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.

I will leave it to the reader to calculate degree days needed to black layer, time to dry down how much LP to have on hand and others such pre-harvest activities. I have not heard many yield estimates as yet.

I was unable to find any soybean aphids west of South Dakota last week. However, I was able to find several species of trout. The crop along I-90 in SD looked good all the way to Rapid City, and irrigated corn, sugar beets, alfalfa, and dry beans looked unusually good in WY and MT.

Soybean Lepidoptera identified. The Tortricidae larva pictured a few weeks ago has been confirmed as the oblique-banded leaf roller, Choristoniura rosaceana.

Dragon flies - Over the past two weeks or so, many of you may have observed an abundance of large dragonflies. These are green darners (at least those I have seen are). Part of the green darner dragonfly population migrates south in early September. There is evidence some evidence that they migrate through Minnesota at the same time as night hawks and kestrels (sparrow hawks). If you have patience, you might notice that each dragonfly patrols its own territory.

Fall flowers - The black beetles on goldenrod and sunflowers now are black blister beetles. While the adults in hay can be toxic to horses, the larvae feed on grasshopper
eggs. The yellow-orange beetles with the two black spots toward the rear are **goldenrod soldier beetles**. The adults feed on pollen and the larvae are predacious on soft-bodied insects including aphids. Fall flowers are a good place to find **ambush bugs** camouflaged and waiting for pray.

**Corn rootworms** - As of today, we still have both northern and western corn rootworm adult emergence in a Brown County, MN experiment. The cool summer has helped stretch emergence. Looks like we might need to speed up development of new beetle population assessment techniques for situations like this. Much corn is dented and the milk line moving down. Silage harvest might start late this week but should be more widespread next week.

**Spider mites** - are very hard to find at the SWROC now. Cool, wet weather is hard on the little guys. Corn is generally considered safe from spider mite (and many other problems) after full dent and soybeans when leaves begin to senesce or pods begin to turn yellow.

**Soybean aphids** - It is almost over! Some mid-Group I soybeans are starting to turn and these fields should be off the table for spraying soybean aphids. As always, watch pre-harvest intervals (PHI) with watch late-season insecticide applications. Of course, you could just spray and then wait a few extra days or weeks to harvest while dodging a few rains until the PHI is up and then harvest shatter prone, low-moisture beans. It would be legal.

Late-season aphids scouting should be now focused on any very late-planted soybeans and the full-season soybeans. Fields treated with insecticides early in the season should have already been checked. Over the past two weeks, I have visited with several agronomists and farmers about re-infested fields where it was a race between soybean development and aphid populations.

In early R6 stage soybeans, very high populations (1000s/plant) may show economic benefit from control but almost always these should have been controlled at the 250 ET before R6.

We recommend scouting aphids until R6.5 (pod beginning to turn mature color) to catch any insecticide applications problems and to find any populations that develop in late in R5 (re-infested fields for example) or otherwise missed by scouting. While yield loss from soybean aphids can occur until R6.5 or a bit later, you are not likely to see a yield benefit when treating this late. There is little yield left to be accumulated or if the aphid population has been present for a longer period, most yield loss has already occurred. Then again, I suppose that insecticide applications for revenge can sometimes have emotional, if not economic, benefits.

*There is a cost to scouting just like there is a cost for insecticide applications. Scout smart. Unless you have lot of spare time or you really like looking for aphids there is no need to be counting aphids in every field every week.*
Soybean fields should be scouted after the onset of R6 for reasons other than soybean aphid. These reasons include several persistent diseases and seed and pod feeding insects like grasshoppers and stinkbugs. I have not seen or heard of any serious grasshopper or stinkbug populations this fall but your mileage may vary.

The aphid suction trap network has picked up some late season soybean aphid migrations over the past week and we can still find aphids on buckthorn.

The office staff recently found this misplaced video from September 2009 that shows aphids moving to buckthorn. The cinematography is very good but neither was that of the Blair Witch Project and look how much money that made!  
https://www.youtube.com/watch?v=EJ2bS51xDoQ&feature=youtu.be

Late-season plant diseases

**Corn**  
*Goss’s blight and wilt* is unusually prevalent in SW MN this year. Like Goss’s, severe infestations of *common rust* can be spotted from the road but seem limited to field margins. Look at rotating out of corn for a year and planting resistant varieties when corn is planted in fields or geographies where Goss's is present.

**Soybeans**  
As mentioned, it may be worth your effort to check out areas of yellowing soybeans during R6. Soybean diseases are becoming obvious. *Brown stem rot* (BSR) foliar symptoms show up as soybeans approach the R6 stage. Sometimes, BSR does not cause foliar symptoms but will usually present the brown, discolored pith.

*Soybean cyst nematode* (SCN) symptoms are present but not as pronounced as in some years. This may be due to cool weather reducing stress or allowing fewer generations of nematodes to develop.

*Top die back* (*Diaporthae*) presents as yellow and dying tops of soybeans. While it may be present alone, I have only seen this disease associated with SCN.

*Sudden death syndrome* (SDS) symptoms are more wide spread this year. It too can be associated with SCN. I have seen small to moderate patches of this in many fields along I-90 and US 14 in SW MN.

*Downy mildew* symptoms have shown up in some fields promoted by the cool rainy weather. *Septoria brown spot* is increasing as leaves senesce. Disease development late in the season is less likely to reduce yield.

*Record and develop long-term management programs for persistent pest problems like SCN, SDS, BSR, Corn rootworm, Goss’s wilt, and weeds.*
Happy trails,

Bruce Potter
IPM Specialist SW MN
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

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