



Human Nutrition and Food Management, 1787 Neil Avenue, Columbus, OH 43210

Produce Safety at the Farm Market: A Guide for Farmers and Sellers

Consumers don't come to farmers' markets to get a dose of *E. coli* or salmonella. But if farm markets turn out to be a source of these or other causes of foodborne illness, consumers will quickly choose to get their fresh produce elsewhere.

The Centers for Disease Control and Prevention estimates that 76 million Americans a year suffer a case of foodborne illness, although many mild cases go undiagnosed. Thousands of cases are more serious, however. According to the CDC, "there are 325,000 hospitalizations and 5,000 deaths related to foodborne diseases each year. The most severe cases tend to occur in the very old, the very young, those who have an illness already that reduces their immune system function, and in healthy people exposed to a very high dose of an organism." In other words, every customer at your farm market is a potential victim of foodborne disease. The safety precautions you take could save a life—and your business.

Food safety experts with Ohio State University Extension and the Ohio Agricultural Research and Development Center suggest paying special attention to three areas: transportation, product handling, and sale and display. In each area, consider proper personal hygiene, temperature control, cross-contamination prevention, and cleaning and disinfection.

These are especially important guidelines when handling fresh produce, much of which will be eaten raw. Other types of fresh food, such as meat and poultry, are usually thoroughly cooked before being eaten, so any microorganisms they harbor are killed. That's why foods that are not typically cooked before being consumed deserve special handling.

Remember: Bacteria that cause foodborne illness can show up anywhere. Even if you grow your goods organically or have a small operation with just family members involved, your product is as much at risk as in a large operation. It's just common sense—and good business sense—to take all precautions possible to prevent the foods you sell from becoming contaminated.

Here are some guidelines:

Transportation

- Be sure to transport food in containers that can be wrapped, covered, and otherwise protected from contamination and that can be cleaned and sanitized before each use. Plastic bins would be an ideal choice; don't use wooden crates or used cardboard boxes, which might harbor disease-causing bacteria and pass it along to the food items inside.
- Keep produce cold by putting it on ice or refrigerating it during shipping. Spinach and other leafy greens should have ice between layers of leaves to keep it cold. Cold temperatures (below 40 degrees) slow down the growth of microorganisms and prolong shelf life.
- Make sure the vehicles you are using to transport food items are clean. Vehicles that are used to carry fresh produce should not be used for other purposes that might lead to contamination—moving animals, chemicals, or compostable materials—and they should be free of foreign substances such as bird droppings. Don't transport produce with raw meat, equipment, or gas containers in the same vehicle—the chance of contaminating your fresh produce is too great.

Product Handling

- Believe it or not, the simple precaution of washing your hands often is one of the most effective ways to prevent food contamination.

Wash your hands:

When

- Before handling produce.
- After every visit to the washroom.
- After a break or a meal.
- After hand-to-face contact (e.g., coughing, sneezing, blowing nose).
- After handling any materials other than the produce (crates and especially money).

How

- Use proper hand-washing techniques.
- Wet hands, lather soap, and wash for 20 seconds (sing the song “Happy Birthday” twice).
- Scrub well (especially fingernails and knuckles). Use fingernail brushes if available.
- Rinse.
- Dry hands and wrists with paper towel.

If there is no water?

- Use hand wipes to remove soil.
- Use hand sanitizer.
- Do not handle or sell any type of food if you have a contagious illness — especially an intestinal problem. If you have any cuts, sores, or wounds, be certain they are bandaged properly. This protects both you and the food products you are handling.
- Wear clean, protective clothing, such as clean or one-use aprons, gloves, smocks, and shoes. Soiled clothing can harbor bacteria that can be transferred to produce you’re handling.
- Clean and sanitize all utensils and surfaces that will have contact with food.

Sale and Display

- Be sure to clean and sanitize all surfaces before setting up your display. Wipe down surfaces regularly thereafter with a clean towel or wipe.
- Never allow animals near your produce, including rodents, birds, and domestic pets.
- Pre-pack food items before putting them out for display. This will prevent too many consumers from handling the same produce and protect the produce from dust, dirt, etc. Mark the date clearly on labels.
- As much as we all like it, money can be pretty dirty! Consider having one person handle the produce, and another take money and give change. Or, change gloves after handling money and before handling produce.
- Keep all food items and containers off the floor or ground. Containers should be put on a pallet or another empty crate to prevent dirt, dust, or splashing water from contaminating the produce inside and to keep rodents or pets from getting into them.
- Separate different types of food, especially high-risk items such as meat, from produce.
- Be sure to have an appropriate waste container nearby, so waste products can be safely thrown away. Waste containers should be leak- and pest-proof. Containers such as a crate or open basket could allow leaking and attract pests.
- Educate your customers about food safety and provide hand sanitizer or wipes for them to use before handling any of your produce.

Information in this fact sheet was provided by:

Sanja Ilic, graduate research associate in the Department of Food Science and Technology at The Ohio State University.

Jeffrey LeJeune, assistant professor and food safety researcher in the Food Animal Health Research Program with the Ohio Agricultural Research and Development Center, and state specialist with Ohio State University Extension.

Douglas Doohan, associate professor and weed ecologist in the Department of Horticulture and Crop Science with the Ohio Agricultural Research and Development Center, and state specialist with Ohio State University Extension.

The Centers for Disease Control and Prevention, “Foodborne Illness,” http://www.cdc.gov/ncidod/dbmd/diseaseinfo/foodborneinfections_g.htm (accessed on June 7, 2007).

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Keith L. Smith, Associate Vice President for Agricultural Administration and Director, Ohio State University Extension

TDD No. 800-589-8292 (Ohio only) or 614-292-1868