Section 5: Cleaning and Drying

Why Cleaning and Drying of Fresh Produce Is Important

Clean produce is required for sale to wholesale markets, and crop-appropriate postharvest cleaning and drying practices impact product shelf life, sales, and food safety. Sales are affected by the visual appearance and quality of produce. Soil and particles that can promote spoilage are removed during cleaning, often helping to maintain a product’s shelf life. Microorganisms responsible for causing foodborne illnesses can be present in soil and spread by harvest and packing equipment, and handling. Cleaning can help eliminate or reduce them to a safe level.

When to Clean or Dry

Many crops will need to be washed before cooling and storage, and some will be washed after storage. Some crops will not need to be washed or will be cleaned with a process that does not get them wet. Others should not be washed until they will be eaten and must be grown and harvested clean. Some crops need to be dried before packing, others are best packed wet, and some should be cured. This could all seem a bit confusing, but one thing is absolutely clear: all produce should be clean when it is sent to market.

All produce should be clean when it is sent to market. To be considered clean, produce should be visually free of dust, dirt, soil, and other debris.

Broccoli, cabbage, cauliflower, beans, peas, tomatoes and summer squash are crops that can often be harvested clean and shipped without further cleaning if the picker keeps his or her hands, harvest tools, and picking containers clean. However, if you can see dirt, dust, soil, or other debris – the produce needs...
to be cleaned. Avoiding unnecessary cleaning saves not only labor and time: it moves the product more quickly to cooling, which is crucial for good shelf life. Some crops can be negatively affected by washing; such as peas, beans, cabbage, and summer squash; and washing these should be avoided when possible.

With the exception of storage onions, potatoes, and winter squash, it is generally recommended to wash produce that needs washing as soon as it leaves the field, and then move it quickly on to cooling and storage. It is generally recommended to wait until after storage to wash root crops, though some farmers prefer to wash them before storage. (See side bar for more information.) For crops such as baby greens and bunched greens, the cleaning and cooling process may happen simultaneously in the same process. Learning the correct process for each vegetable is important to maintain quality, minimize food safety hazards, and maximize shelf life.

For food safety, produce that is very dirty, such as root crops, should be spray or brush washed before being immersed in a tank of water to cool. This important issue will be discussed further in the section on tools used for cleaning.

Don’t Wash

Some crops should not be washed before shipping; washing can cause unnecessary damage to fragile crops or crops sensitive to decay on wet spots. These include figs, mature coconuts, mushrooms, cabbage, okra, summer squash, berries, and peas. Ideally tomatoes also shouldn’t be washed — they will hold better in storage if they are not — but they often are washed. For crops such as berries that shouldn’t be washed until just before eating, a growing system to keep them from getting dirty in the field is very important — strawberries, for example, are mulched, and cane berries are trellised to keep them from dropping and touching the ground.

Root Crops: Wash or Don’t Wash Before Storage?

John Fisher-Merritt of Food Farm washes root crops before winter storage. He experimented by storing carrots through the winter both washed and unwashed. He found that the carrots that were washed before storage were beautiful all winter, and spoilage was not an issue. The way they were packed they didn’t get limp or dehydrated. The carrots that were stored dirty didn’t look clean after washing; the soil left stains on the carrot skins.

Food Farm now washes all of its root crops – carrots, beets, parsnips, and rutabagas – in fall at harvest before storage. Pallet-sized wooden bins are lined with a bin-sized plastic bag. On the bottom of the bag an inch and a half of dry peat moss is spread, on top of that a burlap sack is laid to keep the roots clean, and then the roots are packed to the top and the plastic bag is closed over them. The peat absorbs any excess moisture that comes off the roots and holds the humidity. John finds there is no need to control the humidity of the root cellar; the microclimate is perfect inside each bin.

Potatoes too are washed at harvest, and then packed in wooden bins with peat moss and a burlap sack beneath the potatoes, but without the plastic bag.

The farm doesn’t have a heated packinghouse, so not having to wash during the winter in the crowded root cellar is an additional bonus. John says, “It is so much easier to ship them now, already cleaned.”

The farm has a barrel washer now but for years John used a commercial dryer drum as a homemade barrel washer. As it turned slowly the roots were sprayed with a power washer.

Steve Pincus of Tipi Produce and his wife Beth put 100,000 pounds of roots into storage for the winter – unwashed. The roots are harvested into an unlined wooden bin right in the field. The filled bin is covered with a large plastic bag that goes all the way to the bottom. The bins are stacked the height of the cooler.

Steve finds unwashed carrots do have a bit of a stain after the first of the year. They come clean; they just don’t look quite as good, but it’s not a problem for his market. He says, “By fall root harvest at the end of October we’re tired. Also we don’t have the capacity to wash that many roots in fall. This way we can keep four to five people in winter work, washing and packing as the roots are sold.”
Section 5: Cleaning and Drying

Tools and Systems for Cleaning, Washing, and Drying Produce

Having the right tool for your farm’s production scale and a good process established for each type of produce is crucial to maintaining produce quality, food safety, and your farm’s economic viability. There are often several different approaches to cleaning each type of produce. Production scale, labor force, and your farm’s economics will be important factors to consider in making tool and system decisions. Many cleaning, drying, and curing tools are inexpensive or can be custom made on the farm. Others may seem expensive when first considered, but can be worth the money in saved labor and maintaining the product’s quality through speeding up the cooling period.

Besides the fact that all produce should be clean when shipped, there is one more absolute. All produce washing systems require potable – safe to drink – water.

<table>
<thead>
<tr>
<th>Quick Glance Cleaning/Drying Chart</th>
<th>Cleaning Options</th>
<th>Drying</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baby Salad Greens:</strong> Spinach, Arugula, Spring Mix, Braising Mix</td>
<td>Double-wash/rinse in a water tank. After drying, cull sticks, weeds, and bad leaves.</td>
<td>Spin-dry.</td>
</tr>
<tr>
<td></td>
<td>Wash in a baby greens washing/cooling pack line.</td>
<td>Spin-dry.</td>
</tr>
<tr>
<td><strong>Beans and Peas</strong></td>
<td>Field pack if clean and cool, or if they can be cooled quickly.</td>
<td>Picked dry.</td>
</tr>
<tr>
<td></td>
<td>Avoid washing if possible. If washing or hydrocooling is necessary, batch wash in harvest tote in water tank. 2nd tank rinse.</td>
<td>Do not pack wet. Lay on screen table to air dry. Fluff with fingers. Do not allow to heat up.</td>
</tr>
<tr>
<td><strong>Berries</strong></td>
<td>Do not wash.</td>
<td>No.</td>
</tr>
<tr>
<td><strong>Bok Choy</strong></td>
<td>Tank wash with sanitizer.</td>
<td>Drain upside down.</td>
</tr>
<tr>
<td><strong>Broccoli, Cauliflower, Cabbage</strong></td>
<td>Harvest clean and pack without further cleaning.</td>
<td>No.</td>
</tr>
<tr>
<td></td>
<td>Broccoli and Cauliflower can be cleaned in a tank of water with sanitizer.</td>
<td>No.</td>
</tr>
<tr>
<td></td>
<td>Cabbage should not be immersed in water. If soiled, trim soiled area with a knife. If washing is necessary, spray soiled areas lightly.</td>
<td>Air-dry.</td>
</tr>
<tr>
<td><strong>Cantaloupe or Muskmelon</strong></td>
<td>If it is not muddy, dry-brush at harvest with glove or cloth.</td>
<td>No.</td>
</tr>
<tr>
<td></td>
<td>Mechanical brush wash.</td>
<td>Pack line absorber unit or air dry.</td>
</tr>
<tr>
<td><strong>Celery</strong></td>
<td>Spray-wash.</td>
<td>Drain upside down.</td>
</tr>
</tbody>
</table>

Strawberries are too fragile to be washed, so straw mulch is usually placed around plants to keep berries from touching the soil. At Harmony Valley Farm, millet is grown between strawberry rows. The millet will “winter-kill” and provide grown-in-place mulch to help keep strawberries clean the following season. Additional mulch may be needed in the second growing season.
### Section 5: Cleaning and Drying

<table>
<thead>
<tr>
<th>Quick Glance Cleaning/Drying Chart</th>
<th>Cleaning Options</th>
<th>Drying</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bulk Roots and Tubers:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rutabagas, Beets, Winter</td>
<td>Mechanical: Brush washer is generally best for round vegetables.</td>
<td>Pack line absorber unit.</td>
</tr>
<tr>
<td>Radishes, Parsnips, Celeriac</td>
<td>Mechanical: Barrel washer is generally best for long root crops.</td>
<td>Pack line absorber unit.</td>
</tr>
<tr>
<td><strong>Green-top Bunched Roots:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carrots, Beets, Turnips,</td>
<td>Spray wash on drain table. Pressure washer can be used on roots. Washer can be used with care on roots only.</td>
<td>No.</td>
</tr>
<tr>
<td>Radishes, Parsnips, vegetables.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Head Lettuce</strong></td>
<td>Field pack if lettuce is clean and cool, or if it is clean and can be cooled quickly.</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>If very dirty, gently spray off the bulk of the soil. Wash in water tank. Second tank rinse.</td>
<td>Drain-dry upside down on drain table.</td>
</tr>
<tr>
<td><strong>Bunched Herbs</strong></td>
<td>If picked clean and cool no washing is needed.</td>
<td>No.</td>
</tr>
<tr>
<td></td>
<td>If bunched herbs need to be cooled and/or cleaned, tank wash in sanitized water. Basil, keep water above 55° F.</td>
<td>Drain-dry upside down on drain table.</td>
</tr>
<tr>
<td><strong>Onions, Garlic, Shallots</strong></td>
<td>Fresh market: Trim roots and tops and spray wash. Storage: Cut tops and dry brush after curing.</td>
<td>Air-dry excess moisture.</td>
</tr>
<tr>
<td><strong>Peppers, Cucumbers</strong></td>
<td>Can be dry brushed with a clean glove or cloth.</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>Handbrush wash in water tank.</td>
<td>Air-dry while packing.</td>
</tr>
<tr>
<td></td>
<td>Wetbrush wash in pack line.</td>
<td>Absorber removes excess moisture.</td>
</tr>
<tr>
<td></td>
<td>Jacuzzi water bath. (peppers)</td>
<td>Air/drain dry as packing.</td>
</tr>
<tr>
<td><strong>Sweet Corn</strong></td>
<td>Pick clean, no washing needed</td>
<td>No.</td>
</tr>
<tr>
<td><strong>Tomatoes</strong></td>
<td>Dry brushed with a clean glove or cloth at harvest and packing.</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>Washing is not recommended. Do not immerse in water. If washing is necessary, clean by hand with a wet cloth or in a mechanical pack line using soft brushes.</td>
<td>If washed in a mechanical pack line, the absorber unit will dry.</td>
</tr>
<tr>
<td><strong>Watermelons</strong></td>
<td>Wipe off dirt at harvest.</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>Wet brush by hand or machine if more washing is needed.</td>
<td>Air-dry or pack line absorber unit.</td>
</tr>
<tr>
<td><strong>Winter Squash and Pumpkins</strong></td>
<td>Wipe off dirt at harvest. Wet brush by hand or machine if dirty.</td>
<td>Air-dry or pack line absorber unit.</td>
</tr>
<tr>
<td><strong>Zucchini, Summer Squash</strong></td>
<td>Dry brushed with a clean glove or cloth at harvest.</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>Washing is not recommended. If washing is necessary clean by hand or in a mechanical pack line using soft brushes.</td>
<td>Pack line absorber unit.</td>
</tr>
</tbody>
</table>
Cleaning in Water Tanks: Bunched greens, lettuce, beans, peas, baby greens, herbs, and hand wet brush washing of cucumbers and peppers.

Food Safety for Tank Washing
Washing produce does not necessarily eliminate pathogens. Whenever water comes in contact with produce, the source and quality of the water and the food safety practices dictate the potential for contamination.

1. Water must be potable (safe to drink).
2. Always use a sanitizing agent in wash tanks.
3. Use a test strip to check concentration before adding produce.
4. Change water when it becomes dirty.
5. Clean tank with detergent between uses, rinse, and then spray with sanitizer.
6. Monitor water temperature to prevent internalization of microorganisms.
7. Do not overfill tanks. One layer only.
8. Do not tank wash produce that is very dirty such as root crops – especially green-top root crops.
9. Train yourself and staff on clean hands and equipment procedures.

Internalization Of Pathogens
Immersing fresh produce in water creates a pressure differential that causes water to be pulled into the produce, referred to as imbibing. If there are pathogens present on the produce surface or in the water they can become internalized. Subsequent washing will not reduce pathogen levels once they are inside the produce. It is absolutely crucial to practice good food safety procedures when tank washing.

The 10° F Rule
The difference between the water temperature and the produce temperature is important. When the water temperature is colder than the produce the amount of imbibing increases.

The concern is greatest for apples, celery, tomatoes, and peppers. Fortunately, these crops do not need to be tank washed. If tank washing were to be done, the temperature of the wash water should be greater than that of the produce. Peppers should have a stem left on, and not have large blossom end gaps. When produce with visible dirt is being washed in a tank and for the first washing of fresh greens, the water should not be more than 10° F colder than the produce.

If you are using a water tank to wash and hydrocool, as is common with fresh greens, use multiple tanks to “step down” the temperature. The water in the first cleaning tank should be no more than 10° F colder than the produce. The second rinse tank after the produce is cleaned can be cold water to hydrocool the product.
Depth and the Internalization of Pathogens

As produce is pushed deeper in water, the pressure differential increases, resulting in higher infiltration. Do not overfill tanks – one layer deep only.

When Is Tank Water Dirty?

When sanitizers are exposed to air or organic materials – dirt and plant residue – they dissipate and lose their effectiveness. The best way to check whether a sanitizing solution is still effective is to use a test strip.

Monitor Water and Change It When It Is Dirty

As wash water becomes dirty, the effectiveness of many antimicrobial agents will decrease.

Scooping out organic material does not eliminate pathogens. Change water as needed to insure cleanliness. Using more than one tank can be helpful. When one tank is dirty, work can switch to a second tank while the dirty tank is being drained, cleaned, and refilled. There are two schools of thought on tank depth. Some farmers prefer to use a water tank that is deep enough to keep produce away from settling dirt. Others prefer a shallow tank so less water is needed to fill it. Plastic livestock watering tanks are lightweight and easy to tip on edge for cleaning. Stainless steel dairy bulk-milk tanks provide an easy-to-clean spacious tank that can be upgraded with a Jacuzzi® air circulation system.
Baby Greens: spring mix, mesclun, baby spinach and arugula, braising mix

On large farms a wash line with water tanks and a conveyor belt system are generally used to clean and cool baby greens. Visual inspection removes weeds or bad leaves as the produce moves through the line.

On smaller farms, baby greens are generally cleaned and cooled in a double-wash system with two tanks of water. The water in the first wash tank should not be more than 10° F colder than the greens. Always use a sanitizing agent and clean water.

A common method for cooling and cleaning baby greens is to line the harvest tote with a nylon or polyester mesh bag. Many farms use 24” x 36” mesh laundry bags that are available at discount stores costing from $2 to $5. Nylon Net Company sells a 22” x 22” square bag with 1/4” mesh. McDowell Industries sells 32” x 27” knotted McKnit bags.

Once filled with produce, the mesh bag is closed and submerged in a tank of water and gently washed, then moved to a second, cooler tank for a second wash. Using a mesh bag liner helps to protect leaves. Baby greens need to be handled gently; they are fragile and easily bruised.

After washing and cooling the greens are spun dry. Commercial salad spinners are available for purchase. Many farms use a clothes washer that is designated “only for greens drying,” placing several mesh bags in at a time and spinning them in the spin cycle. It also works to spin the bag in the air lasso-style. This must be done gently to avoid damaging the greens.

Baby greens are then sorted on a table to pick out any remaining cull leaves, weeds, or other items before packing.

Mesh bags should be washed and rinsed and treated with a sanitizer between uses.
Tank Washing Deluxe – “The Bubbler”
Jacuzzi Air-Circulation System

At Harmony Valley Farm, a Jacuzzi water pump moves water through 2-inch PVC pipe to create gentle washing action in the “Bubbler.” Below right, workers use nets to move cleaned peppers into clean totes, and then inspect for discard peppers. The peppers will next go to the packing room where they will be packed in clamshell containers and labeled, then packed in cartons for the wholesale market.

When asked about the “Bubbler,” Richard de Wilde replied, “I saw the technology used in a large commercial salad washer in California back in 1984. I adapted it to what was very available in Wisconsin then, out-of-service, stainless steel bulk-milk tanks. Flat bottoms are best; prop up the lower end to make the manifold level. The manifold is made from 2-inch PVC. We use Schedule 80 joints, unions and end caps. Schedule 40 breaks too easily.
Must be able to take apart for regular cleaning, as dirt and bacteria settle inside and you have a food safety nightmare if you do not clean it. We use the larger Jacuzzi air motor; I think 3 hp rated and we size holes and number of holes in the manifold to the motor size.

**Very Dirty Produce Should Not Be Immersed in a Wash Tank**

Bunched roots, bulk roots, or other very dirty produce should not be cleaned in water tanks. Dirt can be a carrier of foodborne illness pathogens. Immersing very dirty produce in a bulk water tank quickly renders sanitizers ineffective, and increases the potential of microorganisms being imbibed into the produce. Dirt should be removed before putting produce into water.

**Spray Wash**

Root crops and crops that are very dirty are often cleaned by spray washing. If the water is cool, there may be cooling benefits at the same time.

- Bulk roots can be spray washed on a screen table by rolling them with one hand and spraying with the other.
- Bulk roots can be spray washed in a harvest tote with drain holes by spraying while gently rolling produce from side to side.
- A pressure washer can be used to spray wash sturdy crops and bulk roots. Use caution. Excessive pressure can cut produce and cause bruising.
- Fresh market (uncured) onions, garlic, and shallots can be spray washed and then air dried.
- Sanitizers can be injected directly into spray system water on packing lines or handheld hoses to prevent bacterial and fungal organisms that cause spoilage and decay or produce illness in humans.

**Bunched Roots**

Special consideration needs to be given to bunched roots. The roots are generally dirty and need to be well washed, and the tops are high respirators and need to be quickly cooled. Hydrocooling is the standard cooling practice used, but before the bunched roots are immersed in water they should be spray washed. Some farms soak the bunched roots in a water tank before spray washing to soften the stuck soil. This is not a recommended practice. If soaking is necessary, spray water on the roots and let them sit for a short while for the soil to soften, then spray wash. Spray-washing bunched roots immediately after harvest before the soil dries can help to prevent a soil sticking problem.

- Bunched roots should be spray-washed not tank washed.
• Water pressure needs to be gentle on the tops.

• It is OK to use a pressure washer, but only on the roots.

• After cleaning, bunched roots can be put into a tank of water for further cooling and crisping if needed before packing.

• Do not dry before packing.

**Screen Table/Drainage Rack.** Uses: Spray or pressure wash, drain dry, air dry.

Screen tables can be built inexpensively on the farm. If packing shed space is limited, the top only can be built, and set up when needed on stacked totes. It can then be tucked away when out of use.

**Drain dry:** Before packing, drain-dry tank-washed produce – such as head lettuce or bunched herbs – as water held inside leaves can cause rot and shorten shelf life. See Section 11: Crop Profiles for specifics.

**Air dry:** Crops such as green beans or peas can be laid on a screen table and gently fluffed to air dry before packing.
Mechanical Cleaning and Drying

Tools that mechanize produce cleaning and drying are huge time and labor savers, and even small growers who do many jobs by hand often purchase a mechanical washer.

Wet Brush Washer with Pack Line:
Cucumbers, winter squash, pie pumpkins, ornamental gourds, apples, peaches, peppers, melons, and round root crops such as potatoes, beets, turnips, and winter radishes.

Wet brush pack lines are useful for a large number of different crops and are the most common mechanical washer to be found on small- and mid-sized, diverse vegetable farms. Whether your market is wholesale, CSA, farmers' market, or other, if more than ten combined bushels of the above produce are being cleaned and packed a day, a wet brush pack line can be a valuable and recommended investment. Two to three people can generally wash twenty to thirty bushels per hour. With a large staff, many pack lines are capable of cleaning 100-200 bushels per hour.

Ideal for washing, drying, grading, and packing, a four-piece line includes an in-feed belt, washer, absorber, and round packing table. Sections can be purchased individually or as a complete packing line. For some crops sizers are also added.

- **The in-feed belt**, while not crucial, is useful for pre-sorting culls and dumping produce to feed into the wash unit. Some farmers choose not to use the in-feed belt, and hand place the produce directly into the washer.

- **The brush washer** can use hard or soft brushes, depending on the crops that will be cleaned. Additional spray nozzles can be added to increase the amount of water sprayed.

- **The absorber section** has a series of rotating sponge “donuts” that remove excess water to prevent fungal germination and bacterial growth and spoilage. The sponges wear out and will need to be replaced every year or so, depending on amount of use.

- **The round packing table** has an electric motor that turns the table and allows for examination and selection of produce.
Section 5: Cleaning and Drying

• **Sizers** are available for sorting round crops like tomatoes, potatoes, apples, and peaches, based on size. They are an additional unit that is placed after the absorber. The hole sizes in the punched belts are made to your specifications.

If soil is hard and produce is not coming through a wet brush pack line clean, prespraying can help to loosen dry soil before feeding the produce into the washer. Produce can also be held against the brushes for a short time during loading if additional scrubbing is needed.

If spray nozzles plug from fine sand in the water, a pre-filter can be added to the water intake hose. Sanitizer injection systems can be added to the water intake hose to reduce bacterial and fungal organisms that cause spoilage and decay. This can help to maximize shelf life.

**Barrel Washer:** Carrots, beets, rutabagas, potatoes, parsnips, celeriac, and sunchokes. Turnips and winter radishes can be bruised and are better washed in a brush washer. Generally long roots are best in a barrel washer.

Barrel washers are less commonly owned by small- and mid-sized vegetable farms than wet brush washers unless the farms produce quite a few root crops. While there are barrel washers available of many sizes, and built of different materials, the principle is the same: a motor-driven barrel rotates to roll roots through a spray or bath of water. Often a spray bar at the outlet end provides a final rinse before the roots exit the washer.

“If more than 500 pounds of roots are washed per day a barrel washer may be a wise investment.”

--- Chris Blanchard of Rock Spring Farm and the Post Harvest Handling Decision Tool.

Barrel washers can be set up to roll the clean roots into a simple box, where they are then sorted or packed. Absorbers, convey belts, round tables, or sizers – similar to those in the wet brush pack line photo and description – can be added to create a complete pack line.

Sources for wet brush pack lines and barrel washers:

• **Market Farm Implement** [http://www.marketfarm.com/](http://www.marketfarm.com/)

• **Roeters Farm Equipment** [http://www.roetersfarmequipment.com](http://www.roetersfarmequipment.com)

**Dry Brushing**

Tomatoes, eggplant, zucchini, summer squash and melons are usually cleaned by polishing at harvest with a clean glove or cloth. These crops can be washed if needed, though it is recommended that they not be. Peppers
and cucumbers sometimes are dry-brushed at harvest though they are generally best cleaned in a wet-brush washer. Some crops, such as garlic, onions, and shallots, need to be dry-brushed after storage or after curing.

**Cleaning Food Contact Surfaces**

Surfaces that come in contact with produce must be washed, rinsed, and sanitized regularly. Any surface that comes in contact with produce, either directly or indirectly, is a food contact surface, including: field totes and tools, preparation tables, wash tanks, washing equipment, and salad spinners. Food contact surfaces should be smooth and nonporous to allow for effective cleaning. Rough surfaces can harbor dirt and microorganisms.

Four Steps: Clean, Rinse, Sanitize, Record

1. Clean food contact surfaces to remove soil and residue. Wash with soap and potable water. Use a brush or cloth to scrub.
2. Rinse with potable water to remove loosened material and soap.
3. Sanitize the clean and rinsed food contact surface by spraying with a sanitizing solution. This will kill most microorganisms or reduce them to a non-harmful level. SaniDate is recommend.
4. Record each time the procedure is performed. Templates to record are available at [http://onfarmfoodsafty.org/](http://onfarmfoodsafty.org/)

**Cleaning and Sanitizing Tips**

- Have tools, supplies and waste containers readily available and well labeled as to their designated use.
- Establish a cleaning and sanitizing schedule for equipment and food contact surfaces.
- Delegate cleaning responsibility and provide a detailed standard operating procedure (SOP).

At Harmony Valley Farm, designated cleaning tools and supplies are color-coded specific for each task and labeled. Red tools are for cleaning machines, yellow for toilets, and green for tools, tanks, and buckets.