

The Headlands Quarterly

March 2023

Channel® 
SeedsmanShip At Work®

You're Invited!

**Channel Grower
Agronomy Meeting**

Wednesday, March 15th, 2023

- > Corn Rootworm - Staying ahead of them in 23'
- > Tar Spot - Should we be concerned?
- > The Future Looks Bright - Channel Pipeline
- > Risk-Management Strategies for Corn/Soy Marketing
Featuring Matt Bennett - co-founder of AgMarket.Net

March 15th, 2023

WHERE: Redwood Falls Community Center
901 E Cook St.
Redwood Falls, MN 56283

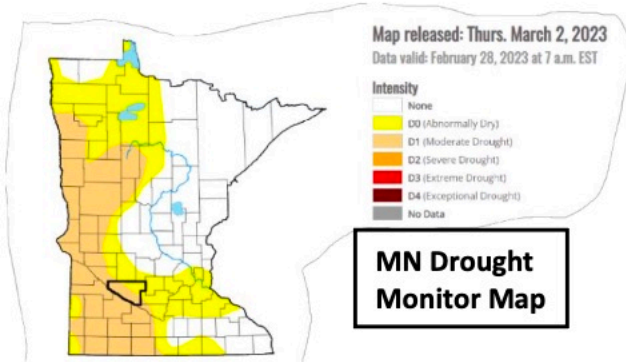
TIME: 9AM - Noon w/ Lunch to Follow

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Frost & Recharge

We've officially entered that part of the year where meetings, appointments, and trips to the local gymnasium have filled our calendars. We're at that point in the season where we start to have an internal conversation on "why didn't I move the snow pile further back in December?" It's March though, and there's light at the end of the tunnel and when that sun shines, we can tell it's got a little more power than it has had in weeks past. On the topic of weather, I had a chance to listen in on a webinar presented by the University of Minnesota highlighting the last few months of our weather pattern. Record snow fall in December-January, multiple days of fog, and a heat wave were some of the things covered by Pete Boulay of MNDNR Climatology. One of the most interesting topics was his discussion on the potential soil moisture recharge that we can usually see with this weather. From early fall to late winter, we have had the opportunity to replenish soil moisture in our soil profile and a lot of this is hinged upon the frost depth. After the ground freezes we can see anywhere from 5-50% recharge based on frost depth, because we currently have little to no frost in the soil profile due to a greater than normal snow accumulation, we could be seeing closer to the 50% recharge. Add that to the October-November moisture we collected prior to freeze up and we are in a favorable position coming into this spring. To help illustrate some of this I pulled in real-time frost depth readings from the U of M Lamberton, MN Southwest Research & Outreach Center. At this location they placed a tube in the ground "under sod" and "bare soil" (similar to an open field) where they take measurements on how many inches deep the frost is. A quick glance at these readings and you'll quickly see that our snow cover has created an insulating effect as we have less frost than a year ago. Furthermore, it has been stated the frost that is out there can easily be broken up and does not seem to be the intensive hard solid layer we've found in past years. There is no question that winter is still upon us, but it is encouraging to know we are capturing much of this moisture versus the extensive runoff that is sometimes seen. Now, if only I knew a Bohemian that could tell me what this all meant...



U of M Frost Depth Readings

2023	Under Bare Soil	Under Sod	2022	Under Bare Soil	Under Sod
Jan. 3, 2023	22"	0"	Jan. 3, 2022	21"	6"
Jan. 9, 2023	24"	0"	Jan. 10, 2022	25"	9"
Jan. 17, 2023	24"	0"	Jan. 17, 2022	27"	11"
Jan. 23, 2023	22"	0"	Jan. 24, 2022	28"	12"
Jan. 30, 2023	22"	0"	Jan. 31, 2022	31"	13"
Feb. 6, 2023	24"	0"	Feb. 7, 2022	33"	13"
Feb. 13, 2023	26"	0"	Feb. 14, 2022	34"	14"
Feb. 20, 2023	26"	0"	Feb. 21, 2022	36"	14"
Feb. 27, 2023	27"	0"	Feb. 28, 2022	38"	14"
Lamberton, MN - Southwest Research & Outreach Center					

Dealership News

New Year New Products

With every new growing season comes the introduction of new corn hybrids and soybean varieties. Some years there are more than others, but the mission is always the same for product managers...advance a hybrid/variety that brings genetic yield gain over the current offering. It sounds simple but it can be quite complex as now you need to balance what you currently have supply for and what room do you have to grow a newer one. In our area, Channel will roll out **NINE** new corn hybrids ranging from 93-104RM. From a soybean perspective Channel will continue to have two herbicide trait offerings; Channel XtendFlex and Connect Enlist. This year we will see four new XtendFlex and three new Enlist soybean varieties ranging from 1.0 - 2.1MG. Some of these products fill a perceived gap while others compliment what you may already have on the farm. For 2023 we'll have these hybrids/varieties in plots where I will put them through the "agronomic wringer" to better understand how they perform in our soil types and environment.

Protection to the 4th Power One of the most exciting parts with Channel corn hybrid's is being hitched to the trait powerhouse that is Bayer. The pipeline is deep, and we continually get to see new insect protection and even new production systems. The latest launch that we'll be looking at this spring in plots is VT4PRO. This newest trait offering for corn is providing all the above ground insect control you are used to with the TRECEPTA offering while adding the



RNAi technology for corn rootworm protection. You may have heard about RNAi technology as its used in our SmartStax/SmartStaxPro offering providing an increased level of control for northern and western corn rootworm. An example of where I can see the greatest use for this is in the rotated acre where we've been a single year out from corn and might not fully understand the rootworm pressure that may be present. Prior to this we've only had two options - Option A; you go out with a VT2PRO/TRECEPTA product but then you have NO below protection from CRW. Option B; you go out with a SmartStaxPro which will have the most protection possible for CRW but you may be paying for an extra trait load you wouldn't necessarily need. That is where VT4PRO comes into play, it will provide you with the control you need for those low-moderate pressure fields. There will be more to come with this technology and ultimately it needs to be paired with the correct genetics but in the near term we'll have some great opportunities to look at it in plots for 2023.

VT4PRO™ WITH RNAi TECHNOLOGY

THE NEXT GENERATION OF CORN PROTECTION

Channel
Seedmanship At Work



STRONG ABOVE-GROUND CONTROL WITH THE LATEST CORN ROOTWORM DEFENSE FROM BAYER

VT4PRO™ with RNAi Technology* will provide a top-to-bottom defense backed by a **broad spectrum of protection** against corn insects. It will offer another choice for farmers looking for products that will provide root protection in low to moderate corn rootworm pressure conditions.



RNAi TECHNOLOGY: A DEFENSE UNLIKE ANY OTHER

Bayer is the first to offer farmers RNAi Technology to help fight corn rootworm. This **specific mode of action** works by interfering with the pest's ability to create a specific protein critical to its own survival, effectively causing mortality after ingestion.

Because RNAi Technology works differently than a soil-applied insecticide or Bt traits, it can increase a corn plant's ability to defend itself.

PROVEN HERBICIDE TOLERANCE

- VT4PRO Technology will contain Roundup Ready® 2 Technology
- Allows the plant to withstand glyphosate treatments

3 ABOVE-GROUND MODES OF ACTION FOR BROAD-SPECTRUM PEST PROTECTION

Built on proven Trecepta® Technology, VT4PRO Technology will help reduce yield loss by defending against a wide range of above-ground pests.

 FALL ARMYWORM
  CORN EARWORM
  SOUTHWESTERN CORN BORER
  WESTERN BEAN CUTWORM
  BLACK CUTWORM
  EUROPEAN CORN BORER

2 BELOW-GROUND MODES OF ACTION INCLUDING RNAi TECHNOLOGY

RNAi Technology is the latest defense from Bayer designed to help manage corn rootworm in a new and specific way.

 CORN ROOTWORM

Seed Treatment Offerings

As I mentioned in a previous newsletter, I have the equipment to treat both corn and soybeans this spring through a box-to-box treater. For 2023 I will offer Acceleron Standard seed treatment which consists of both fungicide and insecticide components. This package offering has proven itself to be a leader in the seed applied industry. The fungicide has three different active ingredients in it; prothioconazole, penflufen, and metalaxyl targeting the most challenging early season diseases in our soil types such as Pythium, Fusarium, Phytophthora, and Rhizoctonia. The insecticide component in this combo has been very effective in delaying the need to spray for an early aphid infestation. Call me in advance to book your seed treatment needs.

2023 Soybean Seed Treatment Pricing



Fungicide/Insecticide---\$10/unit



(White Mold) -----\$4/unit

Inoculant-----\$6/unit

March 2023

Agronomy Update

It is what we know already that often prevents us from learning. – Claude Bernard. I don't wrap-up e-mails with quotes, and rarely do I ever slip a philosopher's famous words into our discussions, but I thought that this one was a great way to capture the need to continuously learn. As an agronomist, I try to use this time of the year to take in several informational meetings and conferences. Ultimately, these will help with conversations you and I have about increasing ROI, increasing yield, and being a better steward of the land. I made a point to take in a few this winter; AgVise Soil Labs winter conference, Precision Planting clinic, Crop Tech's Corn College hosted by Ken Ferrie, and University of Minnesota's Winter Research Update. At all these meetings the speakers shared their past years data and findings but there was one common theme across multiple states. Can you take a guess at what that may have been...? **Sulfur** in our corn crop. Sulfur management, sulfur's role in the plant, and sulfur sources were discussed at every one of those meetings. The reason why? Mainly, because of two big factors – we have embarked on a green revolution (cleaner factories & cars) resulting in less sulfur deposition and we are taking more out of the soil with our corn crop than we have been putting back in. Sulfur isn't a new topic; it's been extensively researched and tested but guys like Dan Kaiser from U of M and Ken Ferrie of Crop-Tech are revisiting this macronutrient and its impact on our overall corn yield. Sulfur comes from several places, but major contributors are soil organic matter, subsoil sulfate, atmospheric deposition, and manure. Because sulfur is mobile, (similar to nitrates) soil testing has not proven to be very useful in understanding how much you will need. Instead, utilizing soil organic matter (OM) levels is one of the best indicators on if it is needed and at what amount. Below (Table 1) I share what this likelihood of response is based on organic matter concentrations. Locally, many of our soils fall into the 2-4% OM which would tell us there is a "moderate probability" but most recently there has been discussion digging deeper into the mid-level range that may have a greater probability due to not having the "sulfur bank" we had 5-10 years ago.

Sulfur Management – Cause & Effect

- Clean Air Act has drastically reduced Sulfur in atmosphere
- Increasing corn yields have not left much for reserve in soil.
- Corn requires roughly a 7:1 Nitrogen to Sulfur ratio..
- Sulfur is prone to leaching – applications should coincide with crop growth.
- Implement 4R's – Right Rate/Right Time/Right Place/Right Source

Sulfur Deficiencies

- Stunted Growth
- Delayed Maturity
- General Yellowing of Whorl
- Striping on Leaves

Sulfur Uptake

- 10% prior to V5
- 50% from V5 to Silking
- 40% from Silking to Maturity

Table 1. Likelihood of Sulfur Response in Corn	
OM% of Soil	Expected Response to Sulfur
0-2	High Probability
2-4	Moderate Probability
>4	Low Probability
<i>Sulfur for MN Soils, Daniel Kaiser, Extension Nutrient Management Specialist</i>	



Sulfur Deficient Corn – Sulfur for MN Soils, Daniel Kaiser, Extension Nutrient Management Specialist

There's not nearly enough room to fully cover Sulfur and I'm not about to make this a multi-page deep dive but as you read the above highlights, ask yourself – with increased corn yields and our shift to becoming a cleaner environment what are you doing to address your season long sulfur needs? I believe this takes more than a simple blanket application of elemental sulfur in the fall. If our goal is for corn to never have a "bad day" we need to make sure the most productive areas within that field are getting the sulfur that is needed. Lastly, we need to be continuously learning and revisiting topics. Even a nutrient that has been extensively studied like sulfur, there is still an opportunity to better understand timing, rate, and source for maximum efficiency.

Did you make it all the way to the end of this month's newsletter?!? Let me know & I'll hook you up with some free Seminis RR sweetcorn seed!

Obsession II
- 81 Day

