July 25, 2007

Virgil Schmitt
Extension Field Agronomist
Muscatine County Extension
1514 Isett Avenue
Muscatine, IA 52761-4629
Phone: (563) 263-5701
FAX: (563) 263-5709
e-mail vschmitt@iastate.edu
www: http://www.extension.iastate.edu/Pages/eccrops/
Covering the Iowa counties of Cedar, Clinton, Des Moines, Henry, Jackson, Louisa, Muscatine, and Scott

CORN

Storm Damage

It has been about a week since storms injured some fields. Now we can begin to get a better feeling for the extent of the damage done to yields. In corn, most of the stalk straightening is occur near or above the ear leaf, making harvest a challenge. Some research at the University of Wisconsin indicated about a 15-30% yield loss when corn is flattened at the pollination stage.

There were also smaller areas where hail damage occurred. About one third of the corn yield is lost with a 50% loss of leaf area at silking. Assessing Hail Damage to Corn (NCH-1) http://www.extension.iastate.edu/Publications/NCH1.pdf can help in estimating potential yield losses. Of course it’s important to get the insurance person out to look at corn and soybean fields if you have hail insurance. Lodging and hail also increase the incidence of plant diseases, including stalk rots. See Roger Elmore’s 2005 ICM article for more discussion on corn lodging at http://www.ipm.iastate.edu/ipm/icm/2005/8-1/rootlodge.html.

Nitrogen Deficiency

Nitrogen losses from the heavy rains are showing up in fields now. Symptoms begin with the lower leaves and move up the plant and consist of leaf yellowing beginning at the leaf tip and moving down the center mid-rib, forming a V pattern. See the South Dakota State University web site http://plantsci.sdsstate.edu/soiltest/Nutrient_Deficiency_Pages/CornD.html and the University of Minnesota web site
http://www.extension.umn.edu/cropenews/2002/nutrientdeficiencyflowchart.pdf for more pictures. Some yield increases have been seen with additional nitrogen applications up until VT (tassel emergence), but the odds of a response go down fairly rapidly after that time.

**SOYBEANS**

**Soybean Aphid - Spraying Has Begun**

Brian Lang reports that many fields have been sprayed in Winneshiek, Clayton, and Allamakee counties in NE Iowa, with some fields having over 1000 aphids per plant. Spraying has also begun in the northern part of east central Iowa. In general, it appears that numbers are still below the economic threshold but are increasing. Aphid numbers can vary substantially from field to field, so it is important to scout now and not spray unless the threshold of 250 per plant (& at least 80% of the plants infested) is reached. If fields are sprayed too soon, it is more likely that they will have to be re-sprayed. It is also likely that many fields will not reach the economic threshold. If you are going to spray for soybean aphid, be sure to see item on spider mites following this item.

It is best to count all aphids on a few plants to get a feel for what 100 and 250 look like and then estimate from that point on.

Another method of scouting developed at the University of Minnesota that can help to speed up the process can be found at http://www.soybeans.umn.edu/crop/insects/aphid/aphid_sampling.htm.

Some insecticide trial results on aphids can be found at http://www.ipm.iastate.edu/ipm/icm/2006/1-23/insecticide.html.

See the latest Iowa aphid information at http://www.ipm.iastate.edu/ipm/icm/2007/7-16/soybeanaphid.html.

More information is available at http://www.extension.iastate.edu/Pages/eccrops/soybeanaphid3.html.

**Two-spotted Spider mites**

Jim Fawcett and I are both a little surprised to be seeing two-spotted spider mites in quite a few soybean fields, considering that most of the area has received ample rainfall. I even ran into a field under center pivot irrigation with substantial numbers of spider mites. The two week stretch of hot, dry weather must have allowed populations to build up. Although the level of infestation is low, if spider mites are found in a field that is going to be sprayed for aphids, it would be best to use a product that controls both pests, such as chlorpyrifos (Lorsban and the generics), to avoid spider mite outbreaks. See http://www.extension.iastate.edu/Pages/eccrops/spidermite.html for more information.
Sudden Death Syndrome and Brown Stem Rot

Soybean Sudden Death Syndrome (SDS) is showing up in some soybean fields and I am occasionally running into Brown Stem Rot (BSR). See pages 70 – 72 of the March 26, 2007 Integrated Crop Management Newsletter or http://www.ipm.iastate.edu/ipm/icm/2007/3-26/bsr_vs_sds.html for identification of SDS and BSR.

Asian Soybean Rust

The threat has increased that we may eventually see some Asian soybean rust this year in Iowa, although the chances are still less than 40%, according to X.B. Yang. Widespread problems with rust are now being found in northern Texas, and X.B. reports it will likely be found in Oklahoma soon. It has also been found for the first time this year in Arkansas. Because of the increased risk for Iowa, sentinel plots in the state will be monitored more frequently in August. Hopefully if it does arrive in Iowa it will be late enough in the season so the impact will be minimal. For the latest on where rust (and aphids) is being found see http://www.sbrusa.net/. Click on the little arrow next to soybean aphid in the upper right corner to change the map to aphids.

FOR YOUR CALENDAR

Midwest Strip Till Conference – July 31
9 a.m. to 3:00 p.m.
Waterloo

Organized by Research and Extension of Iowa State University, the University of Minnesota, the University of Wisconsin, and Hawkeye Community College. Manufacturers will demonstrate equipment for strip-tillage and associated operations, including auto-guidance systems and fertilizer injectors. Researchers, farmers, and industry representatives will present the latest information on strip-tillage related topics, including equipment selection, fertility management, and guidance technology. Participants will review information booths all day, and lunch is available on site. This program is free and open to the public. Five Certified Crop Advisor CEUs (4.5 SW & 0.5 NM) will be available for a nominal fee. Expo details are at: http://wrc.umn.edu/outreach/striptillageexpo/midwest/index.html.

Bioeconomy and Continuous Corn “Field Day” – August 2
6:00 p.m.
Muscatine

The public is invited to attend a “field day” in the Muscatine County Extension Office, 1514 Isett Avenue, Muscatine, on Thursday, Aug. 2, from 6-8:30 p.m. A complimentary dinner will be served courtesy of Scott’s Outdoors, followed by the program. An RSVP is requested by July 30; please contact the Extension office at 800-992-0894 or 563-263-5701.

Hot topics for discussion will be the bioeconomy and no-till continuous corn production. Other agenda items include swine manure application costs and nutrient values. Mike Deahr and Doug Nolte, both Muscatine County cooperators with the Iowa Learning Farm, will be discussing their
farming practices and Iowa State University Extension Water Quality Engineer Dr. Matt Helmers will demonstrate the ILF conservation systems rainfall simulator.

The Iowa Learning Farm is a partnership between the Iowa Department of Agriculture and Land Stewardship; Iowa State University Extension; Leopold Center for Sustainable Agriculture; Iowa Natural Resources Conservation Service, in cooperation with Soil and Water Conservation Districts of Iowa, Iowa Department of Natural Resources and Iowa Farm Bureau.

**Soybean Aphid and Bean Leaf Beetle Management Tour – August 8**

6:30 p.m.
West Chester

Management techniques for the soybean aphid and bean leaf beetle will be highlighted at a tour on the Iowa Learning farm site on the Rob Stout farm south of West Chester on Wednesday, Aug. 8. Since first being discovered in the Midwest in 2000, soybean aphids have tended to be more of a concern in odd numbered years, so this may be more of a pest this year than last. No-till soybean plots that were planted with and without the seed treatment “Cruiser” are the focus of research conducted on this Iowa Learning Farm site. Seed applied insecticides can provide good early season bean leaf beetle control and also provide some control of soybean aphids, especially when planting is delayed as it was this spring. Also discussed at the tour will be value added crop opportunities, including “low lin” soybeans. A rain simulator will also be demonstrated at the site. A free meal, courtesy of QUALISOY (http://www.qualisoy.com/) will be available at 6:30 p.m. followed by the tour. The Iowa Learning Farm project is a unique partnership of agencies, farm and conservation groups, the general public and Iowa State University. Iowa Learning Farm project staff work to increase the adoption of residue management and conservation practices that are expected to improve water quality.

**Muscatine Island Research and Demonstration Farm Summer Field Day – August 14**

6:30 p.m.
Fruitland

Drip irrigation will be the emphasis of this field day. For more information see http://www.extension.iastate.edu/Pages/eccrops/meetmusc.html.

**Asian Soybean Rust First Detector Training – August 22**

9:30 a.m. – 3:30 p.m.
Fruitland

Individuals who have not gone through the Asian Soybean Rust First Detector training or First Detectors who would like a refresher should plan to attend one of the trainings during the week of August 20. The closest training is the one in Muscatine on August 22 at the Muscatine Island Research and Demonstration Farm at Fruitland http://www.extension.iastate.edu/Pages/eccrops/meetmusc.html. Details will be forthcoming.
The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA clients. To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.