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.
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

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
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</thead>
<tbody>
<tr>
<td>Cleaning and sanitizing of tools, equipment, and containers</td>
<td>Pest management</td>
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<tr>
<td></td>
<td>Building maintenance and monitoring</td>
</tr>
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<td></td>
<td>Worker training on sanitation standard operating procedures (SOP)</td>
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<td></td>
<td>Packing area and cold storage cleaning and monitoring</td>
</tr>
<tr>
<td></td>
<td>Vehicle cleaning and inspections done before loading</td>
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</tbody>
</table>