Southwest MN IPM STUFF

All the pestilence that’s fit to print

IPM STUFF 2015-17
Volume 18 number 17
08/20/17

This newsletter and the advice herein are free. You usually get what you pay for.

Crop weather
Rainfall, air and soil temperatures, degree-days, soil moistures, and other current and historical weather data for a little 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.

As of August 17, we are about average on degree day accumulations. The SWROC has accumulated 1877 GDDs compared to 1888 long-term average. For those of you that planted earlier, 29 GDD were accumulated from April 15 to May 1.

The SWROC received 3.74 inches of precipitation form the 16th-20th. Some areas of SW MN received less but others had much more...up to 8 inches.

Corn
The crop is on a calendar schedule for maturity now and needs approximately 60 days from tassel/silk to reach black layer (physiological maturity). Most corn in SW MN is at or near dent. The recent rain will help finish grain fill. There has been considerable tip back in some fields, but the crop looks good overall.

Pest management-wise it’s time to start to relax. If you have not made a decision on corn rootworm adult populations to predict future problems it is time to start wrapping that up on all but the latest maturing fields. Western corn rootworm problem fields seem reduced this year but northern corn rootworm and extended diapause did cause problems some non Bt-RW corn fields. The extent of damage will not be known until combines hit the field.

Some of you have found some isolated fields with Goss’s blight and wilt. While some northern corn leaf blight can be found, the early rumors of an impending disaster seem to have been greatly exaggerated, at least in SW Minnesota.

Soybeans
Most soybean fields are mid to late R5 now. Early maturity soybeans are at R6 (seed completely fills the canopy in one of the upper 4 nodes). There should fields starting to
turn by late next week or the week after. The moisture should help with pod retention and seed size.

Once fields reach the R6.5 stage (yellow pods starting to appear), quit worrying about crop pests reducing yields. Even pod feeding insect (grasshoppers, bean leaf beetle, stink bugs, etc) problems should have been found and dealt with by then. While they can be found, I have not heard of, nor do I expect, any problems from pod feeders.

However, for those who enjoy worrying, there is still the potential for hail, early frost, excessive rainfall, early snow, and machinery breakdowns to create harvest problems. Hopefully, none of these will occur.

**Brown stem rot (BSR)** systems have started to appear in R6 stage soybeans. Foliar symptoms of this disease can be confused with **sudden death syndrome (SDS)**. Brown stem rot will have discolored pith in the lower stem, SDS will not. The stem symptoms will be present on infected plants even when foliage is symptomless. Occassionally, soybean plants can be infected with both BSR and SDS. There will be some white mold problem fields from rainy periods during flowering. The recent rain and cool weather came too late to cause problems for fields that had completed flowering.

**Small Grains**
This was a very good year for wheat and oat yields.

**Alfalfa**
Good yields and relatively few pest problems. Potato leafhopper populations required treatment in some of the earlier cutting but populations should now be declining as August progresses.

**Soybean aphid**
What to do? There have been several calls about late-season aphid control this week. We recommend treating at the economic threshold of 250 average soybean aphids/plant and 80% or more of the plants infested until the R6 stage of soybeans. Aphids often do quite well and reproduce rapidly on late R5 and R6 stage soybeans.

Don't, however, forget the remaining part of the economic threshold for soybean aphids: aphid populations are increasing. Populations seem to be declining in some fields. There could be several reasons for this. Some lower leaves are starting to drop. Predators are moving into some infested fields. Many of you have seen the small black or larger tan mummies of aphids parasitized by wasps. Some of you may have even taken the time to watch the tiny wasps stinging and laying eggs inside the aphids.

Fields with increasing aphid populations that are well over threshold should be treated now. However, with the recent prolonged rainfall and cool weather in many areas, it may be prudent to wait a few days before making a treatment decision on fields that are near, at, or slightly above economic threshold. Rainfall may influence aphid populations in several ways:

Heavy rain and wind may wash aphids off plants, but this is usually more effective on the upper canopy and on smaller beans.
Prolonged, wet weather may trigger **fungal disease** outbreaks. Most of the fungi that attack aphid are active when humidity is high and temperatures moderate. For example, *Pandora sp.* are one of the most common fungi attacking soybean aphids in Minnesota and are most effective at temperatures of 50-70 F. With the proper weather and a few infected aphids as a start, fungal disease can wipe out aphid populations in a matter of days. Check for diseased gray, tan or brown aphids that can often have a fuzzy appearance. Dews and high humidity under the canopy can help with this.

Plants growing under sufficient moisture conditions, may be poorer hosts for aphids. Remember, in many areas, we were on the dry side before these rains.

Movement of soybean aphids from soybean to buckthorn can occur any time now. Often, but not always, I see aphids leaving early maturing soybeans first. **On August 20th we started to observe the first winged female aphids and their nymphs of 2015 on fall SWROC buckthorn.** Several species of predators and parasites were present on buckthorn too. Whether this is the start of a mass migration movement to buckthorn or just an advance wave of immigrants is unclear. Look for large numbers of winged aphids or nymphs with wing pads as a clue to potential aphid emigration from soybeans.

When scouting or considering and insecticide application, look at soybean growth stage. It will take more, probably much more, than 5000 aphid days (e.g. 5000 aphids/plant for 1 day, 500 aphids for 10 days, 250 aphids for 20 days) to reduce yield in these late season soybeans with good growing conditions.

Early-planted, early-season beans should be off scouting schedule now. All but the late-planted and full-season beans should be off the schedule after next week. Pre-harvest intervals for soybean aphid insecticides are 21 days or longer.

I'll try to keep an eye on late-season aphid populations here.

I will be on my annual trip to determine the western range of soybean aphid next week. This year's plans had to change because of the forest fires. I was worried I would be fishing for trout that were smoked before I caught them. I will have limited cell and email access but will return calls and messages as I can.

**Save the date:**

**There will be an SCN plot tour at the SWROC, Lamberton, on Wednesday, September 9th from 1-4 PM.** It will be a good opportunity to see SCN research on varieties and chemical control of SCN and visit with U of M researchers.
Happy trails,

Bruce Potter

University of Minnesota Southwest Research and Outreach Center
23669 130th Street
Lamberton, MN 56152
Phone: 507.752.5066
Cell: 507.276.1184
Fax: 507.752.5097
E-mail: bpotter@umn.edu
swroc.cfans.umn.edu/ResearchandOutreach/PestManagement/index.htm
Facebook: https://www.facebook.com/swroc
Twitter: https://twitter.com/SWMNpest

Products are mentioned for illustrative purposes only. Their inclusion does not mean endorsement and their absence does not imply disapproval. © 2015, Regents of the University of Minnesota. All rights reserved. The University of Minnesota Extension is an equal opportunity educator and employer.