

## Kentuckiana Crop Production Seminar

November 29-30, 2022  
French Lick Resort Hotel  
8670 West State Rd 56  
French Lick, IN 47432

CCA Credits Approved: NM: 4 SW: 2 PM: 7 CM: 2  
IN Applicator CCH applied for: 11 Category 1; 3 Category 11; 4 Category 14; 11 Category RT  
KY Applicator CEU applied for: 5 General; 3 Category 1A, 10; 2 Category 4

### Tuesday, November 29, 2022

- 8:00 am      **Tar Spot of Corn: 2022 Update and Management Options in the Future**  
**Darcy Telenko**  
**Purdue University**  
Tar spot of corn, caused by *Phyllachora maydis*, is a newly established disease in Indiana and the Midwest. Since 2018, it has had a significant yield impacts on corn production in parts of Indiana. A summary of our experiences in will be presented, including an update on research, as we continue to improve our understanding of this disease and disease management options to mitigate yield loss.  
IN Applicator CCH: 1, 11, RT  
KY Applicator CEU: 1A, 10, 4  
CCA Credit: 1-PM
- 9:00 am      **Reduce the Fear at Frost with Prussic Acid Free Sorghum-Sudangrass**  
**Keith Johnson**  
**Purdue University**  
Sorghum has many beneficial properties. If proper management occurs, sorghum can be a safe and beneficial forage crop. Soon, a new hybrid will be on the market that is dhurrin-free. This hybrid will not release hydrogen cyanide (prussic acid) because there is no accumulation of dhurrin. This new hybrid will be a great option for removing the fear of cyanide toxicity.  
IN Applicator CCH: 0  
KY Applicator CEU: 0  
CCA Credit: 1-CM
- 10:00 am      **Meeting Break**
- 10:15 am      **New Ways to Kill the Same Old Weeds**  
**Bryan Young**  
**Purdue University**  
Commercialization of new herbicide active ingredients for weed management in the major agronomic crops has been nearly stagnate for the last 20 years. If we aren't getting new chemistry, we are challenged to identify alternative measures to improve, or even maintain, weed management in crops. This presentation will review the technologies entering the market to improve some aspect of weeds management, such as See & Spray systems, UAV herbicide applications, robotics, blue light, hammer mills, and electrocution.  
IN Applicator CCH: 1, RT  
KY Applicator CEU: 1 General  
CCA Credit: 1-PM

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- 11:15 am **Volunteer Corn Competition and Control in Soybeans Systems**  
**Marcelo Zimmer**  
**Purdue University**  
"Volunteer corn is one of the most important weeds of soybean production in the Midwest. This highly competitive herbicide-resistant weed can reduce soybean yields, interfere with soybean harvest, and increase the selection pressure for BT-resistant insect pests such as western corn rootworm. The introduction of dicamba- and 2,4-D-resistant soybean varieties has allowed soybean growers to apply synthetic auxin herbicides postemergence. Often, these synthetic auxin herbicides are applied in tank mixtures with ACCase-inhibiting herbicides (clethodim, quizalofop, others) that are used for volunteer corn control. This presentation will address volunteer corn competition with soybeans as well as the antagonistic effects of synthetic auxin herbicides on the control of volunteer corn using ACCase-inhibiting herbicides."  
IN Applicator CCH: 1, RT  
KY Applicator CEU: 1A, 10  
CCA Credit: 1-PM
- 12:15 pm **Group lunch**
- 1:15 pm **Macros, Micros, and Magical Mixes: Implementing Input-Intensive Management Practices in Corn**  
**Dan Quinn**  
**Purdue University**  
Recent increases in crop variable costs, weather variability, emerging diseases, and declines in yearly percent yield gains have driven farmers toward using multiple tactics to enhance corn yield. A popular strategy used to optimize corn yield is through combinations of higher seeding rates, additional macro and micronutrient fertilizer, and prophylactic chemical input applications. However, these management decisions can often be expensive, unnecessary, and may heighten the risk for biological resistance and nutrient losses. Field research trials were established across Indiana, Michigan, and Kentucky to examine corn physiological, yield, and economic responses to different input applications and management intensities. In addition, this project examines the role of input applications and management intensities on corn grain fill period duration and kernel weight accumulation.  
IN Applicator CCH: 1, 14, RT  
KY Applicator CEU: 1 General  
CCA Credit: 1-NM
- 2:15 pm **Planter technology and adjustment for better performance in tough conditions**  
**Tim Stombaugh**  
**University of Kentucky**  
Planting in Tough Conditions. Description: We often find ourselves trying to get crops in the ground when the conditions are less than ideal. This session will focus on planting technologies and operating BMP's to help get the best establishment of the crop.  
IN Applicator CCH: 0  
KY Applicator CEU: 0  
CCA Credit: 1-CM
- 3:15 pm **Meeting Break**
- 3:30 pm **Considerations and economics of sprayer drones**  
**Josh Jackson**  
**University of Kentucky**  
The purchase of a drone, or unmanned aerial system (UAS), sprayer must be evaluated carefully. For farmers and sprayer service providers who are thinking about purchasing a drone sprayer for their operation, many factors must be considered: the potential uses, certificates and licenses required, equipment needed, utilities used, software implemented, insurance needed, maintenance and repairs executed, cost metric utilized, time allocated, and application effectiveness. The feasibility and practicality of a drone sprayer will be dependent upon potential cost saving, time saving, or increased revenue generated.  
IN Applicator CCH: 1, 11, RT  
KY Applicator CEU: 1 General  
CCA Credit: 1-PM

- 4:30 pm      **Doubling Down on Your Straps and Chains**  
**Fred Whitford**  
**Purdue University**  
Losing cargo on the road is serious business. It results in material loss, personal injury, destruction of property and, sometimes, environmental impacts. When cargo spills are pesticides that can wind up in a nearby creek or other body of water. Properly loading, positioning, and securing pesticide-related cargo within the truck or on a trailer prevents highway accidents and reduces your liabilities.  
IN Applicator CCH: 1, RT  
KY Applicator CEU: 1 General  
CCA Credit: 1-PM
- 5:30 pm      **Adjourn**
- 6:00 pm      **Reception Social Hour**
- 7:00 pm      **Dinner on your own**

**Wednesday, November 30, 2022**

- 8:00 am      **Is there a better option than rye for a cover crop before corn?**  
**Chad Lee**  
**University of Kentucky**  
Is there a better option than rye for a cover crop before corn? Cereal rye has been the standard small grain used for cover crop the last decade. Barley or wheat should produce less biomass and possibly have a smaller nitrogen penalty than rye. This talk will discuss research progress on corn response to barley and wheat cover crops compared with rye.  
IN Applicator CCH: 0  
KY Applicator CEU: 0  
CCA Credit: 1-SW
- 9:00 am      **The next tar spot: new and re-emerging corn diseases**  
**Kiersten Wise**  
**University of Kentucky**  
New and re-emerging corn diseases such as Curvularia leaf spot and Fusarium crown rot have caused concern over the last few years. This presentation will discuss what is known about these diseases and what level of risk each pose to Indiana and Kentucky farmers, and potential management options.  
IN Applicator CCH: 1, 11, RT  
KY Applicator CEU: 1A, 10, 4  
CCA Credit: 1-PM
- 10:00 am      **Meeting Break**
- 10:15 am      **Kentuckiana Soils: issues that can and can't be controlled and the influence on soil productivity**  
**Jerry McIntosh**  
**NRCS**  
This talk will cover topics that can and should be done to increase soil productivity and how some factors/practices negatively influence productivity. Specific topics include how erosion influences the productivity of fragipan soil and limestone soils, how drainage and water table mitigation of poorly drained soils influence potential productivity of these soils.  
IN Applicator CCH: 0  
KY Applicator CEU: 0  
CCA Credit: 1-SW

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- 11:15 am      **Weed control tactics heading into 2023**  
**Travis Legleiter**  
**University of Kentucky**  
Tactics for controlling problematic weeds in corn soybean and wheat in Kentucky will be discussed as we look forward to the 2023 Season. Topics will include waterhemp control in early planted soybean and control of Italian ryegrass in Kentucky cropping systems.  
IN Applicator CCH: 1, RT  
KY Applicator CEU: 1 General  
CCA Credit: 1-PM
- 12:15 pm      **Group lunch**
- 1:15 pm      **Maximizing soybean canopy cover and crop nutrition**  
**Shaun Casteel**  
**Purdue University**  
This presentation will describe the best options (e.g., fertilizer combinations to be broadcast applied prior to planting, foliar sprays during the growing season) to manage nutrients (i.e., P, K, S) for soybean and determine opportunities for synergies in management to optimize yield and quality (i.e., protein).  
IN Applicator CCH: 1, 14, RT  
KY Applicator CEU: 0  
CCA Credit: 1-NM
- 2:15 pm      **Meeting Break**
- 2:30 pm      **Wheat Nutrition: N, S, and micronutrient (B + Zn) interactions**  
**John Grove**  
**University of Kentucky**  
This talk will cover statewide research over multiple years investigating how nutrient additions influences wheat grain yield and quality.  
IN Applicator CCH: 1, 14, RT  
KY Applicator CEU: 0  
CCA Credit: 1-NM
- 3:30 pm      **An Update on Nutrient Management Planning**  
**Ronan Cummins**  
**Agronomy One**  
The Perspectives of a Technical Service Provider to NRCS for Nutrient and Pest Management Planning in Kentucky and Indiana.  
IN Applicator CCH: 1, 14, RT  
KY Applicator CEU: 0  
CCA Credit: 1-NM
- 4:30 pm      **Adjourn**

The Kentuckiana Crop Production Seminar is brought to you by:

