

## Reducing food contamination on the farm

This brochure will help you identify potential sources of contamination on the farm and help ensure the food you grow is safe for consumers.

## Common sources of contamination

### Water

- Irrigation water
- Wash and rinse water

### Land

- Soil
- Compost and soil additives

### Animals

- Wild and domestic animals
- Animal manure

### People

- Inadequate field worker hygiene
- Unsanitary handling during picking, sorting, packing, or preparing

### Equipment and containers

- Harvesting equipment and bins
- Equipment used to soak, pack, or cut produce
- Improper storage conditions
- Cross contamination during storage or display

## Employee hygiene

- Provide and maintain clean and convenient toilet facilities.
- Supply liquid soap, potable water, and paper towels for handwashing near toilet facilities.
- Monitor, and enforce proper handwashing and toilet facility use. Post handwashing signs.
- Exclude ill employees from picking and handling produce.
- Provide separate areas for breaks and meals. Do not allow employees to eat, drink, or smoke in packing and harvesting areas.



## Become GAP certified

GAP certification is the verification of practices on the farm that minimize microbial contamination in the production of fresh fruits, vegetables, and nuts. Audits are based on FDA's "Guidelines to Minimize Microbial Contamination for Fresh Fruits and Vegetables." Oregon Department of Agriculture offers voluntary GAP certification under the USDA Federal-State Audit Program.

Please contact the  
ODA Commodity Inspection Division.

## Resources

### Oregon Guide to Farm-Direct Marketing

Web [http://oregon.gov/ODA/pub\\_fd\\_intro.shtml](http://oregon.gov/ODA/pub_fd_intro.shtml)

### ODA Agricultural Development and Marketing Division

Phone 503-872-6600

E-mail [agmarket@oda.state.or.us](mailto:agmarket@oda.state.or.us)

Web <http://oregon.gov/ODA/ADMD>

### ODA Commodity Inspection Division

Phone 503-986-4620

E-mail [cid-expert@oda.state.or.us](mailto:cid-expert@oda.state.or.us)

Web <http://oregon.gov/ODA/CID>

### ODA Food Safety Division

Phone 503-986-4720

E-mail [fsd-expert@oda.state.or.us](mailto:fsd-expert@oda.state.or.us)

Web <http://oregon.gov/ODA/FSD>

### Oregon Farmers' Markets Association

Web <http://www.oregonfarmersmarkets.org>

### FDA Center for Food Safety & Applied Nutrition

"Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables"

Web <http://cfsan.fda.gov/~dms/prodguid.html>

### Food Safety Begins on the Farm Resources from Cornell University

Web <http://www.gaps.cornell.edu>

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Web <http://www.oregon.gov/ODA>



**Oregon**  
Department  
of Agriculture

# Keeping produce safe on the farm

*Food safety tips for Oregon farmers*

ON THE FARM

## Water quality

- Use potable water to irrigate, wash, and rinse produce.
- Test all water for fecal coliforms (frequency depends on water sources).
- Treat contaminated water.
- Maintain records of water testing.

## Water sources and risk factors

### Municipal water: Low risk

- Obtain fecal coliform test results from the local water authority, every year.

### Well water: Minimal risk

- Maintain and secure good well casing to prevent surface water runoff or soil infiltration.
- Test twice a year for fecal coliforms and chemically treat the well if coliforms are present.

### Surface water: High risk

- Minimize upstream contaminants such as feedlot runoff, animals in waterways, and manure.
- Filter water or use settling ponds to reduce water contamination.
- Test for fecal coliforms at planting, peak water use, and near harvest.

## Production and harvest sanitation

### Exclude wild animals

- Do not allow grazing or livestock near fields with ready-to-eat crops.
- Deter wild and domestic animals from fields with ready-to-eat crops.

### Use proper manure and compost guidelines

- Harvest ready-to-eat produce at least 120 days after application of raw manure.
- Do not sidedress ready-to-eat crops with fresh or slurry manure.

### Clean harvesting equipment and bins

- High pressure wash, rinse, and sanitize all crop containers and bins, equipment, storage facilities, and food contact surfaces prior to harvest.
- Use approved sanitizer at proper concentration on food contact surfaces.
- Cover clean bins when not in use.

### Handle produce with care

- Avoid standing in bins, or putting personal items, such as coats or gloves, in bins during harvest.
- Clean produce with potable water and acceptable sanitizer.
- Use and maintain proper sanitizer concentrations to wash produce.

## Safely transport produce

- Clean and sanitize transportation vehicles prior to use.
- Avoid transporting produce in trucks previously used for live animals or harmful substances. If these trucks must be used, thoroughly wash, rinse, and sanitize them before transporting fresh produce.
- Cover produce during packing, storage, and transport.



## Prepare for direct sale

- Clean any utensils and equipment that will be used by customers, including sampling utensils.
- Thoroughly rinse all fruits and vegetables before cutting and sampling produce. Use potable water only.
- If providing samples to your customer, assemble a temporary handwash station using the following items:
  - container with a hands-free dispensing valve (no push-button spigots) and five gallons of warm water
  - soap
  - paper towels
  - wastewater bucket.

## Clean utensils, equipment, and food contact surfaces

- Wash and scrub with hot soapy water to remove soil and food particles.
- Rinse with running water. Remove all traces of food and detergent.
- Sanitize by immersing for one minute in (or wiping down with) lukewarm sanitizing solution.
- Air dry without wiping.