

Crop Progress and Notes

Fall is fast approaching. Over the last week I have traveled to northwest Webster Co, Cherokee, Pocahontas, and Boone. One thing in common was whole soybean fields were starting to turn yellow. It's a sign that natural senescence is beginning to occur. Additionally, there are yellow patches showing up in soybeans fields. Those are not naturally senescing, it is likely Sudden Death Syndrome showing symptoms. And walking through some fields I've found the random plant that has succumbed to Phytophthora. As for corn we are mostly in the dough stage, some are lagging behind while others have reached dent. There are some fields where plants have completely fired due to nitrogen deficiency and others that are showing some top dieback.

Grain Drying, Handling and Storage Tips

I would like to make the plea to give some thought to the size of crop and the potential need for grain drying. With crop yield optimism, delayed maturity, frost potential and lack of good natural drying conditions, I suspect a greater need for drying corn this fall. The last time there was a bumper corn crop and high moisture corn at harvest was back in the early 1990's. Since then the pace of grain harvest has increased tremendously. And, for the most part, the past several years had allowed the crop to be dried down in the field. Needless to say, it's been many years since grain dryers have been used at peak capacity. This is something that may very well be faced this fall.

Proper grain drying, handling and storage can be extremely beneficial if you take care to do it correctly. The more grain being dried at a single time the longer it takes to dry down. It's not faster to fill the bin since drying time takes longer and can possibly result in spoilage at the top. In fact spoilage at the top may be accelerated since hot, moist air is being pushed through the grain. Grain that is not dried and cooled within a couple of days of harvest can result in spoilage losses. A great resource is the University of Minnesota's [Agriculture: Grain Drying, Handling and Storage](#) webpage.

There are pros and cons with both commercial and on-farm drying. Commercially, you don't pay for over drying and there are no fixed or maintenance costs of equipment. With commercial drying the cost per point per bushel often escalates with higher moisture corn. With on-farm drying you pay the actual cost of drying and get added convenience during harvest. Shrinkage may be lower with on-farm storage.

Desired grain moisture for safe storage depends on the length of time you plan to store. Soybean stored under 6 months should be dried to 13% while storage over 6 months should be stored at 11%. Corn stored under 6 months should be dried to 15% while storage over 6 months should be stored at 13%.

Estimating Corn Yields

Corn yields can be estimated after the kernel number is finalized, roughly two weeks after the end of pollination. This is a quick and dirty way of estimating corn yields and can be +/- 30 bushels per acre according to what I have heard from various Extension Corn Specialists. To get a better estimate take multiple stand counts and ears for kernel determination. Since weight per kernel will vary depending on hybrid and environmental conditions use this only for relative yield estimates.

1. Number of harvestable ears per acre = _____
2. Number of kernel rows = _____
3. Number of kernels per row = _____
4. Estimated yield in bushels per acre =

$$\{ \# \text{ of ears (line 1)} * \# \text{ of rows (line 2)} * \# \text{ of kernels (line 3)} \} \div 90$$

Mark Licht
Field Agronomist
Iowa State University Extension
1205 W. U.S. Hwy 30, Ste. G
Carroll, IA 51401
Tel: (712) 792-2364
Fax: (712) 792-2366
Email: lichtma@iastate.edu

Serving; Calhoun,
Carroll, Crawford,
Greene, Ida,
Monona and
Sac counties.

Web pages to View:

- [Grain Drying, Handling and Storage](#)
- [Soybean Aphid Management Field Guide 2008](#)
- [Speed Scouting Soybean Aphids](#)
- [Soybean Aphid](#)
- [Field Extension Education Laboratory](#)
- [ICM News](#)
- [Sensitive Crops Directory](#)
- [Soybean Disease & Pest Management Field Guide](#)

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Estimating Soybean Yields

This method of yield estimation works best within three weeks of harvest but can be done any time after the R6 growth stage. Seeds per acre and seed weight varies greatly among varieties and environmental conditions. Seeds per pod can be adjusted if there is strong evidence based on in-field scouting. Additionally, the pod number is highly variable and can severely affect the yield estimate. To account for a better pod number take counts of ten plants at ten locations within a field, more is always better.

1. Number of plants per acre = _____
2. Number of pods per plant = _____
3. Number of pods per acre = line 1 * line 2 = _____
4. Number of seeds per acre = line 3 * 2.5 seeds per pod = _____
5. Pounds per acre = line 4 ÷ 2,900 seeds per pound = _____
6. Estimated yield per acre = line 5 ÷ 60 pounds per bushel = _____

Allee Research and Demonstration Farm to Celebrate 50th Anniversary Sept. 16

Fifty years of research and service to Iowans will be marked Tuesday, Sept. 16 at the 50th anniversary celebration of ISU's Allee Research and Demonstration Farm near Newell. The celebration also will honor George Allee who donated the farm to Iowa State in 1958. Tours of the mansion his parents built on the farm, which is listed on the National Registry of Historic Places, will be offered at the field day celebration. Allee was a Harvard University graduate who developed and sold some of the first hybrid seed corn. He helped create the Newell Corn Show, an annual corn competition that attracted entries of 8,000 ears of corn at its peak in 1939.

Over the years the 160-acre research farm continued Allee's corn breeding work as well as researching beef feedlot management, corn rootworm control, tillage methods and a project that compared integrated management crop rotations. Celebration field day registration begins at 9 a.m. with a farm tour at 9:30 featuring stops with presentations on:

- Corn breeding and genetics by Kendall Lamkey, chair, Department of Agronomy
- Livestock production in the bioeconomy era by John Lawrence, director, Iowa Beef Industry Center
- Current projects at the farm by Lyle Rossiter, farm superintendent
- An update on the farm's beef breeding project by J.R. Tait, animal scientist
- Briefing about the new on-farm research program in northwest Iowa by Josh Sievers, agricultural specialist

An anniversary program begins at 11:30 a.m. with remarks by Dean Wendy Wintersteen, College of Agriculture and Life Sciences. After a lunch provided by the Buena Vista County Beef Producers, ISU Extension staff will provide information at exhibits on various topics including: the farm's corn pollination study, horticulture, beef, swine and crop research and farm management. The Practical Farmers of Iowa, Niman Ranch Pork and the Iowa corn and soybean boards also will have displays. Tours of the Allee mansion, a corn maze and antique tractors display will begin at 12:45 p.m.