



COMMUNITY



4-H & YOUTH



ENVIRONMENT



AGRICULTURE



FOOD

CENTER FOR SUSTAINABLE AGRICULTURE



UNIVERSITY OF VERMONT

EXTENSION

CULTIVATING HEALTHY COMMUNITIES

# On-farm Cleaning

## Cleaning and Sanitizing with Food Safety in Mind

When setting up your on-farm cleaning routine, think about all the **produce-contact surfaces** from field to shipment or sale such as: tools and equipment; harvest, storage and shipping containers; and wash and pack shed surfaces such as sinks and work tables. Also consider **areas that could harbor pathogens** such as pack sheds, drains, coolers, trucks, and equipment.

### Washing and sanitizing and disinfecting, oh my!

Washing is the physical removal of soil, dust, organic matter, and pathogens from a surface, including hands. The basic steps of washing are: wet, scrub, rinse, dry. **Soap, cleaners** and **detergents** are used in the scrub process to lift contaminants from the surface so they can be rinsed away. Washing does not necessarily kill bacteria and microbes, but will remove many of them in the process of scrubbing and rinsing, removing soil or dust particles to which they are attached.

Sanitizing and disinfecting are words that are often used interchangeably, but there are slight differences. **Sanitizers** are used to reduce germs from surfaces but not totally get rid of them. Sanitizers reduce the germs from surfaces to levels that are considered safe<sup>1</sup>. **Disinfectants** are chemical products that destroy or inactivate germs and prevent them from growing. Disinfectants have no effect on dirt, soil, or dust. Disinfectants and sanitizers are regulated by the U.S. Environmental Protection Agency (EPA).

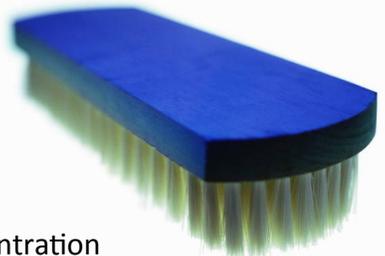
### Commonly-used sanitizers in food safety are:

- Hypochlorite (bleach)
- Peroxyacetic Acid (PAA)
- Chlorine Dioxide
- Iodophors
- Quaternary Ammonium Compounds (QACs or Quats)

Descriptions can be found at: [www.foodsafetymagazine.com/magazine-archive1/augustseptember-2011/sanitizers-and-disinfectants-the-chemicals-of-prevention/](http://www.foodsafetymagazine.com/magazine-archive1/augustseptember-2011/sanitizers-and-disinfectants-the-chemicals-of-prevention/)

### If you are sanitizing or disinfecting, you must wash first, as follows:

1. Wet surface with potable water
2. Scrub with soap, cleaner or detergent with a clean scrubbing device
3. Rinse with potable water
4. Air dry or dry with single-use a paper towel, not a cloth towel
5. Apply sanitizer or disinfectant at manufacturer's recommended concentration
6. Leave on surface for manufacturer's recommended amount of time
7. Air dry or dry with single-use a paper towel, not a cloth towel



1. Centers for Disease Control and Prevention <http://www.cdc.gov/mrsa/environment/>

## Steps to Writing Standard Operating Procedures (SOPs)

SOPs provide step-by-step details on policies and procedures and are particularly useful in outlining cleaning procedures and routines. Write SOPs with simple language (keeping in mind any language barriers) but with enough detail so that anyone on your farm could read the steps and complete the procedure without prior experience, training, or help from others. Use numbered or bulleted lists to outline brief but complete how-to instructions. Hang your SOPs where they can be easily seen and serve as a reminder for the person who is responsible for completing the task.

When writing SOPs, ask yourself the following:

- Who will complete the task?
- What materials, supplies and equipment are needed?
- Where will the procedure take place?
- When will the procedure be done?
- How will the employee implement the procedure?
- What personal protective equipment (PPE) is needed, if any?

For example, an SOP on cleaning and sanitizing a food contact surface might look like this (*without information in parentheses*):

**Employee Assigned to Produce Rinsing (*indicates who*), End-of-Day (*indicates when*) Cleaning and Sanitizing (*indicates what*) of Produce Sink (*indicates where*).**

1. Remove all produce, sponges, knives, etc. from sink. (*Indicates how*)
2. Wet down sink. (*Indicates how*)
3. Using Soap X in blue container with label, apply 5 squirts, one to each of the sides and bottom of sink. (*Indicates what materials and how*)
4. Using yellow brush located above sink, scrub sides and bottom of sink for 2 minutes. (*Indicates what materials, how, and how long*)
5. Using spray hose, thoroughly rinse all soap down drain. (*Indicates what materials and how*)
6. Using Sanitizer X solution in clear container with label, spray sides and bottom of sink. (*Indicates what materials and how*)
7. Allow Sanitizer X to sit for 3 minutes. (*Indicates what and how long*)
8. Using spray hose, rinse sides and bottom of sink. (*Indicates what materials and how*)

If materials or equipment necessary for this task are missing, please contact [Name of person responsible for checking and maintaining cleaning supply stocks].

## Benefits of SOPs

- Assist with employee training
- Provide clear expectations for employees
- Save time (less need to ask for help)
- Increase likelihood that practices will be carried out correctly



A laminated SOP hanging in a visible spot in the pack shed.

## Concentration and Contact Time for Sanitizers and Disinfectants

Always read labels to determine the proper **concentration** and **contact time** for your intended surface. If the concentration or contact time is too low, the chemical may not be effective. If the concentration is too high, there may be an undesirable chemical residue.

March 2013. Center for Sustainable Agriculture, University of Vermont Extension. <http://www.uvm.edu/~susagctr/?Page=gaphome.html>

UVM Extension helps individuals and communities put research-based knowledge to work. Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. University of Vermont Extension, Vermont. University of Vermont Extension, and U.S. Department of Agriculture, cooperating, offer education and employment to everyone without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status.