Department of Agronomy

**Soybean Varietal Glyphosate Tolerant Performance Trial**
Purpose: State variety performance trials.
Contact: Phil DeVillez and Bill Foster, Agronomy

**Specialty Soybean Study**
Purpose: Evaluate Specialty variety performance trials.
Contact: Phil DeVillez and Bill Foster, Agronomy

**Bayer LL Soybean Study**
Purpose: Evaluate Bayer variety performance trials.
Contact: Phil DeVillez and Bill Foster, Agronomy

**Corn Hybrid Glyphosate Tolerant Performance Trial**
Purpose: State hybrid performance trials.
Contact: Phil DeVillez and Bill Foster, Agronomy

**Corn Hybrid Conventional Performance Trial**
Purpose: State hybrid performance trials.
Contact: Phil DeVillez and Bill Foster, Agronomy

**Specialty Corn Study**
Purpose: Evaluate Specialty hybrid performance trials.
Contact: Phil DeVillez and Bill Foster, Agronomy

**Waxy Corn Study**
Purpose: Evaluate yield drag and population effects in hybrid performance trials.
Contact: Phil DeVillez and Bill Foster, Agronomy
Department of Agronomy (Continued)

Indigenous Soil Potassium Supply  Fertilizer Potassium Use Efficiency

Potassium Budgets in Indiana Corn Production
Purpose: Evaluate the agronomic efficiency of currently recommended Potassium (K) fertilizer rates and evaluate theoretically improved soil potassium tests for ability to predict soil K supply.
  Contact: Sylvie Brouder, Shaun Casteel, and James Camberato, Agronomy

Potassium Budgets in Indiana Soybean Production
Purpose: Evaluate the agronomic efficiency of currently recommended Potassium (K) fertilizer rates and evaluate theoretically improved soil potassium tests for ability to predict soil K supply.
  Contact: Sylvie Brouder, Shaun Casteel, and James Camberato, Agronomy

Role of Starter Fertilizer and Yield of Continuous Corn
  Contact: Bob Nielsen & Jim Camberato, Agronomy

Corn Responses to In-furrow applications of Biological & PGR “Growth Enhancers”
Purpose: Corn response to in furrow treatments in combination with normal starter fertilizer.
  Contact: Bob Nielsen & Jim Camberato, Agronomy

Effects on Soybean Growth and Yield of Previous, Long-Term Variable N Rates to Corn
Purpose: Bulk seeding of soybeans in a soybean/corn rotation.
  Contact: Bob Nielsen & Jim Camberato, Agronomy

Yield Component Response of Corn Hybrid to Sulfur Fertilizer – Mary Rice Farm
Purpose: Corn responses to in-furrow & side dress applications of Sulfur Fertilizer treatments. All plots eventually receiving same total amounts of nitrogen.
  Contact: Bob Nielsen, Agronomy

Sulphur effects on yield in corn/soybean rotation – Mary Rice Farm
Purpose: Evaluate yield response to sulfur treatments applied to corn and soybeans in crop rotation.
  Contact: Bob Nielsen, Agronomy

Phosphorous (P) Response of Corn on a Low P Soil
Purpose: To evaluate the response on low phosphorous soil on corn and soybean crops.
  Contact: James Camberato, Agronomy

Plant Population Effects on Continuous Corn
Purpose: To evaluate plant population effects in continuous corn.
  Contact: James Camberato, Agronomy

Industry Supported Irrigation Nitrogen Rate and Timing Study for Corn
Purpose: to evaluate corn performance as influenced by nitrogen rate, hybrid, and timing at the Rice Farm.
  Contact: Tony Vyn, Agronomy
Department of Agronomy (Continued)

**Soybean Seeding Rate x Plant Type Trial-PPAC**
Purpose: Evaluate the performance of soybean seeding rates in large plots.
  Contact: Shaun Casteel, Agronomy

**Sulfur Sources-Rice Farm**
Purpose: Company interest in supplying Sulfur needs through dry fertilizer application early planting season. Products to be considered AMS, MESZ, tiger CR, and Gypsum.
  Contact: Shaun Casteel, Agronomy

**Undercover – Manganese-PPAC**
Purpose: Can undercover applications correct deficiencies of non-mobile to nearly non-mobile plant nutrients like Sulfur and Manganese
  Contact: Shaun Casteel, Agronomy

**Undercover – Manganese & Sulfur-Rice Farm**
Purpose: Can undercover applications correct deficiencies of non-mobile to nearly non-mobile plant nutrients like Sulfur and Manganese
  Contact: Shaun Casteel, Agronomy

**R5 Sulfur Rescue-Rice Farm**
Purpose: Observations of increase yield with late season R5 rescue applications of KTS on soybeans.
  Contact: Shaun Casteel, Agronomy

**Sulfur and Quality on Loam soil Type**
Purpose: Evaluate sulfur treatments, ATS at burn down timing, gypsum, and foliar applied sulfur.
  Contact: Shaun Casteel, Agronomy

**Sulfur Season-Rice Farm**
Purpose: Observations of increase yield with AMS prior to emergence as well as the sequential foliar application at V4 and R2 on soybeans.
  Contact: Shaun Casteel, Agronomy

**Product Evaluations-PPAC**
Purpose: Evaluate various products across multiple varieties.
  Contact: Shaun Casteel, Agronomy

**Sulfur BIG (Field Scale S Season) Rice**
Purpose: Evaluation of Sulfur applications to soybeans at field scale levels based on fertilizer and combine widths.
  Contact: Shaun Casteel, Agronomy

**Soybean Pop-up Fertilizer-PPAC**
Purpose: Investigate response to starter and popup fertilizer in soybeans.
  Contact: Shaun Casteel, Agronomy

**Oleic Irrigated and non-irrigated Soybean – Seeding Rate x Plant Type- PPAC**
Soybean seeding rate recommendation refinement based on region or soil and to determine the underlying factors for the various soybean responses to plant populations.
  Contact: Shaun Casteel, Agronomy
**Relay Soybeans-Edible and Soy- Sandy Soil-PPAC**
Purpose: Edible bean and soybean compared in a relay and double crop scenario in Northern Indiana.
   Contact: Shaun Casteel, Agronomy

**Relay Soybeans-Edible and Soy- Loam Soil-PPAC**
Purpose: Edible bean and soybean compared in a relay and double crop scenario in Northern Indiana.
   Contact: Shaun Casteel, Agronomy

**Purdue Automatic Weather Station (PAAWS)**
Purpose: Automated collection of weather data from this site sent to a computer at the Indiana State Climate Office, which can be observed at [http://climate.agry.purdue.edu](http://climate.agry.purdue.edu).
   Contact: Rich Grant and Ken Scheeringa

**Soft Red Winter Wheat Yield Trial**
Purpose: This experiment is to generate yield, yield component, and disease resistance data for soft red winter wheat in cultivar recommendations.
   Contact: Mohsen Mohammadi/Sintayehu Daba

**Department of Entomology**

**Role of microbe sin the transmission of insect vectored plant pathogens**
Purpose: Investigate whether bacterial communities associated with aphids can influence transmission of Barley yellow dwarf virus.
   Contact: Laramy Enders, Entomology

**Armyworm Trapping**
Purpose: To monitor the presence of armyworm.
   Contact: Larry Bledsoe, Entomology

**Black Cutworm Pheromone Trapping**
Purpose: To monitor the presence of black cutworm.
   Contact: John Obermeyer, Entomology

**Western Bean Cutworm Trapping**
Purpose: To monitor the presence of western bean cutworm.
   Contact: John Obermeyer, Entomology

**Corn Ear Worm Trapping**
Purpose: To monitor the presence of corn earworm.
   Contact: John Obermeyer, Entomology

**Corn Trap Crop**
Purpose: A trap crop for corn rootworm eggs in 2018 to provide experimental area in 2019.
   Contact: Christian Krupke, Entomology
Evaluate neonic residues and effect on secondary pests on continuous corn
Purpose: Study neonic residues and effect on secondary pests on continuous corn.
    Contact: Christian Krupke, Larry Bledsoe, Entomology

Efficacy of Commercial and Experimental Insecticides Used to Control Corn Insects
Purpose: Evaluate new products and generate data for extension recommendations.
    Contact: Christian Krupke, Entomology

Indiana Cooperative Agricultural Pest Survey (CAPS) for Invasive Pests
Purpose: Site for trap grid to monitor for invasive insect species.
    Contact: Larry Bledsoe, Entomology

Specialty Crops Research Initiative (SCRI)
Purpose: Impact of neonicotinoid insecticides on honeybee pollinators of melons.
    Contact: Laura Ingwell, Christian Krupke, and Larry Bledsoe

Department of Botany & Plant Pathology

Uniform Soybean Test – Northern Region
Purpose: Evaluating USDA Uniform Soybean Test Strains grouped by maturity for comparison
    and seed increases
    Contact: Gary Knowling

(10) - Weed Science Confidential Company Products for Evaluation
Purpose: Determine the effectiveness of company products
    Contact: Julie Young, Botany & Plant Pathology

Department of Horticulture & Landscape Architecture

Organic transplant – cool season crops, lettuce
Purpose: Evaluate establishment of cool season vegetable transplants grown in various
    growing media.
    Contact: Elizabeth Maynard, Horticulture

Organic transplant – warm season crops
Purpose: Evaluate establishment of warm season vegetable transplants (tomato and
cucumber) grown in various growing media.
    Contact: Elizabeth Maynard, Horticulture and Weroging Guan, Horticulture

High Tunnel Vegetable Production – Organic
Purpose: Evaluate cucumber varieties for yield and trait characteristics when grown in an
    unheated High Tunnel.
    Contact: Elizabeth Maynard, Horticulture

Organic Transplant - spinach
Purpose: Evaluate establishment of spinach and lettuce transplants grown in various growing
    media.
    Contact: Elizabeth Maynard, Horticulture
Department of Forestry & Natural Resources

**Assessing Poplar Species Suitability and Productivity in Indiana**
Purpose: Testing of Poplar trees for biofuel production from cellulosic feedstock.
   Contact: Rick Meilan, Associate Professor, 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: Jim McKenna, Brian Beheler, and Don Carlson, USDA-ARS and Department of Forestry & Natural Resources

**2009 Black Cherry progeny test**
Purpose: One of a series of progeny tests of various cherry families from a grafted seed orchard.
   Contact: Jim McKenna, Brian Beheler, and Don Carlson, USDA-ARS and Department of Forestry & Natural Resources

**2009 Containerized Stock Test**
Purpose: Compare Red Oak and Walnut grown in two different sized containers vs. bare rootstock.
   Contact: Jim McKenna, Brian Beheler, and Don Carlson, USDA-ARS and Department of Forestry & Natural Resources

**2011 MOG Butternut Study**
Purpose: Compare hybrid and pure Butternut in relation to Black Walnut and Red Oak.
   Contact: Jim McKenna, Brian Beheler, and Don Carlson, Forestry & Natural Resources

**2011 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: Jim McKenna, Brian Beheler, and Don Carlson, USDA-ARS and Forestry & Natural Resources

**Understanding Habitat Needs of Northern Long Eared Bats in Northern Indiana Landscapes**
Purpose: Predictive maps of landscape level habitat needs of Northern Long Eared Bats in Northern Indiana developed based upon historic records and observations collected during fieldwork completed during the summers of 2017 and 2018.
   Contact: Dr. Patrick Zollner, Cheyenne Gerdes

**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 Initiation**
Purpose: To establish a natural resources demonstration area at Pinney-PAC.
   Contact: Don Carlson, Forestry & Natural Resources
United States Department of Agriculture-ARS

USDA-ARS Northern Regional Soybean Trials
   Contact: Gary Knowling, USDA-ARS

Other Cooperating Units or Areas

Soybean Aphid Suction Trapping
Purpose: To monitor the presence of soybean aphid.
   Contact: Dave Voegtlin, National Soybean Research Center

National Weather Service Manual Read Station
Purpose: To provide daily weather information to the National Weather Service.
   Contact: Pinney-PAC Staff