

**Pinney Purdue Agricultural Center
Research and Demonstration Projects
2024**

Stephen Boyer, Superintendent
11402 South County Line Road
Wanatah, IN 46390
219-733-2379 office
765-744-4337 cell
sboyer@purdue.edu
<https://ag.purdue.edu/arp/pac/Pages/ppac-home.aspx>

Department of Agronomy

Field A3

Popcorn Response to Nitrogen Rates

Purpose: Industry funded research plots to examine the effects of different nitrogen rates on commercial popcorn hybrids

Contact: Dan Quinn, Agronomy

Field A4

8 Small Plot Trials

Purpose: Industry funded research experiments to examine various aspects of corn production including: Bayer Short Corn Testing, Xyway Fungicide, Nutrien Fertilizer, Pivot Bio Seed Treatment, and Brandt Fertilizer

Contact: Dan Quinn, Erick Fuentes, Agronomy

Field B4

Corn Planting Date x Hybrid Maturity x Fungicide Trial

Purpose: Examine the yield effects and disease control of corn planting dates, hybrid maturity, and fungicide applications.

Contact: Dan Quinn, Darcy Telenko, Agronomy

4 Small Plot Trials

Purpose: Industry funded research trails to examine various aspects of corn production including: Nutrien and Corteva Fertilizers

Contact: Dan Quinn, Erick Fuentes, Agronomy

Field C2

Phosphorus Budgets in Indiana Corn Production

Purpose: Evaluate the agronomic efficiency of current phosphorus fertilizer rates and evaluate theoretically improved soil tests for ability to predict soil P supply.

Contact: Dan Quinn, Alex Helms, Agronomy

Field E1

6 Small Plot Trials

Purpose: Evaluate effects of various soybean production practices including biological products, fertilizer blends, and seed treatments

Contact: Shaun Casteel, Andrew Holderbaum, Agronomy

Department of Agronomy (continued)

Field E2-3

Evaluation of Forage and Grain Sorghum Hybrids

Purpose: Evaluate various hybrids of grain and forage sorghum.

Contact: Tesfaye Tesso, Keith Johnson, Nathan Bowser, Agronomy

Field H

Precision Planting (DeltaForce) Hydraulic Downforce Study

Purpose: Evaluate the effects of hydraulic downforce technology in corn production systems by comparing different downforce settings during planting in various planting conditions

Contact: Stephen Boyer, Dan Quinn, Agronomy

Field i1-2

Precision Planting Conceal 2x2x2 vs 2x2 Study

Purpose: Evaluate the effects of starter fertilizer 2x2x2 in corn production systems verse traditional 2x2 equipment that has been used for decades

Contact: Stephen Boyer, Dan Quinn, Agronomy

Field i3-4

Sulfur Fertilizer Applications vs Planting Date in Soybeans

Purpose: Evaluate the effects of soybean planting dates and sulfur applications using liquid fertilizer (Thiosulfate)

Contact: Shaun Casteel, Andrew Holderbaum, Agronomy

Field i7

Soybean Seeding Rate vs Planting Date Study

Purpose: Determine optimal soybean seeding rates for planting dates in May and June.

Contact: Shaun Casteel, Agronomy

Field K2

Low Nitrogen Tolerance in Perennial Ryegrass Germplasm

Purpose: Evaluate nitrogen levels in ryegrass.

Contact: Cankui Zhang, Agronomy

Field K3

Soybean Response to Various Biological Products

Purpose: Evaluate the growth and yield effects of biological enhancement products in soybean production systems

Contact: Shaun Casteel, Andrew Holderbaum, Agronomy

Field L1-3

Potassium Budgets in Indiana Soybean Production

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

Contact: Dan Quinn, Shaun Casteel, Alex Helms, Agronomy

Department of Agronomy (continued)

Mile Field

6 Small Plot Trials

Purpose: Evaluate effects of various soybean production practices including biological products, fertilizer blends, and seed treatments

Contact: Shaun Casteel, Andrew Holderbaum, Agronomy

50ac field

Corn Population Variable Rate Planting Study

Purpose: BASF sponsored large scale research experiment to determine the effects of variable rate seeding technology based on soil types

Contact: Dan Quinn, Agronomy

Department of Botany & Plant Pathology

Fields A1 A2 B1 B2

30 Small Plot Trials

Purpose: Corn and soybean production with a focus on disease evaluation and management using various fungicide products, irrigation, spraying techniques, spraying timings, and other practices

Contact: Darcy Telenko, Botany & Plant Pathology

Soybean White Mold Demonstration and Evaluation

Purpose: Monitor and evaluate white mold disease in soybeans

Contact: Darcy Telenko, Botany & Plant Pathology

Field B3

Tar Spot Monitoring in Corn Production

Purpose: USDA-NIFA funded trials monitoring diseases in corn production using UAVs, proximal sensing, imaging analysis, and a participatory modeling process to characterize tar spot in corn

Contact: Christian Cruz, Brenden Lane, Botany & Plant Pathology

Advancing Corn Pathology Research and Biosecurity Enhancement

Purpose: USDA-NIFA funded trials integrating trusted and innovative methods to model tar spot epidemics and unravel Corn-P. Maydis interactions

Contact: Christian Cruz, Brenden Lane, Botany & Plant Pathology

Tecsoil Inc. Testing Robotic Platforms for Integrated Crop Management

Purpose: Using robotic systems to monitor and evaluate tar spot and other corn diseases

Contact: Christian Cruz, Brenden Lane, Botany & Plant Pathology

Seed Treatment Effects on Early Planted Soybeans

Purpose: United Soybean Board funded trial investigating the effects of different seed treatments on soybeans planted throughout the spring (March – June)

Contact: Darcy Telenko, Christian Krupke, Steven Brand, Botany & Plant Pathology

Department of Botany & Plant Pathology (continued)

Field M1

2 Trials - Early Planted Soybeans and Residual Herbicides

Purpose: Evaluate the negative effects from early spring cold and wet weather on residual herbicides and early planted soybeans in sandy soils (March – May).

Contact: Julie Young, Botany & Plant Pathology

Field M2

AMVAC Corn Herbicide Carryover Study

Purpose: Study the effects various herbicide products and their carryover effects from year to year in corn and soybeans

Contact: Julie Young, Botany & Plant Pathology

Field M3

18 Trials - Weed Science Dept Evaluation of Herbicides and Spray Systems

Purpose: Determine the effectiveness of new chemicals, tank mixes, adjuvants, herbicide label recommendations, nozzles, and other technology on corn and soybeans.

Contact: Julie Young, Botany & Plant Pathology

Department of Entomology

Field C1

Crop Rotation Impacts on Parasitic Nematodes

Purpose: Evaluating the effects of corn, soybean and mint crop rotations on nematodes

Contact: Elizabeth Long, Christian Krupke, Entomology

Purdue Extension

6 Trials - Area XI Purdue Extension DTC Plots

Purpose: Various corn and soybean plots to showcase current Purdue research for Workshops and Field Day presentations

Contact: Phil Woolery, Purdue Extension

Department of Horticulture & Landscape Architecture

Understanding the Integration of Production, Food Safety, and Profitability on the Farm

Purpose: Contribute to knowledge of cultural practices, crop quality, production capacity, soil health, and food safety expectations.

Contact: Petrus Langenhoven, Horticulture

High Tunnel Cover Crop Demo

Purpose: This project will demonstrate cover crop planting in the high tunnel footprints where no crop is planned.

Contact: Liz Maynard, Horticulture and Landscape Architecture

Collaborations

Field C3

Regional Soybean Trials

Purpose: USDA-ARS funded research to evaluate soybean production in varieties grouped by maturity for comparison.

Contact: Adam Brock, USDA-ARS

Field K1

Porter County SWCD Conventional Tillage vs No-Till Demonstration

Purpose: Evaluate the agronomic effects of no-till/cover crop usage vs conventional tillage practices to promote the transition of NW IN to more conservative farming practices

Contact: Stephen Boyer, Porter Co SWCD

Corn Planter Technology Showcase

Purpose: Evaluate the advantages from new high tech planting equipment vs old 1990s planting equipment

Contact: Stephen Boyer, Purdue Ag Center

Mary S. Rice Farm

North Pivot

DIFM Fungicide and Humika Foliar Study

Purpose: Large scale corn research trial to evaluate the effects of fungicide and other foliar products in an irrigated corn field

Contact: Stephen Boyer, Purdue Ag Center

Irrigation Scheduling Procedures

Purpose: Evaluate the effects of irrigation in corn production according to scheduling tools provided by Purdue and MSU

Contact: Stephen Boyer, Purdue Ag Center

South Pivot

Irrigation Scheduling Procedures

Purpose: Evaluate the effects of irrigation in soybean production according to scheduling tools provided by Purdue and MSU

Contact: Stephen Boyer, Purdue Ag Center

Department of Entomology

Black Cutworm Pheromone Trapping

Purpose: Monitor the presence of black cutworm.

Contact: John Obermeyer/Laura Ingwell, Entomology

Western Bean Cutworm Trapping

Purpose: Monitor the presence of western bean cutworm.

Contact: John Obermeyer/Laura Ingwell, Entomology

Department of Entomology (continued)

Corn Ear Worm Trapping

Purpose: Monitor the presence of corn earworm.

Contact: John Obermeyer/Laura Ingwell, Entomology

Department of Forestry & Natural Resources

2005 Black Cherry Coppice Trial

Purpose: To test the effect of coppicing cherry trees after four years of growth on timber form and quality.

Contact: Don Carlson, Brian Beheler, Department of FNR, Phil O'Connor, IN-DNR Forestry

2009 Black Cherry Progeny Test

Purpose: One of a series of progeny tests of various cherry families from a grafted seed orchard.

Contact: Don Carlson, Caleb Kell, and Brian Beheler - Department of FNR

2009 Containerized Stock Test

Purpose: Compare Red Oak and Walnut grown in two different sized containers vs. bare rootstock.

Contact: Don Carlson, Caleb Kell, Lenny Farlee, and Brian Beheler - Department of FNR

2011 MOG Butternut Study

Purpose: Compare hybrid and pure Butternut in relation to Black Walnut and Red Oak.

Contact: Don Carlson, Caleb Kell, Brian Beheler, and Doug Jacobs - Department of FNR

2011-2013 Advanced Butternut Seed Orchard

Purpose: A grafted seed orchard with new selections that have proven resistant to Butternut Canker fungus in screening tests at Purdue University.

Contact: Don Carlson, Caleb Kell, and Brian Beheler - Department of Forestry & Natural

Collaborative Forestry Research Study

Purpose: Study the Competition, coexistence and community structure: Identifying the mechanisms that structure Indiana forests.

Contact: Dr. Brady Hardiman

Natural Resources Demonstration Area

Purpose: Demonstration area maintained since 2002. The site was developed to provide a consolidated location with a wide range of natural resource research and management examples to allow efficient use during educational field days, workshops for the general public, as well as training and applied research opportunities for future FNR students.

Contact: Don Carlson, Jarred Brooke, Phil Woolery, Lenny Farlee, and Brian Beheler, Forestry & Natural Resources

Collaborations

Soybean Aphid Suction Trapping

Purpose: Monitor the presence of soybean aphids in NW Indiana.

Contact: Doris Lagos-Kutz, USDA-ARS, University of Illinois

National Weather Service Station

Purpose: Provide daily weather information to the National Weather Service.

Contact: Stephen Boyer, Jaela Gudeman, Purdue Ag Center

Purdue Automatic Weather Station (Purdue Mesonet)

Purpose: Automated collection of weather data

Contact: Beth Hall, Agronomy