

# Pioneer Agronomy Update 5-31-2024



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## Area Update ... that Awkward Teenage Stage –

Everyone calls it the ‘ugly duckling stage’ of corn. I had to come up with something DIFFERENT!!! Kinda like 8<sup>th</sup> grade when some of the guys look like men and others still look like boys. And the girls... I’m not going there 😊.

April planted corn is going through an awkward phase as it transitions from relying on the seed & seminal roots to the nodal/primary root system. If conditions allow for normal healthy development of nodal roots corn doesn’t miss a beat. In areas where nodal root growth is restricted due to sidewall smearing and/or compaction they’ll begin to fall behind those plants without such challenges.



There may be spots of the field that you knew weren’t quite ready when you tilled or planted, and you thought you got away with one when all the corn came up just fine. Not so fast, those plants may begin to struggle as they begin to rely on those nodal roots attempting to grow in tight or compacted soils. Timely rains may help alleviate the impact of sidewall smearing. But some sins will remain through harvest.

### 2024 Growing Degree Units April & May Planting Windows

Location	4/13 – 5/30	4/24 – 5/30	5/12 – 5-30
Winthrop	403	338	218
LeSueur	439	370	237
Mankato	449	377	239
Mapleton	452	384	238
Waseca	401	337	215

## Rolling Emerged Soybeans –

Weather or field conditions have prevented some farmers from rolling their soybeans prior to emergence. It’s NOT TOO LATE you still can safely ‘roll emerged soybeans’ with a few added precautions:

- Smooth rollers are recommended do not use coil or Brillion type rollers
- Roll in the afternoon, during the heat of the day when plants are more flexible & supple
- Roll emerged soybeans prior to the 3<sup>rd</sup> trifoliolate stage to minimize plant damage. 1-2 exposed trifoliolates is ideal.
- Avoid rolling soybeans when they are damp as they may stick to the roller and be pulled out of the soil
- Control wheel damage by configuring tractor tires and roller width to minimize plant damage



FINAL THOUGHTS on rolling ... it’s going to make you ‘pucker’ the first time you roll emerged soybeans. Just know that if you follow the above suggestions and use some common sense it will work just fine. I have yet to see a guys wreck a field rolling emerged soybeans. Then again, there always is a first time! 😊

See page three for an entertaining story on rolling soybeans ...

**Herbicides & Crop Height Restrictions in Corn –** Rain, wet fields and windy weather have delayed post emerge herbicide applications in many fields. Fueled by warm temperatures and ample moisture corn AND weeds are growing fast. As corn approaches V6 you will want to watch closely. I was in an early planted field on Thursday that was already to V5. By next week that field will be at V6+. Attached below is a modified chart from Cornell University listing over the top maximum corn height on the product label. The label is the label. My personal thoughts on some growth regulators such as DiFlexDuo and Status is that those heights are a little generous. I have said in the past: **“Just because it is on the label, doesn’t mean it’s a good idea.”** Just saying ...

Product	Height or Growth Stage Cutoff
Accent Q	20 inches or V6
AcuronGT	30 inches or V8
Anthem Maxx	Up to V4
Armezon Pro	30 inches or V8
Atrazine	Up to 12 inch corn
Callisto	30 inches or 8 leaf stage
Capreno	V6
DiflexxDuo	36 inches or V7
HalexGT	30 inches or V8
Impact	Up to 45 days prior to harvest
Laudis	V8
Liberty (corn resistant to Liberty)	Up to 24 inch corn or 7 leaf collars use drops 24-36”
Realm Q	20 inches or V7
Resicore	Up to 11 inch corn
Status	Up to 36 inch corn or V10
SureStart II	Up to 11 inch corn
	** Always read and follow label instructions

**Corn Rootworm Egg Hatch UPDATE -** As of May 30th there have been 707 Corn Rootworm GDUs base 52 degrees. 50% egg hatch typically occurs around 680 - 750 GDUs. So, we’re getting close to potentially seeing larva activity on corn roots soon. Several farmers have asked recently whether the wet weather and saturated soil conditions might have a negative effect on survival of newly hatched rootworm larvae. Larval survival depends on many factors, including soil type and soil moisture.

- **Compacted soils** can cause starvation if soil pores and channels are too small for rootworm to move through
- **Flooded or Saturated soils** can potentially result in larvae drowning or failing to find a host plant. Young larvae are attracted to CO2 released by corn plants and move through the soil to locate corn roots. Larvae typically move 6 inches to find food, but can move as far as 18 inches if need be.

(photo rootworm larvae – Pioneer Agronomist Troy Duetmeyer)



**Black Cutworm Update –** As I have mentioned the past several update, significant black cutworm moth flights occurred in late April and earlier this month.

In his May 28<sup>th</sup> weekly Black Cutworm Update IPM Specialist Bruce Potter of the SWROC at Lamberton shared the following comments of Black Cutworm activity:

Many larvae are now large enough to cut small corn with some of the larvae from the earliest moth flights may be already at the 5<sup>th</sup> larval stage (instar). The degree days models seem to be tracking well in eastern Brown County.

In spite of the active moth traps this spring, I have not heard of any more cutworm issues. Black cutworm moths tend to lay eggs in low-laying weedy areas standing water may have drowned a few larvae. Many early planted fields will soon be 5 leaf too large for even late instar larvae to cut.

**How much nitrogen have we lost with our heavy rains?** This has been a growing concern over the past several weeks since heavy rains, saturated and ponded soils. Similar in fact to conditions a year ago, with one exception: last year the rains came to a halt around May 20<sup>th</sup> and never returned. So, what ever we experienced a year ago may not apply to 2024 should the rains continue.

I want to lead off by saying that this is a complicated question with many variables involved and no 'one size fits all' answer. Therefore, after you read this article, I'd gladly try my best to provide some guidance to you as you decide what to do on your farm. Until recently soil temperatures had remained relatively cool (below 70 degrees) slowing the conversion of ammonium to nitrate nitrogen. Nitrate being the most vulnerable form of nitrogen prone to leaching or denitrification. As soil temperatures rise the conversion nitrate occurs faster. AND in saturated soils the risk of losses due to denitrification increases. The table below courtesy of Pioneer Strategic Account Manager David Pfarr illustrates loss potential under saturated soil conditions.

**Rate of Nitrate Loss from Denitrification**  
Based on Soil Temperature & Length of Saturation

Time	60°	70°	77°
4 days	6%	12%	20%
10 days	12%	26%	43%

Dave has made the following observations: Referencing soil temperature data at the 8" and 20" depths at the Southern Research & Outreach Center at Waseca. *May soil temps were still favorable for controlling denitrification but that will certainly change as we get into June.*

We will continue to provide updates on nitrogen status.

In NEXT week's Update we will discuss the impact of: Sources and Timing of Nitrogen Application and relative risk of losses based on conditions this spring.

**Wisdom about Rolling Soybean from 'ALBERT'** - In my pre Pioneer days as a Crop Consultant a customer of mine Albert and his wife Evy farmed near Dennison, Minnesota. They farmed just shy of 200 acres with 'classic' Case tractors. They would drill their soybeans with an old grain drill. Albert consistently had great soybean stands and yields. One year a young neighbor farmer commented on Albert's beautiful soybean stands and asked what his secret was. Albert told him that after they drilled their soybeans he always rolled them with his culti-packer, and that was the secret to his success.



Next spring the young farmer tried Albert's method, only to be disappointed yet again by poor soybean stands. So he drove by Albert & Evy's to check out their soybeans. Sure enough Albert's beans looked beautiful. Bewildered he stopped by and told Albert that he had done just like he (Albert) always does but his stands were poor. Albert chuckled then replied: *"Well everyone knows you don't roll soybeans in a wet spring!!!"* True story ...

**NEXT week ... Tips for Success with the Enlist Herbicide System**



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**Have an UNBELIEVABLE Week!!!**

