Emergency Contacts for Indiana Corn and Soybean Innovation Center (ICSC)

Dial 911 for Red Light Emergency

Facility Address:
Indiana Corn and Soybean Innovation Center (ICSC)
4750 US Hwy 52 West
West Lafayette, IN 47906

If you're not sure, you can call Purdue Police non-emergency number and tell them the problem 765-494- 8221.

Jason Adams, Facility Manager
Office: 765-494-2007
Cell: 765-491-1264

Purdue Dept. of Radiological & Environmental Management, REM (Safety and spills): 765-494-6371

For a serious problem with the building that you cannot contact Jason about, call Purdue Police non-emergency number 765-494-8221. They will page a maintenance person who is on-call.

Normal operating hours of the building will be from 8:00 to 5:00 Monday through Friday. The building can be used after hours as long as you have key card access.

Mission of the Indiana Corn and Soybean Innovation Center

To create an environment for excellence in phenotyping research, teaching and outreach, using innovative technology and a customer-focused service team.

Vision

To be the leader of phenotyping research and discovery.

Focus

People development through continuous learning by the phenotyping team and users of the facility. This is a show place for advanced agronomic technology development.

Phenotyping Team

Jason Adams, ICSC Facility Manager

Accountable for all activities at the ICSC Facility, including training, scheduling, providing instruction, developing and maintaining policies and procedures and monitoring performance. In charge of key access and space allocation. Oversees the overall maintenance and upkeep of the facility. Provides orientation to new students and staff using the facility. Works with Physical Facilities for building upkeep and maintenance. Partners with farm superintendent and crew.

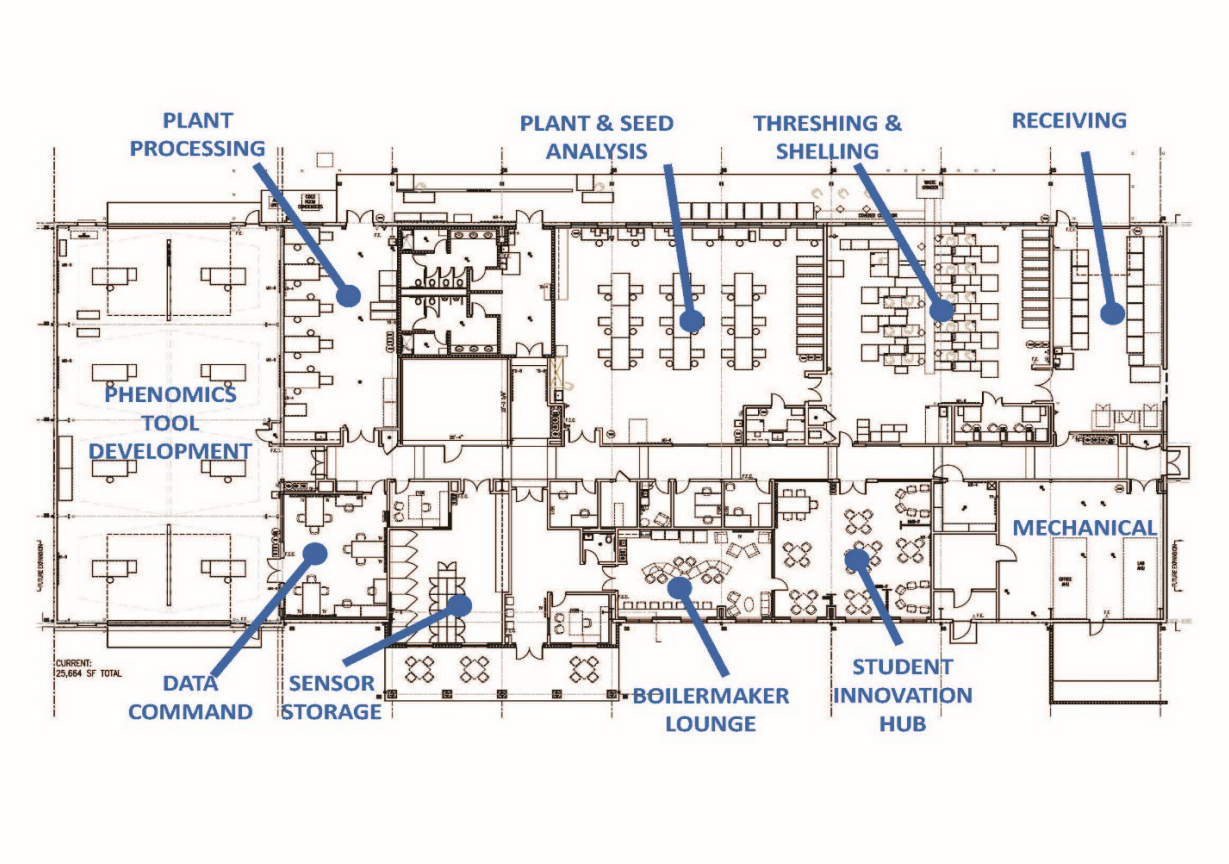
Yang Yang, Director of Digital Phenomics

Oversees facility operations and scientific applications of phenotyping. Assists with experimental design and technology use and can help connect potential collaborators across disciplines. Liaison to departments and the College of Agriculture.

Jim Beaty, ACRE Farm Superintendent

Facility Specifications

25,664 square foot facility, Phenomics tool development, sensor storage, plant processing, plant and seed analysis, threshing and shelling, communal work area.



Facility Capabilities:

General Building

- Safe storage for sensors and equipment
- Flexible meeting space
- Breakroom space
- Restrooms and private showers
- Personal lockers available for checkout
- Severe weather shelter
- Boot washing station

Phenomics

- High bay workspace for Phenomics tool development
- Workspace for downloading and analyzing data

- High speed data transfer to campus
- UAV storage
- PhenoRover data collection

Seeds and Plant Processing

- Threshing and shelling equipment
- Clean workspace for plant and seed analysis
- Work area for plant processing
- Work area for root washing and analysis
- Area for seed treating
- Work area for seed and plant grinding
- Transitional sample cold room
- Temporary storage in post-harvest (Building 57)

Regulated transgenic material or diseased material require special clearance

USDA permitting and clearance from Facility Management are required for handling, storing, or processing transgenic, regulated, stewarded or excessively diseased seed and plant material.

Facility is not to be used for food processing.

Safety

All Purdue, REM, ACRE and building specific safety guidelines are to be followed. Specific areas of emphasis.

- Eye and ear protection will be required in the Threshing and Shelling Room and Grinding Room while equipment is running.
- Posted Lock out Tag Out (LOTO) procedures must be followed while performing adjustments or maintenance on equipment.
- UAV batteries must be charged in accordance to safety rules and in designated areas.
- While treating seed, all PPE must be worn according to pesticide label direction. If you are not able to determine what PPE is required, contact the facility manager to look up the proper Safety Data Sheet (SDS).
- “Horse Play” will not be tolerated. Any gross negligence in terms of safety will be reported to the research team leader and use of the facility may be revoked.

The severe weather shelter is in the men’s and women’s restroom and locker bay. This is also the severe weather shelter for the entire ACRE campus.

Purdue Safety (REM): https://www.purdue.edu/ehps/rem/

Purdue Police: https://www.purdue.edu/ehps/police/programs

The Phenomics Facility Safety Committee will review all safety-related issues.

Facility User Responsibility

Safety

- Fulfilling appropriate safety and training requirements to gain key access.
- Facility users will provide their own PPE.
- While working with mechanical equipment it is suggested to work in pairs after hours.

Cleaning

- Clean up daily or as needed during use.
- Keeping work areas clean and orderly.
- Boot and shoe washing station provided at back “Green” door.
- Discarding of plant and seed material in a timely fashion.

Resources

- Planning and scheduling space needs.
- Planning and procuring supplies needed in advance.
- Scheduling equipment usage.
- Reserving lockers for sensor storage and personal use.
- Returning all tools and supplies to their assigned locations.

Reporting

- Reporting worn or broken equipment to facility manager.
- Giving instructions and feedback to the team.
- Helping monitor and reporting improper use of facility and equipment.

Storage

Facility Storage Motto: “Short-Term Storage Only”

This facility is equipped for short term storage only. Project-specific supplies that are brought in will need to be removed at the completion of the project. Users should only bring in enough plant and seed material to process and analyze that day.

Locking Storage

Access to the sensor storage will be assigned on an as needed basis from the facility manager. Locks will be assigned for the cabinets in the sensor storage area. Lockers in the back foyer may be requested and a combination can be obtained from the facility manager.

UAV Storage

UAV's may be stored in lockers or placed on storage racks in the Phenomics tool development bay.

Chemical Storage

All liquid and dry chemicals containers should be labeled regardless of whether they are chemicals or any other liquid. Original packaging is preferred on any chemicals. All chemicals brought into the facility should also have an accompanying SDS sheet (Safety Data Sheet) that will be given to the facility manager. Users may also email facility manager an electronic copy of the SDS prior to bringing in any chemicals. The facility manager will maintain a record of current SDS sheets.

Only chemicals used for seed treating and preparation may be stored in the seed treating room.

Cold Room/Receiving Room Storage

Cold room storage is for short term use only. No long term storage! All material in the cold room must be kept on facility supplied wire carts and labeled with the PIs name and date in. Material in the receiving room must also be labeled with PIs name and date in. Users should only bring in enough seed/plant material for one or two days' worth of work.

No items may be stored in building hallways.

Housekeeping

Facility Housekeeping Motto: "Tour Ready, Every Day"

Think Safety--Keep in mind that the public will often be touring this facility, including children.

The Phenotyping facility is a working facility as well as a show place. Some amount of workspace clutter is to be expected, but orderliness is still expected of all users. The facility should be tour ready at any time. Failure to keep a clean, orderly working area can result in loss of phenotyping space. This includes all work space as well as lounge and office areas.

The “Green” doors at the back entry way should be used when coming in dirty from the field. Tours will be coming in through the front entry way and this area should be kept as clean and mud free as possible. A boot washing station is located near the “Green” doors at the back of the building.

Building Access Pass

The facility manager will give key card access to the building, cold storage and sensor storage after all training procedures have been completed, including WPS training, orientation videos and review of the phenotyping guidelines.

Workspace and Equipment Reservations

Equipment in the threshing and shelling room will need to be signed out when in use. This will be done by checking out building resources in ilab. There is also outside working space on the north side of the building where shellers and threshers can be docked up to the trunk line, as well as table space. All equipment will need to be cleaned and put away properly at the end of the task.

There are three small office/conference rooms that can be used for short term uses. Labs need to coordinate among their members to only use the minimum space needed. This will ensure the best use of the limited space in our facility. Some additional space may be reserved for short term, depending on availability, only upon faculty request. Conference rooms may be reserved by contacting facility manager or using Microsoft Outlook.

Unmanned Aerial System Guidelines for Phenotyping Building

Aircraft and users must complete certification and checkout with the ICSC Facility Manger prior to flying.

To conduct any type of UAS activities, the following operating documents, checklists, and display markings must be available for review and up to date.

- Aircraft registration form FAA 8060-3.
- N number displayed on aircraft.
- Current Aircraft systems logbook, Operators logbook.
- WPS training current for all team members.
- Private Pilot written test results, or license (copy), operator and observer.
- Aircraft operating checklist specific to aircraft being operated.

Labeling

All material coming into the building must be clearly marked with the owner of the project, date it was brought into the facility. This includes all seed and plant material. This will ensure that all material is being actively used and that storage areas and cold room space are not being used as long- term storage.

Parking

Facility Parking Motto: Front parking for guests and visitors. Rear Parking for facility users.

There is parking in the front and the rear of the building. The rear parking lot should be used by any individuals working at the facility. Leaving the front parking lot available to visitors and guests. If the rear parking lot is full then use the front parking lot.

Lost or Stolen Items

This building contains a vast amount of shared working space. Please be advised that while we would like to believe that everyone can be trusted. Things can and will walk off whether intentionally stolen or unintentionally borrowed by someone that may not know who things belong to. If it's valuable to you then take it with you or lock it up before you leave. The phenotyping staff is not liable for lost or stolen objects/material. Lockers and lockable research carts are available.

"Pet Projects"

Space in the facility is reserved for active teaching and research only. Personal use "pet projects" will not be allowed.

.

"Orphan" Projects

An attempt will be made to locate the owners of unlabeled or abandoned projects and materials. If the owners cannot be found, then projects and or materials will be discarded.

Ag Reliant Genetics Collabratory

The Ag Reliant Genetics Collabratory is equipped with a refrigerator, freezer, microwaves, vending machines and single service Keurig coffee maker (please feel free to bring your own coffee). Ample seating is provided for taking breaks. This room, like the rest of the facility should be tour ready at all times. Cleaning service does not provide cleaning for appliances as well as table and counter tops. Any spills in or on appliances, countertops, tabletops, furniture and floors should be cleaned immediately. Any items placed in the refrigerator should be clearly marked with your name and date. Anything that looks abandoned will be discarded. Refrigerators in the lounge are for food items only, no chemical or plant storage. The refrigerator will be emptied weekly prior to building trash pickup.

Student Innovation Hub

The Student Innovation Hub is designed as a gathering space for anyone using the Phenotyping facility or ACRE. As with all the other rooms, the Innovation Hub should be tour ready at all times. Please clean up all messes. This space may be utilized as a tour gathering spot. Please see the facility manager if this room needs to be reserved.

Data Command and Control

The Data Command Room is provided for users to aggregate and begin processing phenotyping data. Data visualization stations (3) with large double monitors are available to researchers. The Data Command & Control room is equipped with a high-speed 10 Gb network for rapid data transfer to main campus.

The Material Receiving Room

This room is located on the east end of the building. This room is a temporary receiving room that is designed to store the black 48” X 45” storage bins or any other forklift friendly containers. No loose material or piles of bags or plant material allowed. Please only bring in enough bins for a day or two worth of immediate processing. Seasonal storage of these bins will be in building 57 next to the dryers. The Walkie- Stacker walk behind lift and farm forklift can only be used by individuals that have been certified by the facility manager. The Walkie-Stacker is only permitted in the receiving room and on the hard surfaces behind the facility. Contact the facility manager on how to be trained to run the Walkie-Stacker and the forklift. The Wisconsin ovens are located in this room and may be used for drying down plant material.

Threshing and Shelling Rooms

Eye and Ear protection are required while equipment is in use in this room.

The room is used to thresh and shell corn, sorghum, soybeans and small grains. This room is equipped with Almaco soybean single plant threshers, Almaco sorghum single head threashers, Almaco Corn Maizer and Seed Boss seed cleaner as well as Agriculex single ear corn shellers.

Please only use the hand pallet jacks or carts to move bins or pallets around the threshing and shelling room. Threshing and shelling equipment shall be checked out after proper equipment training has been obtained. The equipment **MUST** be docked to the trunk line when in use.

There are three dust collectors that serve this room. The conveyor and three outside ports are on dust collector “C” and run at any time the conveyor is turned on. There are two additional dust collectors that are used when threshing and shelling are taking place. Threshing and shelling may also be performed on the trunk line outside of the building under the canopy. The outside line has all the same capabilities as the inside line. All the same procedural and clean up rules apply to the outside of the building as do to the inside of the building. Clean up all messes at the end of the day or task.

Grinding Room

Eye and Ear protection are required while equipment is in use in this room.

The grinding room may be utilized to grind seed or plant samples. Grinding equipment maybe used after proper equipment training has been obtained. The dust collection system is provided to minimize the amount of dust in this room. These grinders are not to be used for food processing.

Plant and Seed Analysis Room

This room is a clean seed processing room for seed cleaning, packaging, counting as well as seed and plant analysis. Printers are provided for printing packets, labels and field stakes; users supply their own consumables.

Equipment available in this room include:

Seed Processing

- Seed Counters
- Seed Cleaners
- Packet/Stake printer
- Label/Barcode printer
- Table top workspace
- Seed Treatment
- Scales
- Moisture reader

Imaging

- Table top workspace
- Photo backdrops

Seed Treatment Room

This is the only room in the building where seed treating shall take place. Personal Protective Equipment (PPE) must be worn in accordance to seed treatment label direction. All spills and messes must be cleaned up. The red dust collection system must be turned on when seed treating is taking place. There are shelves for storing small quantities of chemicals. All containers must be properly labeled, manufacturing labels are preferred with the seed treatment name as well as the name of the PI and the date the chemical was brought in. If a secondary container is used, then a HazCom label (see below) or something similar will need to be adhered to the container with all information filled in. These labels may be obtained from the facility manager. A copy of the SDS sheet will need to be provided to the facility manager. Periodic inventory of the

contents of the cabinets will take place and any chemicals that are not properly labeled or seem to be abandoned will be discarded through proper REM channels.

Plant Processing Room

This room should be used for processing plant and root material. Like the threshing and shelling room it consists of both an inside and outside work spaces that must be kept clean and orderly. There are two root washing stations outside as well as movable worktables. Any root washing that involves heavy metals or other environmental hazards must go through REM before processing. The inside work area also consists of 5 work stations for plant processing. Large bins are available for waste plant material.

Floral coolers are also provided to help keep the plants from wilting while taking samples. The coolers are intended for short term storage while sampling plant or seed material. Please label your samples with the name of the PI and the date it was brought it.

Phenomics Tool Development Room

This room can be utilized for UAV, robotics, and PhenoRover development. Adjustable height tables on wheels are available as work stations as well as lockable research carts for storing tools and supplies. UAV's may be stored on cables or storage racks when not in use. Please be mindful of keeping the two large overhead doors closed to minimize the wind, trash and critter infiltration.

DO NOT PARK UNDER PARK UNDER THE OVERHEAD DOORS WHILE THEY ARE OPEN.

Policy Violations

Users of the facility are responsible for learning and following these policies. The facility manager will communicate policies and remind users when they are in violation. The expectation is that we will all work together to take care of this facility and be mindful of others. Repeated, deliberate violations of these policies may result in building privileges being suspended for that user.

When Things Go Wrong

Things can and will go wrong when people are involved in a dynamic environment such as this. If you see a problem with something a facility user is doing, you may tell them directly. Users may also choose to tell a manager of problems they see. In either case, please don't be rude.

Questions or concerns with facility manager's performance? Tell them directly or discuss with the Director of Phenomics or the Farm Superintendent.

When equipment is broken, worn or operating poorly, please notify the building manager immediately so repairs can be made and logged into the building maintenance program.