SOUTHERN INDIANA PURDUE AGRICULTURAL CENTER
RESEARCH AND DEMONSTRATION PROJECTS
2025

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https://ag.purdue.edu/arp/pac/Pages/sipac-home.aspx

Department of Horticulture & Landscape Architecture

Investigating the re-integration of organic food crops and animal production on above and below ground diversity, soil health, farm resilience and food safety

Contact Moriah Bilenky, Purdue University

Department of Animal Sciences

Evaluation of new cattle weighing technology

Purpose: Evaluate the accuracy and importance of automated weighing technologies for its integration in genetic evaluation and herd management.
Contact: Nick Minton, Department of Animal Sciences, Jason Tower, Purdue University

Sheep GEMS' Project (Genetics, Environment, Management and Society)

Contact: Luiz Brito, Purdue University, Ron Lewis, University of Nebraska-Lincoln

Monitoring Three Grazing Systems Utilizing Different Forage Base Under Similar Management and Stocking Rates

Contacts: Jason Tower and Nick Minton, Purdue University Patrick Keyser, University of Tennessee

Department of Agronomy

Purdue Automated Weather Station

Purpose: to collect weather data that can be accessed real time via the internet.
Contact: Beth Hall – Purdue

Collaborations and Extension Demonstrations

Weed Science Collaboration with Corteva

Purpose: Establish weed management plots to evaluate new and existing broadleaf herbicide technologies in established pasture settings.
Contact Jason Tower, Purdue University and Rachel Walker, Corteva

Demonstration of Grain Sorghum for Winter Grazing

Contact Jason Tower, Purdue University

Monitoring for the arrival of Asian Long Horn Ticks in Indiana

Contact Doug Ginder, Indiana Department of Health

Collaborations and Extension Demonstrations (continued)

Establishment of a Weeds Toxic to Livestock Garden

Contact Dr. Grant Burcham, Purdue University ADDL, Molley Hasenour, Purdue Extension

Evaluating the efficacy of different fly tags in beef cattle for Face and Horn fly control

Contact: Ralph Williams, Entomology-Purdue University Retired

Monitoring the Effect of Annual Rye Grass and Festululiom on Fragipan Soils

Contact: Lloyd Murdock, University of Kentucky, Princeton Station

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: Cliff Goff, NWS or SIPAC Staff

SOUTHERN INDIANA PURDUE AGRICULTURAL CENTER
FORESTRY RESEARCH AND DEMONSTRATION PROJECTS
2025

Ron Rathfon, Forestry & Natural Resources
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Title: Monitoring Wildlife Diversity and Abundance through Camera Trapping
Location: SIPAC, All Forests
Purpose: Monitoring mammalian wildlife diversity and abundance using camera trapping in Purdue and FNR managed woodlands.
Contact: Jarred Brooke, Forestry and Natural Resources, Purdue

Title: Forestry for the Birds: Avian Response to Forest Management
Location: SIPAC, All Forests
Purpose: Monitoring avian species diversity in response to different management practices in Purdue and FNR managed woodlands.
Contact: Jarred Brooke, Lenny Farlee, and Rod Rathfon, Forestry and Natural Resources, Purdue

Title: FNR Student intern program
Location: SIPAC, All Forests
Purpose: To give 3 to 4 students hands on applies timber stand improvement and data collection experience
Contact: Ron Rathfon

Title: Prescribed grazing using goats for integrated management of non-native invasive vegetation
Location: SIPAC, PFP10, PFP14

FORESTRY RESEARCH AND DEMONSTRATION PROJECTS (continued)

Title: Pre-emergent herbicide application for Japanese stiltgrass control
Location: SIPAC, Fields 1b, 4, 7, 12b, 17, Woods F, G

Title: Oak shelterwood with underplanting demonstration
Location: SIPAC, Woods K

Title: Three-dimensional, baited electric fence for excluding deer from oak underplantings
Location: SIPAC, Woods K

Title: Bayer – Testing Aminocyclopyrachlor herbicide for injection and drill-and-fill treatment of hardwood stems.
Location: SIPAC, Woods Q, K

Title: Prescribed fire for invasive species management
Location: SIPAC, Woods E, G, M, Q, PFP8, PFP16

Title: Prescribed fire for oak woodland development and maintenance
Location: SIPAC, PFP1

Title: Blight resistant American chestnut progeny screening trial
Location: SIPAC, Field 11

Title: Prescribed grazing using goats for integrated management of non-native invasive vegetation
Location: SIPAC, Woods D

Title: Oak shelterwood and prescribed fire for regenerating oak demonstration
Location: SIPAC, Woods Q

Title: Growth and yield of upland hardwoods
Location: SIPAC, All tracts

Title: Integrating GPS, GIS mapping with stand level silvicultural prescription Development in forest management
Location: SIPAC, All tracts

Title: Landscape level non-native invasive species management demonstration
Location: SIPAC, All tracts and fields

Title: Chemical Composition in responses to herbivory in moderate trees in IN
Purpose:: This project is focused on understanding the chemical defense and diversity in different dominant tree species all over IN. We measure spectral reflectance data on the level of the leaves and collect leaves for the chemical analyses in the lab.
Contact:: Shahla Mohammadi and Dr. John Couture

FORESTRY RESEARCH AND DEMONSTRATION PROJECTS (continued)

Title: Spatially Explicit Densities of Indiana Wildlife.
Purpose: We will be flying a small UAS (sUAS) to test and optimize methodology for the detection of nocturnal and diurnal wildlife. We will then use the methods we develop to fly to the UAS at various locations (including PACs) around the state and collect thermal (night-time) and RGB (daytime) imagery and video to use for counting the number of deer, coyote and turkey visible. This count data will be used to develop spatially explicit density models for the state of Indiana. Flights will be conducted at a height of 200 - 300 ft AGL and will consist of both straight-line transects and lawnmower-grid plots. Both sampling methods will be randomly distributed across PAC property. Flights will be done during day & night to sample densities at both times of day. All flights will be done by FAA certified remote pilot.
Contact:: Tina Jackson and Dr. Patrick Zollner