

# »» Post-Harvest Handling and Sanitation

Creating sanitation practices will help keep facilities clean. This reduces the chance of post-harvest contamination of produce. Concepts include general upkeep of facilities, training workers to follow sanitation practices properly, getting rid of pests and debris, and minimizing standing water.



## Types of packing houses

- **Open:** Open to the environment; may or may not be covered
- **Closed:** Has doors and windows with some ability to control entry into the building

## Packing house zones

- **Zone 1** includes any surface that directly contacts fresh produce.
  - » Biggest concern because contamination could result in cross-contamination of produce
  - » Includes harvest and storage bins, workers' hands, conveyors, belts, brushes, rollers, sorting tables, racks, and utensils
  - » Requires most effort because it has the most immediate impact on food safety
- **Zone 2** includes surfaces not in direct contact with, but near, produce.
  - » Includes internal and external parts of washing or processing equipment such as sidewalls, housing, or framework
- **Zone 3** includes all other areas inside the packing house, such as trash cans, cull bins, floors, drains, forklifts, phones, and foot traffic areas.
- **Zone 4** includes areas outside of or next to the packing house, such as loading docks, warehouses, manure or compost piles, and livestock operations.

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## Reduce risks in packing areas

- Keep area clean and organized.
- Regularly inspect and maintain equipment.
- Provide proper hygiene facilities and break areas for workers.
- Try to eliminate or reduce pest presence.
- Prevent build-up of standing water.

## Clean and sanitize food contact surfaces

- **Step 1:** Remove any obvious dirt and debris from the food contact surface.
- **Step 2:** Apply a detergent that is effective at removing carbohydrates, such as sugars from fruit, and scrub the surface.
- **Step 3:** Rinse the surface with clean water, making sure to remove all the detergent and soil.
- **Step 4:** Apply a sanitizer approved for use on food contact surfaces (when appropriate); rinse if necessary; let surface air dry.

## Keep equipment sanitized

- Food contact surfaces should be:
  - » Adequately designed and constructed so they can be properly cleaned and maintained.
  - » Stored and maintained to prevent cross-contamination.
  - » Cleaned and sanitized, when appropriate, to prevent contamination of covered produce.
- Equipment should be designed and installed to make cleaning and sanitizing as easy as possible, including:
  - » Easy access to equipment and adjacent spaces.
  - » Ability to remove or access brushes, rollers, and nozzles for cleaning and sanitizing.
- Packing containers
  - » Keep single-use and reusable packing containers clean.
  - » Store packing containers and materials in a covered area, off the floor, to reduce the risk of contamination from pests, windblown dirt, and other contaminants.

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## Exclude and discourage pests

- Inspect all walls, doors, and windows.
  - » Repair holes and seal any cracks between floors and/or walls.
  - » Make sure door seals are in place to prevent pest entry.
- Use nets or spikes to deter birds from roosting in rafters.
- Keep doors and windows closed as much as possible.
- Cut grass around packing area.
- Remove cull piles and garbage at least every day and as needed during the day.

## Keep records

### Required

Cleaning and sanitizing of tools, equipment, and containers

### Recommended

Pest management

Building maintenance and monitoring

Worker training on sanitation standard operating procedures (SOP)

Packing area and cold storage cleaning and monitoring

Vehicle cleaning and inspections done before loading



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