



Harvest-to-Sale  
Vegetable Handling  
**Food Safety**

*fact sheet 1 of 3*

## **On-Farm Food Safety is Part of Your Job!**

Safety of food, including fresh produce, is getting a lot of media attention. Some food-borne illness outbreaks have been linked to raw vegetables or fruits. Buyers are demanding better safety practices from their suppliers, and that extends to small-scale farmers selling locally. Practicing good on-farm food safety may require seeing your farm with new eyes and changing the way you think about ordinary things like fertilizer, water, tools, harvest containers, and hands.

### **Pay attention to the 4 Ws: Workers, Water, Waste, and Wildlife**

#### **Workers:**

- That includes you!
- No one should handle produce when they are ill.
- Handwashing is critically important. Have a handwashing station separate from the produce-washing area and outside of the bathroom. If fields are far from washing facilities, build a \$20 handwashing station for use in the field\*. Train workers in proper handwashing and insist that they wash their hands.

#### **Water**

- Potable (drinkable) water should be used for irrigation, post-harvest washing of produce, and hand washing.
- You can use wash water sanitizer as extra insurance against pathogens, especially for high-risk crops (e.g., leafy greens, tomatoes, apples, cantaloupe). Sanidate and Tsunami are sanitizers allowed for organic producers.
- Well water should be tested once per year by a certified laboratory. You can work through your county's health department, or contact a laboratory directly. The lab will send you a kit for taking a sample and sending it in. More information and a list of certified laboratories:  
<http://www.health.state.mn.us/divs/eh/wells/waterquality/test.html>

## **Waste (= Manure):**

Manure is an important renewable source of plant nutrients and also builds soil organic matter, which is good for sustaining long-term soil health. Manure can also be a source of pathogens, so it needs to be handled with care in vegetable production. Food Safety Modernization Act (FSMA) standards for manure handling are still under discussion. The National Organic Program standards currently in use:

- Manure application at least 120 days before crop harvest when crop is touching ground
  - For example: leaf lettuce, melons
- Manure application at least 90 days before harvest when edible portion of crop does not touch ground
  - For example: sweet corn, broccoli

## **Wildlife (and domesticated animals)**

- Do what you can to exclude wildlife (especially warm-blooded species that carry common disease organisms) from your vegetable or fruit production fields.
- Keep your farm animals out of the fields during the growing season. Free-ranging chickens have problematic hygiene practices and their feces can carry Salmonella. Fence them out, or fence them in to a pen of their own. Livestock can be allowed to do clean-up of produce fields in the fall.
- Train your pets to stay out of the fields and especially to go to the bathroom elsewhere. Require that visitors' dogs remain leashed unless you have fences to keep them out of fields.
- Train your pets to stay out of pack sheds, high tunnels, etc.
- Pay attention to the presence of animal and bird droppings in fields, on vegetables, and in packing areas. Don't harvest or pack any item with visible feces on it.

## **\* In-Depth On-Farm Food Safety**

Workshops, forms and templates for creating an on-farm food safety plan, directions for building a field handwashing station, can all be found here: <http://safety.cfans.umn.edu>

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