VOLUME 1
ISSUE 2

FALL
2020

Quarterly
Newsletter

theSeedScoop

In this issue:

Upcoming Dates

October 31st
Unused Corteva Prepay funds returned to grower by either check or a credit to DP loan.

Nov. 30th — Dec 2nd
Annual Open House—please look for a letter in the mail with details & changes.

December 1st
Deadline to pay your deferred pay loan for your 2020 seed.

December 3rd
1st Cash Payment Discount deadline for your 2021 seed order.

February 26th
2nd Cash Payment Discount deadline for your 2021 seed order.

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KNIPMEYER SEED UPDATES

COVER CROP, FORAGES, AND TURF PRODUCT OFFERINGS

We are excited to announce we will be partnering with Missouri Southern Seeds to offer cover crop seed, forages, native grasses, and turf products. If you need anything for your operation, we have a wide variety of products to fit your needs. Give us a call or stop by to see a full list of products we offer.

SOCIAL MEDIA

If you're someone who is on social media, we encourage you to follow our business page on Facebook, Instagram, or Twitter. We use these media outlets to share relevant information and post updates on what we're doing throughout the year. We also share pictures and data of plots, combine calibrations, and more. Follow us at @KnipmeyerSeed.

NEW WEBSITE

We now have a website! Visit us online at **www.KnipmeyerSeed.com**. For current customers, this is a great place to find our local plot data from current and previous years, past newsletters, and pictures from appreciation dinners, planting, and harvest season. If you're a new visitor or customer, you'll find a little bit more about us and our story. You'll also find information on all of the products and services we have to offer.

KNIPMEYER Seed

FALL BURNDOWN

With the hustle and bustle of harvest, its not always convenient to think of the next step in field management. However, it's time to consider fall burndown applications and some of the benefits a fall burndown can provide.

Fall herbicide applications can provide a large benefit by reducing levels of winter annuals and perennials and help save time and money in the spring. We can think of the impact that weeds have like this: a growing weed is using water and nutrients that should be reserved for the plant. Reducing weeds will reduce the competition for moisture and nutrients. Every little bit that we can keep in reserves and not use to fuel weed growth will go towards getting corn and soybeans off to a good start next spring.

With a fall burndown, we are targeting winter annuals and perennials like henbit, chickweed, and marestail. While some are easier to control than others, a fall application will provide better control of more challenging weeds, like marestail, while the plants are smaller in size. Utilizing fall burndown not only provides weed control that extends into planting, but also widens the window of application for postemergence applications. With high levels of weed pressure, a fall burndown typically provides a higher level of control than spring applications. Additionally, applying herbicides in the fall can reduce the risk of drift and off target movement onto sensitive crops. Winter annual weeds can also serve as hosts for pests like soybean cyst nematode and cutworm. These pests are easier to control by eliminating winter weeds.

It's important to remember that a fall herbicide application should not substitute a comprehensive in-season herbicide program. However, it serves as a complementary addition to your herbicide program with lasting benefits into the next planting season.

PRODUCT SPOTLIGHT

P0977AM

P0977AM is a versatile 109 day corn hybrid. This hybrid has great emergence, good drought tolerance, and an excellent disease package. Its versatility allows it to work well across multiple yield environments.

P39T61SE

P39T61SE is a group 3.9 maturity EnlistE3 soybean. It has 2,4-D, Liberty, and Roundup tolerance. It has above average SDS tolerance with excellent harvest standability.

POST HARVEST DISCUSSION

Both corn and soybean harvest has started to wrap up for many operations, and we wanted to share some of the things we've seen this fall across our territory. From planting date, to seed treatment, to rainfall totals— what impacted yield in one field was not the same in the next.

CORN

In general, corn yields across the territory have varied. We've heard average yields anywhere from 140bu/ac to 250bu/ac. Most have had above average yields, with some folks even sitting with one of the best corn years they've ever had.

Some of the yield limiting factors we've seen stem back to planting conditions, dry spells through pollination, and excess moisture during grain fill. When looking back this spring, we had cool, wet weather. Some early planted corn sat in the ground for 3 weeks before emerging, contributing to a lot of uneven emergence early in the growing stages. Pioneer's research shows that uneven emergence can knock 5-9% off of yield. If you had potential for 200 bushel corn, a 5-9% yield reduction drops your average down to 184-190bu/ac. There was also corn planted into heavy soils that created sidewall compaction, in turn creating a limited root system (see picture on right). We also had a relatively hot and dry June and first part of July, encompassing the pollination period. Stress during this time can cause poor kernel set or ears with missing kernels. We finally started getting rain mid-July and into August during grain fill. Some areas even had excess moisture during this time, which contributed to some ear rots and lower grain quality.

Overall, corn yields were above average, but it's important to reflect on some of the factors that may have reduced yield.

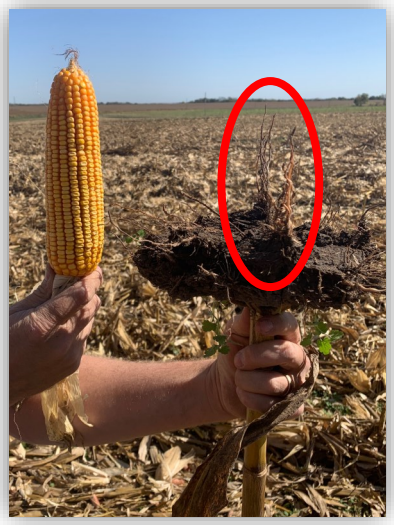
SOYBEANS

Soybean yields in treated soybeans have generally been very good. Although there's been some pockets with untreated soybeans that took a hit from sudden death syndrome. We've heard field averages ranging from 50 to 80+ bu/ac, with the majority running in that 55-70 bushel range (in treated beans).

We had prime weather for sudden death syndrome to affect our soybeans, with cool, wet weather during planting season and a lot of precipitation during podfill in late July and August. Soybeans that were treated with iLeVO are showing some double digit advantages this year to those beans without iLeVO.

In summary, it's been nice to see above average yields this harvest season coupled with above average commodity prices. Every season is different, and there's always something to learn and carry into the next growing season.

For our agronomist's opinion on the most yield limiting factors he saw this year, see the Q&A section on page 4.



Corn plant showing "tomahawk" roots from being planted into wet, tacky soils.

POPULATION TRIALS

This spring we had two different population trials in Concordia, both on Marshall Silty Clay Loam soil. Because corn hybrids tend to have a fixed or flexed ear type determinate, hybrids may respond to planting populations differently. When choosing what population to plant, it is important to understand both your hybrid and soil type. Below shows the results of our trials with two new products vs P1197AM. P1359AM has shown to have good ear flex, and it demonstrated that at the lower population. In these specific field trials, it appears a planting population of around 32,000 showed the best return on investment. Remember, the optimum planting population will vary depending on your specific hybrid and location. If you're wanting to push populations to the 33K-35K mark, it's important that you manage that decision accordingly. Higher populations need to be on high producing fields and tend to respond well to both a top-dress nitrogen application and fungicide application. **No top-dress or fungicide applications in the trials below**

Planting Population	P1197AM Yield (bu/ac)	P1359AM Yield (bu/ac)
30K	232.7	234.2
32K	240.8	235.6
34K	240.9	226.3
36K	238.2	233.9

Planting Population	P1197AM Yield (bu/ac)	P1213AM Yield (bu/ac)
30K	235.7	224.0
32K	239.2	238.1
34K	238.0	230.8
36K	242.7	225.1

LOCAL PLOT RESULTS

To view more plot data or download results to your phone or computer, visit our website: **KnipmeyerSeed.com/PlotData**

CORN

Product	Yield Rank	Yield (bu/ac)	Moisture (pct)
P1197AM	1	250.5	15.1
P1108Q	2	239.5	16.1
P1359AM	3	234.5	16.9
P1213AM	4	232.5	16.8
P1077AM	5	230.7	15.7
PLOT AVERAGE		237.5	

Location: Alma, MO — Hwy 20
Planted: 4/8/20 **Harvested:** 10/2/20
Pop: 32K **Fung.:** No **Tillage:** Conventional

CORN

Product	Yield Rank	Yield (bu/ac)	Moisture (pct)
P1108Q	1	230.0	17.4
P1077AM	2	226.9	16.5
P1197AM	3	223.9	17.5
P1359AM	4	223.6	17.0
P1244AM	5A	219.1	17.2
P1380AM	5B	219.1	16.7
P1213AM	6	218.9	17.9
P1548AM	7	206.6	18.5
P0977AM	8	204	17.3
PLOT AVERAGE		219.1	

Location: Concordia, MO — Hwy 23
Planted: 5/7/20 **Harvested:** 10/5/20
Pop: 31.5K **Fung.:** No **Tillage:** Conservation

CORN

Product	Yield Rank	Yield (bu/ac)	Moisture (pct)
P1108Q	1	220.7	15.2
P1359AM	2	218.0	15.7
P1213AM	3	211.0	17.1
P1197AM	4	210.2	15.9
P0977AM	5	208.8	15.2
P1244AM	6	205.8	16.3
P1380AM	7	204.4	15.1
P1548AM	8	197.7	18.3
P1077AM	9	195.3	15.2
PLOT AVERAGE		208.0	

Location: Ernestville, MO — Hwy CC
Planted: 5/2/20 **Harvested:** 10/7/20
Pop: 30.6K **Fung.:** No **Tillage:** Conventional

SOYBEANS
Liberty & Enlist E3

Product	Yield Rank	Yield (bu/ac)	Moisture (pct)
P38T05E	1	71.4	12.2
P44A37L	2	70.1	12.4
P38A49L	3	67.8	12.2
P41T07E	4	67.5	12.3
P39T61SE	5	65.7	12.9
PLOT AVERAGE		68.5	

Location: Concordia, MO — Hwy 40/I-70
Planted: 5/19/20 ***Harvested:*** 10/11/20
Pop: 163K ***Fung./Insect.:*** No ***Tillage:*** No-Till

SOYBEANS
Liberty & Enlist E3

Product	Yield Rank	Yield (bu/ac)	Moisture (pct)
P44A37L	1	72.9	8.0
P39T61SE	2	72.7	7.3
P41T07E	3	69.4	7.4
P38A49L	4	69.1	7.6
P38T05E	5	67.5	7.7
PLOT AVERAGE		70.3	

Location: Concordia, MO — Hwy AA
Planted: 5/19/20 ***Harvested:*** 10/19/20
Pop: 150K ***Fung./Insect.:*** Yes ***Tillage:*** Conv.

SOYBEANS
RR2Xtend

TO BE HARVESTED

Location: Concordia, MO — Hwy KK/I-70
Planted: 5/11/20 ***Harvested:***
Pop: 160K ***Tillage:*** No-Till

SOYBEANS
RR2Xtend

TO BE HARVESTED

Location: Ernestville, MO — Hwy YY
Planted: 6/8/20 ***Harvested:***
Pop: 160K ***Tillage:*** No-Till

KIDS CORNER

Owen Edwards (6 years old)

Owen was helping his dad scout corn fields and was excited to show off the ear he found in a field of P1138AM.

Our children and grandchildren are the future of agriculture. Do you have any special kiddos in your life that love helping on the farm? We'd love to see a picture and feature them in *Kids Corner*. Text or email a photo to Lauren to be featured in a future newsletter!

DICAMBA APPROVAL

On October 27th, the EPA approved over-the-top use of dicamba. In approving the herbicide, the EPA provided more restrictive changes to the herbicide labels, including an increased downwind buffer of 240ft and a cut-off date of June 30th. Individual states still have to approve the herbicide and release their state-specific regulations. You can read more about the announcement on www.agweb.com/article/dicamba-approved-over-top-use-2021-and-beyond.

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AGRONOMIST Q&A

Answered by Pioneer Agronomist, Jaime Farmer

1. What do you think the most yield-limiting factor was in corn this year?
There are several to choose from in this category: disease, N-Loss, etc., but I'd say the #1 factor across West Central Missouri would probably be compaction issues from pushing things too soon when the ground was still heavy. This year ranks at the top for me on root zone compaction issues. These issues were caused from running tillage equipment when the ground was too heavy, applying NH3 when the ground was still too wet and causing compaction, and especially from minimum tillage tools. We also saw side-wall compaction from the planter causing an awful lot of pancake and tomahawk roots this year. This had a direct result on stand establishment and emergence, nutrient and water uptake, as well as standability issues and drainage problems leading to crown rots and other diseases. The sins we commit in the spring haunt us all year, and we definitely see those impacts causing some pretty variable yield levels across the countryside this fall.

2. What do you think the most yield-limiting factor was in soybeans this year?
Several to choose from here as well including compaction, tomahawk roots, and seedling disease. But the most impactful probably goes to sudden death syndrome (SDS). SDS showed its impact this year just as it did in 2016 & 2018. I've seen heavily infected fields have yield averages in the 30's & 40's, where fields next to them that didn't show symptoms as bad are in the 60's & 70's. The first step when trying to protect against SDS is choosing a variety with a good SDS resistance rating. The second most important step is choosing a superior seed treatment that is proven to help protect against SDS. There are several competitive seed brands that ran inferior "economical" options this year claiming good protection against SDS, and they proved to not protect as well. ILeVO has proven itself as the industry leader in SCN and SDS protection with side-by-side advantages currently showing a 1.8 to 10+ bu/ac advantage to competitive seed treatments. Lastly, over the past several years, the best yielding beans have consistently been the earliest planted. There's a thought in some minds to plant later (June & July) to avoid SDS, however, the number of June and July planted beans that show significant SDS infection prove that planting late has no advantage. SDS has been proven to infect soybeans from soil temps of 53 to 80 degrees, so the key thing to remember is that temperature is less important than moisture level. You're better off to plant beans early and treat them, than to wait and plant them late.

3. Did fungicide show a return on investment this year?
The best part of my job as a field agronomist is that I get the chance to see many different management styles and scenarios year after year. This year, management consistently paid. As far as fungicide goes, we always seem to debate this decision at the ideal fungicide application timings of VT-R2 for corn and R3 for soybeans because there usually isn't much disease or pest pressure present. This was the case again this year with some of the cleanest fields I have ever seen at tassel. We do not spray a fungicide at these timings to control what we see, we spray then to protect our yield from what is coming, and this year we got a ton of late disease pressure in corn and insect pressure in soybeans. Current ranges of side-by-sides or strips of treatment vs no treatment that I have been shown from growers that we work with across Missouri shows an advantage of 12-40+ bu/ac in corn and 8-20+ on soybeans. Like I said, management paid in 2020. Plan now in the fall and winter to have these resources ready to deploy for your 2021 crop.