

CROP UPDATE 4/17/2009

Iowa State University Extension Information for Southeast Iowa

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**YIELD POTENTIAL FOR SMALL GRAINS DECLINES AFTER ABOUT APRIL
15**

Some drills have been running this past week seeding oats and wheat. Potential yields decline for both oats and wheat about 10% per week for each week planting is delayed after April 15, and an additional 15% per week if planting is delayed beyond May 1. A nice fact sheet on growing spring wheat in Iowa is at <http://www.extension.iastate.edu/Publications/AG202.pdf>.

CHECK ALFALFA FOR WINTER-KILL

I have not heard of any major problems with winter-kill this spring, but every spring there is some alfalfa stand loss. Its best to wait until the alfalfa has about 6 inches of growth to make a final determination on whether the stand is too thin to keep. The stem count method can be used then and is usually more reliable than counting crowns. Optimum yields are obtained with stem counts of 54 or more per square foot (regardless of stand age). Areas with stem counts of less than 40 per square foot (4 crowns per square foot on older stands) usually have enough of a yield loss that they either should be rotated out of alfalfa or inter-seeded to prolong the stand. One option for fields with marginal stands in parts of the field is to try to extend the stand another year or two by inter-seeding red clover, perennial ryegrass, or oats into the thin areas.

**PAYING ATTENTION TO DETAIL DURING CORN PLANTING TIME CAN
PAY BIG DIVIDENDS**

We are approaching the ideal planting window for both corn and soybeans and some corn planters are rolling now. The planting operation is one of the most important influences on the final yield. Small mistakes made at planting time can haunt you the rest of the season. Many producers can get most of their corn planted in about 3-4 days, so starting a day too soon and planting half the corn under marginal conditions usually doesn't make sense. It's best to wait until the soil temperature is close to 50F and increasing before planting corn. Current soil temperatures can be seen at <http://mesonet.agron.iastate.edu/agclimate/display.php?prod=2>.

Some other points to consider with corn planting this spring:

1. Don't plant into wet soils. This can lead to sidewall compaction which can lead to season-long problems. The roots will have difficulty growing through the compacted zone made by the planter and will be pancaked into a flat plane in the direction of the planter. This can lead to uneven corn growth, rootless corn, and K deficiency symptoms due to poor root growth.
2. Don't plant too shallow. When soil moisture is plentiful producers are tempted to plant corn more shallow. For every corn field I see with problems caused by planting too deep, I see a hundred fields with problems caused by planting too shallow. If the seed ends up being less than 1.5 inches deep, problems such as rootless corn and K deficiency symptoms are much more likely to occur. Even if the seed is placed 1.5 inches deep, sometimes the soil can settle after planting or there can be soil erosion so that the plant actually "sees" a more shallow depth. Corn should be planted 1.5-2" deep and error on the deep side.
3. Shoot for corn stands of about 30,000-34,000 plants per acre. Seeding rates around 35,000-36,000 seeds per acre have given maximum net profits in recent trials. Ideal corn seeding rates have been increasing at the rate of about 400 seeds/A/year. Average corn yields per plant haven't changed much in the past 50 years. Most of the yield gain has been from breeding corn that can tolerate an increased population. **If you are still planting the same population you did 10 years ago, you're paying 2009 seed prices and only getting 1999 yields.**
4. Pay attention to details at planting. A little extra time making sure planter settings, seed spacing, depth, and population, and soil conditions are correct can pay big dividends, especially with today's prices.

HOW LONG DO I HAVE TO WAIT AFTER ANYHDROUS APPLICATION TO PLANT CORN?

There is no magic number of days to wait after applying anhydrous ammonia before it's safe to plant corn, but if the anhydrous is injected 7 or more inches deep with a good seal, the corn can usually be planted the same day with few problems. The anhydrous typically diffuses about 2.5-3 inches from the point of injection, resulting in a diffusion zone of 5-6 inches in diameter. If you inject the anhydrous 4 inches deep and plant 2 inches deep, you're planting into the zone and even waiting a week may not solve the problem.

A study done in Illinois showed that even when 200 lb/A of N was injected 10 inches deep, the corn could be planted right over the row the day of application without any affects. When injected 7 inches deep there was some slight stunting of the corn but no stand loss. With a 4 inch depth injection, there was severe stunting and some stand loss. The best way to avoid problems is to inject the anhydrous at least 7 inches deep and where possible plant at an angle to the injection direction so if there is a problem entire rows of corn are not lost.

STILL TRYING TO DECIDE NITROGEN RATES WITH THESE HIGH PRICES?

Although optimum N rates do go down somewhat as N prices go up, it's important to remember that we hopefully are no longer working with \$2 corn. The corn nitrogen rate calculator can help in selecting nitrogen rates. It is based on over 250 N rate corn trials in Iowa. According to the calculator, with \$850/T anhydrous and \$4 corn, an average recommendation for corn on soybean ground is 116 lb/A, compared to 123 lb/A with \$350/T anhydrous and \$2 corn. You can access the calculator at <http://extension.agron.iastate.edu/soilfertility/nrate.aspx>.

FOR YOUR CALENDAR

SPRING FIELD DAY & SPECIAL SESSION FOR CCAs SE IA RESEARCH FARM – CRAWFORDSVILLE JUNE 24

Certified Crop Advisors can obtain 5 hours of credit (including 3 hours of soil and water) by attending a special session in the morning followed by the afternoon tour at the ISU SE Iowa Research & Demonstration Farm near Crawfordsville on June 24. More details will be posted soon.

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