This Protocol was created to guide staff and students of the Department of Soil Science in the safe conductance of research activities to prevent the contraction of SARS-CoV-2. This Protocol was adapted from that developed by the Department of Plant Science.

The sections contained in this Protocol are:

- Work Operation of the Soil Science Department in General
- While at Work
- Work Operation of Soil Science Specific to Ellis Building
- Work Operation Specific to Soil Shed
- Work Operations Specific to Vehicles and Field Equipment
- Appendix 1. Outlook Booking System
- Appendix 2. Empty
- Appendix 3. Reference Sources
- Appendix 4. Record of Revision Changes
Work Operation of Soil Science Personnel in General

All personnel working in Soil Science or from other UM Departments will follow these guidelines.

If Soil Science Personnel are required to work at the facilities of other Departments, all of their protocols must be followed.

All University of Manitoba, Workplace Health and Safety requirements will be followed.

All Soil Science Personnel will read and follow the training procedures included in the Soil Science 2021 Orientation Booklet.

Individual Research Programs will use this document to support proposals for access to begin work, during the University COVID-19 Shutdown.

When not at work, personnel are expected to follow Provincial Health and Safety guidelines relating to COVID-19.
https://www.gov.mb.ca/covid19/prepareandprevent/index.html

While working alone, personnel are to follow the Working Alone Policy, set up by their Supervisor.

All existing shared-use PPE have been removed. Personnel need to use assigned, dedicated PPE, either from Departmental supplies or from their Supervisor. These include as an example: rubber boots, work gloves, safety glasses and lab coats.

A sealed pouch containing an N95 mask and disposable gloves has been added to each First Aid Kit for Aid Responders to use.

Visitors are not permitted in our buildings or field sites.

Department Technicians will assist in the implementation of these steps. Technicians will also be available to help with any changes or modifications that are required.

The Latest University of Manitoba Coronavirus updates can be found at this site: COVID-19 (coronavirus) updates | University of Manitoba (umanitoba.ca)
**Entering and Exiting the Buildings:**

The Ellis Building external doors remain locked. All Soil Science and FAFS personnel will use only the building’s ramp doorway for entering and exiting.

All Soil Science personnel must use the following link to complete a health self-assessment and to check in prior to entering the building and check out upon exiting the building each day:

https://docs.google.com/forms/d/e/1FAIpQLScnixUD_7XrDHG0MolDg_FrS61iIRtzacROdbqT7w7Qd1PRHA/viewform

A QR code has been posted at the building entrance. Hold your smartphone camera up to the code image and a direct link to the Survey will pop up on the screen.

![QR Code](image)

Make sure to indicate the **exact time of your entry** into the building. If the tool indicates, based on your answers to the health assessment questions, that you must not enter the building, you must comply.

When exiting the building, indicate the exact time of your departure from the building. If you exit the building temporarily for less than one hour, you do not need to check out and check in again.

If you end up working in rooms from your approved list that were not recorded when you first entered, then before you leave go back to the Survey, hit the “Update” button and record the new information.

Those without a smartphone may complete the health-assessment questions at home; if they answer ‘NO’ to all questions, they don’t need to submit their responses before they get to the building; instead, they can proceed to campus and submit as soon as they enter the building.
**While at Work:**

Personnel must wear a 3 ply facemask, disposable or re-useable.

Personnel will limit their time in the Ellis Building, Soil Shed and other University facilities to that required to complete work activities.

Personnel will work in isolation, and whenever possible, maintain physical distancing of no less than 2 m separation.

Due to the limited availability of N95 masks, these will be reserved for tasks with hazardous dust requirements. Some examples of tasks where the use of N95 masks is required include weighing fertilizer or treated seed, and material grinding.

Equipment sanitizer and hand sanitizer are provided in all working labs and Shed workstations. Wash hands with soap and water before and after tasks and when leaving work areas. Soap and water is more effective and preferred, however, if it is not available, hand sanitizer should be used.

Clean your workstation before and after use. Brush away debris first, then wipe with soapy water and a paper towel. Sanitizing spray can be used if water is not appropriate.

**Caution:** sanitizer is a flammable alcohol solution and should not be sprayed near sources of ignition, such as hot surfaces, open flame, electrified equipment or electrical motors.

Sanitize commonly touched items such as door knobs and light switches in your immediate work area before and after your shift.

Use foot activated door openers where available. **Do not touch items you don’t have to touch!** Wash hands frequently.

Where possible, tools and equipment will be assigned and dedicated to one individual. Where sharing of equipment is required, it will be sanitized before and after use.

All food and drink, including water bottles, need to be kept stored in an office, locker or area assigned for personal belongings. Water bottles and personal items must not be left exposed in hallways.

Dedicated single-owner offices can be used by research workers between lab chores, but you may not come into the building solely to work in the office, unless you have prior approval from the Department Head.

Academics and Support Staff can access their office space with Department Head approval. For Graduate Students who are hired as TAs, if part of their assignments cannot be done remotely, then course instructors should seek approval on their behalf.
Work Operation of Soil Science Specific to Ellis Building

Common use areas such as the two lunchrooms, conference room 375 and the community fridge/ freezer are closed and have been posted as “Do Not Use”.

Water fountains are fully open but it is recommended to just use the bottle fillers.

Room 385 and 340 can be used to access the microwaves. One person is allowed in each room at a time; wait outside until the room is vacant. Supplies are available in the room to sanitize the microwave touch pad or anything else that has been touched.

Prior to the pandemic, offices had up to three assigned occupants; this has been reduced to a single authorized user per office during the current COVID-19 response. Office doors have signage posted to indicate the authorized user.

The number of occupants allowed in a lab at one time is posted on the entry doors:

- Single labs (200 sq ft) and double labs without a fume hood will only have one occupant at a time;
- Double labs (400 sq ft) with a fume hood will have a maximum of two occupants in separate workstations;
- The Teaching Lab, Rm 318 (2000 sq. ft.) will have room for 5 workstations as a back-up or overflow for research work but will be restricted to a maximum 3 occupants at a time.

Common workspaces in the Ellis Building have shared Microsoft Outlook calendars to book time slots. Instructions on how to access the booking calendars are in Appendix 1. Each calendar will have a “READ ME FIRST” entry with notes on booking and using the room as per the above occupancy requirements.

Ellis Building rooms with shared calendars currently include:

- Soil Science - 267 Ellis - Lobb Gamma & Alpha Detectors
- Soil Science - 269 Ellis - Lobb Detector Office
- Soil Science - 271 Ellis - Lobb Chemical Analysis
- Soil Science - 273 Ellis - Lobb Sample Prep
- Soil Science - 275 Ellis - Lobb Physical Analysis
- Soil Science - 300 Ellis - Technicon
- Soil Science - 302 Ellis - Acid Lab
- Soil Science - 306 Ellis - Flaten
- Soil Science - 312 Ellis - Tenuta Main Lab
- Soil Science - 314 Ellis - Autoclave Room
- Soil Science - 341 Ellis - Tenuta Molecular Lab
- Soil Science - 347 Ellis - Tenuta Microscope Lab
- Soil Science - 361 Ellis - Extraction Lab
- Soil Science - 371 Ellis - Tenuta Extraction Lab

Additional calendars can be created on request or as required. Contact Trevor Fraser.
Work Operation Specific to Soil Science Shed

Personal items are to be kept to a minimum in the Shed. No food is to be kept or consumed in the Shed. Water bottles are allowed, but they must be completely covered in a plastic bag.

Wash your workstation before and after use. Brush away debris first, then wipe with soapy water and a paper towel. Sanitizing spray can be used if water is not appropriate.

Sanitize commonly touched items such as door knobs and light switches in your immediate work area before and after your shift.

For Soils Shed pick-up and drop off, a small transfer buffer area has been set up inside the Soils Shed at each of the 3 Person Doors. If you remain inside that taped off area to drop off or pick up an item, then you do not require to complete the On-line Health Self-Assessment or Check-in Survey.

The maximum number of room occupants is posted on all entry doors. Workstations will be placed in locations that provide maximum physical separation. Workstations for each room have shared Microsoft Outlook calendars to schedule time. See Appendix 1 for details. Each calendar will have a “READ ME FIRST” entry with notes on booking and using the room as per the occupancy requirements.

Soil Science Shed rooms with shared calendars currently include:

- Soil Science - 101 Shed - Soil Plant Prep
- Soil Science - 101A Shed - Plant Grinding
- Soil Science - 101B Shed - Soil Grinding
- Soil Science - 102 Shed - Growth Rooms
- Soil Science - 104 Shed - Workshop
- Soil Science - 105 Shed - Cold Storage

Confined work areas that are occupied for a prolonged period, such as the walk-in growth room, will require a 3-hr delay on entry of different personnel. Currently the growth room is kept secured, with contact information posted and a time log sheet for entry and exit. To work in the walk-in growth chamber (Rm 102A Shed) a face mask and gloves must be worn at all times. If 2 people require to work together in the chamber then the door must remain open.

To enter the walk-in fridge or freezer, personnel are required to wear gloves. Personnel should work in the walk-ins for the least amount of time to complete the tasks safely.

Grinding and workshop face shields will be provided, cleaned and sanitized by Departmental Technicians. After use, you are to place them in the acrylic PPE Return Bin for subsequent sanitizing. Then they will be re-sealed and put back into service.
Disposable earplugs are available for use when hearing protection is required. Earmuff-style hearing protection may be used, provided it is dedicated to an individual user and is not to be shared.

**Work Operations Specific to Vehicles and Field Equipment**

Most Department vehicles will be assigned to specific personnel or isolation groups and homes. Remaining Department vehicles not assigned to specific personnel or isolation groups are parked at the University when not booked for use and require sanitization, on all contact areas, between users.

**Update:** University vehicles are now restricted to have only one person in the vehicle unless approved by the Department Head. Contact Trevor Fraser to request increased occupants at least three days in advance of use. Acceptable cases for increased vehicle occupancy for example would include when one of the occupants has no valid drivers licence or to drop-off a vehicle for service requiring the driver to be picked up. When driving a university vehicle you must:

- Restrict occupants as much as possible (one being ideal),
- Not exceed one occupant per seating row,
- Seat occupants as far apart as possible,
- Increase ventilation as much as is reasonable by opening windows,
- and if there is more than one occupant, all must wear a 3-ply mask at all times.

These policies may change as public health recommendations change. If there is a change in this policy a message will be sent out.

For other tips on transportation see the Manitoba Government site [https://www.gov.mb.ca/covid19/infomanitobans/transportation.html](https://www.gov.mb.ca/covid19/infomanitobans/transportation.html).

Vehicles and tractors must be sanitized between users according to the Soil Science 2020 Vehicle Interior Sanitization Protocol.

Soil Science vehicles and tractors must be booked through the Soil Science Field Equipment Technician, Trevor Fraser. Coordination of tractors and technical help happens at the Monday morning technicians meeting over zoom. Attendance at these meetings is advised if tractors or technical help will be needed in the near future. Contact Trevor Fraser, Rob Ellis, or your supervisor for the meeting ID and time.

Shared Microsoft Outlook calendars have been created to enable scheduling for users of casual vehicles and tractors without in-person contact. Contact Trevor Fraser to receive access to these calendars. Each calendar will have a “READ ME FIRST” entry with notes on booking, using the equipment and the sanitation requirements.

Soil Science vehicles and field equipment with shared calendars currently include:

- Soil Science - Truck 6 - Vehicle  (CASUAL)
- Soil Science - Equinox 5 - Vehicle  (CASUAL)
• Soil Science - Truck 1 - HD Hauling Vehicle (SPEAK WITH TREVOR)
• Soil Science - JD 1050 - Tractor
• Soil Science - JD 5410 - Tractor

Field personnel will be provided with an individual 1-Person First Aid kit if they are using their own vehicle to access field sites. Contact Rob Ellis to obtain a first aid kit for your personal vehicle. Assigned Departmental vehicles already contain a 1-25 Person First Aid Kit.

Appendix 1. Outlook Booking System

Oct 13 2020 email

Hi All,

After the migration to Office 365 users of the webmail system haven’t been able to place bookings on the online calendars. Since most of our users have been using webmail system I’ve made a set of new calendars directly in the shared soilscal account. This is the shared utility account that we have been using to allow students access to the staff email system. These calendars can be altered by users of the webmail system and can be shared with your personal university account. These new calendars are not searchable through the university directory like the old calendars were.

Because they are part of the soilscal account the calendar settings and previous bookings can be changed by any user that is logged in to the account, please do not change the settings or anyone else’s bookings without their permission.

All users should start using the new versions. The new calendar names begin with the room, truck or equipment number and do not contain "Ag Soils". I have left the old version of the calendars attached to the soilscal account until the last few bookings expire, please check them before making a new booking.

Detailed instructions below.

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Logging On:
• Go to umanitoba.ca. Click "Faculty and Staff". Click "Email".
• Enter Username: "soilscal". Pass: "Welcome2020". Enter.
  o If there is a popup link to onmicrosoft.com click it. You may need to re-enter username and password. Username: soilscal@umanitoba.ca
• Click the calendar icon on the left.

Placing Bookings:
• Select only the calendar you would like to place your booking on by checking the box next to it and unchecking all others.
  o Right clicking on the calendar name will give you the option to "Show this only".
• Verify that there are no conflicting bookings on the calendar.
• There will be instructions for booking in the notes of a "Read Me First" post on each calendar. They can be viewed by clicking on "Read Me First" to the right.
• Double click on the day that you would like to place your booking on, or click the "new event" button at the top left. Fill in the information on the popup form.
  o Do not use the "All Day" button.
  o Ensure that the correct calendar is selected from the drop-down list at the top of the pop-up form.
  o Click "Save".
• Check that your booking is correct and on the correct calendar.

Sharing Calendars with Your Personal Account:

(Note this may not work for student accounts)

• Place the mouse over the calendar you would like to share. Three dots should appear, click them.
• A menu will appear. Select "Sharing and Permissions".
• Enter your email address into the popup window box. Select "can edit" from the drop down menu. Click "Share".
• This will send an email to your account. You must accept the calendar from your personal account.
• You should now be able to see and change this calendar from within your email.

Appendix 2. Empty

Appendix 3: Reference Sources

Appendix 4. Record of Revision Changes from Version July 10, 2020

Updates for April 27, 2021

Vehicle use policy updated to include occupancy increase and rules to safely handle increased occupancy.

[Removed] This policy is under review by the University to be able to address situations such as vehicle drop offs / pick-ups, vehicle break downs and personnel without a driver’s license.

Work Operation of Soil Science Specific to Ellis Building

[Removed] Water fountains with bottle fillers can be used but drinking spouts have been capped off. [Replaced with] Water fountains are fully open but it is recommended to just use the bottle fillers.

Work Operation Specific to Soil Science Shed

[Removed] Confined work areas that are occupied for a prolonged period, such as the walk-in growth room, will require a 3-hr delay on entry of different personnel. Currently the growth room is kept secured, with contact information posted and a time log sheet for entry and exit. [Replaced with] To work in the walk-in growth chamber (Rm 102A Shed) a face mask and gloves must be worn at all times. If 2 people require to work together in the chamber then the door must remain open.

Personal items are to be kept to a minimum in the Shed. No food is to be kept or consumed in the Shed. Water bottles are allowed. [Removed] but they must be completely covered in a plastic bag. [Replaced with] no comment.

Updates for Mar 12, 2021

[Removed, information outdate by 3 revisions]

Before You Return to Campus to Continue Research

All returning personnel must complete the COVID-19 Safety Training for Researchers available on UMLearn. Each employee shall send a written note/email to their supervisor confirming that they have completed the course prior to returning to campus for research.

All researchers with returning personnel have already ordered cloth masks (5 per person) for use while in the buildings. If you have not received the masks from your supervisor, contact Rob Ellis before you enter any of the buildings. Personnel must wear a clean mask every day they are in the building (hence the 5 masks per person). The masks are washable, but be sure to use cold water for washing.
Personnel must have a face mask available and wear the mask if 2 m separation cannot be maintained. Personnel must wear a 3 ply facemask, disposable or re-useable.

Drinking water fountains have been capped off, and tagged “Out of Service” by the University. You will need to bring your own drinking water with you. Water fountains with bottle fillers can be used but drinking spouts have been capped off.

Rm 344 Ellis has been converted into a meal and break area. There are 5 separate stations appropriately spread apart. Cleaning products and paper towels have been placed in the room. Clean and sanitize your area before and after use. Do not store any items in this room.

Vehicles can have 2 occupants if they are in an isolation group or if both the driver and passengers are wearing face masks. In this case, after use the vehicle will need to be sanitized on all surfaces and controls within the reach of both the driver and the passenger.

Update: University vehicle are now restricted to have only one person in the vehicle. This policy is under review by the University to be able to address situations such as vehicle drop offs / pick-ups, vehicle break downs and personnel without a driver’s license. If there is a change in this policy a message will be sent out.

Appendix 2: In-House Prepared Sanitizer.

Appendix 3: Condensed Information from the Government of Canada to Reduce the Spread of COVID-19

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