

Wheat Science News

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Armyworm Caterpillars Reported; Moth Capture Declines in Princeton But Increase in Lexington!

Doug Johnson, Extension Entomologist

For several weeks I have been publishing articles in Kentucky Pest News (KPN) concerning capture of large numbers of armyworm moths in the UK-IPM trap in both Princeton and Lexington. These numbers are much larger than the rolling five year average, and significantly larger than the numbers of moths captured in the years of known outbreak (2001 & 2006). If you have not seen these articles, the information below may bring you up to date on the situation and provide you with some reference materials.

Small grains are commonly infested with armyworms, but are probably not the crops in most danger. Never the less, small grains can occasionally be damaged by armyworm. Over the course of the next month you should be watching for this pest. I can not tell you that you will in fact find economically important populations, but I can say that during this season we have captured more armyworm moths than in any other season for which we have data.

On Friday May 2, 2008, Jonathan Sant, with Pioneer Inc., reported armyworm caterpillars in corn on a client's farm that lies between Arlington and Bardwell in Carlisle Co. KY. The worms ranged in size from very small (<1/4") to about 1/2" in length. The population was not yet over-whelming but the caterpillars were "easy to find". This is a no-till field of corn, not into sod but into (burned down) weeds most of which were grasses. My thanks go to Jonathan for this report.

I believe this marks the early edge of the armyworm caterpillar population. You may notice that the date of this report is earlier than the dates I have used in my predictions. (See: KY Pest News No. 1158, April 21, 2008; No. 1159, April 28, 2008 at: <http://www.uky.edu/Ag/kpn/kpnhome.htm>). There are two reasons for this. First, I have only made predictions on caterpillars based on the dates of the largest moth flights (the last two weeks). But, armyworm moths have been flying in small numbers since late March. Just lately they started a rapid increase to the current record setting numbers. Secondly, the area of this field is likely warmer than the Princeton trap site. The larvae are small, and their appearance is early. My guess is that this represents a very early edge of the caterpillar population curve.

Ms. Patty Lucas has just confirmed the captures in Princeton for this week (ending Friday 02 May 08) at 195 moths / trap-week. This is down from 600 moths / trap-week, for last week (ending Friday 25 Apr. 08). So it appears that we have reached and passed our first generation peak flight in Princeton.

This may not be the case in Lexington. Ms. Susan Moser has reported 1011 moths / trap-week captured in the week ending 02 May 2008 in the Spindletop farm trap. Though we have only one previous year of data from Lexington this capture is almost twice as many moths as we have ever captured at any site in any year in Kentucky.

See a graphic representation of moth flight at: <http://www.uky.edu/Ag/IPMPrinceton/counts/taw/tawgraph.htm>

NOTE: Because of the very large number of moths captured the scale on the graphs has changed.

The mere presence of worms does not warrant control. Although the moth counts are very large, there are several other factors that may affect the populations of the damaging caterpillar stage. Both eggs and caterpillars may be eaten by predators, parasitized by wasps and flies, and infected by pathogens. It does nevertheless indicate a need to watch the situation carefully. Dr. Ric Bessin put a piece concerning armyworms in corn in Kentucky Pest News this past week (No.1159, April 28, 2008). I have a companion piece on small grains in the same issue. To review them go here:

<http://www.uky.edu/Ag/kpn/kpnhome.htm>

Degree Day Model Predictions for Princeton - Our graph shows us that the steep increase in moth capture occurred in the week ending March 28. Using that as a starting point, caterpillars should begin appearing about May 12. Additionally, the peak moth capture is during the week ending May 2nd. Using the same model caterpillars from those moths should be evident about May 24th. **REMEMBER there were moths flying in low numbers before these dates!** Additionally, the model uses 2008 temperatures for dates that have passed, but five year average temperatures for dates in the future. The data is based on the Princeton weather station. Warmer locations would be earlier, with cooler locations later. This and all models have error associated with them. They are only estimators based on general conditions. Since we already know that caterpillars are present in corn in Carlisle county KY, I suggest that producers, consultants etc., should be especially watchful for this pest over the next month.

Insect descriptions, scouting information, and insect management options are available here:

IPM Scout Manuals

<http://www.uky.edu/Ag/IPM/manuals.htm>

Armyworms in Corn

<http://www.ca.uky.edu/entomology/entfacts/entfactpdf/ef109.pdf>

Armyworms in Small Grains

<http://www.ca.uky.edu/entomology/entfacts/entfactpdf/ef111.pdf>

2008 Insecticide Recommendations

<http://pest.ca.uky.edu/EXT/Recs/welcomerecs.html>

Again, armyworm is a general "grass loving" insect. Corn, small grains and pasture / hay grasses, in fact any grass crop, should be monitored closely.

Changes in the Wheat Foliar Fungicide Status Quo

Don Hershman, Extension Pathologist

Recent weeks have been very hectic in terms of changes to the wheat foliar fungicide situation in Kentucky. Much of what I am about to describe has its origin in EPA's recent favorable response to a review of triazole chemistry. Without going into any details, new section 3 labels of triazole fungicides were held up for years due to questions regarding the environment and health risks associated with a common breakdown product of all triazole fungicides. A favorable ruling by EPA in 2007 on this question opened the door for the section 3 labeling of new triazole fungicides.

The Bayer fungicide, Proline (prothioconazole), labeled in the spring of 2007, was one of the first post-EPA-review triazoles to receive a section 3 label that could be used for disease management in wheat. Then on April 21, 2008, EPA granted a section 3 label to two BASF fungicides containing the active ingredient, metconazole. Caramba is straight metconazole and Multiva is a premix product of Caramba and Headline (pyraclostrobin). To my knowledge, neither of these products have received state labels as of this writing (May 5), but this should change shortly. However, due to the lateness of label approvals relative to the advanced stage of wheat development in Kentucky, it is likely that little or no Caramba or Multiva will be applied to wheat in Kentucky this spring.

During the winter months of 2007-08, there was (again) considerable interest in seeking a section 18, emergency use, label for Folicur to manage Fusarium head blight (a.k.a., head scab). However, due to the availability of Proline for this use, EPA made it clear that a section 18 was not a possibility this year. Then, in an odd twist of circumstances, it became clear that the supply of Proline available for use in Kentucky this spring was not sufficient to meet the projected demand. As a result, the Kentucky Department of Agriculture issued a Crisis Exemption for Folicur on May 1, 2008 allowing the use of this fungicide for FHB management during the period May 1 through May 15. The next day, May 2, the announcement was made by Bayer that Folicur was granted a section 3 label. Folicur is currently going through the state approval process, which, like Caramba and Multiva, should be finalized soon. Until that time (through May 15) the Crisis Exemption is still in place.

The Crisis Exemption for Folicur prompted Bayer to re-release a 2ee recommendation for the use of a combination of Folicur + Proline to manage FHB. However, since a shortage of Proline in Kentucky is the original reason for the Crisis Exemption, it seems unreasonable to expect that many producers will have access to enough Proline to be able to take advantage of Bayer's 2ee recommendation. (CONTINUED ON NEXT PAGE)

Finally, since the announcement of the Crisis Exemption on May 1, I have heard that Folicur is now short supply in some areas of the state. This situation has prompted questions from producers about the legality of using generic tebuconazole fungicides instead of Folicur; there are several of these fungicides on the market. It is my understanding that at present time, none of the generic tebuconazole fungicides can be legally applied in Kentucky. The Crisis Exemption is specifically for Folicur and the manufacturers of the generic tebuconazole fungicides will have to go through the process of getting a section 3 label from EPA and approved by the state. This will not likely be a long, drawn out process, but the odds are good that by the time the labels are granted, most of the fungicide applications to wheat in Kentucky will be complete.

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2008 University of Kentucky Wheat Field Day

***May 20, 2008 8:30 - Noon (CDT)
UKREC Farm @ Greenhouse on 91S
1134 Hopkinsville St, Princeton, KY***

***CCA CEU's Available: 1.5 Pest Management and 2.0 Crop Management
Pesticide CEU's Available: 2 General hrs, 1 Specific hr in 1A, 10, 12, & 14***

- ***No-Till Variety Trial and Wheat Breeding Program***
Dave Van Sanford & Bill Bruening
- ***Breeding for Scab Resistance***
Nikki Mundell
- ***A Summary of Ryegrass Control with Herbicides Over Multiple Studies***
James Martin & Charles Tutt
- ***On-The-Go Sensing and its Relevance for Farming and Research***
Ole Wendroth
- ***What Happened to the Nitrogen This Year***
Lloyd Murdock & Greg Schwab
- ***Planting Date and Insecticide for Control of Aphids***
Doug Johnson
- ***Fungicide Labeling Issues***
Don Hershman
- ***Why Not "A Little" Tillage for Wheat***
John Grove
- ***Canola Update and Research***
Jim Herbek, Sam McNeill, & Brian Caldbeck

***Noon - Welcome and Southern IPM Award Presentation
Jack Crowner - Veteran Farm Broadcaster
Scott Smith - Dean of UK College of Agriculture***

Lunch will be provided by KySGGA

For More Information contact Dottie Call... dcall@uky.edu or 270-365-7541 ext 234