



The Dirt

Fall 2020

Welcome to the Fall 2020 edition of “The Dirt”. Wow! This year has certainly presented challenges to all of us! Although COVID has taken away many activities, travels, and kept us away from some loved ones, these challenges remind us all of our humanity and what is most important. The agricultural industry was not immune to the impacts of COVID, but throughout the pandemic, we were reminded of our greater responsibility and purpose through agriculture.

We completed harvest on November 3rd. This year’s harvest was very timely thanks to good weather and a great harvest crew. Since completing harvest, we have been busy injecting hog manure, completing fieldwork, hauling grain, and cleaning equipment.

The crop growing season in summary has had “typical 2020” ups and downs. Planting was completed swiftly this year with cooperative weather early in the season. We did have a late spring frost which we feel affected yields. We had an excellent growing season up until late July and August which brought dry weather and the derecho on August 10th. With those hurricane-like winds we had some damage to buildings, but thankfully no bins. We had about 800 acres of corn twisted and flattened from that storm. The yield losses on those farms were substantial. Yields were just average in the fields not impacted by the derecho as a result of the late-season drought. Harvesting those flattened and mangled acres that were impacted proved to be a challenge.

Our Family Farms Group held a virtual Summer Summit. It went very well and exceeded my expectations. We listened and learned from a great line up of speakers and sessions. We were also able to complete another solar array this summer.

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We welcomed Payton and his girlfriend back home in July for a week. It was nice to have them back for a visit. I wish we had more travels to report on, but COVID certainly puts a damper on much travel.

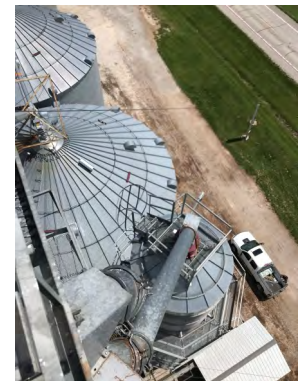
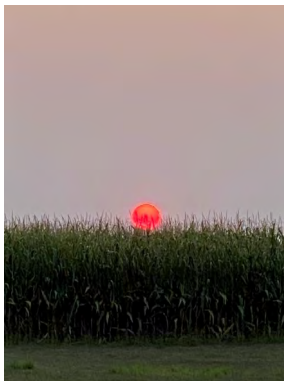
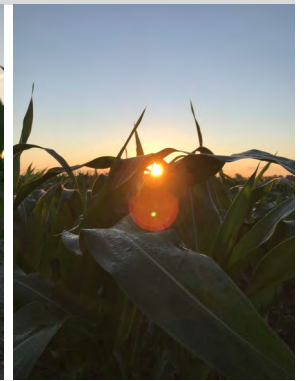
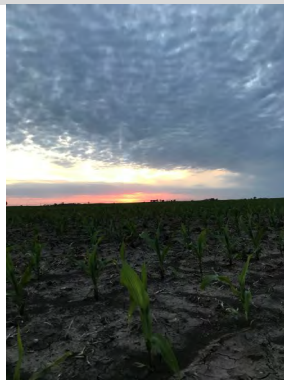
I would like to take this opportunity to thank the fantastic crew we have at Danner Family Grain; Brian Nollman, Julie Liercke, Clayton Stephens, Tyler Prizler, Nick Dewell, Ken Hassler, Ivan Rae, Kayla Maurer, Matthew Carlson, Morgan Hodge, and I can’t forget my daughter Gracie who helped on some weekends.

We wish you a happy, healthy, and blessed holiday season and a prosperous 2021. Please reach out to us if there is **anything** we can do for you.

- *Billie*

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Pictures



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Closing the Soybean Yield Gap by Dean Houghton

The quest to unlock this crop's full potential.

Farmers and scientists are teaming up these days to put boots on the ground as they work on the The Case of the Missing Bushels. That's the mystery these sleuths are trying to unravel—why Mid-west growers tend to fall about 30% short of theoretical yield potential, based on climate, soil, and today's soybean genetics.



An extensive, three-year bench-marking study by the North Central Soybean Research Program, a collaboration of 13 state soybean associations that invest soybean checkoff funds to improve yields and profitability, identified this shortfall. The good news, however, is that a follow-up “boots on the ground” study in 2019 showed that those bushels can be captured with improved management—and, with more efficient use of inputs, farmers also can unlock additional profit per acre. More “boots on the ground” studies are underway for the 2020 growing season.

Missing bushels are a mystery with global implications. The U.S. produces 35% of the world's soy-beans; the North Central region accounts for 82% of the nation's soybean crop. During the benchmark study, researchers analyzed farmer survey data using advanced statistical methods along with a spatial framework that identified critical yield-limiting factors on 50.4 million acres of land planted to soybeans.

On-farm findings. “The goal of the project is to evaluate management changes in on-farm research settings across the U.S. North Central region,” says University of Wisconsin researcher Shawn Conley. He serves as principal co-investigator, along with Patricio Grassini from the University of Nebraska.

In 2019, the project established 48 successful replicated on-farm trials in seven states. Researchers identified a suite of agronomic practices identified to have the greatest potential for boosting yield and profit, based on a specific climate and soil type.

Those improved management practices were then compared against management practices the farmer typically would follow (which the researchers call “reference” management). The improved management varied by site, but included fine tuning of factors such as planting date (generally speaking, earlier planting); maturity group (longer season varieties); seeding rate (lower population); and use of foliar fungicide and insecticide applications.

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Researchers compared improved-versus-reference yields across the 48 trials held in 2019. They found an average yield increase of 5.5 bushels per acre. Conley points out that this includes results from a North Dakota study where rain led to severe crusting on the early planted beans, causing yields to fall 10 bushels per acre below the reference treatment.



The study also took a close look at economics. Re-searchers developed a profit and loss analysis based on a soybean price of \$9/bushel; treated seed cost of \$60 per 140,000 seeds; untreated seed cost of \$54 per 140,000; foliar insecticide (product only) of \$3 per acre; foliar fungicide (product only) of \$10 per acre; and application cost of \$6.50 per acre.

“We found that the yield increase, together with the cost savings from using a lower seeding rate, produced an average of \$51 per acre net profit for the improved management treatments,” Conley points out.

The economic analysis also showed that improved management works across a wide range of farms. “The additional profit was \$10 an acre or more on 85% of the farms,” Conley says. “The economic impact of improved management strategies was high and consistent.” To keep an eye on the 2020 studies, and to learn more about the project’s background, you can visit coolbean.info, the University of Wisconsin Extension website that offers the latest research and news for soybean growers.

Timely tool. Soybean growers are joining the search for more soybean yield. For Brandon Stephens, who farms with family members in Clinton County, Mo., timely seeding is a priority. “We already were running two air drills, but added a third for 2020,” he says. “After the struggle getting crops planted in 2019, it made sense to be as timely as possible.”

He’s also following an agronomic plan that calls for multiple foliar feedings; insect or fungicide applications can piggyback on those passes.

“Soybeans used to be a simple crop,” he says. “You would plant, spray, and hope for the best.” With add-ed management input, his yields improved eight to 10 bushels in 2019. “The bushels are out there,” Stephens adds. “We just have to take advantage of technology that allows us to find that yield.”

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New Faces

Tyler Prizler



Clayton Stephens



I grew up on my family's farm near Williamsburg, Iowa. Throughout my time spent there, I helped with the production of corn, soybeans, oats, hay, rye, sorghum, swine, poultry, and beef cattle. After graduating from high school, I attended Kirkwood Community College and obtained an associate degree in Agribusiness. I then transferred to Iowa State University after completing my program at Kirkwood and obtained my bachelor's degree in Agronomy while also minoring in Agricultural Systems Technology. Ever since I can remember, I have always had a strong passion for agriculture, and to this day, I cannot imagine myself working within any other industry.

My name is Clayton Stephens. I was raised on a farm in Upstate New York. I grew up raising and showing cattle, sheep, and pigs. While in high school, I was very active in FFA and was also a member of the local 4-H. After graduating high school, I attended college in Northern Oklahoma and majored in Animal Science. I currently live in Wapello, Iowa, and still have livestock of my own. I am excited to be a part of the team here at Danner Farms and can't wait to see what the future brings.

Looking for Land to Lease

We are looking to rent farm ground for 2021 and beyond. If you are aware of property owners who might want to lease their land to us, please pass our information along.

Thank You!

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