Southwest MN IPM STUFF
All the pestilence that’s fit to print

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If you would like to be added to this mailing list, send a request to Molly Werner at werne022@umn.edu. This newsletter and the advice herein are free. You usually get what you pay for.

Crop Weather
Rainfall, temperatures, degree-days and other current and historical weather data for a spot about two miles west of Lamberton, MN can be found at the University of Minnesota Southwest Research and Outreach Center (SWROC) website: http://swroc.cfans.umn.edu/WeatherInformation/index.htm.

Hey... I’m only the messenger!
As of August 26th, we were at 1948 degree-days (Base 50/86 °F). The long-term average is 2061 DDs for this date and 2013. We picked up 177 degree-days and 0.60 inches of rain the week of August 20 –26.

May 14 planted 1.4 maturity soybeans at the SWROC are now at R 6.5 stage and leaves are beginning to turn, July 1st planted 2.4 soybeans are still R4 stage. Most soybeans are at early to mid R5.

A May 3rd and 14th planted 92 Day RM hybrid is denting. Later planted and fuller season hybrids are still milk stage. Fields with moisture stress are reaching dent a bit early.

Treatment of most insect and mite problems after R6.5 stage soybeans and after corn has dented is unlikely to pay.

Read the label, pesticide pre-harvest intervals (PHI) on pesticides will also limit late season treatments.

Some areas east and north of the SWROC picked up more rain last Thursday (8/22/2013). In most areas other areas, rainfall is needed to finish the crop. There is
significant moisture stress going on in many areas of Minnesota that will reduce yield. The 90 day precipitation map, as a percent of normal, below was generated from the National Weather Service site (http://water.weather.gov/precip/).

We are about tapped out. Soil moisture at the SWROC is now very similar to 2012 http://swroc.cfans.umn.edu/WeatherInformation/SoilMoisture/2005-2011SoilWatervs.HistoricAverage/index.htm.

These low July and August rainfall patterns are reflected in crop health and pest populations. Timing silage cutting on fields with variable soils will be a challenge in droughty areas.

Extreme high temperatures are not beneficial for crop yields. Heat will increase moisture stress in droughty soils. In particular, high nighttime temperatures (Over 65°F) are detrimental for seed fill. Corn killed at dent (before milk line has moved) will suffer about 40 % yield loss.

When will it end?
The 2013 growing season is starting to wind down. The following table provides probabilities of frost and freeze dates for locations throughout Minnesota:

For example, at the SWROC there is only a 10% probability that temperatures will be as low as 32° F before 9/17 or 28°F before 9/24. 50% probabilities are 9/29 and 10/7 for 32 and 28°F respectively. For the optimistic, there is a 90% chance that we will reach 32 F as late as 10/11.
**Corn earworms**
Black light and pheromone trap captures of corn earworms have increased recently at the SWROC. Corn earworms are a greater concern on sweet corn but will feed on field corn.

**Soybean aphids**
Aphids are doing remarkably well in the heat. The major exception would be areas of drought stress. As soybeans approach R6, aphid scouting efforts should target later plantings and full season varieties.

At Lamberton, the counting of aphids in experiments is now frequently interrupted by the flybys of at least three species of hover fly (Diptera: Syrphidae) adults.

An occasional painful prick from tiny pirate bug mouthparts added to the discomfort from heat and humidity. It is worth the aggravations as these are some of our best allies in the struggle against aphids. As one of the SWROC technicians put it – “I have lots of obnoxious friends”.

Aphid mummies are the swollen dead bodies of aphids that have been killed by small parasitoid wasps. Most commonly these are tan. Lately, we have started to see some small black soybean aphid mummies. They were probably attacked by an *Aphelinus* sp. wasp.

Two types of mummies are shown on the leaf to the left.

Black aphid mummies have been observed to the east as well. According to “Deep Throat”, some fields with poorly-
timed insecticides are now heavily re-infested. This is unfortunate. Considerable practice allows some academics and crop advisors to say “I told you so” fluently. Contrary to popular belief, most of us do not find the utterance all that pleasurable.

**Twospotted spider mites**
Spider mites are present at the SWROC but they are at lower levels than expected. I would appreciate hearing about fields with mite populations that have had chlorpyrifos or bifenthrin insecticide applied.

**Late season diseases**
Sudden death syndrome (SDS) symptoms have started to show up. This could be a bad year for this disease. Cool wet spring and hot, dry late seasons tend to increase SDS symptoms.

Brown stem rot symptoms should also start to become more visible as soybeans near the R6 stage.

*The presence of both of these diseases should be noted for effective management decisions in the future.*

Happy trails,

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