



Agronomy Notes for the Week Ending May 4, 2013

In the last week we have received roughly .5 to 1.3 inches of rain and 4 to 18 inches of snowfall that occurred Wednesday night and Thursday. (Snowfall and rain amounts were location dependent, with the Southern areas receiving heavier snowfall amounts.)

Soil temperature in the last week has fluctuated from 34°F-71°F at the 2" depth and 36°F-60°F at the 4" depth. (This information is from the U of M SROC in Waseca.) The high soil temperatures at all depths were on Tuesday April 30, with the low soil temperatures coming on Saturday May 4th. Soil temperatures at the 20" and 40" depths were increasing prior to the snow event and averaging around the 40°F for the week.

<u>Depth</u>	<u>Soil Temperature</u>	<u>Average</u>
2"	34°F-71°F	52.5°F
4"	36°F-60°F	48°F
8"	38°F-54°F	46°F

Soil moisture is at the 3'-5' depth with the moisture being deeper in lighter soil types.

Corn plant development is germination (10-15 GDU's). Growing Degree Units accumulation is 25 GDU's for an April 30 planting date.

Total GDU accumulation for the week was 50, with an average daily GDU accumulation being at 7.14. The average daily GDU accumulation for the first few days of May is 7.5 GDU's.

<u>Planting Date</u>	<u>GDU'S</u>	<u>Plant Stage</u>
30-Apr	25	Germination

Planting Depth- By keeping planting depths at 1.5-2 inches you allow the corn seed to germinate and grow with less temperature and moisture variations than shallower planted seeds. (By shallowing the planting depth to less than 1.5 inches the plant root system will not develop normally and will increase yield reduction due to drought, wind, insect damage, and herbicide interactions.) It is a standard recommendation to increase planting depths $\frac{1}{4}$ to $\frac{1}{2}$ inch more than your desired depth to insure that after the soil settles you are at your intended planting depth.

Corn Germination Issues- Germination scores on almost all hybrids this year have been reduced due to the extreme growing conditions that we experienced last year. Most seed companies have recalled some lot numbers and hybrids due to germination issues. My concern for this planting season is that we

need to increase our plant populations 500-1000 seeds over our planned rates due to the reduced germination scores on all companies hybrids. I am most concerned about companies that have not recalled any hybrids, and I am recommending that those hybrids be increased a minimum 1000 seeds over planned rates. This is especially important on hybrids that are 105 day maturity or greater, and have a tendency to hold their moisture. In most instances those hybrids have more of a southern type genetic and are slower germinating.

Looking past genetics and hybrids I would be more likely to increase plant populations on a hybrid that came in a round seed size or in particular a Large Round seed size vs. a flat seed size. This recommendation is based on having better germination on flat seed vs. round seed.

By increasing your plant population you are increasing the likelihood for a viable plant and maintaining yield potential. The decision to increase a plant population on both corn and soybeans is a topic you should have with your Central Valley Agronomist, you may have already factored in a reduced germination when placing seed for your fields.

Germination aids- In the last few years new products have entered the marketplace that increases the germination of corn plants. Considering that some of the better quality products can speed up emergence as well as tassel emergence by 2-3 days, it is strongly recommended that products like Ascend be used to help with emergence. (A short clip under Ascend Video has been posted on www.centralvalleycoop.com that shows the increase in the speed of germination and tassel emergence.) If you have more questions regarding the how germination aids work please contact your local Central Valley Agronomist.

Soybean Germination Issues- Much like corn, soybean germination scores have been all over the board, and our extreme growing conditions last summer, coupled with lower moisture content soybean being combined last fall, have affected germination. To counteract the reduced germination increase your seeding rate 5,000-10,000 seeds per acre and use a quality seed treatment. Not all seed treatments help germination and increase stands.

Talk to your local Central Valley Agronomist, to review the right seeding rate, and what seed treatment is the right product to use for your farm.

Planting Decisions- As an Agronomist, I advise growers to look at soil conditions and not the calendar when making tillage and planting decisions. A common practice is to keep the same corn hybrids that you planned on planting until May 15 then start looking at earlier day hybrids. At the present time, I would stick with the hybrids that you planned to plant with until May 20, unless you are working with hybrids that tend to hold their moisture in the fall, or if the hybrid is a 107 day length or more but is marketed as a 105 day length hybrid.

Why stick to the plan?

1. Yield- The hybrids you planned are the highest yielding for your farm.
2. Supply- There are hybrids to choose from but they may not be your first choice.

3. Harvest issues- Your hybrid plan was set up so you could reduce the potential for harvest issues. By moving to earlier day hybrids you may increase the likelihood of issues.

Going back to the year 2000 with an average planting date of April 20, we accumulate on average 199.38 Growing Degree Units (GDU's) from April 20 to May 15. If you use 18.5 GDU's per day it takes 10.77 days to make up those 199.38 GDU's. When you factor back in that you are generally warmer in May vs. April you are closer to a 5 to a maybe 7 day difference.

So the question is are you going to change all of your plans for a 5 or 7 day difference?