

# Agronomy Notes

Capital Region Extension Agronomy Team

Mark Goodson, Editor

# Oct 2005

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## Get the Grain In The Bin!

Here are some numbers from Modern Corn and Soybean Production (MCSP Publications, 2000) that might surprise you.

- Two kernels of corn per square-foot to equal a bushel per acre loss. Four beans per foot to equal a bushel per acre and just 14 per square-foot with barley to equal 1 bushel per acre loss.
- Three Midwest universities found that once soybeans were fit for harvest with a 13% moisture content in late September, losses as high as 20% were recorded by researchers after 10 days of wet weather in early October. Further, 85% of those losses occurred before the beans entered the combine!
- Iowa State found reducing cutting height, from 6 inches down to 3.5 inches, accounted for an additional 3 bushels of beans in the bin.
- A USDA study in four Midwest states found total losses from delayed harvest for corn more than tripled from 5% to 18% from October to December harvest.

When harvest is in full swing, timing is critical. There is an abundance of research to support slowing down and being sure that the crop is not lost simply due to manageable factors.

Once 95% of soybeans pods have turned a mature brown color (R8), they are only 5 to 10 days away from moistures below 15% and are the least likely to escape the combine due to shatter loss. If you are one of the many growers who wait until after high moisture corn is combined to start soybeans, you could be sacrificing a significant portion of your soybean yield.

In a field last year, I supervised a soybean contest harvest that was 75 bushels per acre in late September. My variety test plots were directly across from the contest harvest. When we cut those soybeans in late October, we got 51 bushels per acre average for all entries. One of those entries was the same variety as the contest yield. Lodging and shatter losses accounted for nearly a 25 bu/acre loss in yield due to delayed harvest.

Supervising numerous 5 acre corn club harvests over the last 12 years, I have seen a drastic improvement in harvest losses. The Bt corn entries that result in almost no down or broken plants have eliminated those harvest loss potentials. I have noticed, however, that since the corn stands better some growers have increased combine speeds. But with those increased speeds, more ears get knocked off before entry into the combine and more kernels can be found in the fodder behind combines. Read the manual on the combine and achieve the proper capacity for the combine and try not to push the limits. By understanding the key losses in corn and soybeans, growers may ensure more grain gets into the bin to maximize income.

**Del Voight, CCA**  
**Integrated Pest Management**

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BETTER CROPS AND PROFITABILITY

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### PA Crop Insurance News

**Filing notice of damage or loss:** The policy requires notice within 72 hours of discovery of damage, before destruction of crop and within 15 days after the earlier of harvest completion (by crop by farm unit) or 12/10 (end of insurance period) for corn and soybeans. The purpose is to give a loss adjuster the opportunity to help you document the yield and quality to support your claim.

**Remember too, that if you insure with the popular CRC (Crop Revenue Coverage) you may be eligible for a loss payment with a near normal yield, if fall CBOT prices decline significantly from early prices.** For example, if the CBOT harvesttime price declines by a greater percentage (compared to the \$2.83/bu. spring corn base price) than your insurance deductible (i.e. 75% level of coverage = 25% deductible) a loss payment may be due. **IF IN DOUBT – FILE NOTICE OF DAMAGE!**

**Record keeping requirements:** It's important to maintain good production records by farm insurance unit. Otherwise you may lose some of the policy benefits. The records are necessary for proving yield history (APH) and filing a claim. If you farm store your grain and plan to commingle production from several farm insurance units, you're encouraged to **get a good understanding from your insurance company** of the minimum record keeping requirements (including moisture and grain quality determinations) before harvesting begins. It can make a difference in the amount of your claim.

**Wheat and barley planting deadlines:** The final planting dates are 10/20 for barley and 10/31 for wheat in southeast PA (counties of Adams, Berks, Bucks, Chester, Columbia, Cumberland, Dauphin, Franklin, Lancaster, Lebanon, Lehigh, Montgomery, Northampton, Northumberland, Perry, Schuylkill, and York). For the remainder of PA the dates are 10/10 for barley and 10/20 for wheat. **The late planting provision** of the policy automatically covers acreage planted up to 10 days after the above dates. However, the insurance guarantee on such acreage is reduced 1% per day for each day that planting is delayed after the above dates. **If you have late planted acreage, keep records by date of each seeding date and provide this information when reporting your acreage (to FSA and crop insurance agent).** Reporting only the last planting date for all acreage could reduce the protection on all acreage.



Gene Gantz  
RMA/USDA  
717-497-6398

### Research Results Yield Tips for Seeding Wheat

It's that time of year to get wheat seeded so it's a good time for me to share some results of some studies we've been doing that have to do with planting wheat. All of these tests were done at Penn State's research farm near Landisville in Lancaster County. My thanks go out to

Dave Johnson and his staff for their help in conducting these tests.

For the last two years, we have worked on test plots comparing wheat grown with three different tillage systems and planted in different crop residue. Wheat was planted following corn grown for grain and soybeans grown for grain. The tillage systems were chisel-disk, double disking and no-till. We also compared several rates of nitrogen (40, 60, 80 and 40+40 lbs per) acre across all of these plots.

On that soil, the optimum nitrogen rate was somewhere between 60 and 80 lbs/acre and there was no advantage to splitting the nitrogen application.

In both years, the wheat grown after soybeans yielded higher than wheat planted in corn stalk ground, averaging 11 bushels/acre better. This advantage occurred in both a heavy scab year (2004) and a light scab year (2005) and across all tillage systems both years. So this supports the recommendation to rotate wheat after soybeans rather than corn whenever possible, as long as it is within the normal planting time period.

If you do plant wheat after soybeans, our study indicated that all the tillage systems we used produced the same yields. In corn stubble ground, although the differences were small, our wheat yields tended to be a little lower in no-till compared to the other two tillage systems we used.

Another test we did last year was to see what effect the use of tram lines would be in a wheat field. Originally, the plan was to compare both a normal and high input systems, with and without tram lines. In the end, the only added input was higher rate of nitrogen and this did not affect the yield. But the test also showed that leaving out two rows of wheat to form the tramline did not have a negative effect on the yield. So the point is if you wanted to have a tram line to use in case a fungicide might be needed, you probably aren't taking a yield loss if it turns out that disease pressure is low and no application is necessary. In this test we used thirty foot wide tramline spacing. With wider sprayers typically used on farms or with custom sprayers, wider tramline spacing should be even less risky.

Lastly, comparisons of various combinations of different nitrogen materials (urea and ammonium sulfate) and timing (fall and spring vs. spring only) showed no difference in yield for either the grain or straw.

As an extra side note, recall that I mentioned in our July newsletter that hard red varieties of wheat tend to tiller a little less than soft red varieties. So you may need to change the setting on your drill to increase the seeding rate a little bit if you are planting this type of wheat.

John Rowehl, CCA  
Grain Crops

### Forage Supplies Tight For 2005

Indications from forage experts and marketers across the United States indicate that 2005 will not be noted for abundant supplies of forages. Here in Pennsylvania, forage producers noted a significantly short first and second cutting of alfalfa due to extremely dry conditions this spring. Although quality was good due to the lack of rainfall, the total tonnage was estimated to be about 66 to 75% of "normal". Then the drought this summer hit and third and fourth cuttings were equally short across large areas of PA.

In the United States, there was significant winter injury of alfalfa noted across the upper Midwest. I've heard estimates of nearly 700,000 acres of alfalfa being lost due to winter kill in Wisconsin and Minnesota. The drought conditions in the heartland of the United States took a great toll on forage production in what is usually thought of as the Corn Belt but also produces significant supplies of alfalfa hay.

Then sudden dramatic increase in energy costs will have another significant impact on forage supplies and cost. Consider what a doubling of fuel costs will have on the cost of transporting alfalfa hay from Idaho, Kansas, or any other point west and you will quickly realize that forage supplies will be significantly affected. One knowledgeable forage specialist speculated that many forage loads will not make it past the Midwest due to demand and additional costs. Without a doubt, this will greatly impact delivery costs of Western hays and will contribute the local forage supply.

Other options would include feed management strategies. An inventory of existing supplies and an estimate of your herd forage requirements would be a great place to start. Consult with your nutritionist to establish baseline forage requirements and alternative feeding strategies. The sooner these practices are started, the greater the benefit to total forage supplies.

Crops such as rye have been used to stretch forage supplies and to provide soil conserving cover. Next spring you may be thankful for this feed. There may be many thin alfalfa stands that would produce more tonnage of excellent forage if they were overseeded with an annual cereal crop such as triticale. Triticale has been found to be more adapted to growing with alfalfa than wheat or barley due to its maturity but wheat or barley could be used. The key to using these winter grains with alfalfa is to get them planted by mid October and provide a nitrogen top-dress at green up. Typically 50 to 80 pounds of nitrogen have been used.

Another alternative that has increased in popularity recently has been to use barley as a silage crop. Most producers of "barleyage" will harvest the crop when whole plant moisture is suitable for silage storage structures. The entire plant is direct cut with a modified chopper with a small grain head attached. Feed value is

comparable to corn silage. Rapid maturity of the crop will require constant monitoring as the crop develops.

Take time now to inventory your forage supplies. Anticipate shorter supplies and higher costs of most hay crops next spring based on predictions and observations from across the US.

**Paul H. Craig, CCA  
Forages**

### Beekeepers' Plea

The York County Beekeepers is an organization that has worked to support, educate and provide fellowship for Beekeepers in York County for many years. Sadly, their numbers are dwindling and there are not many new faces to replace the old. They would really like to keep the art of beekeeping alive and growing in York County. The present membership has a huge wealth of knowledge to share with any one who is willing to learn. If you are raising bees and would like to learn more about it or if you would just like to give it a try, please consider joining this group. You can get more information by contacting Mary Jo Kraft at Penn State Cooperative Extension, 840-7408 or email at [mnk2@psu.edu](mailto:mnk2@psu.edu). Everyone is welcome.



### No-Till/Soil Conservation Field Day

**Date:** Tuesday October 11th 10:00 - 2:00 PM

**Location:** Future View Farm, Jeff Frey

family, Willow Street, Lancaster Co

**Hosted by:** Penn State Extension, Lancaster County Conservation District and NRCS

Field day topics will include:

- Equipment demonstrations by local dealers
- Crop establishment including no-till seeding and cover crops
- Residue Management and Evaluation - Lancaster Co. Conservation District Staff
- Transitioning to No-till - Sjored Duiker - Penn State Soils Specialist
- Manure application and handling in no-till and reduced tillage.

All are invited to come see and learn what equipment and practices are generating renewed enthusiasm in the areas of no-till and reduced till crop production. Talk with representatives from local equipment dealerships about your specific needs and ideas. Discuss incorporating cover crops into your no-till practices. Pick up tips from other growers on making no-till work for you. Learn how to cut fuel costs while building soil structure and productivity!

Lunch will be provided for those who pre-register by Friday, Oct 7th. Call Lancaster County Extension at 717-394-6851 to register. Future View Farm is just south of Willow Street, on the West side of Rt 272.

**Calendar of State-Wide Events**

- **No-Till Systems Training**, October 4 – 6, Agronomy Farm, Russell Larson Research and Education Center at Rock Springs Agronomy Farm. Contact Jay Braund, (717) 705-4784 for more information.
- **No-Till Soil Conservation Field Day**, October 11, Future View Farm, Willow Street. Contact Jeff Graybill, (717) 394-6851
- **Keystone Crop & Soils School** (formerly CCA School) October 26 & 27, Holiday Inn, Grantville, Everyone welcome. Contact Amy Bradford, (717) 651-5920
- **Pennsylvania Farm Show**, January 7-14, 2006, Farm Show Complex, Harrisburg.
- **Keystone Farm Show**, January 10 – 12, 2006, York Expo Center, York
- **Corn, Soybean & No-Till Alliance Annual Conference**, January 27, 2006, Holiday Inn, New Cumberland

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