found on Tall Grass Prairie Reserve

October 06 2008 – Wyandotte County – Minute brown scavenger beetle in shadowbox
October 06 2008 – Stevens County – Possible spider mite damage to Locust tree
October 06 2008 – Graham County – Oak flake galls and Oak bullet galls on Oak tree
October 07 2008 – Sherman County – Nantucket tip moth in pine
October 07 2008 – Shawnee County – Winged ants (possibly big-headed ants) swarming around window of home

October 07 2008 – Riley County – Orb spider found in home
October 09 2008 – Saline County – Sac spider found in home

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

Holly Davis

Sincerely,

Holly Davis
Insect Diagnostician
Phone: (785) 532-4739
e-mail: holly3@ksu.edu

Phil Sloderbeck
Extension Specialist- Entomology
Southwest Research and Extension Center
Garden City, KS
Phone: 620/275-9164
e-mail: psloderb@ksu.edu

Jeff Whitworth
Extension Specialist
Field Crops
phone: 785/532-5656
e-mail: jwhitwor@ksu.edu