CORN

Corn Borers

With the high price of corn, interest in managing the first generation of the European Corn Borer has increased. The current “bible” for management of this insect is NCR-327 “European Corn Borer Ecology and Management,” relevant portions of which can be viewed at http://www.mda.state.mn.us/plants/insects/ecb.htm. Jon Tollefson, ISU Extension Entomologist, wrote a summarizing article and created a spreadsheet for calculating thresholds, both of which can be accessed at http://www.extension.iastate.edu/CropNews/2008/0709jtollefson.htm.

Fungicides

The time is fast approaching when final decisions about applying foliar fungicides to corn will be made. Alison Robertson, ISU Extension Plant Pathologist, wrote an excellent article on the subject, which can be viewed at http://www.extension.iastate.edu/CropNews/2008/0703Robertson.htm.
Japanese Beetles

Japanese Beetles are back with a vengeance this year, eating most everything, including soybeans. The hotspots are similar to past years, being especially bad in fields within 20 miles or so of Cedar Rapids. The economic threshold for the beetles is the general leaf defoliation threshold used for other pests. During the reproductive stages of soybeans, consider an insecticide treatment if greater than 20% of the leaf area is gone due to feeding. Most people tend to overestimate defoliation. If it looks like 20%, most likely its only 10%. The pictures in the following article can help in estimating percent defoliation: http://www.ipm.iastate.edu/ipm/icm/2002/7-29-2002/soydefoliation.html. Corn should also be watched closely now for the pest since the beetles will clip silks. For more information and insecticides labeled for Japanese beetles see the July 28, 2003 ICM Newsletter at http://www.ipm.iastate.edu/ipm/icm/2003/7-28-2003/japanesebeetle.html.

Rhizoctonia Root Rot

Rhizoctonia root rot is reducing stands in many soybean fields. The disease can be identified by the brick-red lesions on the roots; often the roots take on a more definitive color after being exposed to the air for a few minutes. When the lesion is scraped off with a finger nail, the tissue underneath appears normal.
Rhizoctonia root rot is an opportunistic disease, invading plants that are under stress. Once an infection has occurred, there are no management options. In general, plants can out grow root rot problems and symptoms disappear as the season progresses into late July and August. With severe infection, infected plants wilt and die in patches.

**Cupped Soybean Leaves**

I have been getting a number of calls and been in numerous fields related to soybeans that have cupped up or have malformed leaves that look like dicamba or growth regulator herbicide injury.

When this problem occurs, the possibility of spray drift needs to be investigated. If an herbicide has drifted from a nearby corn field or roadside, the symptoms should be greatest near the source of the drift and gradually diminish with a greater distance from the source. Also the symptoms should be less near anything that would have obstructed the drift, such as tall grass or trees. If a drift pattern is not evident, then it is unlikely to be the reason for the symptoms.

If the symptoms appear after a field is sprayed and there is a sprayer pattern to the symptoms, the possibility of sprayer contamination with dicamba (Banvel, Clarity, Northstar, Distinct, Status) or another growth regulator herbicide should be investigated. However, we do occasionally see these symptoms in the absence of a growth regulator herbicide. Occasionally additives, such as ammonium sulfate (AMS), 28% Nitrogen solution, or surfactants can cause these symptoms. I have also seen symptoms not show up until 2 or more weeks after the field is sprayed. If dicamba was the source of the problem, symptoms should show up within a day or two.

In some cases the entire field showed the problem before anything was sprayed on the field or in neighboring fields. Sometimes the symptoms are uniform across the entire field and sometimes
certain parts of the field are worse than others, but there is no drift pattern. I see this most often when the soybeans go through a growth spurt when temperatures are high after some cool weather or after a heavy rainfall. Apparently under these conditions, the balance of naturally occurring hormones in the plant is disrupted, resulting in symptoms characteristic of growth regulator herbicide damage. Usually the soybeans recover from this condition with little to no effect on the final yield. See the July 19, 1999 ICM Newsletter for more information (http://www.ipm.iastate.edu/ipm/icm/1999/7-19-1999/malsoy.html).

**Fungicides**


**Asian Soybean Rust**

Scouting for soybean rust continues in sentinel plots in Iowa. So far rust is confined to the far southern US and the dry weather there means the risk to the northern states is still very low. For more information see http://sbr.ipmpipe.org/cgi-bin/sbr/public.cgi.

**HAY**

**Potato Leafhoppers**

High numbers of potato leafhoppers can be found in some hay fields. Be sure to use a sweep net to monitor potato leafhopper numbers and treat if numbers exceed the threshold. For more information on managing potato leafhopper, see pages 107 - 110 of the June 21, 1999 Iowa State University Integrated Crop Management Newsletter or
http://www.extension.iastate.edu/Pages/eccrops/potatoleafhopper.html. Remember, waiting to see hopperburn is waiting too long as substantial losses have already occurred by that time. Be careful to not confuse leaf diseases with hopperburn.

**Leaf Diseases**

Many hay fields now have evident leaf diseases, most commonly common leaf spot and “lepto” leaf spot. Fields in third year alfalfa have greater disease risk than first and second year alfalfa fields because the pathogens build up over time. There are differences in disease tolerance between varieties. Because many of the hay nutrients are in the leaves and because severe leaf disease can cause defoliation, if the disease level is high, early cutting generally is recommended so that defoliation can be avoided. Cutting as early as mid-bud stage may be necessary when the disease is severe.