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

SW Minnesota IPM STUFF 2013-4
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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.

The SWROC accumulated 302 degree days (Base 50/86° F) since May 1. We are once again behind average degree day accumulations. We have had a drought ending 8.41 inches of precipitation since January 1. April 28th planted corn on the SWROC is at V2. Soybeans planted the same day are at V1.

Most area corn is in and up but some bean ground still needs to be planted. We are starting to see some soybeans poking through.

Black cutworm
The weather systems brought several significant black cutworm flights into Minnesota at several locations last week. Unlike earlier flights into Minnesota, the significant captures were widespread enough that any corn fields in southern Minnesota that had not been worked and planted by May 20th or had been recently planted with early season weed growth should be watched for damage. Fields with delayed planting (SE MN has many) are at greater risk. It is likely that the past weeks moth flight occurred into areas north of our cooperative trapping network.

Due to their ability to compensate for reduced stands, yield reducing black cutworm populations are rarer in soybean but they can occur.
Depending on temperature, larvae from this flight should be large enough to cut corn by June 10\textsuperscript{th} or so. In a more typical year, corn would be getting too large for a late flight like this to cut. This does not appear to be a typical year.

Larvae from earlier significant flights (April 28\textsuperscript{th}) should be large enough to cut plants within a few days and larvae from a May 7\textsuperscript{th} flight late early next week.

See [http://swroc.cfans.umn.edu/ResearchandOutreach/PestManagement/CutwormNetwork/index.htm](http://swroc.cfans.umn.edu/ResearchandOutreach/PestManagement/CutwormNetwork/index.htm) for trap capture, scouting and control information.

**Slugs**
Recent weather has kept some of you out of the fields. It also influences which pests are problems. Wet weather tends to favor fungal and bacterial diseases. Mollusks also like it wet. Yes, we have had significant rainfall but no, I am not anticipating an octopod or squid problem in Minnesota crops this year. However, while not common, we occasionally do see problems with slugs in southern Minnesota corn and soybeans. Problems are associated with heavy residue and prolonged wet/damp weather.


Hopefully, we have a break in the rain and you won't have time to watch them for a while.

**Corn**
**Yellow corn** is scheduled to turn green as soon as we see some heat and sun. We have had some spectacularly quick emergence in some corn fields this spring. This is great unless corn was planted shallow. I have seen a few photos of emergence problems but nothing near the magnitude of 2012 problems.

**Corn rootworm damage** can be more severe when corn is planted late as the larvae attack smaller root systems. On the other hand, greatly delayed planting can starve rootworm larvae and flooded soils near the time of egg hatch can drown larvae that have not made into a corn root. However, planting corn in late June and saturated corn fields limit corn yield as much as they limit rootworms and are not recommended as management practices.

Looking at the positive side of the spring weather, corn can regenerate root systems more rapidly with good soil moisture. The dry soil conditions June and July of 2012 may have increased rootworm damage. Rootworm eggs typically hatch the 1\textsuperscript{st} or second
week of June in Southwest Minnesota. Corn rootworm egg hatch should be somewhat delayed this year (at this point 5-7 days based on Lamberton GDD) as result of the late spring.

**Soybeans**
Like corn, soybeans need some heat and light, particularly those that still need to get out of the seed bag.

It’s damp but there has been little standing water around here producing quick soybean emergence. The few soybeans at the SWROC that are large enough to evaluate look good. Quick emergence will help reduce chances of seed feeding insects and maybe seedling diseases.

Because of the widespread 2012 drought, there are likely to be some issues with seed quality and germination. Soybean seed treatments do have their place but they will not increase your germination rates.

Reduced seeding rates of 120-130,000 seeds/acre are sometimes recommended with a good seedbed and planting conditions. Seeding rates should be adjusted based on germ and treated seed or not, *I would not reduce seeding rates because of late planting.* The possible exception would be soybean seed purchased from the Harry Potter Seed Company that often has germination rates over 110% (Note to the more literal readers: The Harry Potter Seed Company is fictitious and germination rates of more than 100% are impossible).

Remember, we like to see a final stand of 100,000 soybean plants/acre at harvest for optimum yield. This can be hard to accomplish even with higher seeding rates, particularly in 30 inch rows. You run the same risk of emergence struggles whether early or late planted from crusting and disease (depending on the fungal species late planted can be worse).

When evaluating stands for missing plants, look for an elongated radical as evidence that the seed germinated. If you see insect or disease problems with soybean stands, I would appreciate hearing about them.

**Small grains**
Aphids started making their way from the south to SWROC rye crops last week. Small colonies of bird cherry-oat aphids (BCOA) and English grain aphids (EGA) were both found. These species are capable of transmitting barley yellow dwarf virus (BYDV). The bird cherry–oat aphid favors the lower canopy, often present in the leaf sheath and are commonly found on the lower leaves of corn later in the season. To this point, the elusive BCOA and other aphids have avoided my attempts to quantify yield losses after pollination.
Pay attention to aphids while you scout spring and winter wheat for stand evaluation, weed control or have reached your breaking point and just need a break from scouting corn and soybeans.

As a reminder, read the label for crop size restrictions on small grain herbicides. Earlier is often better.

**Alfalfa insects**

Adult **pea aphids** were observed in alfalfa. While pea aphids thrive in cooler conditions, cool, wet weather favors entomopathogenic (insect diseasing) fungi.

Common leaf and bacterial leafspot are the pathogens de jour and present at low levels in SWROC alfalfa.

Early- instar **clover leaf weevil larvae** were found at very low levels; a grand total of 1 2\textsuperscript{nd} instar larva in SWROC alfalfa. Clover leaf weevil eggs are laid in the fall.

In contrast most, if not all **alfalfa weevil** eggs are laid in the spring. Adult alfalfa weevil should be moving into alfalfa soon. They are often first found on south facing slopes with alfalfa near wooded areas.

*Scouting tip*: **Windy and wet conditions reduced the number of insects captured in sweep net samples compared to sweeps in calm, dry weather.**

With reduced stands, an increased number of newly seeded fields and high alfalfa values, alfalfa management issues are as important as ever for producers.
SAVE THE DATE
WEED RESEARCH FIELD DAY
Thursday, July 11, 2013

Late afternoon to early evening
Details will follow

Southwest Research and Outreach Center
23669 130th Street • Lamberton, MN 56152

Other University of Minnesota Resources

University of Minnesota SW Research and Outreach Center
http://swroc.cfans.umn.edu/ResearchandOutreach/index.htm

University of Minnesota Climate  http://climate.umn.edu/

Crops Extension

University of Minnesota Extension
http://www.extension.umn.edu/
http://www1.extension.umn.edu/agriculture/

University of Minnesota Applied Weed Research  http://appliedweeds.cfans.umn.edu/
Extension Newsletters

- Minnesota Crop News [http://blog.lib.umn.edu/efans/cropnews/]
- Cropping issues in NW Minnesota [http://www.nwroc.umn.edu/index.htm]
- Southwest Minnesota Extension Crops Update: email harbe002@umn.edu to be added
- Southeast Minnesota Crops Connection: email mstearns@umn.edu to be added
- South Central Extension Crops: send an email to SOUTH-CENTRAL-EXTENSION-CROPS@lists.umn.edu with SUBSCRIBE in the subject line

Happy trails,

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