CALS & LAS Protocols for ISU Field/Farm-Based Research with COVID-19
Iowa State University
July 20, 2020

Disclaimer: This document provides only general guidance. It does not cover all possible variations of field/farm research. Nor does it cover all scenarios.

General Policy

• The primary goal of this guidance is the health and safety of our individual field/farm staff.

• Most field research involve a relatively small number of staff, and the majority of the workload allows for proper physical distancing. Where possible, schedules should be developed to help stagger work assignments and work locations for physical distancing. For field research that employs larger groups, it is imperative to stagger work assignments in space and time to allow for physical distancing. If a necessary task requires two or more people to complete, they will implement safe distancing.

• Instructions for field research will be communicated virtually prior to entering the field, when possible. Instructions will include health and safety reminders about physical distancing, hand hygiene, use of face coverings, etc.
  o In-field communication and coordination is also very important.

• When appropriate, each team member will daily update their research tasks for the following day and the remainder of the season and store the document in a CyBox folder that is shared with the research team. This document will be prepared with sufficient detail to allow another team member to fill-in for a researcher who needs to enter into self-isolation.

• Instructional videos will be created when possible to train new personnel in necessary research tasks. These videos will provide baseline instructions which can be followed-up either virtually (preferred) or in person, but while maintaining at least 6’ of separation.

Health of Field/Farm Personnel:

Per the May 21, 2020 ISU Guide for Returning to the Workplace (aka Handbook), if you are working in the field/farm, you must monitor yourself for symptoms every day before reporting to work. If you have any symptoms potentially related to COVID-19, do not report to your worksite. Notify your supervisor and consult with your health care provider.

Currently, these symptoms include one or more of the following:
  • Cough
  • Shortness of breath or difficulty breathing
  • Fever
  • Chills
• Muscle pain
• Sore throat
• New loss of taste or smell
• Other less common symptoms have been reported, including gastrointestinal symptoms like nausea, vomiting, or diarrhea.

If you have any of the following emergency warning signs of COVID-19, seek emergency medical care immediately:
• Trouble breathing
• Persistent chest pain or pressure
• New confusion
• Inability to stay awake
• Bluish lips or face

Cloth Face Coverings and Face Shields
Cloth face coverings are homemade or commercially manufactured face coverings that help contain the wearer’s respiratory emissions. The CDC recommends wearing cloth face coverings in public settings, particularly where physical distancing (i.e., 6 ft apart) is difficult to maintain (e.g., common workspaces in a barn, small boat, tractor, workrooms, meeting areas, research field sites, field labs, and classrooms).

ISU expects all employees to wear cloth face coverings while in the presence of others when other mitigation strategies are not available or an option. Employees shall consult with their supervisor about acquiring approved cloth face coverings.

Safe Distancing, Hand Washing, Disinfection, and Material Quarantining

- Recommended physical distancing is 6 feet apart.
  - If interactions need to take place in person, they will be conducted with a minimum separation distance of 6 feet and ideally outdoors. For example, as a rule-of-thumb, in a field planted at 35-inch (Curtiss Farm) or 30 inch (Agronomy Farm), row spacing would involve maintaining a minimum separation of 2 or 3 rows, respectively. Also, for example, in a 21-ft long boat 3 to 4 occupants could safely work with this 6-ft. physical distance and - if not an option due to other safety reasons - then the employees need to use face coverings.
  - All staff will wash hands when they arrive daily, at each break, and when they leave at the end of the shift. Avoid touching your eyes, nose, and mouth with unwashed hands. Face shields are helpful in reducing the incidence of touching your face. Wash your hands with soap and water for at least 20 seconds, especially after you have been in a public place, or after blowing your nose, coughing, or sneezing. If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol. Cover all surfaces of your hands and rub them together until they feel dry.
  - Daily disinfecting is recommended for commonly touched surfaces, for example, door handles, toilet handles, tools, steering wheels and hand controls of vehicles/tractors,
etc. (including farm equipment), and keyboards. A daily checklist is recommended. Treat all common spaces and items as if they are contaminated.

- Disinfect surfaces following best practices (70% alcohol or other approved disinfectants; be aware of contact time). Wipe surface with disinfecting wipe or spray with disinfectant and wipe with a paper towel. Allow surface to air dry for 10 minutes.
- Wash hands immediately after disinfecting surfaces and after any potential exposure.

- All research teams should supplement typical conventional cleaning with additional sanitation of work spaces and equipment.

**Field/Farm Equipment and Supplies**

- Personnel should minimize interactions with others and the potential for cross-contamination at supply depots.
  - For example, personnel should not visit a central depot at the same time.
  - When practical, each research team member will be assigned a personal tote with clasp-on lid that can be left in the field or personal vehicle.
  - Each tote will be labeled with the name of the person to which it is assigned.
  - Each person is responsible for stocking their tote as needed from a lab’s central supply depot.
  - A central depot for each lab will be organized in such a way as to minimize opportunities for cross-contamination.
  - Team members should use the same work gloves, hats and other personal work gear and not share them among the team. Labeling may be needed to ensure this measure.
  - As much as possible, specific hand tools or hand-held devices should be assigned to the same team member consistently.

- Each person will be assigned their equipment/space to operate and will maintain a minimum distance of 6-ft from other individuals.
  - Often it will be possible to maintain much larger distances (e.g., by having personnel assigned to alternating parts of a field or farm).

- While distributing materials to coworkers in the field/farm, efforts will be employed to minimize opportunities for cross-contamination, e.g. wearing of gloves when handling items.

- Some field/farm experiments require the use of machinery.
  - When possible, a single person should operate the equipment.
  - Also, when possible, the same person should operate the same machinery unit (tractor, ATV, boat, etc.) from day-to-day.
  - A user log of heavily-used machinery may be helpful to monitor usage.
  - If two individuals are needed, practice physical distancing and use face coverings.
  - The only exception would be if two individual employees live together.
  - If physical distancing is not possible, pieces of plexiglass shielding will be installed between individuals to provide a physical barrier, if possible.
• Under this latter circumstance, personnel will wear face coverings (cloth masks or clear plastic face shields).
• Also, any components of the equipment that will be touched by both individuals will be sanitized to avoid cross-contamination (see cleaning guidelines above).
• Cloth face coverings should not be used as a substitute for required respiratory PPE.

Facility Maintenance and Usage
• All farm/field facility use should be coordinated by the supervisor with the facility/farm superintendent.
• In facilities where multiple groups and PIs have ongoing operations, coordinate with other groups through the farm superintendent to ensure appropriate physical distancing.
  In-person events and activities must be registered in the University’s online Event Authorization System: https://request.event.iastate.edu.

Travel
• Consult current ISU guidance on business travel: https://web.iastate.edu/safety/updates/covid19/employeefaq (FAQ item EE21)

• Travel within Iowa and the U.S. for university business is allowed, but must be pre-approved by the employee’s direct supervisor. Travelers should follow CDC guidance.
• International travel for university business remains prohibited in accordance with Board of Regents policy.
• There are no restrictions on personal travel.
• Travelers are encouraged to review travel restrictions they may encounter upon arrival at their destination. Please check the state and territorial health department websites for the latest information.
• More information about travel will be posted on the COVID-19 safety page, so keep checking the website.
• For personnel who must travel in the State of Iowa or in the US to perform their research duties, follow University guidelines as set forth in the ISU handbook, which is to minimize trips that require more than one person in a vehicle.
• If single occupancy is not feasible due to unlicensed drivers, unavailability of specific vehicles necessary for a task, or other limiting factors, all vehicle occupants must wear face coverings and must sit as far apart as the vehicle allows (while ensuring everyone is in a seat with a seat belt). Opening windows may be helpful, too.
• All drivers and passengers are expected to wash or sanitize their hands before and after each trip.
• Communicate via text, phone and email to avoid direct contact.
• Check emails for changes and updates.
• Text, call, or email questions, concerns or problems.
Guidelines for Preparation of Materials for Field Studies

- Material preparation is to be conducted indoors in an on-campus laboratory.
  - It is acceptable to prepare materials at home only with prior approval from supervisor provided it is safe to do so, i.e. non-hazardous. For example:
    - Seeds that have not been treated with pesticides, do not carry an unregistered transgene and are not associated with a material transfer agreement from a non-ISU source.
    - Assembly of a camera for installation.
    - Labeling of bags for sample collection.
  - If working in a laboratory, personnel will follow ISU handbook guidance.

Field/Farm Data Collection

- A minimum of 6-ft will be maintained between individuals while collecting data collection.
  - For example, if one person is measuring something, e.g. plant height, and another person is recording data, the two individuals must still be separated by a minimum of 6-ft.
- Some data collection projects involve the deployment and use of sensors, lasers, cameras etc. to continuously collect data, e.g. cameras to video plant growth. In all cases, the installation and operation of these devices will be conducted in such a way as to maintain 6-ft of separation between individuals. Processes will be conducted in a manner designed to minimize the possibility of cross-contamination (see cleaning guidelines above).
- In an open field or water body setting, if a 6-ft spacing is not possible, employees will wear cloth face and/or face shield coverings.

Laboratory Associated Activities

- Some field-based projects may require limited laboratory access, e.g., for the stabilization of collected samples prior to long-term storage or the genotyping of individuals to determine appropriate genetic crossing strategies.
- If working in a laboratory, regardless of the laboratory location (campus or elsewhere), personnel will follow ISU COVID handbook guidance.

Think health and safety at all times. Consult the following website for up-to-date guidance about COVID-19.

https://web.iastate.edu/safety/updates/covid19/faqs

ISU Research Farms guidance is at:

https://www.farms.ag.iastate.edu/covid-19-protocols-isu-research-farms

Additional advice is available here: COVID-19 and Research web page in the Social Distancing and Mitigating the Risk of Transmission While Conducting Your Research section.