

Site Sanitation

1. PURPOSE

The purpose of this document is to provide a detailed Standard Operating Procedure for overall on-site sanitation.

2. INTRODUCTION

To prevent the potential spread of pathogens throughout the Rhineland Agricultural Research Station, as well as to or from other agricultural facilities, a strict sanitation protocol must be enforced and followed. All station employees and any/all visitors to the station are required, and thus expected, to adhere to this standard operating procedure.

3. DEFINITIONS

1. *Disinfection*: the process of cleaning something, especially with a chemical, to destroy pathogens
2. *Sanitation*: the promotion of hygiene and prevention of disease by maintenance of sanitary conditions
 - a. *Sanitary*: characterized by or readily kept in cleanliness
3. *Pathogen*: a specific causative agent (such as a bacterium or virus) of disease

4. MATERIALS REQUIRED

1. 2 225-gallon sprayer tanks
2. Virkon S
 - a. Virkon S stock material is powder with 21% potassium peroxymonosulfate
 - b. Prepare 2% solution by dissolving 37.9 lbs Virkon S per 225 gallons of water
 - i. **Please note**: Virkon S, at a 2% solution, begins to diminish after a 3-to-4-day period. 1% begins to diminish after a 7-day period. Over the life span of the solution, the viability of the solution will slowly decrease. The chemistry is oxidative so the chemical reaction that takes place in the solution is cyclic in nature until all the active ingredient is consumed. Once the active ingredient is completely consumed, sodium chloride will continue and at that point there may be a slight chlorine smell. When this occurs, the solution is no longer active or efficacious
3. Dawn detergent

5. KNOWN HAZARDS / PPE RECOMMENDED

1. Virkon S
 - a. Causes serious eye damage. Causes skin irritation. May cause respiratory irritation.
 - i. Required PPE:
 1. Mixing
 - a. Nitrile chemical-resistant gloves, shoulder-length
 - b. Goggles/safety glasses
 2. Spraying

- a. Goggles/safety glasses
- ii. Recommended PPE:
 1. Mixing and spraying
 - a. Coveralls/apron
 - b. Rubber gloves
 2. Footbaths
 - a. Designated footwear (chemical-resistant if possible) and/or plastic booties
2. Refer to MSDS binder for further information

6. SPECIFIC PROCEDURE

1. **All** motorized vehicles (station vehicles, personal vehicles, visitors' vehicles, off-road vehicles, etc.), machinery (tractors, tractor implements such as a harvester, etc.), and equipment (tools, shovels, forks, etc.) **must be sanitized** appropriately before entering the Rhineland Agricultural Research Station
 - a. Employees
 - i. Designated sanitation area
 1. First, pressure wash vehicle with plain water. All soil and debris must be removed, to best ability, before proceeding
 2. Second, pressure wash vehicle with 2% Virkon S solution combined with Dawn detergent additive for a foaming agent (allows Virkon S to adhere to surfaces for better sanitation)
 - b. Visitors
 - i. Any and all visitors needing, or wanting, to come to RARS, must first contact one of the following:
 1. *Main Office / 715.369.0619*
 - a. *Becky Eddy, Superintendent*
 2. *Scott Woodford / 715.966.3357 cell*
 3. *Sam Eddy / 715.482.9499 cell*
 - ii. All outside vehicles will be taken through a car wash before and after entering and leaving station grounds. If this is not possible, visitors will then be directed to the designated sanitation area and a station employee will sanitize vehicles following same steps listed above. *If after hours, please contact RARS employees, in the following order:*
 1. *Becky and Sam Eddy / 715.369.3306 home*
 - a. *715.482.9499 Sam cell*
 - b. *715.499.0936 Becky cell*
 2. *Scott Woodford / 715.966.3357 cell*
 3. *Allie Zacharias / 715.360.5367 cell*
 4. *Kim Goodin / 715.360.6396 cell*
 - iii. **Please note:** as listed in section 5 of this document, Virkon S is a rather harsh chemical and can cause deterioration to footwear. Visitors *are encouraged* to designate a pair of boots/shoes specifically for RARS. If this is impossible, **shoes must be completely sanitized, or booties will be required** (and are available on site)

2. Site Movement

a. Follow the order of sanitation priority when moving around RARS. This includes field movement, greenhouse movement, and overall site movement

i. Field movement (fig. 01)

1. Tower (cleanest)
2. South
3. North (dirtiest)

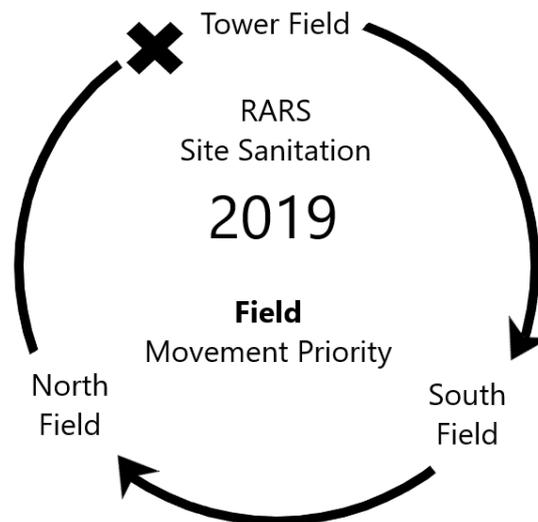


Fig. 01

4. Fields will have designated traveling paths for vehicles and machinery. This is ***crucial*** in preventing further spread of pathogen(s) as well as preventing soil compaction. Please follow these designated paths, unless otherwise directed and/or approved

ii. Greenhouse movement (fig. 02)

1. Greenhouse 6 (cleanest)
2. Greenhouse 4
3. Greenhouse 8
4. Greenhouse 5
5. Greenhouse 1
6. Greenhouse 2
7. Greenhouse 3 (dirtiest)



Fig. 02

iii. Site movement

1. Lab (cleanest)
2. Willis storage
3. Basement storage
4. Boiler room
5. Shop
6. Greenhouses

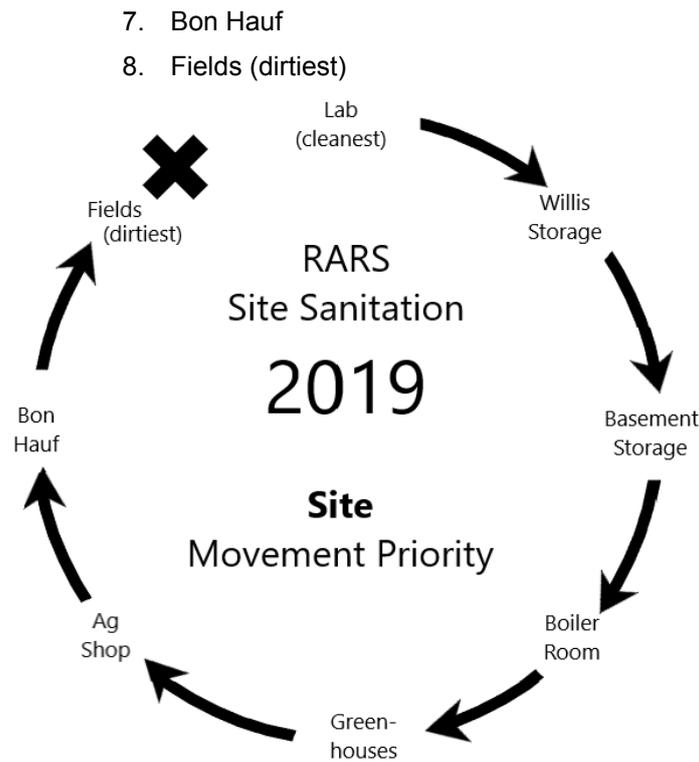


Fig. 03

iv. Headquarters Building

1. Headquarters is considered a neutral zone, in that persons enter and exit continuously, to/from various areas around the entire station
 - a. During the growing season, any and all persons having visited a field must use the rear entrance to the headquarters building. Shoes must be removed prior to entry
 - b. The front entrance may be used if a field has **NOT** been visited. The foot bath must be used, or shoes must be removed
 - i. If having visited a greenhouse, **sanitize and remove greenhouse boots** before entering headquarters

v. ***ex.*** if a visitor arrives and heads into the North field first, they **will not be allowed** in any other field, nor anywhere on site aside from the offices /

Headquarters building without fully decontaminating (shower and change of clothes/shoes)

- vi. **Please note:** Priority of site movement will vary from year to year, depending on present pathogen(s) and severity of pathogen(s)
 - b. All employees and visitors moving to or from a production field (potato or rotational crop) must sanitize vehicles and/or machinery/equipment
 - i. **ex.** *If spraying pesticides in South field, tractor and sprayer **must be completely sanitized before moving to North field to spray. Machinery will follow the same priority of movement as persons (see section 2.a.iii of this document)***
 - ii. **VENDORS:** Any and all equipment used in field(s) must be completely sanitized immediately before and after use
 - iii. **SCOUTS:** Field scouts are required to park their personal vehicle in the designated area and will use the station's Kubota for transport around the site
 1. Same sanitation rules and priority apply
 2. If personal vehicle use is necessary, vehicle must be sanitized completely both before and after entering a field. **Follow field movement priority** (section 6.2.a.i of this document)
 - c. All employees and visitors may be required to wear plastic booties and/or other sanitized and designated footwear in fields, when instructed to do so
 - d. Sanitation is, of course, also implemented in all buildings and greenhouses on site. All entrances and exits have footbaths, which are **required** to step through upon entrance/exit
 - e. **Please note: Absolutely no visitors will be allowed in RARS fields without first receiving approval from RARS**
3. Winter months
 - a. During the winter season, the same sanitation rules apply. Visitors are asked to take their vehicle through a car wash and arrive clean. However, weather can play a factor and a car wash may not be available
 - i. If arriving with a clean vehicle is not possible, please contact RARS employee(s) (contact numbers listed in section 6.1.b of this document) in advance to allow for on-site sanitation of vehicles, or alternative transport
 4. Employee Off-Site Travel
 - a. When employees are required to travel for work, the same sanitation rules apply. Vehicles must be clean when leaving RARS, as well as returning. As with visitors, a car wash is best. If this is impossible, follow same rules as for visitors leaving/entering RARS (section 6.1.b of this document)

7. FORMS/TEMPLATES TO BE USED

1. **All visitors** – upon arrival, please register using visitors' log in main office
2. **Vendors** – Vendors will be required to sign a form indicating comprehension and understanding of RARS' site sanitation policy and this document

8. CHANGE HISTORY

SOP no.	Effective Date	Significant Changes	Author	Previous SOP no.
--	3.15.19	Created Document	Becky Eddy / Scott Woodford	--
--	3.15.19	Updated format, type	Allie Zacharias / Becky Eddy	--
--	3.25.19	Updated type	Allie Zacharias / Becky Eddy	--
--	3.25.19	Updated type, comments	Jeff Endelman	