

4R TECHNOLOGY REVIEW FIELD DAY

2023 Ohio – 4R Technology Review Field Day

When: Wednesday, September 6

Where: OSU Northwest Agricultural Research Station, 4240 Range Line Road, Custar, Ohio 43511

Who: Retailers, Farmers, CCAs (credits will be offered), and other interested parties

Agenda:

8:30 am Registration (Coffee, Juice & Donuts)

8:50 am **Welcome and Introductions**

- Aaron Heilers, Director of Nutrient Management and Ag Policy, OABA

Please note: Groups will rotate to each presentation. Your group identifier (A, B, C) is found on your name badge.

Drones in Agriculture- Legalities, Opportunities, and Realities (CCA: 1 CM)

- Robert Mullen, Vice President of Agricultural Technology, Heritage Cooperative

Explore the various aspects of drone applications in agriculture and understand their practical implications and challenges. This stop will include regulatory requirements of drone application in agriculture, use of drones for data acquisition and product delivery, and the current challenges to utilize this technology for scouting and product applications. A variety of drones will be on-site to illustrate how this technology works.

Nutrient and Water Management: Subsurface fertilizer placement and drainage water management for water quality outcomes (CCA: 1 SW)

- Jennie Pugliese, Western Lake Erie Basin Science Advisor, USDA ARS
- Jed Stinner, Hydrologist, USDA ARS

Both source and transport factors drive the risk of nutrient loss within agricultural systems. Therefore, minimizing nutrient losses and reaching water quality reduction goals will require the use of both nutrient and water management strategies. USDA-ARS EOF research on subsurface placement and drainage water management will be presented as two promising strategies for nutrient and water management. Current and future EOF research will also be discussed.

Phosphorus Fertilizer Management- Beyond the Basics (CCA: 1 NM)

- Josh McGrath, Lead, OCP North America
- Matt Liskai, Owner, Green Field Ag LLC

Producers often apply phosphorus (P) fertilizers to the surface in no-till cropping systems. They typically apply this fertilizer in the fall and most commonly use ammoniated P fertilizers like MAP and DAP. This presentation will discuss new and old machinery technology that provides options for better P management, as well as how to improve source and rate decisions. We will also discuss the 4Rs of P management, with a focus on placement, to go beyond the basics for better outcomes, both environmentally and economically, for the farmer.

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- 12:00 pm **Lunch** – Sponsored by Edon Farmers Cooperative, BASF, Morral Companies – Morral and Calendonia locations, and The Anderson's
- *Jessica D'Ambrosio, TNC Farmers for Soil Health*
 - *Kip Studer, ODA H2Ohio Update*
- 1:00 pm **Immediate and Significant ROI from Soil Sampling Accuracy and Accountability** (CCA: 1 NM)
- *Stephen Roswarski, Vice President of Sales and Marketing, ROGO Ag*
- Discover how much better your fertilizer placement and ROI can be through the use of robotic soil sampling. Reducing variations due to human error by 300%, robotic sampling has proven itself on more than 1.5 million acres in 18 states. Find out more, ask questions and see the rig in person!
- *Jodi Jaynes, Manager, Suretech Laboratories*
- Learn what happens to soil samples when they are sent to the lab including the mineral, organic matter, and pH testing as laboratories must strike a balance between quality testing procedures and timely results to customers. As soil health becomes more prevalent, find out what the future of soil testing looks like and how that can impact farmers and advisors.
- Autonomy, labor shortages, and the future of agriculture** (CCA: 1 PAg)
- *Andrew Klopfenstein, AgInfoTech*
 - *Scott Shearer, Professor/Chair, OSU Food, Agriculture, and Biological Engineering*
 - *Adam Farmer, Chief Technology Officer, Mercer Landmark*
- See Sabanto's autonomy control package on a Kubota M5 tractor in action as we discuss considerations for the transition to fully autonomous field machinery for crop production, potential for improved asset management, and potential pitfalls to avoid.
- Ag Technology for Placement of Fertilizer with the Planter** (CCA: 1 CM)
- *John Fulton, Professor, OSU Food, Agriculture, and Biological Engineering*
 - *Elizabeth Hawkins, Assistant Professor, OSU Extension*
- Fertilizer placement with the planter pass provides an opportunity to accurately place nutrients relative to the seed to help improve nutrient uptake. This stop will cover the value of planter placed fertilizer for crop production while highlighting new technologies to deliver products in-furrow and beside the seed.
- 4:00 pm **Adjourn Event**

PLEASE NOTE:

Be sure to claim your Fertilizer Certification Credits and CCA Credits before leaving for the day!