

FOOD SAFETY TIPS FOR SAFE PRODUCE

The Illinois Department of Public Health (IDPH) recognizes that many food establishments in Illinois are looking to grow their own produce, or purchase fresh produce from local farmers. We recommend that the following food safety steps be reviewed prior to starting up a garden or obtaining produce from local farmers.

Increasingly, foodborne illness outbreaks are being traced to lettuce, tomatoes, cantaloupe and other raw fruits and vegetables. These outbreaks are caused by pathogenic (disease causing) bacteria, viruses, molds and parasites found on raw produce. *These microorganisms are a natural part of the environment and can be a problem whether organic or conventional gardening methods are used.*

With good gardening and harvesting practices, pathogen contamination of produce can be reduced. Thorough washing and careful preparation will further *reduce* the level of the pathogens found on the outer surface of fresh fruits and vegetables. It is also possible to get sick from contamination of produce with chemicals such as cleaning solutions, fertilizers, pesticides, and heavy metals (lead) and other chemicals that may be found in garden soil or well water.

Check with your local health department for any local regulations and/or additional recommendations <http://www.idph.state.il.us/local/map.htm>

It is important that all produce that is purchased from a Farmers Market or Farm Stand be able to be traced back to its origin. Make sure receipts indicate the address where the produce was grown.

Food Safety and Garden Produce – the following is Interim Guidance

STEP 1-PREPARE THE GARDEN FOR PLANTING

- Test soil for contaminants, particularly lead, prior to planting.
Here is a link for labs that perform soil testing: <http://urbanext.illinois.edu/soiltest/>. Follow the soil test interpretation for appropriate fertilizer applications and remedial action necessary should lead levels exceed accepted levels. Further guidance on recommended soil testing and handling in specific Illinois regions will be coming.
- Locate vegetable gardens away from manure piles, well caps, garbage cans, septic systems, run-off from any potential sources of contamination, and areas where wildlife, farm animals, or pets roam.
- Use compost safely. Compost is the natural breakdown product of leaves, stems, manures and other organic materials--and can also harbor pathogens if not composted properly. To be safe for gardening, your compost must reach a temperature of at least 150°F for three days and be turned at least five times. Check the temperature with a compost thermometer. Do not use any animal waste, including pet waste, meat scraps or dairy product waste in your compost bin. Many municipalities have local rules for composting.

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- Designate a garden manager. The garden manager should have training on good agricultural practices (GAPs). This training is available in person and through a webinar series from the University of Illinois Extension. For more information of this training contact your local Extension office:
<http://web.extension.illinois.edu/state/findoffice.html>

STEP 2- MAINTAIN THE GARDEN

- Water the garden with water from an approved water system. You can be sure that water from a municipal or public water system is safe and potable (drinkable). Surface water (lakes, ponds, rivers and streams) can be polluted by human or animal waste, fertilizers and pesticides from lawns and farm fields, or chemicals from industry and this water should not be used on gardens. Test all private well water sources annually for potentially harmful organisms, such as fecal coliforms, to make sure they meet the standards of the Environmental Protection Agency (EPA). Consider testing private water wells for chemicals. The Illinois Environmental Protection Agency guidance on determining what your well water should be tested for can be found at the following link: <http://www.epa.state.il.us/well-water/well-water-testing.html>. The link to labs that will test well water for chemicals: <http://www.epa.state.il.us/well-water/list-accredited-labs.html>. Water collected in cisterns (rain barrels) should not be used on fruits and vegetables. Contact your local health department for assistance.
- Maintain water testing records.
- Use food grade containers to transport water.
- Instead of using chemical herbicides, control weeds by using mulch or hand weeding. Pesticide applicators on public gardens may need a license. Here is a link for more information: <http://web.extension.illinois.edu/psep/facts/?PageID=15281>. Check with your Cooperative Extension Office <http://web.extension.illinois.edu/state/findoffice.html> for the best non-chemical method to control or local pest problems.
- During the gardening season, keep cats, dogs and other pets out of the garden, as animal waste can be a source of bacteria, parasites and viruses.
- Do not work in the garden when sick especially when suffering from vomiting and/or diarrhea.
- Curtail nesting and hiding places for rats and mice by minimizing vegetation at the edges of your fruit and vegetable garden.
- Do not feed wild animals, even birds, near your garden. Fencing or noise deterrents may help discourage other wild animals.

STEP 3- HARVEST GARDEN PRODUCE

- Do not work in the garden when suffering from vomiting and/or diarrhea.
- Always wash your hands before and after harvesting fresh produce.
- Use clean gloves (that have not been used to stir compost or pull weeds) or clean hands when picking produce.
- Use clean and sanitized food-grade containers. Food-grade containers are made from materials designed specifically to safely hold food. Garbage bags, trash cans, and any

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containers that originally held chemicals such as household cleaners or pesticides are not food-grade.

- All tools used in the garden must be used solely in the garden and cleaned regularly. Do not eat fresh produce while harvesting.

STEP 4-STORE GARDEN PRODUCE

- If you choose to wash fruits and vegetables before storing, be sure to dry them thoroughly with a clean paper towel. (NEVER wash berries until you are ready to eat them).
- If you choose to store without washing, shake, rub or brush off any garden dirt with a paper towel or soft brush while still outside. Store unwashed produce in plastic bags or containers. Be sure to label the container in a way that makes it clear to others that it must be washed prior to use.
- Keep fruit and vegetable storage containers clean.
- When washing produce fresh from the warm outdoors, the rinse water should not be more than 10 degrees colder than the produce. If you are washing refrigerated produce, use cold water.
- Fresh fruits and vegetables needing refrigeration (cut melons, cut leafy greens, and cut tomatoes) must be stored at 41° F or less.
- Fresh fruits and vegetables stored at room temperature (onions, potatoes, and whole tomatoes) should be in a cool, dry, pest-free, well-ventilated area separate from chemicals.

STEP 5-PREPARING AND SERVING FRESH GARDEN PRODUCE

More often than not, we eat fresh fruit and vegetables raw, so we cannot rely on the heat of cooking to destroy pathogens that might be on our lettuce or tomatoes. It is important to prepare raw produce with food safety in mind.

- Always wash your hands before and after handling fresh produce.
- Rinse fresh fruits and vegetables under cool, running, potable water even if you do not plan to eat the skin or rind. Scrub firm produce, such as melons and cucumbers, with a clean produce brush.
- It is not recommended to use soap, detergent, or bleach solution to wash fresh fruits or vegetables. These solutions can affect flavor and may be dangerous if ingested.
- Avoid cross-contamination when preparing fruits and vegetables. Cross-contamination occurs when a clean work surface, such as a cutting board or utensil (knife) or uncontaminated food, is contaminated by dirty work surfaces, utensils, hands or food. Be sure to wash your hands (as well as the knife and cutting surface) before preparing any ready-to-eat foods such as salad, fresh fruit or a sandwich.
- If you have leftover produce that has been cut, sliced, or cooked, store it in clean, airtight containers in the refrigerator at 41°F or less.

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Additional resources to be noted:

USDA Food Safety Tips for School Gardens:

<http://nfsmi.org/documentlibraryfiles/PDF/20110822025700.pdf>

NIEHS – Reducing Exposure to Soil Contaminants from Urban Gardens:

<http://www.niehs.nih.gov/research/supported/programs/peph/prog/rta/mcbride/index.cfm>

CWMI Resources for Healthy Soils

<http://cwmi.css.cornell.edu/soilquality.htm>

University of Illinois Cooperative Extension

<http://urbanext.illinois.edu/>

FDA's Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables

<http://www.fda.gov/food/guidancecomplianceregulatoryinformation/guidancedocuments/produceandplanproducts/ucm064458.htm>

University of Connecticut College of Agriculture and Natural Resources Cooperative Extension

System – 5 steps to safe fruit and vegetable home gardening

<http://www.ladybug.uconn.edu/food/index.html>