



Food Safety Begins in Our Home Gardens

by Neil Fernbaugh, UC Master Gardener

Not a week goes by when we don't hear of some incident leading to a food-borne illness. Most of those cases involve meat, eggs, and other foods from grocery stores and restaurants. BUT, when we harvest our own food, or share our garden produce with others, we need to be especially conscious of our own practices and food harvest safety.

From garden to kitchen, there are many chances for bacteria, viruses, and parasites to contaminate produce. *Salmonella* and *E. coli* (O157:H7) are bacteria that cause foodborne illness and are found in animal droppings and human waste. Water, tools, animals and manure-contaminated soil may spread harmful organisms in your soil. There are a few simple precautions and easy steps we can take to help insure that our home grown food is safe.

Let's start by being careful about the chemicals, water, and organic fertilizers we put on our fruits, vegetables, and herb gardens.

We need to remember that some chemicals (like rose systemics) may be safe for our flower gardens, but when we introduce edibles into that landscape, we need to make sure those chemicals are safe for foods. Before you apply chemicals in edible gardens, read their labels and carefully note crops they should not be used on.

In cities water quality is not usually a problem, but many gardeners are beginning to recycle grey water, or apply manure, compost, or worm teas to their gardens. Because grey water and such teas might carry pathogens, they should not be used on edible crop plants.

Also our edible gardens should not be used as a cat box. Cat, dog and pig wastes carry pathogens that may not even be killed by composting. Some gardeners use ducks, geese and chickens as weeders and for pest control, but they too can be carriers of food borne diseases.

For greatest safety when growing leafy vegetables to be eaten raw, consider not using composted manure or amendments containing any animal products. If manure-based amendments are used then opt for commercially composted materials. Sometimes home compost piles don't reach high enough temperatures to kill bacteria. Keep in mind that no compost material is guaranteed to be 100 percent free from bacteria such as *E. coli*, even though the risk of foodborne pathogens in properly processed materials is low.



When it comes time to harvest, remember that gardening tools can also carry diseases. How many of us have used our clippers to dig out a weed in the garden and then used those same clippers to harvest our

peppers or eggplant? Having separate tools for harvest is ideal, but if we don't then we can disinfect our tools before we use them for harvest. A tablespoon or two of bleach in a gallon of water or pure white vinegar are safe for sanitizing tools and work surfaces. Dip tools for a couple of minutes, then wipe clean. And don't forget to disinfect the stacked buckets or bins that have sat in the dirt for several weeks.

Once you've harvested your bounty of crops, there are several post-harvest tips to be aware of. Simple things like:

- Don't store unwashed produce on food preparation surfaces. Keep washed fruit separate from unwashed, and use cut fruit within two hours of cutting, or refrigerate them appropriately
- Pay attention to the optimum temperatures and conditions for storing your harvest. Storing some produce like tomatoes and bananas at room temperature, for example, is preferable to storing them in the fridge. Other produce, like onions and potatoes are best to store separately. There are a number of handy lists and charts, including one from our own Master Gardener website (<http://ucanr.org/sites/gardenweb/files/29040.pdf>) that provide best storage and harvest details.



Meanwhile, keep growing that healthy produce and try learning new ways to save all the excess food you produced. Freezing, drying, and canning are all inexpensive and easy ways to preserve our harvest for later use.

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