# Cleaning and Sanitizing Operational Assessment

*Note: This document was created for use in a 3.5 hour workshop that included three short presentations followed by three breakouts. Please contact Betsy Bihn at* [eab38@cornell.edu](mailto:eab38@cornell.edu) *if you are interested in more information or in organizing one of these workshops.*

**Purpose**: To assess practices and resources on fruit and vegetable farms to help develop an effective sanitation program. Sanitation includes cleaning, sanitizing, and drying food contact surfaces as appropriate.

**For the purposes of this workshop, we are asking each person to focus on one (1) crop they grow and/or pack.** After the workshop, this document can be updated or duplicated to add information as it pertains to additional commodities that are grown and/or handled.

The FSMA Produce Safety Rule §112.123(d)(1) requires those subject to the rule to inspect, maintain, and clean and, when necessary and appropriate, sanitize all food contact surfaces of equipment and tools used in covered activities as frequently as reasonably necessary to protect against contamination of covered produce.

Farm Name:

Date:

Crop:

## Current Farm Processes

For the crop listed, briefly describe all the farm processes the crop goes through. As noted, if relevant, add location in parentheses.

E.g., cabbage grown, harvested, transported to packinghouse, some is stored (cooler), and shipped (contracted trucking). Some is stored (cooler), trimmed (packinghouse), repacked (packinghouse) and shipped (contracted trucking).

## Food Contact Surfaces and Equipment Design

For every process listed above, list all the **food contact surfaces** the harvestable part of the crop touches from the field to market.

Then list all the current cleaning, sanitizing, and drying practices that are in place (or should be in place) to reduce risks.

Next, consider the frequency of cleaning and/or sanitizing;   
(**O**) once per season, (**D**) for daily ; (**W**) for weekly; (**M**) for monthly; (**Y**) for yearly; (**AN**) for as needed.

List each piece of equipment used in every process with this crop.

Finally, is the food contact surface/equipment **simple** to clean, sanitize, and dry or is it **complex**?

**Simple**: Does not require tools to take it apart and put it back together, easily accessible food contact surfaces, examples include plastic totes and knives.

**Complex**: Requires tools to take it apart and put it back together, difficult to access all food contact surfaces, examples include conveyor lines, brush washers.

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| **Food Contact Surface** | **Cleaning, Sanitizing, or Drying Practice** | **When Does it Happen?** | **Simple or complex? Why?** |
| *E.g., hands; harvest knives; harvest bins; brush washer* | *E.g., wash hands before work and after all breaks including eating or using toilet; knives washed and sanitized in bucket; bins are cleaned, sanitized, and air dried; brush washer is rinsed to remove debris daily, deep cleaned with detergent and sanitized weekly* | *E.g., hands are washed multiple time a day; Knives are washed at the end of each day (D) and sanitized in a bucket at lunch; harvest bins are washed and sanitized after each use, daily (D), weekly (W), and as needed (AN) based on visual inspection; brush washer is rinsed daily (D) and taken apart for deep cleaning monthly (W)* | *E.g., hands, harvest knives and harvest bins are simple because they are easy to clean. Brush washer is complex because it is difficult to access deep inside the machine and the brushes accumulate plant matter. It also requires tools to take it apart.* |
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## Infrastructure: Building Attributes and Resources

**Does your operation have:**

\_\_ (yes) \_\_ (no) **Access to water** that has no detectable generic *E.coli*. (§ 112.44(a)(3) requires no detectable generic *E. coli/*100 mLin water used to contact food contact surfaces).

\_\_ (yes) \_\_ (no) **Building with doors, walls, and/or windows**

\_\_ (yes) \_\_ (no) **Concrete floors**

\_\_ (yes) \_\_ (no) **Floor drains**; if yes, include what type (direct plumbed, spot floor drain, trench drain), how many, and how far apart in the space below.

Other relevant building attributes that your operation has that will impact, either negatively or positively, the sanitation program.

**Cleaning tools** (e.g., brushes, vacuums, squeegees, flashlights)

List tools in your operation, their use, noting if they are dedicated only to this purpose (D), and the storage plan. The storage plan includes where they are stored, which tools are stored together, and how they are stored. You can group tools stored together with letters (a), (b), (c), if there is more than one storage location/group. If you have identified tools you need, but do not yet have, just make those with a (N) for Need.

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| **Cleaning Tool** | **Use** | **Storage Plan** | **Inspect/Replace** |
| *E.g., squeegee* | *E.g., push standing water to drain* | *E.g., hangs on hook, blade down, on production floor wall* | *E.g., inspected for cleanliness and to ensure good working order, clean or replace if necessary* |
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**END FIRST BREAKOUT**

## Chemical Resources

## Detergents & Sanitizers

List any detergents and sanitizers you are currently using. Please note if you have the label and know it is labeled for your current or planned use. For sanitizers, legally it must be labeled for the use.

**Chemical Storage**

List current storage for your chemicals. This includes where they are stored, which chemicals are stored together, and if the storage is locked. As above, you can group chemicals stored together with letters (a), (b), (c), if there is more than one storage location/group.

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| **Detergent or Sanitizer** | **Label (yes/no)** | **Storage Plan** |
| *E.g., Sanidate 5.0* | *E.g., yes* | *E.g., stored in locked closet* |
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**Based on this assessment, I plan to implement the following:**

\_\_\_ **Dry Cleaning process** or \_\_\_ **Wet Cleaning process**

If you plan to use a Wet Cleaning process, please describe your plans below for drying and for minimizing standing water after cleaning is complete.

## Training

**Identification of Training Needs**

List individuals who are currently trained or need to be trained and content areas that need covered.

**Training Resources**

List training resources and denote (N) if you need that information (i.e., do not have the training resources you need to train individuals).

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| **Team Member** | **Training Areas Needed** | **Resources (Have or Need)** |
| *E.g., Courtney Smith* | *E.g., proper mixing of sanitizer for sanitizing harvest bins* | *E.g., need to develop SOP* |
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**END SECOND BREAKOUT**

# Cleaning and Sanitizing Surfaces, Tools, and Equipment

**Revision: 1.0**

**Date: 09/30/21**

**1—Purpose**

Describes how to clean ***[and/or sanitize and/or dry].*** ***[Name the surface or object.]***

**2—Scope**

Applies to ***[Name specific situation or object. For instance, if the PURPOSE describes how to clean plastic totes, this SCOPE may be specific to harvest totes or storage totes]*** *and/*or ***[Specific situations such as disinfecting after known contamination]***

**3—Responsibility**

Workers are responsible for following the SOPs to properly clean ***[sanitize, and dry]*** ***[name surface or object]***. ***[Name person or position of personnel such as farm owner and food safety manager]*** are responsible for training the workers on proper technique, providing necessary resources such as tools, detergents and sanitizers, personal protective equipment (PPE) and making sure the cleaning, sanitizing, and drying steps are followed correctly and that PPE is worn.

**4—Materials**

* Detergent name, brand, and concentration ***[Provide name here.]***
* Sanitizer name, brand, and concentration ***[Provide name here.]  
  [Include label and instructions - sanitizers must be labeled for use on the surface.]***
* ***[List all container(s) as needed for mixing and using detergent(s) and sanitizer(s) or for washing tools. Examples include measuring spoons, measuring containers, and buckets.]***
* ***[List all tools needed to complete cleaning, sanitizing, and drying. Examples include brushes, sponges, or towels for scrubbing tools and equipment. Note color if using color coding system.]***
* Water source ***[List source of water. Must be free of detectable E.coli. Specify spigot/tap if relevant to your operation.]***
* PPE ***[List all PPE required for worker protection. Examples include goggles, chemical protective clothing, apron, gloves, and/or face shield.]***

**5— Procedure *[Specify wet or dry cleaning.]***

1. Confirm you have selected the appropriate sanitation standard operating procedure. ***Note:*** ***You may need to visually inspect surfaces that are going to be cleaned to confirm you have selected the correct sanitation procedure. For instance, sanitizing is different then disinfecting. For example, you would disinfect a surface if you knew it had been contaminated with fecal material, whereas you would just sanitize as a normal day to day practice if the surface was just dirty from field debris.***
2. The surface should be ***[dry brushed or rinsed with water]*** to remove visible dirt and debris.
3. Prepare the detergent. ***[Add detergent mixing or preparation instructions here. Detergent should be mixed according to the product instructions; could be premixed]***.
4. ***[Describe cleaning instructions. Example: Apply the prepared detergent solution and scrub the surfaces moving in the direction top to bottom for large pieces of equipment.]***
5. ***[If wet cleaning, will have a rinse step. Example: Rinse the surface with clean water until all soap suds are rinsed away moving in the direction top to bottom for large pieces of equipment.]***
6. ***[If sanitizing, add sanitizer mixing or preparation instructions here. Follow the label - this is the law; could be premixed].***
7. ***[If sanitizing, some sanitizers require a contact time for effective use. Example: Apply the prepared sanitizer solution. Allow it to sit for [enter number of minutes according to product instructions] minutes.]***
8. ***[Some sanitizers require a rinse, others do not. If rinse is required, detail instructions here.]***
9. ***[Most surfaces require air drying. Detail drying plans here. Example: Let the surface air dry OR place object on drying rack.]***
10. Visually inspect surface to confirm the sanitation steps were effective.
11. Document the process on the***[NAME THE LOG]***
12. After all sanitation procedures are complete, store all chemicals and equipment. ***[If there is standing water on the floor, describe how to address standing water. Examples include squeegee standing water to the drain OR turn on fans OR complete any other steps that ensure there is not persistent standing water in the operation and that food contact surfaces dry thoroughly.]***