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Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants, and Extension Personnel

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NEW METHOD AVAILABLE FOR GREENBUG SCOUTING:

There have been some reports of greenbugs showing up in wheat fields. While I have not heard of any real significant levels of greenbugs it might be useful to review how to determine if treatments are justified.

As with most pests treatments are only recommended when populations exceed or are expected to exceed levels where damage will exceed the cost of control. Our general threshold on seedling wheat has been around 50 greenbugs per foot of row. However, we all know that this depends on several factors such as the size of the wheat, expected weather conditions, the price of control and the price of wheat.

To make scouting for greenbugs easier Oklahoma State has developed a system they call Glance'n Go – which could be very useful if we have a mild fall and greenbug numbers continue to increase. Glance'n Go is a sampling strategy that is designed to help the user accurately and rapidly sample wheat for greenbug infestations. It is based upon surveys taken in more than 100 wheat fields in Oklahoma over a two-year period. Glance'n Go sampling requires the field scout to simply count of the number of tillers that are infested with greenbugs instead of counting actual greenbugs. This strategy works well if you want to know if the presence of greenbugs is above or below a set treatment threshold. Studies show that this type of sampling can reduce scouting time by 25 percent or more, yet provide the same level of reliability that is obtained by directly counting the insects in the field.

Information on this sampling system for fall greenbug populations is available on the web at: http://www.pswcrl.ars.usda.gov/gbweb/fall_glance_n_go.htm

The system actually has two steps. The first thing that one needs to do is to use the threshold calculator which is on the web at: <http://www.pswcrl.ars.usda.gov/gbweb/Economic%20Threshold/GreenbugCalculator.HTML> Here you enter information on where you are located, the time of year, the size of the wheat, the cost of insecticide and the projected price of wheat. The system will then calculate the

appropriate threshold for the conditions. Once you have the threshold number, you can select the appropriate sampling form which allows you to sample the field looking just to see if a tiller has greenbugs or does not have greenbugs. The advantages of this system is that it helps take into account all of the factors mentioned above, plus once you have calculated the appropriate threshold for your location and the current market prices, the sampling form makes scouting much more efficient. They indicate that fields can be sampled in just a few minutes using this technique.

More information on Glance'n Go can be found in the newsletters from the Areawide Pest Management Program for Wheat at: <http://www.pswcrl.ars.usda.gov/AWPM2/Updates.htm>

Phil Sloderbeck

UPDATE ON THE ITCH MITE OUTBREAK:

The species of itch mite that made news in southeast Kansas and other parts of the Midwest last summer is not common to the United States. Through our collaborative work with the Department of Entomology of the University of Nebraska, the Crawford Co. Health Department, KDHE, Pittsburg State University and the Center for Disease Control and Prevention, we identified this particular mite as a *Pyemotes*, commonly known as an itch mite. We are investigating reports from 1992-94 of similar, but not as extensive, bite outbreaks in order to estimate how long ago this mite might have entered North America.

The mites made headlines when mysterious bites were reported in early September from the Pittsburg, Kan. area. Soon after, bites were reported by residents of Manhattan, KS, Lincoln, NE and several other communities in eastern Nebraska, Joplin and Saint Louis, MO.



Pyemotes; Itch Mite



Reaction to bites

There is no pain when these mites bite. In fact most people are unaware that they have been bitten until the next day, when quarter-size reddened welts with a pimple on their center appear. The bites are most commonly distributed over the neck and shoulders and on the upper torso where clothing hangs loosely. They appear the day after people are involved in outdoor activities. In a few cases, people with numerous bites visited physicians or even went to the emergency room.

In some areas where the outbreaks occurred, mites of the genus *Pyemotes*, were found feeding on midge larvae that cause the leaf marginal galls in pin and red oak trees. Pregnant (gravid) female mites with

distended abdomens give birth to up to 250 adult mites that mate immediately after emerging from their mother. These tiny female mites, invisible to the naked eye, are dispersed by the wind, so bites could occur on people situated downwind and away from infested trees.

Cal Wellbourn, an entomologist in the Division of Plant Industry at the Florida Department of Agriculture and Consumer Services in Gainesville, identified the mite as *Pyemotes herfsi*, a species from Central Europe where it feeds on larvae of various moth species, Broce said. Although the mites prefer to feed on moth larvae, there are numerous reports from Europe of this species biting humans.

Repellents based on DEET do provide protection from these bites. A change of clothing and a hot soap shower after working out-of-doors, especially around oak trees, should help reduce the incidence of the bites. Spraying insecticides in the environment does not appear to help in fighting the mites.

Alberto Broce, Ludek Zurek, Bobby Brown

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Sincerely,

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