# NORTHEAST-PURDUE AGRICULTURAL CENTER RESEARCH AND DEMONSTRATION PROJECTS 2020

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# **Department of Agronomy**

#### Corn Yield Response to In-furrow Biological Products

Purpose: Field-scale trial to compare yield response to biological products. Contact: Bob Nielsen and Jim Camberato; Agronomy

#### Corn Yield Response to Previous Soybean Seeding Rates

Purpose: Field-scale trial to compare yield response to prior years soybean seeding rates. Contact: Bob Nielsen and Jim Camberato; Agronomy

#### Corn Response to In-furrow & Sidedress Applications of Sulfur Fertilization

Evaluate corn response to sulfur fertilization. Contacts: Bob Nielsen and Jim Camberato, Agronomy

Soybean Response to Variable Sulfur Applications in Previous Corn Crop

Evaluate soybean response to sulfur fertilization the year before in corn. Contacts: Bob Nielsen and Jim Camberato, Agronomy

#### <u>Comparison of 2x2 Starter Fertilizers on the Growth, Development, and Yield of</u> <u>Continuous Corn</u>

Purpose: Better define fertilizer response of corn for making fertility recommendations in monoculture corn systems.

Contacts: Bob Nielsen and Jim Camberato; Agronomy

#### Indigenous Soil Potassium (K) Supply, Fertilizer K Use-efficiency, and K Budgets in Indiana Soybean Production

Purpose: Evaluate the agronomic efficiency of currently recommended Potassium (K) fertilizer rates and evaluate theoretically improved soil K tests for the ability to predict soil K supply.

Contacts: Jim Camberato; Agronomy

## Department of Agronomy (Continued)

#### Long-term Impact of Cover Crops on Cash Crop Nutrient Uptake, Yield and N Application Rate and Products

Purpose: To elucidate barriers in cover crop inclusion, deepen our understanding of cover crop to affect the availability of manure and inorganic N to cash crops in multiple cropping systems. Contact: Shalamar Armstrong; Agronomy

#### Corn Response to Cereal Rye Cover Crop and Stater Fertilizer Interactions

Purpose: To evaluate corn response to cover crop and starter fertilizer treatments Contact: Shalamar Armstrong; Agronomy

#### Corn Response to Fungicide Applications

Purpose: To evaluate corn response to fungicide applications at different growth stages Contact: Darcy Telenko; Agronomy

#### Soybean Response to Fungicide Applications

Purpose: To evaluate soybean response to fungicide applications at different growth stages Contact: Darcy Telenko; Agronomy

#### Soybean Variety x Seeding Rate Trial

Purpose: To fine-tune soybean seeding rate recommendations for Indiana growers. Contact: Shaun Casteel; Agronomy

#### Purdue Automated Agricultural Weather Station (PAAWS)

Purpose: Automated collection of weather data from this site is sent to the Indiana State Climate Office at Purdue University - data can be observed at: <u>http://climate.agry.purdue.edu</u> Contacts: Beth Hall and Rich Grant; Agronomy

### **Department of Entomology**

#### Transitional Organic Crop Production Research

Purpose: To transition conventional production farmland into Certified Organic farmland suitable for research with the use of cover crops and minimal tillage practices Contacts: Michael O'Donnell; Extension, Christian Krupke; Entomology

#### Soybean Aphid Suction Trap Network

Purpose: Monitor flight of soybean aphids. Contact: Christian Krupke; Entomology

#### <u>Specialty Crops Research Initiative (SCRI) - Impact of Neonicotinoid Insecticides on</u> <u>honey bee pollinators of melons.</u>

Purpose: Evaluate the effects of neonicotinoid insecticides on honey bee pollinators Contact: Laura Ingwell, Christian Krupke, Rick Foster, Larry Bledsoe, Entomology

#### Insect Pest Monitoring Network

Purpose: Monitor insect pest levels of corn, soybeans and wheat. Contact: John Obermeyer; Entomology

#### Halothane Research Survey

Purpose: Use DNA samples from Heliothine moths (Corn earworm) collected weekly throughout the United States to determine the phenology and distribution of a group of viruses known to infect those moths and determine how to use those viruses in IPM strategies. Contact: Paul Baker, Bruce Webb UKY and John Obermeyer; Entomology

#### Cooperative Ag Pest Survey (CAPS) for Exotic Insect Pests

Purpose: Monitor exotic insect pest levels of corn, soybeans and oak. Contact: Larry Bledsoe; Entomology