

Northeast Purdue Ag Center

List of Research and Demonstration Projects for 2023

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<https://ag.purdue.edu/department/arge/PACs/nepac/index.html>

Department of Agronomy

Corn Yield Response to Various Management Practices

Evaluate corn response to intensified management practices such as the use of fungicides, increased seeding rates, early season micronutrient applications and late season nitrogen applications.

Contact: Dan Quin, Malena Bartaburu Silva, Agronomy

Corn Yield Response to Planting Date x Hybrid Maturity x Fungicide

Evaluate corn response to these practices that affect have potential to affect yield - planting date, maturity of a hybrid, and applications of fungicides in a growing season.

Contact: Dan Quin, Darcy Telenko, Agronomy

Soybean Yield Response to Various Management Practices

Evaluate soybean response to intensified management practices such as various fertilizer application and rates, the use of fungicides, pesticides, and foliar fertilizer.

Contact: Shaun Casteel, Agronomy

Soybean Yield Response to Cereal Rye combined with Nitrogen and Sulfur Applications

Sulfur deficiencies in soybeans have been demonstrated since 2016 in Indiana. In 2018, several fields were responsive to sulfur when the normal rule of thumb would say “no”. The current hypothesis is that the biomass created a micro-environment that slowed mineralization (cool, wet) and higher C content immobilized the sulfur (and nitrogen).

Contact: Shaun Casteel, Agronomy

Soybean Yield Response to Sulfur Applications and Nutrients Carryover into Corn

Evaluate soybean response to sulfur fertilization and next year corn response.

Contacts: Bob Nielsen and Jim Camberato, Agronomy

Department of Agronomy (Continued)

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

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.

Contact: Jim Camberato, Agronomy

SARE - Ecology of Organic Cropping Systems

Evaluate various organic cropping systems and their effect on weed, insect, and pathogen pressure on corn, soybeans, and other small grains

Contacts: Christian Krupke and Ashley Adair, Extension

Corn Yield Response to Fungicide Applications

Evaluate corn response to fungicide applications at different growth stages

Contacts: Darcy Telenko, Agronomy

Soybean Yield Response to Fungicide Applications

Evaluate soybean response to fungicide applications at different growth stages

Contacts: Darcy Telenko, Agronomy

Soybean Yield Response to Application of Biological N and Nitrogen-Fixing Microbial

Evaluate soybean response to applications of biologicals and nitrogen-fixing microbial.

Contact: Shaun Casteel, Agronomy

Corn Yield Response to Application of Biological N and Nitrogen-Fixing Microbial

Evaluate corn response to applications of biologicals and nitrogen-fixing microbial.

Contact: Dan Quinn, Agronomy

Department of Entomology

Armyworm Trapping

Monitor armyworm insect pest levels across Indiana.

Contact: John Obermeyer, Entomology

Black Cutworm Pheromone Trapping

Monitor black cutworm insect pest levels across Indiana.

Contact: John Obermeyer, Entomology

Western Bean Cutworm Trapping

Monitor the presence of western bean cutworm across Indiana

Contacts: John Obermeyer & Laura Ingwell, Entomology

Corn Ear Worm Trapping

Monitor the presence of corn ear worm across Indiana
Contacts: John Obermeyer & Laura Ingwell, Entomology

Indiana Cooperative Ag Pest Survey (CAPS) for Invasive Pests

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

Other Collaborations

Soybean Aphid Suction Trap Network

A network of traps across the country to monitor soybean aphids levels throughout the year.
Contact: Dave Voegtlin, National Soybean Research Center

Purdue Automated Agricultural Weather Station (PAAWS)

Automated collection of weather data from this site is sent to the Indiana State Climate Office at Purdue University - data can be observed at: <http://climate.agry.purdue.edu>
Contact: Beth Hall and Stephen Boyer, Agronomy and NEPAC

Diagnostic Training Center (DTC)

Small plot demonstrations conducted by NEPAC staff to be used as talking points during workshops and field day events
Contacts: Chris Lake and Carl Emley, NEPAC