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.

The SWROC location accumulated 846 Growing Degree Days (base 50°F) from May 1 through June 29 compared to 870 historic average for the period (still about 1-2 days behind average). For those of you that planted earlier, 29 GDD were accumulated from April 15 to May 1.

We received only 0.46 inches of rain over the period last week but 5.05 inches total for June. For the most part, the crop reflects early planting into good seedbeds, abundant rainfall and moderate temps.

Most lodged corn and small grains recovered from last week storms, but a few low lying areas did have some drowned out.

There have been recent areas of hail in SW and WC MN. Late enough that replanting is not an option for corn and not a good option for soybeans. Where the corn crop was not destroyed, Goss' blight and wilt, common smut, and some bacterial disease can be expected. In soybean, stem callous from deep bruises on the lower stem may hinder harvest; the larger concern is an open canopy in fields with a waterhemp seed bank.

Some crop stages and notes for earliest planted/emerged crops in the SWROC area are:

Corn 14 collars for April 15th planted
Corn growth continues to be rapid as we begin to approach tassel. Emerging leaves are sometimes temporarily bound up in the whorl. That is cause of the scattered yellow corn plants that are so visible in some fields now.
Recently, there is a lot of information circulating on impending leaf disease disasters and the need for fungicides in corn.

These bits of agronomic and sales advice may be irrelevant for your fields in SW Minnesota. While the situation may change, there is currently little visible leaf disease in SWROC corn.

Remember, other areas of the corn belt have different environments, hybrid selections, and cropping systems than we do in Minnesota. For example, Illinois is reporting levels of gray leaf spot and northern corn leaf blight in some of their research plots, but it has been very wet in parts of that state. Therefore this information is more meaningful for those who have "Land of Lincoln" on their license plates.

Within southwest Minnesota, disease potential can vary widely, even from field to field. I would like to suggest, and I can only suggest, that you make any corn fungicide decisions based on the presence of disease in your field and your local weather. You have time until after pollination to make that decision.

Soybean  
**Up to V7 and R2 for very early planted**

The early-planted soybeans have up to seven trifoliates and are in full bloom, while later plantings are less. The large number of vegetative nodes developed before soybean began to bloom this year could help yield.

It would be worth the effort to look for some soybean aphids after the Independence Day holiday. Focus on the fields that usually have aphids first. These are often early-planted, small-sized fields with buckthorn nearby.

**Weed control of waterhemp and giant ragweed** are a major concern. Pre- and post-weed control, chemical selection and timing, crop rotation, planting date, row spacing and row cultivation are all tools that should be selected and combined to work in a harmonious fashion to the detriment of your weed populations. This should be a hot topic during winter meetings.

Resistant weeds do not disappear because you change an herbicide program. In other words, if glyphosate did not kill your waterhemp or ragweed last summer, it should not have been expected to kill them this year. I am hearing quite a bit of talk about cultivating soybeans this year.
Yellow beans are unusually prevalent in SW Minnesota this year. A disturbingly large percentage of these have large numbers of SCN on the roots of SCN resistant soybeans varieties.

In Southern and West Central Minnesota, iron deficiency chlorosis (IDC) tends to be worse along the rims of low areas. Yellow soybeans on higher ground, in the high organic low ground, or areas of a field without a history of IDC are suspect - particularly when the chlorosis first develops on larger soybeans. The visible presence of SCN females on the outside of roots will vary throughout the growing season as generations of the SCN are produced.

The emerging lemon-shaped females are initially small and white but as they develop, turn yellow and eventually tan. The more mature, yellow bodies are usually the easiest to see. Currently, white females are visible on late planted, V2 soybeans at the SWROC, while only scattered, yellow females are present on the roots of early planted soybeans.

Root systems heavily infested by SCN have a characteristic appearance. The very dark roots are small in diameter and nodulation is often reduced.

The feeding of the nematodes can open up the root system for fungal infections and roots may be decayed as a result.

Sudden death syndrome (SDS) and top die back (Diaporthae / Phompopsis) are two soybean diseases that are often correlated with SCN infestations.

When you suspect an SCN infestation, look at the roots in and near the affected area. A trowel to dig and water to wash roots is the preferred method. The females will be more
visible if you let the roots air dry for a couple minutes. In a pinch, grasping and gently pulling up several adjacent plants together will sometimes provide enough of the smaller roots to show some nematodes.

Take a soil sample for SCN eggs or re-check the root systems in a couple weeks if you are not finding SCN.

I would wait until fall to collect infested soil for Hg typing. By that time the SCN in your field will have gone through the final generation of selection pressure on that variety.

In my opinion, SCN populations capable of infesting and reproducing on one or more sources of SCN resistance is a very serious threat to long-term economical soybean production in Minnesota and the issue is now reaching a critical point. That said, there is some saying about opinions and everyone having one.

For more information on SCN you can see the University of Minnesota Soybean Cyst Nematode Management Guide.
Spring wheat  

Milk - early dough

Fields have partially or fully recovered from lodging. The crop is looking very good. Diseases are very variety dependant in trails at the SWROC. Some scab is currently present and stripe rust and bacterial leaf streak is now moderate - severe on some varieties.

Oats  late milk - early dough

Crown rust has rapidly increased on some varieties. If stalk integrity persists, yields may be good this year.

Alfalfa  Re-growth of 3rd crop

Potato leafhoppers are the main insect concern now and a 15-inch sweep net is your friend.

True armyworm

The Lamberton black light trap captures have been moderate but consistent all spring. I have been suspecting more problems with armyworm, but it has been quiet since the reports of problems in some fields planted into winter rye.

Yesterday, I visited with an agriculturalist about large numbers of armyworm in a Redwood County sugarbeet field. The moths had been attracted to lay eggs in an early-planted sugar beet field with a heavy oats cover crop. As is typical management, the oats were killed a few weeks ago and the armyworm were forced to move to sugarbeet. The Armyworm damage to the sugarbeets was still minimal at this point. They greatly prefer to feed on grasses and hungry armyworm are unpredictable. I am not predicting widespread problems, but you just might want to take a last look at any lodged oats or wheat, or corn with early season grass weeds.
What is it?
Some of you may know what these are and some of you might have seen the following insect and plant and wondered *what the heck are they?*

There is no reason to reply and I'll give the answers in the next issue. There are no cash or other prizes for guessing these correctly but feel free to buy yourself something nice if you think that you know what these are!

#1. No clues. You need to turn in your Birkenstocks if you don’t know what this caterpillar is.

# 2 These eggs the underside of a corn leaf used to be much more common in MN corn. They are important clues when scouting non Bt corn.
The answer to last week’s specimens

# 1 Corn leaf with brown stinkbug feeding damage. The pattern of rows of holes was made by the stinkbug mouthparts when the leaf was still rolled.

#2. Bacterial blight of soybean- early infection symptoms.

Happy trails,

Bruce Potter

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