



CROP PHYSIOLOGY FIELD DAY

Where's the Yield?

AUGUST 2nd, 2023

Crop Sciences Research and Edu. Center, 4202 South First St., Savoy, IL 61874

Help us best plan for the day by advance registering at

<https://calendars.illinois.edu/detail/5811/33454111>

On-site registration will also be available

For questions about the event please email sible2@illinois.edu

Schedule of Events (Presenter and talk descriptions on next page)

8:00 am – On-site Registration and Coffee

8:20 – Welcome

8:30 – The Toys and Tools to Find High Yield – Jared Fender

8:50 – The Seven Wonders of 300 Bushel Corn – Dr. Fred Below

9:30 – Getting to the Root of High Yield – Sam Leskanich

9:50 – 10:30 – Coffee Break and Sponsor Visits

10:30 – Feed The Plant Not the Soil for High Yield – Marcos Loman

10:50 – Air as a Third Source of Nitrogen for Corn – Dr. Logan Woodward

11:10 – Do Carbs and Sugars Make Crops Fat? – Darby Danzl

11:30 – Reduce, Reuse, Recycle...Your Residue! – Dr. Connor Sible

11:50 – Panel Discussion (All Speakers)

12:10 pm – Lunch (University Catering will provide lunch for all registered attendees)

1:00-1:30 – Field Demonstrations and Discussion

CEUs Offered: 1.5 Nutrient Management, 1.5 Crop Management, 1.5 Soil and Water



CROP PHYSIOLOGY FIELD DAY – AUGUST 2nd, 2023

Where's the Yield?

We all know that more corn and soybean yield is out there, and we are prepared to help you go and find it! Current and recent graduate students of the Crop Physiology Laboratory highlight some of our ongoing research to help you economically and sustainably find more yield on your farm.



Jared Fender fender2@illinois.edu – **The Toys and Tools to Find High Yield**

The search for high yield is challenging and having the right equipment is key to finding those high yields. The same is true in research, and we want to show you some of the specialized research equipment that we use to discover the secrets of yield. See how our small-plot research equipment works and how it is similar to production equipment that you might use.



Dr. Fred Below fbelow@illinois.edu – **The Seven Wonders of 300 Bushel Corn**

Over the past decade 300-bushel corn yields have become relatively common in our research, and this knowledge has allowed us to revamp our previous 'Seven Wonders of the Corn Yield World' to the new version 'The Seven Wonders of 300 Bushel Corn'. See what has changed and how you can use the Seven Wonders concept to help find more yield.



Sam Leskanich sjl15@illinois.edu – **Getting to the Root of High Yield**

It is easy to study above-ground characteristics of corn, but what is hidden belowground? How is root architecture linked to high yield? Hear what we know about how root size varies with hybrids, planting density, fertility applications, biologicals, and fungicide applications. Join us to learn more about corn's buried potential!



Marcos Loman lomanmh@illinois.edu – **Feed the Plant Not the Soil for High Yield**

Do you determine your fertility program based on soil test levels or grain removal? Perhaps both? While these factors are clearly important, they may not be enough to ensure adequate nutrient availability to sustainably produce high yields. Join us to explore a new concept on when and why fertilizer is needed to boost yields, that could change how you fertilize.



Dr. Logan Woodward logan.woodward@pivotbio.com – **Air as a Third Source of N for Corn**

High yield corn needs a lot of N which it gets in roughly equal proportions from the soil and fertilizer. Because of variable weather there is a high likelihood that one of those sources may be limiting, and supplying N from the air as a third source may be beneficial. We summarize our work with a N-fixing inoculant to see if air can provide corn with this third source of N.



Darby Danzl darbyd2@illinois.edu – **Do Carbs and Sugars Make Crops Fat?**

When it comes to the numbers on the scale, we would all prefer to see an increase at the grain elevator rather than at the doctor's office. We know that sugars and carbs can make us fat, but what about crops? Come and explore how we can utilize sugars and complex carbohydrates to add bushels instead of pounds to your life.



Dr. Connor Sible sible2@illinois.edu – **Reduce, Reuse, Recycle...Your Residue!**

One crop's "trash" is another crop's treasure! Residue is nature's biological and full of potential, it just takes some key management to unlock that value. Whether you're cover cropping, double cropping, or just increasing on-farm yields, residue is on the rise. So let's discuss the management strategies to make that residue work for next year's crop.