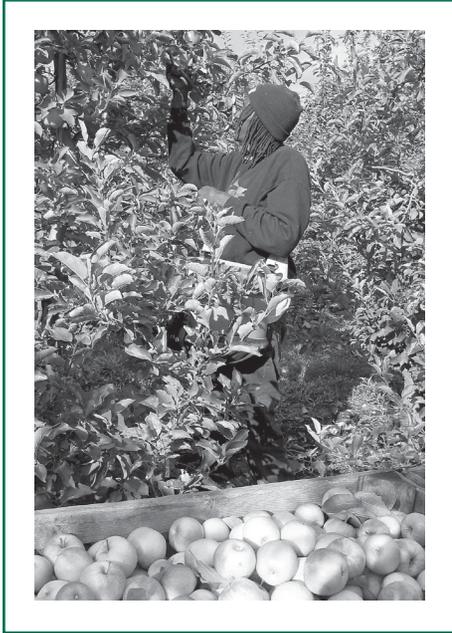


Harvest Sanitation



Harvest and Field Sanitation

Harvest sanitation is an important component of a GAPs program. It includes both harvest practices and sanitation of equipment that is used in the field. Workers involved in the harvest and field packing of produce should be trained to pick intact, undamaged fruits and vegetables. They should not harvest drops or pieces of produce obviously contaminated with animal or human

feces. Harvest standards for your operations should be discussed during worker training.

Dirty equipment can contaminate fresh fruits and vegetables, so it is very important to implement sanitation programs that effectively reduce this risk. Obviously it is impossible to keep field soil off harvest containers, but steps can be taken to remove soil from harvest containers prior to arrival in the packing house. It is also important to clean and sanitize harvest containers on a routine schedule to reduce the risk of transmitting human pathogens as well as plant pathogens to newly harvested fruits and vegetables. Single-use containers used for field packing will not require a scheduled sanitation program since they are used only once, but these containers should be stored in a clean place where they will not be contaminated with rodent, bird, or other pest feces. Harvest aids such as knives and aprons should also be cleaned and sanitized on a regular basis and special



attention should be given to gloves worn by workers in the field. If workers wear non-disposable gloves they should also be washed and sanitized daily. As with any glove use, hands should be washed prior to wearing the gloves and whenever the gloves are taken off such as at lunch, for breaks, or to use the bathroom.

Many field harvest containers may present a challenge when establishing a sanitation program either due to size or material from which they are constructed. Developing a program may require some on-farm ingenuity, but there are many options to consider such as high power washers or commercially available bin washers. Field equipment sanitation should be a consideration in future purchases of field harvest equipment and containers so that it will be easier to establish an effective field equipment sanitation program.



Harvest aids such as knives and aprons should also be cleaned and sanitized on a regular basis and special attention should be given to gloves worn by workers in the field.

Harvest and Field Sanitation

Good Agricultural Practices

Practices Requiring Attention



Management Area	Best Practice	Minor Adjustments Needed	Concerns Exist; Examine Practice	Needs Improvement: Prioritize Changes Here
Grading and quality during harvest of crops	Workers are trained to avoid harvesting bruised or dropped fruit AND any produce with evidence of animal or bird feces or feeding marks.	Bruised or dropped fruit or crops with evidence of animal or bird feces or feeding may be harvested (e.g. by machine), but these are heat processed or pasteurized prior to sale.	Workers are told but not specifically trained to avoid bruised, dropped or feces contaminated produce which may result in occasional harvest of damaged pieces.	There are no standards or instructions to workers to avoid bruised or dropped fruit or produce with evidence of animal feces or feeding.
Washing and sanitation of harvest aids (e.g. knives, aprons, containers)	All harvest aids are washed, rinsed and sanitized at the start of each work session, and after breaks or as needed throughout the day.	All harvest aids are washed, rinsed and sanitized daily.	All harvest aids are washed, rinsed and sanitized once per week.	Harvest aids are not washed, rinsed or sanitized except at beginning of the season.
Washing and sanitation of field packing equipment and machinery	All field packing machinery is washed, rinsed and sanitized at the start of each work session, and after breaks or as needed.	All field packing machinery is washed, rinsed and sanitized daily.	All field packing machinery is washed, rinsed and sanitized once per week.	Field packing machinery and equipment are washed, rinsed or sanitized once, at beginning of the season.
Handwashing practices of field workers	All workers practice proper handwashing and wash their hands before work, before and after meals, eating, and toilet use.	All workers practice proper handwashing, but do not always wash their hands at the critical times.	Very few workers wash their hands properly or at the critical times.	Handwashing is not monitored or a priority.

Harvest and Field Sanitation

Good Agricultural Practices

Practices Requiring Attention



Management Area	Best Practice	Minor Adjustments Needed	Concerns Exist; Examine Practice	Needs Improvement: Prioritize Changes Here
Quality of gloves when used in the field	Workers wash hands and change to new disposable gloves, particularly after meals, smoking or using toilet facilities.	Workers wash hands and wear nondisposable gloves that are washed and sanitized daily.		Workers wear nondisposable gloves that are not washed and sanitized daily OR workers are expected to wash and sanitize gloves at home.
Loading large bins in the field	Workers never stand in bins to load harvested produce, since shoes can spread harmful microorganisms.	Workers stand in bins, but wear protective covers on boots or shoes.		Workers regularly stand in bins while harvesting produce in the field.
Cleaning and sanitation of containers used for harvest, packing and shipping	New containers are used for all packing. Previously used wooden or plastic bins are inspected, and washed, rinsed and sanitized prior to each use.		Used wooden or plastic bins or boxes are washed, rinsed and sanitized occasionally, based upon visual assessment of cleanliness.	Used wooden or plastic bins or boxes are not washed, rinsed or sanitized OR containers are collected from random sources.
Storage of containers used for packing produce	Containers used for packing and shipping produce are stored in an area that is covered, and preferably isolated from the packing area, to insure that bins are not exposed to rodents, dust, or condensation.	Boxes for packing produce are stored in the packing area, off the ground and preferably, under plastic cover.		Boxes are stored in the open, on the floor, exposed to dust and animals or outdoor conditions.

Harvest and Field Sanitation



Management Area	Best Practice	Minor Adjustments Needed	Concerns Exist; Examine Practice	Needs Improvement: Prioritize Changes Here
Soil removal from produce and bins in the field, to prevent contaminating wash water or other loads of produce	As much soil is removed from produce and bins while in the field. Bins are cleaned and sanitized prior to returning to field.			Bins are commonly moved into the packing area without inspecting for dirt.
Record keeping 	Standard operating procedures are in place and written for all aspects of field sanitation. Records are kept documenting implementation of these SOPs.	Standard operating procedures are in place and written, but records are not kept documenting implementation.	Standard operating procedures are understood, but not written, and records are not kept documenting implementation.	There are no standard operating procedures in place for field sanitation or worker training.

Harvest and Field Sanitation Action Plan

Date: _____ Reviewer: _____ Field or Commodity: _____

Management Area					Your Plans to Reduce Risks			
					Action for Improvement	Person Responsible	Estimated Cost	Target Date
Grading and quality during harvest of crops								
Washing and sanitation of harvest aids (e.g. knives, aprons, containers)								
Washing and sanitation of field packing equipment and machinery								
Handwashing practices of field workers								
Quality of gloves used in the field								

Harvest and Field Sanitation Action Plan

Date: _____ Reviewer: _____ Field or Commodity: _____

Management Area					Your Plans to Reduce Risks			
					Action for Improvement	Person Responsible	Estimated Cost	Target Date
Loading large bins in the field								
Cleaning and sanitation of containers used for harvest, packing and shipping								
Storage of containers used for packing produce								
Soil removal from produce and bins in the field, to prevent contaminating wash water or other loads of produce								
Record keeping								