VOLUME 3
ISSUE 3

SUMMER
2022

Quarterly
Newsletter

*the*SeedScoop

In this issue:

Upcoming Dates

June 30th
Early Discount Entry Deadline for NCGA Yield Contest

July 29th
Santa Fe Agri-Leader 12th Annual Golf Classic
www.SantaFeAgriLeaders.org

August 16th
Customer Appreciation Lunch

August 17th
Final Entry Deadline for NCGA Yield Contest

September 10th
Entry Deadline for Missouri Soybean Association Yield Contest

September 30th
Deadline to spend TruChoice chemical prepay funds

SUMMER REMINDERS

Planting season has wrapped up for the most part, with only double crop soybeans left to plant in our area. Here's a few summer reminders to keep in mind over the next several weeks.

WHEAT SUPPLY | Wheat supply is typically limited, especially as we continue later into the summer. However, with the price of wheat this year, wheat demand is significantly higher than previous years. If you haven't placed a wheat order yet, give us a call as soon as possible so we can get enough supply spoken for.

CEREAL RYE | If you think you'll be putting in cereal rye (or other cover crops) this fall, please give Jeff a call and let him know approximately how many acres you will be seeding so we can get an order placed.

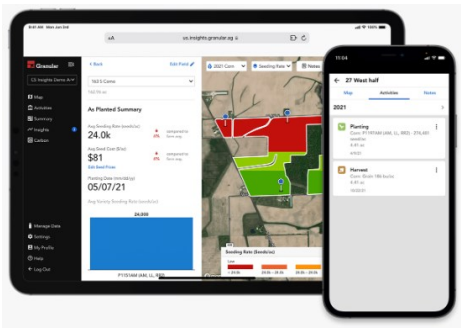
YIELD CONTESTS | If you would like to enter one of your corn hybrids or soybean varieties into the NCGA or MSA Yield contests, please let us know so we can get you entered before contest deadlines pass (see dates to the left).

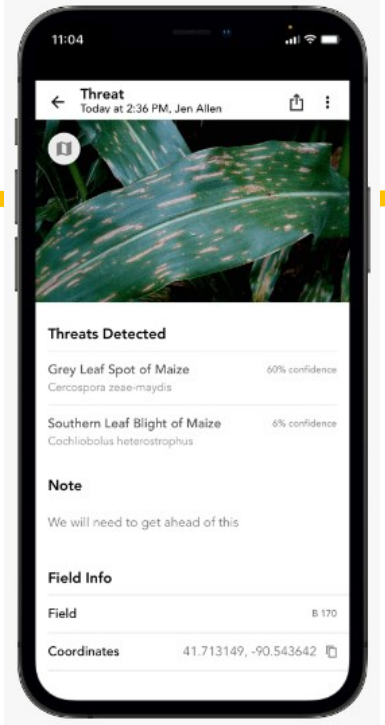
APPRECIATION LUNCH | We plan to host our customer appreciation lunch this year on Tuesday, August 16th, from 11:00am to 1:00pm. Plowboys BBQ will be catering the meal. For those who can't stay and eat, we will have to-go boxes available like we have in the past. Look for more details over the next few weeks.

THANK YOU | Overall, it was a smooth planting season with far less replant challenges compared to last year. We want to thank you again for your support and choosing to do business with us. Please let us know where we can be of service to you during the summer months. If there's any fields or test plots you want to look at, please don't hesitate to reach out.

GRANULAR INSIGHTS

We wanted to remind everyone that the Pioneer Seeds App is retired, and everything has been moved to Granular Insights for a more streamlined process. Granular Insights can be accessed on a computer, tablet, or mobile device. Within Granular, you're able to view your fields, planting data, and harvest data. Other useful tools within the app include the Yield Estimator Tool and Threat ID (which helps detect and identify diseases within a field). Pioneer Platinum customers also have access to the Directed Scouting Tool (prioritizing fields that need attention) and Field Satellite Imagery (which shows the vegetation index). Create a Granular Account on your computer or mobile device, and let us know if you have any questions.





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PRODUCT SPOTLIGHT

P1027AM

P1027AM is a high yielding, offensive product. Emergence appears to be quicker compared to P0953AM. This hybrid will work well on productive acres and be a good companion to P0953AM, P1197AM, P1222AM, and P1359AM.

P42A84E

P42A84E is a 4.2 maturity Enlist E3 soybean. This will be a versatile soybean that works well on both thinner ground and productive soils. It has excellent harvest standability and above average SDS tolerance.

FUNGICIDE DECISION & TIMING

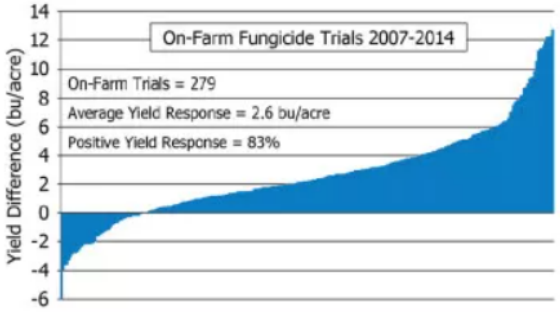
CORN

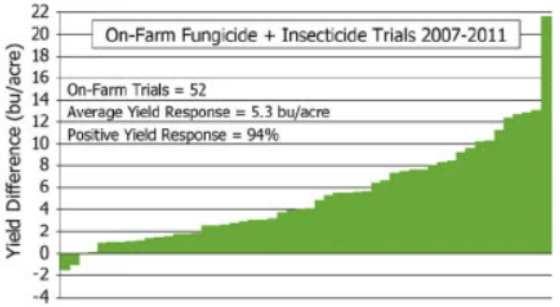
Fungicide decisions are something that some folks make in the winter time, others wait to see the weather forecast and disease pressure present, while others wait until the planes are flying to make their decision. Regardless of when you make your decision, there's a few things to weigh when making the decision to apply a fungicide this year:

- ***TIMING.*** The best timing for a corn fungicide is at tasseling (VT). There's a common preference to wait until brown silk to avoid any potential ear development issues as well as a means to prolong protection farther into grain fill. However, the VT application timing has proven to be the best bang for the buck with much data to support that. Waiting until brown silk can also pose the risk that the application occurs too late because the grower calls the applicator once they see the brown silks. By the time they get on the list, they're a ways down it. So, when the application actually gets made the corn is quite a ways into grain fill, the diseases have already ramped up in a hurry, and damage has already occurred.
- ***PRESENCE OF DISEASE.*** To complete the disease triangle and have disease, you must have a pathogen present, have a susceptible host, and have the right environment. Currently, we sit fairly dry with many days of high temperatures over the last month. Some diseases won't be an issue, but other diseases thrive in higher temperatures and high humidity. Over the next several weeks, it will be critical to assess the weather conditions and what diseases are present or have the potential to appear. Wetter weather = higher disease pressure. Scouting will be key.
- ***PLANTING DATE.*** Keep in mind that planting date will be a large driver on disease pressure as well. Typically, the later we plant, the more disease pressure we see. Many of the fungal diseases are able to infect the corn plant at an earlier growth stage and have a more negative impact on yield. With grain-fill being pushed deeper into the season, conditions tend to be more optimal for disease infection and progression on later planted corn. Fungicide applications on June planted corn is typically a must. In 2019, agronomists saw some 40+ bu/a responses to fungicide on June planted corn. They've also seen Southern Rust take 60-80 bu/a off of June planted corn in the past.
- ***HYBRID SUSCEPTIBILITY.*** Hybrids do vary in their susceptibility to various diseases. Sometimes this can help you prioritize fields when scouting. However, keep in mind that under heavy disease pressure, even the most tolerant hybrids can be heavily impacted. It is hard to make a fungicide decision based solely on disease scores.
- ***HEIGHT IN THE CANOPY.*** When assessing fungicide decisions, the closer the lesions are to the ear leaf (from the bottom up), the more severe the infection. The ear leaf up to the top of the plant provides 80%+ of the yield for the corn plant, so we want to protect them. The higher the disease in the canopy at tasseling, the more severe the yield loss can be. Keep in mind that spore showers of Northern Corn Leaf Blight or Southern Rust can drop disease in from the top.
- ***MULTIPLE MODES OF ACTION.*** Be sure to use a fungicide with multiple modes of action—products such as Aproach Prima, Veltyma, or Trivapro. Multiple mode of action fungicides have become the norm in the fungicide market.

SOYBEANS

We are big believers in fungicide and insecticide applications on soybeans. In our area, the higher yielding soybean fields year in and year out consistently have both FST/IST foliar applications made. On a larger scale, Pioneer's on-farm trials show an average yield response to a foliar fungicide application of 2.6 bu/acre, with a positive yield response in 83% of the trials. When an insecticide is included, the average response increases to 5.3 bu/acre and a positive yield response observed in 94% of the trials.





TIMING. In soybeans, R3 has proven to be the most effective stage for controlling diseases in several research studies. Soybeans in R3 growth will have pods developing in one of the top four nodes that are about the length of your thumbnail (~1/4 inch).

AERIAL OR GROUND RIG APPLICATION? Applying fungicide and insecticide with a ground rig is the preferred application method. Ground rigs have the ability to use more gallons of water per acre and are able to provide better field coverage.

AGRONOMIST Q&A

Answered by Pioneer Field Agronomist Jaime Farmer

1. Has this early heat been good for the corn to help drive roots down farther into the soil, or has it mostly hindered it because of the added stress? Or, a little bit of both?

Hot temps early in the growing season can help drive good growth and keep the engine cranking good. Roots should be growing nicely where they have plenty of air and continue to follow the nutrients that they sense, which ultimately keeps them following water. Ideally, if I could choose, I'd rather not see the extended stretches of high temperatures in the mid and upper 90's, but during the early parts of the growing season we can handle that heat a lot better than we can once we get in the reproductive stages. With the heat waves that we have seen the past month, we've seen quite a bit of wilting and leaf rolling in places. Research has shown that we need to experience leaf rolling at the upper most fully formed leaf for four consecutive days before we start to realize negative yield impacts. At the point of the growing season that some folks would have met that, there is data that suggests we shave off 1-3% of our yield potential a day for each consecutive day of significant wilting/rolling after the initial required four days to start the stress period. The good news is, this likely only impacted a few of the most stressed acres and the yield hit was pretty minor for most folks based on the crop stage and our overall high potential going into that stressful period. We were lucky to sprinkle in some days of relief which restarts that cumulative stress clock. Hopefully we don't see too many of those heat waves during the later half of the growing season, as that would have a much greater impact on our corn yield.

2. How does this hot and dry weather effect Nitrogen levels in the field?

The dry weather should have us limiting any additional nitrogen losses from leaching and denitrification. With the plants shutting down during the heat of the day and the engine not running at full capacity, it likely reduces the Nitrogen uptake just a bit as well. However, higher soil temps do increase our nitrogen conversion rates, which would speed up the loss potential if we were to cycle back to wetter, more saturated field conditions.

3. Is there any talk on how this weather will potentially play into disease pressure this summer for both corn and soybeans?

This hot and dry weather does have an impact on some diseases more than others. Currently, we are at a very low risk for Northern Corn Leaf Blight (NLB) due to the temperatures staying too high for this particular disease (which prefers cool weather with plenty of leaf wetness). Despite the good news with NLB, we aren't out of the woods yet, as parts my area are starting to creep up into the moderate pressure range for Grey Leaf Spot (GLS). GLS can handle the warmer temps, and we've seen areas with enough overnight leaf wetness and humidity for this disease to start to show up and continue to build. There is also still risk for Southern Rust to move into the area. It is already building in the states south of us, so we are just a few windy and/or stormy days away from moving that disease into our area. As long as we have the humidity and leaf wetness over night, the high temps won't slow down the Southern Rust too much. Protecting our crop with a fungicide will be crucial in much of West-Central MO again this year. On the soybean side, we would still be at risk for diseases like frogeye. A timely application at R3 will be right around the corner with as many early planted soybeans as we've seen this year.

JAPANESE BEETLES

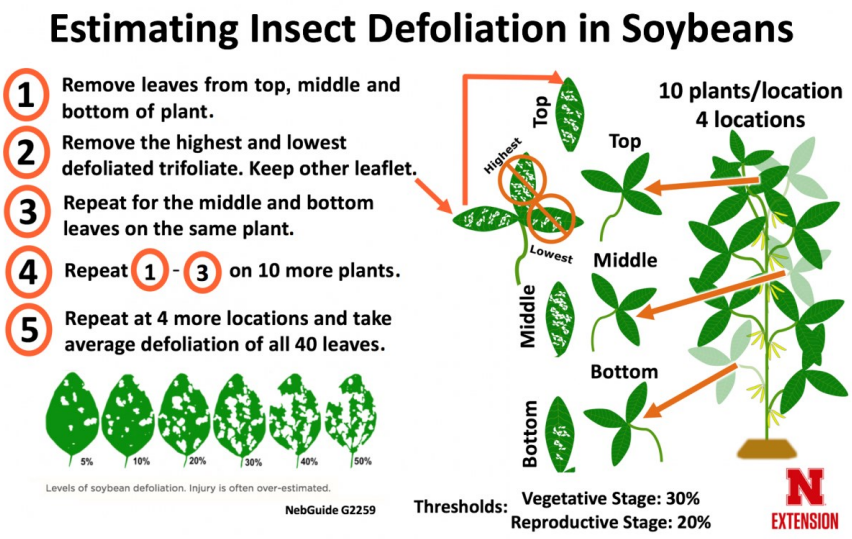
Japanese Beetles are out earlier this year than we ever remember seeing them in this area. It looks like the heat in May pushed them along faster than the last couple of years. One of our agronomists had the first adult Japanese beetle hit their windshield on June 3rd— the earliest they can remember. This is slightly concerning to our agronomists because most years we out pace the beetles and corn pollination is far enough along that we don't meet thresholds. This year might be different. Keep your eyes peeled for them and take note of which fields are seeing a high population of Japanese beetles. Scouting will be key.

CORN

- Like stated above, most of the time in corn we out pace the beetles and are pollinated before they can do much damage. The biggest damage they can cause in corn is feeding on corn silks and reducing pollination if they are at high enough levels. Remember that they typically feed on field borders, so you have to walk out past the end rows quite a ways to assess the population.
- Fields with high populations *may* require you to pull the fungicide application a little earlier if you usually apply after pollination. Japanese beetles do their damage during pollination, so **if** populations are **high enough** to warrant an insecticide, that application needs to be made during pollination. However, be mindful of thresholds and don't apply insecticide when a field is far from threshold or the field is already pollinated. Sometimes the insecticide is added to corn for Japanese beetle control after pollination is complete, but it is too late at that point. Scouting is critical and knowing the corn stage and field conditions is key. We don't want to fly the fungicide plane early to kill the beetles when the beetles are not close to the threshold. This results in the fungicide running out during grain fill and disease ends up costing more yield than the beetles ever dreamed of.
- ***Threshold.*** 3 or more beetles per ear, silks are eaten to ½" in length, and pollination is less than 50% complete. Higher corn prices likely shrink that threshold this year.

SOYBEANS

- When it comes to soybeans, we can get a little more aggressive since you can get a better kill with a ground rig than a plane, and more fields have the potential to reach the threshold. On the right is a handy guide to determine % leaf defoliation.
- ***Threshold.***
  - Before R1 = 30% Leaf Defoliation
  - Flower, Pod Development, and Pod Fill = 15%-20% Leaf Defoliation



PLOTS *in* PROGRESS

We planted two corn test plots and four soybean test plots this year in our local area. We've listed planting information below. We're excited to be launching the A-Series Enlist E3 soybeans. We also have some of these A-Series varieties in customers' fields this year that will allow us to evaluate them on a larger scale and fine tune placement. If you'd like to walk through these plots during the growing season and look at new hybrids and varieties, please feel free to reach out. Yield results will be published in our fall newsletter.

CORN

Planted: 4/21/22
Population: 31K
Tillage: No Till
12 Hybrids:

- P0859AM
- P0953AM
- P1027AM
- P1164AM
- P1170AM
- P1197AM
- P1222AM
- P1359AM
- P1413AM
- P1511AM
- P1608AM
- P1718AML

CORN

Planted: 4/27/22
Population: 31.5K
Tillage: Min.
5 Hybrids:

- P0995AM
- P0859AM
- P1164AM
- P1413AM
- P1548AM

SOYBEAN *Enlist E3*

Planted: 5/10/22
Population: 146K
Tillage: No Till
7 Varieties:

- P35T15E
- P37A18E
- P38A54E
- P40A23E
- P42A84E
- P44A91E
- P46A09E

SOYBEAN *Enlist E3*

Planted: 5/10/22
Population: 155K
Tillage: Convent.
6 Varieties:

- P35T15E
- P37A18E
- P38A54E
- P40A23E
- P42A84E
- P44A91E

SOYBEAN *Enlist E3*

Planted: 5/13/22
Population: 155K
Tillage: No Till
7 Varieties:

- P35T15E
- P37A18E
- P38A54E
- P40A23E
- P42A84E
- P44A91E
- P46A09E

SOYBEAN *Enlist E3*

Planted: 6/11/22
Population: 150K
Tillage: No Till
6 Varieties:

- P35T15E
- P37A18E
- P38A54E
- P40A23E
- P42A84E
- P44A91E