



**Standard Operating Policy**  
**Research Projects and Programs**  
**Effective. January 1, 2024**

Research is one of the missions of the Purdue Student Farm. The small scale and wide range of other farm missions make it ideal for some research but less suitable for others. This SOP is designed to clarify what type of research is encouraged and what arrangements between the researcher and the farm should be sought.

The core businesses of the farm are student experiential education, in particular undergraduate and graduate education, grower education, community outreach, and small farm sustainability research. The farm is an operating farm that grows and sells food in a way that is as economically, socially, and environmentally sustainable as possible and in an environment that is as “non-institutional” as possible. Thus, our guidelines for research at the farm are as follows:

**Guidelines:**

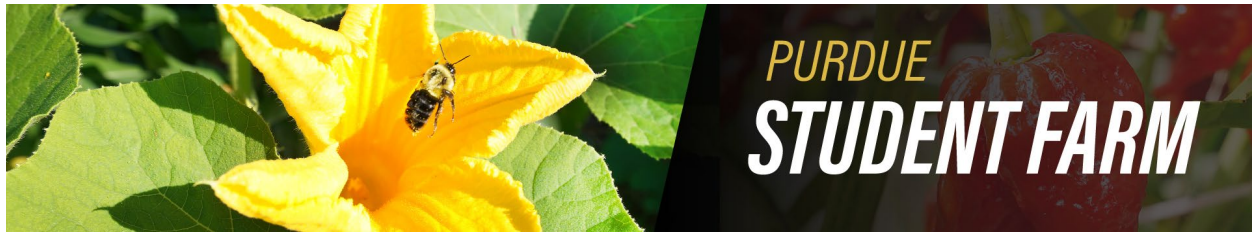
1. Research should involve undergraduate students as workers and research interns. It should not just be research conducted by faculty, staff, and graduate students. Students engaged in on-farm research should have the chance to collaborate with students involved in other research projects and with other activities at the farm. The periodic exchange of students among projects is encouraged. The participation of students in Field Days is encouraged.
2. Research should be on crops already grown at the farm, or if any new crop is proposed for research, it should be consistent with the farm's mission. Research should be designed to fit seamlessly with the cropping systems and crop rotations already operating at the farm.
3. Research should generate products that can be sold through the farm’s usual outlets.
4. Products, educational opportunities, Extension talks, and services should be exchanged among researchers and the farm to benefit everybody.



Each project is likely to require different accommodations. One project might require a plot of land to be committed for a prolonged period. Another project may need a researcher to take charge of one of the farm's crops and move it each year to fit the farm's rotation scheme. Another project might sample from the farm at different times. Creating hard-and-fast rules for all possible situations would be constraining, so we hope the above guidelines will be sufficient to make things run smoothly...but here is a formal framework:

**Rules:**

1. Investigators planning to conduct research at the PSF should present their research concepts to the Student Farm Management Committee (Director and Farm Manager) while drafting a grant submission or before the research begins at the PSF.
2. Investigators are encouraged to invest in student education at the farm. The PSF employs up to 15 students per year. It is recommended that investigators invest up to \$6,000 per year per project in student intern stipends.
3. Formal field research request meetings will be conducted during February of each year. The target date to get all research plans to PSF staff is February 28.
4. If researchers require specific farming activities, they should make those explicit in the field research request. For example, do you want the sides of a hoop house rolled down when it's frosty...or are you conducting an experiment on frost tolerance?
5. Likewise, if the farm has specific requirements for the researcher, the farm should make those clear. For example, does the plot designated for research need to be tilled and re-planted later in the season? If so, the termination date of the study should be made clear.
6. As a general rule, the farm will provide the following services:
  - Provision of land needed and primary tillage.
  - Provision of a pool of student labor.
  - Access to all facilities, machinery, and tools owned by the farm...only to be used on-site and by trained personnel.
  - A safety manual and brief safety training for equipment as needed.



7. Investigators are required to fund all supplies needed for the successful implementation and completion of the project. As a general rule, the investigators will be responsible for the following:
  - Safety training and familiarity of staff with farm rules.
  - All plot tags, stakes, and other materials and supplies beyond normal farm production.
  - Seed for direct seeded crops.
  - Production of transplants.
  - Plant nutrition, irrigation, and pest/weed management supplies – please coordinate with the PSF Farm Manager.
  - Tear-down of all experiments, clean-up, and removal of extraneous equipment.
8. No off-label or unapproved products or materials will be allowed.
9. Currently, the only livestock allowed in research is chickens.
10. The use of raw manure is not recommended at the PSF. Strict food safety protocols will be required when raw manure is used on the farm.
11. Investigators must submit a Hazard Analysis and Critical Control Point (HACCP) plan if livestock or raw manure is used in research. The Director of the PSF will approve this plan in consultation with the Department of Food Science. Consult the USDAs [‘Guidebook for the Preparation of HACCP Plans.’](#) The plan needs to address the seven HACCP principles:
  - Principle 1: Conduct a Hazard Analysis
  - Principle 2: Identify the Critical Control Points
  - Principle 3: Establish Critical Limits for Each Critical Control Point
  - Principle 4: Establish Monitoring Procedures
  - Principle 5: Establish Corrective Actions
  - Principle 6: Establish Verification Procedures
  - Principle 7: Establish Recordkeeping Procedures
12. Unmanned Aerial Vehicle (UAV) use at the PSF. Altitude restrictions are in place at PSF due to its proximity to the Purdue University Airport and its Class D airspace. Pilots must also use the Low Altitude Authorization and Notification Capability (LAANC) to notify the airport of a planned flight. Platforms such as DroneDeploy integrate LAANC directly into the software. Approvals usually take less than a minute and must not be filed in advance. A



temporary flight restriction (TFR) may occasionally deny a pilot from taking off. This is uncommon but not unheard of when flying at the PSF site. TFRs are more likely on the eve of special events, like flyovers or large aircraft arrival and takeoff. Pilots may search for TFRs and other Notices to Airmen (NOTAMs) here: <https://notams.aim.faa.gov/notamSearch>.

Suppose a pilot is not using flight planning software like DroneDeploy. In that case, other options, like the app Aloft, integrate with common drone platforms to complete LAANC authorizations without a pre-planned flight. Pilots may also use B4UFLY and various weather apps to check airspace and environmental conditions before a flight. Please follow the guidance from the Purdue Office of Risk Management, [Drones/Unmanned Model Aircraft Procedure](#).

- Pilots must possess FAA Part 107 remote pilot license
- Aircraft must be registered
- Submit information to Purdue Risk Management as required
- Maximum Weight 55 lbs.
- Maximum altitude 200 ft. above ground level.
- An experienced Pilot in Command (PIC) and at least one spotter is required for all flights
- Aircraft always within line of sight of the PIC and spotter
- A safe spectator area must be designated
- Contact the PSF Farm Manager for current maps of available areas that might be flown and known obstructions or restricted air space
- Do not fly over or close to farm workers or other personnel
- Never enter a researcher's plot without permission
- Emergency Procedures
  - i. Call 911 for local emergency personnel
  - ii. Contact the PSF Farm Manager
- In the event of a crash, the recovery protocols are:
  - i. Outside PSFs Boundaries
    - Obtain the owner's permission before trespassing on their property
  - ii. Within PSFs boundaries
    - If it is inside another researcher's plot, obtain their permission before recovering



- If it is within your designated area, recover all the pieces and debris
  - iii. Lost within other vegetation
    - Mark the area of the crash and contact the PSF Farm Manager
  - iv. In all cases, file an accident report with the PSF Farm Manager
  - In the event of “loss of Link” for a manually controlled aircraft, the aircraft must go to “fail safe” mode and circle over the PSF property until the link is recovered or the power runs out
  - In the event of a “FLY AWAY” of a UAV under autopilot control:
    - i. Take manual control through the radio control transmitter
    - ii. Take manual control through Ground Station Control
    - iii. Initiate loss of link strategy by circling over the PSF property until the link is recovered or the power runs out
  - Contact the PSF Farm Manager for current maps of available areas that might be flown and known obstructions or restricted air space.
13. If it is considered that a researcher or their staff or students are in breach of the above rules or guidelines, the matter should be brought to the PSF Executive Committee. All problems are expected to be resolved by simple, transparent communication. In the unlikely case of an egregious breach, the PSF Executive Committee will consider asking the HLA Department Head and/or CoA Dean to sanction the researcher or remove them from the farm.