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Department of Agronomy

**Purdue Crop Performance Trial**
Purpose: Early group soybean trials.
Contacts: Phil DeVillez & Bill Foster

**Purdue Crop Performance Trial**
Purpose: Mid group soybean trials.
Contacts: Phil DeVillez & Bill Foster

**Purdue Crop Performance Trial**
Purpose: Late group soybean trials.
Contacts: Phil DeVillez & Bill Foster

**Purdue Crop Performance Trials**
Purpose: Non-GMO corn trial with watermelon hybrids.
Contacts: Phil DeVillez & Bill Foster

**CASTNet Dry Deposition Measurements**
Purpose: The measurement of gaseous and collection of gaseous and particulate pollutants in combination with meteorological conditions are made at this site in order to 1) characterize geographic patterns and temporal trends in chemical atmospheric dry deposition 2) support assessments of atmospherically – deposited nutrients.
Contact: Rich Grant

**National Atmospheric Deposition Program/Mercury Deposition Network**
Purpose: The collection of rain water from this site in order to: 1) characterize geographic patterns and temporal trends in wet chemical mercury deposition and 2) Support assessments of atmospherically-deposited mercury on the productivity of biological accumulators such as fish.
Contact: Rich Grant

**National Atmospheric Deposition Program/National Trends Network**
Purpose: The collection of rain water from this site is made in order to: 1) Characterize geographic patterns and temporal treads in chemicals as well as quantity and conductivity of atmospheric wet deposition and 2) support assessments of atmospherically – deposited nutrients influencing crop productivity.
Contact: Rich Grant
Department of Agronomy (Continued)

**Ammonia Monitoring Network**
Purpose: The collection of gaseous ammonia from the site is made in order to 1) characterize geographic patterns and temporal trends in background ammonia levels, 2) support assessments of atmospherically-deposited nitrogen on the ecosystem function.
   
   Contact: Rich Grant

**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: [http://climate.agry.purdue.edu](http://climate.agry.purdue.edu)

**National Weather Service Station (NWS)**
Purpose: Manual collection of daily weather observations from this site are sent to the NWS via a web-based application known as WxCoder.
   
   Contact: Rich Grant & SWPAC Staff

**U.S. Geological Survey**
Purpose: Monitoring of atmospheric mercury dry deposition in litter fall.
   
   Contact: Douglas Burns & SWPAC Staff

**National Winter Canola Variety Trial**
Purpose: Evaluate canola varieties to identify best adapted varieties for southwest Indiana.
   
   Contacts: Charles Mansfield & Mike Stamm

**Winter Canola Proprietary Germplasm Screen**
Purpose: Evaluate winter canola entries for winter hardiness, stand ability, disease tolerance, and yield potential.
   
   Contacts: Charles Mansfield & Brian Caldbeck

**Canola Early Germplasm Screen with Plant Growth Regulator**
Purpose: Evaluate the effect of various plant growth regulators on canola for winter hardiness, standability, disease tolerance, grain yield and quality.
   
   Contacts: Charles Mansfield & Brian Caldbeck

**Tolerance of Canola to Spartan Herbicide**
Purpose: Evaluate the effect of Spartan herbicide applied at two different times and applied at two different rates on canola for winter hardiness, standability, disease tolerance, grain yield and quality.
   
   Contacts: Charles Mansfield & Brian Caldbeck

**Clearfield Canola Validation Screen**
Purpose: Compare no herbicide with the 2X rate of Beyond herbicide on the growth and early development of Clearfield canola lines as compared to non-tolerant control lines of canola for purposes of verifying herbicide tolerance in the Clearfield lines.
   
   Contacts: Charles Mansfield & Brian Caldbeck

**Wheat Variety Trial**
Purpose: Southwestern Indiana Independent Wheat Variety Trials exist to provide growers in this area unique information to their geographic area.
   
   Contacts: Charles Mansfield, Hans Schmidt & Nick Held
Department of Agronomy (Continued)

**Wheat Plant Growth Regulator Evaluation**
Purpose: Evaluate the effect of two plant growth regulators on winter wheat for lodging, plant height, grain yield and quality.
  Contacts: Charles Mansfield, Van Malter, Eastman Chemical Company

**Evaluation of Hemp Varieties for Fiber Use**
Purpose: Evaluate Sunstrand hemp variety for fiber production in southern Indiana at 3 nitrogen rates and 4 seeding rates.
  Contacts: Chuck Mansfield, Ron Turco & Dennis Nowaskie

**Evaluation of Hemp Varieties for Seed Use**
Purpose: Evaluate five hemp varieties for seed production in southern Indiana.
  Contacts: Chuck Mansfield, Ron Turco & Dennis Nowaskie

**Hemp Herbicide Screen**
Purpose: Evaluate crop tolerance of Sunstrand hemp variety to various herbicides.
  Contacts: Chuck Mansfield, Ron Turco & Dennis Nowaskie

**Evaluation of Plant Characteristics of Three Varieties of Hemp Clones**
Purpose: Evaluate three CBD hemp female clone varieties for plant characteristics. Evaluate plant vigor, height and width, days to harvest maturity.
  Contacts: Chuck Mansfield, Ron Turco & Dennis Nowaskie

**Winter Wheat Yield Trials**
Purpose: To generate data that can be used in variety selection process.
  Contact: Mohsen Mohammadi

**Sulfur Effects on Soybean Yields**
Purpose: Evaluate yield response of sulfur applications to soybeans.
  Contact: Shaun Casteel & Amanda Modglin

**Sulfur Effects on Corn Yield**
Purpose: Determine the effects of sulfur on corn yield.
  Contact: Bob Nielsen & Jim Camberato

**Department of Botany & Plant Pathology**

**Downy Mildew Sentinel Plot**
Purpose: To monitor the possible on-set of Downy Mildew in Indiana.
  Contact: Dan Egel.

**Evaluate Stroller Products in Pumpkin Production**
Purpose: Evaluate Stroller products in pumpkins.
  Contact: Dan Egel

**Bacterial Diseases Tomato Trial**
Purpose: Field experiment that compares products and their effects on bacterial diseases of processing tomatoes.
  Contact: Dan Egel
Fusarium Greenhouse Study
Purpose: Managing fusarium wilt of greenhouse watermelon transplants.
Contact: Dan Egel

Organic Tomato Plot
Purpose: Study organic control options for foliar tomato diseases.
Contact: Dan Egel

Fungicide Comparison in Wheat
Purpose: Efficacy of foliar fungicides on FHB in wheat.
Contacts: Darcy Telenko & Jeffrey Ravellette

Soybean Sentinel Plots
Purpose: Observe crop diseases throughout the growing session.
Contacts: Darcy Telenko & Jeffrey Ravellette

Fungicide Comparison in Soybeans
Purpose: Efficacy of foliar fungicides on soybean diseases.
Contacts: Darcy Telenko & Jeffrey Ravellette

Fungicide Comparison in Double Crop Soybeans
Purpose: Efficacy of foliar fungicides on soybean diseases.
Contacts: Darcy Telenko & Jeffrey Ravellette

Corn Sentinel Plots
Purpose: Observe crop diseases throughout the growing season.
Contacts: Darcy Telenko & Jeffrey Ravellette

Fungicide Comparison in Corn
Purpose: Efficacy of foliar fungicides on corn diseases.
Contacts: Darcy Telenko & Jeffrey Ravellette

Fungicide Comparison in Corn - Industry
Purpose: Efficacy of foliar fungicides on corn diseases.
Contacts: Darcy Telenko & Jeffrey Ravellette

Fungicide Comparison in Corn - BASF
Purpose: Efficacy of foliar fungicides on corn diseases.
Contacts: Darcy Telenko & Jeffrey Ravellette

Department of Entomology

Earworm Pheromone Trapping
Purpose: To monitor the presence of earworm moths.
Contact: Laura Ingwell

Indiana Cooperative Agricultural Pest Survey (CAPS) for Exotic Insect Pests of Soybean & Corn
Purpose: Establish traps sites and sample areas needed to monitor for exotic insect species.
Contact: Larry Bledsoe
Department of Entomology (continued)

**Armyworm Pheromone Trapping**
Purpose: To monitor the presence of armyworm moths.
   Contact: John Obermeyer

**Navigating the Trade-off Between Pest Management and Pollinator Conservation in Cucurbits**
Purpose: Effect within & surrounding field impacts of neonicotinoid insecticides on honey bees.
   Contact: Laura Ingwell, Ian Kaplan & Jacob Pecenka

**Ecosystem Services Assessment in Watermelon and Corn Ecosystems**
Purpose: Assess the insect community within watermelon and corn production systems and determine the exosystemic services that predatory insets are having on pet populations.
   Contact: Steve Yaninek, Amanda Skidmore & Ivan Grijalva

**Investigating the Role of Symbiotic Microbes in the Transmission of Insect-vectored Plant Pathogens**
Purpose: Investigates whether bacterial communities associated with aphids can influence transmission of Barley yellow dwarf virus.
   Contact: Laramy Enders, Laura Ingwell & Brandi Schemerhorn

**Purdue Extension**

**Southwest Indiana Crop Diagnostic Training Clinic**
Purpose: To demonstrate and teach timely agronomic information to crop consultants and growers.
   Contact: Valerie Clingerman, Bob Nielsen, Chuck Mansfield

**UAV use in Melon Production**
Purpose: To see if there are visual effects of watermelon with cereal rye strips fb wheat
   Contact: Valerie Clingerman

**Day on the Farm for 3rd Graders**
Purpose: To allow Knox County 3rd graders an opportunity to plant a watermelon and visit a farm.
   Contact: Valerie Clingerman & Mitch Wagoner

**Pumpkin Days for 1st Graders**
Purpose: To allow Knox County 1st graders an opportunity to see a pumpkin field and pick their own pumpkins
   Contact: Valerie Clingerman & Mitch Wagoner

**Identification of Food Safety Best Practice for Indiana Cantaloupe Production**
Purpose: Best practice for use of biological amendments of animal origin in cantaloupe production.
   Contact: Scott Monroe & Amanda Deering
Purdue Extension (continued)

**Good Agricultural Practices for Postharvest Handling of Leafy Green Using a Bubbler System**

Purpose: This project involves growing leafy greens, inoculating them with biological soil amendment of animal origin and following harvest, using them to estimate the efficacy of various sanitizers in a bubbler system.

Contact: Scott Monroe & Amanda Deering

**Department of Forestry & Natural Resources**

**Testing Organic Herbicides**

Purpose: Testing various enzymes, including some present in the gut of termites, for their ability to kill woody plants after injection.

Contact: Rick Meilan

**Department of Horticulture & Landscape Architecture**

**Seedless Watermelon Variety Trial**

Purpose: Evaluate yield and fruit quality of seedless watermelon varieties.

Contact: Wenjing Guan

**Personal Size Watermelon Variety Trial**

Purpose: Evaluate yield and fruit quality of personal size watermelon varieties.

Contact: Wenjing Guan

**Evaluate Yield and Quality of Specialty Melons Grown in a High Tunnel**

Purpose: This trial will evaluate yield and quality of specialty melons grown in a high tunnel.

Contact: Wenjing Guan

**Evaluate IR Soil Heating Mat in Extending Crop Season of Tomato, Pepper and Cucumber**

Purpose: This project will evaluate IR soil heating mat in extending crop season of tomato, pepper and cucumber. Transplant death, crop injury and early yield will be evaluated. We will also recode lectic use of using this technology.

Contact: Wenjing Guan

**Evaluate Effects of MycoApply EndoMaxx on Processing Tomato Yield and Quality**

Purpose: MycoApply EndoMaxx is a plant biostimulate containing endomycorrhizal fungi. The project will evaluate its use in processing tomato production. Treatment will include transplant drench and soil applied through transplant water.

Contact: Wenjing Guan

**Evaluate Effects of TerraStar Disk Technology on Processing Tomato Yield and Quality**

Purpose: TerraStar is a new disk technology. It is applied to soil right after transplant. This project will evaluate processing tomato yield and quality.

Contact: Wenjing Guan

**Evaluate efficacy and crop safety of Authority Elite on Processing Tomato**

Purpose: Authority Elite is a preemergence herbicide. This project will evaluate potential crop injury and weed control efficacy of using Authority Elite.

Contact: Wenjing Guan
Department of Horticulture & Landscape Architecture (continued)

**Evaluate Organic Potting Soil on Transplant Production**
Purpose: Evaluate organic potting soil and organic fertilizers on watermelon and tomato transplant production. Most of the project will be conducted in a greenhouse. A small amount of tomatoes will be transplanted in the field next to the high tunnel.
   Contact: Wenjing Guan

**Evaluate Yield and Plant Growth of Grafted Cucumbers with Different Rootstocks**
Purpose: The goal of this project is to enhance cucumber cold tolerance through grating. Different rootstocks will be evaluated. Plant yield potential, cold hardiness, and cucumber quality will be evaluated.
   Contact: Wenjing Guan

**Evaluate Seedcorn Maggot and Wireworm Damages to Grafted ad Un-grafted Cucumbers**
Purpose: This trial will evaluate seedcorn maggot and wireworm damages to grafted and un-grafted cucumbers.
   Contact: Wenjing Guan

**Evaluate Cold Tolerance of Cucumber Cultivars**
Purpose: This trial will evaluate cold tolerance of cucumber cultivars.
   Contact: Wenjing Guan

**Evaluate Performance of Cantaloupe and Specialty Melons**
Purpose: Evaluate yield and fruit quality of cantaloupe and specialty melon varieties in Indiana.
   Contact: Wenjing Guan

**Plant Spacing of Grafted Watermelons**
Purpose: Optimize plant spacing of grafted watermelons.
   Contact: Wenjing Guan

**Evaluate Strawberries Grown in a High Tunnel**
Purpose: The project will evaluate strawberries grown in a high tunnel.
   Contact: Wenjing Guan

**Extend Strawberry Harvest Season in Southern Indiana – March Planting**
Purpose: To promote strawberry production and extend strawberry harvest season in southern Indiana. The March planting project is to evaluate crop yield and harvest duration of day-neutral strawberries.
   Contact: Wenjing Guan

**Extend Strawberry Harvest Season in Southern Indiana – Summer Planting**
Purpose: To promote strawberry production and extend strawberry harvest season in southern Indiana. The summer planting project is to evaluate crop yield and harvest duration of June-bearer strawberries planted in the summer with bare roots. Use of low tunnels system in strawberry production will be evaluated in the project.
   Contact: Wenjing Guan
**Extend Strawberry Harvest Season in Southern Indiana – Fall Planting**

Purpose: To promote strawberry production and extend strawberry harvest season in southern Indiana. The fall planting project is to evaluate crop yield and harvest duration of June-bearing strawberries planted in fall with plug plants. This project will be conducted in both open-field and high tunnel.

   Contact: Wenjing Guan

**Wine Grape Research**

Purpose: Evaluation of wine grape varieties in southwest Indiana.

   Contact: Bruce Bordelon

**Table Grape Research**

Purpose: Evaluation of table grape varieties in southwest Indiana.

   Contact: Bruce Bordelon

**Chestnut Study**

Purpose: Evaluate Chestnut tree growth and nut production.

   Contact: Bruce Bordelon