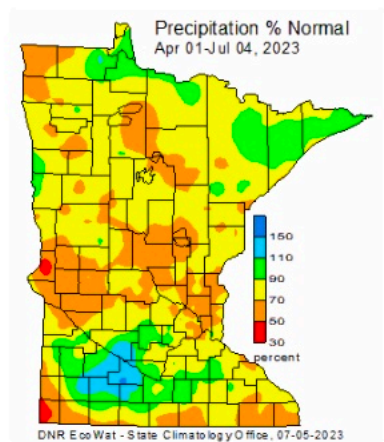


The Headlands Quarterly

July 2023

GDD Cumulative				
City	Since 5/6		Forecasted	
	Current	Historical	Blacklayer 199-45VT2P	Blacklayer 207-87VT2P
Benson	1232	997	Sept 17 th	Oct. 12 th
Renville	1204	1017	Sept. 20 th	Oct. 16 th
Redwood Falls	1206	1035	Sept 18 th	Oct. 11 th
Created using U2U Decision Tool-Corn GDD & Historic Climate.com data 7/12				



Save the Date!!
Saturday, September 9th
Customer Appreciation Event
(Invitation to follow)

GREG HAUBRICH
22554 800TH AVE
RENVILLE, MN 56284

The Headlands Quarterly

July 2023

Spring Recap

A quick look back at my scouting notes and it's easy to find "great seed bed conditions" and "good furrow" comments. You as a grower may have even added- best conditions for corn planting we've had in a while. Which for 90% of the field was true but as the heat units accumulated and corn started to emerge it was evident that there was some lingering moisture combined with a cooler seed bed that had challenged early seed development. These areas were small and predominantly in the draws or low-lying parts of the field. Quick decision making on your part lessened the severity of these issues as many could be fixed with a rotary hoe or spiking in. I was pleased with final stands this year; we didn't see the large swings from a specific planting date. The first week of June we had corn reaching V4-V5 stage and started to see some floppy corn/rootless corn show up. Most of my findings on this weren't due to side wall compaction or seed depth but instead I felt this was from a week of 90°F heat, south winds, and a very mellow top inch of the seed furrow. We had a corn plant with rapid vegetative growth that for a week bobbed around in dry dirt never allowing the nodal roots to take hold. These areas were minor and ended up affecting a small percentage of the stand. And then there were soybeans.... It wasn't until recently that they've started to look better. Every year they look ugly in June but man, this year it seemed to linger. A major culprit? Herbicide carryover. You start to string together a couple years of drier than normal conditions with late(r) applications of growth regulators or HPPD's in corn and we can see it carryover into our soybean crop. Most fields have gotten through this ugly phase, but I can't help but think how this affected them when they first started to initiate flowers. All in all, we have an excellent crop with a weather pattern that has provided the needed heat units.

Dealership News

Digital Stand Counts

A year ago, you may have recalled that I started to incorporate a UAV/drone into your late season scouting notes. After a couple of different wind events this piece of equipment worked well providing a 400' – 360° view of differences or patterns throughout the field. This spring I took it a step further and experimented with a software program that can take stand counts throughout the entire field while flying. I'll briefly explain how this works...

DJI Mavic 3E – Introduced a year ago, this drone has the capabilities for 45-minute flights on a single battery, 56x zoom and RTK positioning. Using this set-up, I can fly an 80-acre field with one battery in about 15-17 minutes. A pre-programmed flight is uploaded into the remote controller telling the drone where field boundaries are located and that its maximum altitude height is 50'. The drone will fly at 15 mph zig zagging its way through the field while taking a series of pictures (Figure 1). All safety settings are integrated into the drone so if I lost signal, battery is running out, or even if wind is too high it will alert me through controller and return to "home position".

FieldAgent/Sentera – After the flight is complete, I end up with multiple photos. These are then uploaded into a software program called Field Agent from Sentera where they get stitched together for a more usable map. The final process is the algorithm that counts these plants within the overlaid grid. Let me repeat that... every single plant gets counted in every picture that is stitched together. Gaps are given a zero and doubles are counted as one. The result is an entire field level plant population map.

Requirements – For accuracy, corn staging needs to be at V2 or 4" from leaf tip to leaf tip – this way it can identify leaf area as well as gaps between plants. I input row spacing along with what the average seeding rate was and it creates the map.

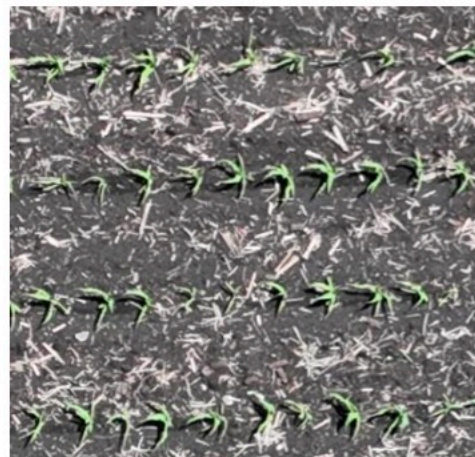
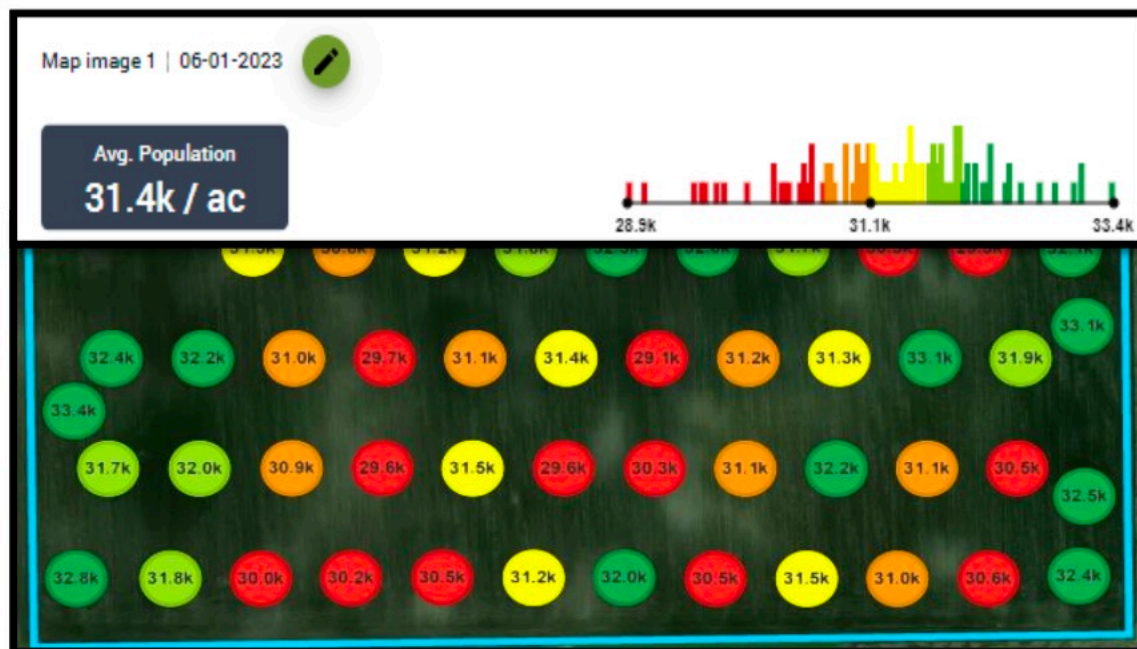


Figure 1 – V2 Corn Stand Count photos taken from an altitude of 50'

So, why is this important? There is certainly a “coolness” factor but at the end of the day how does this deliver value back to you as a grower? I believe that this provides an increased understanding of field level stand counts. It’s the clearest picture of early season stand establishment one has without sending a crew of

scouts to step off 1000th of an acre. Never have I rode a field where you as the grower planted 34,340 plants per acre and 21 days later have that as a final stand. Mother Nature happens, mechanical challenges occur, and ultimately, we are working with a living organism. This sets the stage on areas of the field that need attention, and which don’t. It also validates the seeding prescriptions that you’ve incorporated. I am still a firm believer in boots on the ground stand counts but they are only single data points within the field and the efficiency this creates can help with quick real-time decision making during the busiest part of the season.



If you want to learn more about these features and how they might be incorporated into your operation reach out to me or look in to the [Sentera.com](https://www.sentera.com) website where it will explain in detail the analytical features.



Bayer Short Stature corn @ V10 (Left) & Channel 195-85DGV2P @V10 (Right) – Renville, MN 7/8/23

Short Stature Corn

Short stature corn, SMART corn, PRECEON, dwarf corn... Honestly, I don't care what you refer to it as because at the end of the day its downright cool technology coming out of Bayer's corn pipeline. I know I've talked about the features and benefits in past newsletters but for the first time we now have this planted in large(er) scale, in our backyard. This spring I partnered up with a couple of local growers to plant two 106-day SmartStax and VT2P short stature corn hybrids. In the large-scale trial, it was planted at 35,000 ppa and 44,000 ppa to better understand its performance under high densities as well as soil type interaction. As a reminder this technology will have a target plant height of **7' or shorter** while keeping the ear height at **2' or higher**. The number one question I get on these hybrids is "what about yield?" in short (no pun intended) ... these products will go through the same advancement process as does all our other Channel products – it must bring yield gain over current line-up otherwise it doesn't make the cut. I've included some photos from the Channel show plot located on the west side of Renville. At this location we will be showcasing both VT2P and Smartstax short stature corn genetics from Bayer.

July 2023

Agronomic Update

Finishing Strong

There is a lot of season left and in my travels the last few weeks I've come to the conclusion that our crop locally is some of the best around. Yes, some of us have caught a few more pop-up showers than most but overall, we have a great looking crop heading into the later part of the season. So, what's next? What areas should we be focusing on and thinking about as the crop finishes? To keep it in an easy to digest format I thought I'd break it down over the next 30 days.

Corn

Next 30 Days

Funigicide App – Target R1 (Silking) to R2 (Blister) for optimum coverage. Refer to the table for Channel Hybrids that I would recommend we spray. Remember we are PROTECTING yield potential with these applications, not adding. One other thing to keep in mind is tassel emergence and evenness of the field. Locally our area has some unevenness due to an early dry season. Review your list of fields and if there are large areas or replanted acres where tassels have yet to emerge pay close attention to surfactants – utilize products that are NPE Free surfactants (Masterlock). These will not cause issues w/late season ear development.

Hybrid Focus-Length & Depth – High ear flex hybrids have big yield gain *if* there isn't high stress during their susceptible stage. Hybrids flex by girth, length, and depth. As we go into the next 30 days the hybrids that flex length (R1-R3), and depth (R3-R6) are ones that I want to concentrate on mitigating as much stress as possible. In doing so these hybrids will really perform. In past years a few of the Channel hybrids that fit this category are 201-14VT2P, 203-70TRE, and 207-87VT2P. If you'd like to learn more on this topic, give me a call or stop by and we can discuss it.

Beetle Bomb/Tracking CRW – First and foremost for this year's crop is watching to see if silks are getting clipped by CRW beetles. Shortly after CRW beetles emerge they look for a food source, the freshly emerged silks on R1 corn are their all-you-can eat buffet. If we see them clipping silks within a ½" of ear tip, we need to spray and remove them. Spraying before this is not a recommended practice. Part two is understanding your potential for CRW in *next year's* corn crop. If you plan on raising corn on corn in 2024 and want to get a better handle on CRW pressure in those given fields, please reach out to me. I am working in conjunction with the U of M to place sticky traps and track CRW emergence over a 5-6-week timeframe. If interested, I will set up 4-5 traps in your field and track weekly the number of beetles emerging and species which will ultimately guide us this fall in our discussion on what traits will be needed for the 2024 crop.

Soybeans

Next 30 Days

Herbicide label restrictions/Stress – Soybeans are made in the later part of the season, so it only makes sense to reduce any extra stress from here on out. One really, really easy way to do this is to not *throw in some* herbicide when spraying fungicide or insecticide. Too many times I'm seeing this done and its causing crop response or injury. Not to mention its off label when talking about Liberty/Round-Up/Enlist applications.

Fungicide App – Target applications at R3 (Beginning Pod) *July 24th timeframe* – R4 (Beginning Seed). If applying by ground 20gpa @ 60 psi flatfans w/canopy penetrant deposition agent. Use a fungicide with multiple modes of action – there is documented resistance to single modes with Frog Eye leaf spot.

Spider Mites/Aphid – These two continue to give us challenges, mainly because the insecticide toolbox is getting smaller. Remember that spider mites thrive in drought conditions. Many insecticides only control adults (not eggs). Go early and stay ahead of them– Best control is when they are present on field edges and before they lay multiple generations.



Recommended Hybrids
197-66VT2P
199-60STX/TRE
201-14VT2P
202-24STX
203-70TRE
205-70STX
207-87VT2P

Greg Haubrich

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