



Safe Harvest

Selecting, Storing, and Washing Fresh Produce

Fresh fruits and vegetables are an important part of a healthy diet. Each provides a unique blend of vitamins, minerals, fiber, phytochemicals, and other nutrients essential to meet the needs of the human body. Occasionally, fresh fruits and vegetables are contaminated with harmful viruses such as Hepatitis A or bacteria such as *E. coli* 0157:H7, *Listeria*, or *Salmonellae*. These pathogens may be in the soil or water where produce grows, or the produce may become contaminated after it is harvested, such as during preparation or storage. If eaten, the contaminated produce could cause you to become ill, with what is often referred to as foodborne illness. Using safe methods of selecting, storing, washing, and preparing produce can help you find great-tasting fruits and vegetables and enjoy a safe, healthy harvest.

Selecting the Best

A visit to your local farmers market increases the chance you will be purchasing fruits and vegetables picked within a day. Or a visit to a “pick-your-own” farm for fresh strawberries, blackberries, apples, or pumpkins is a great weekend activity. Good produce doesn’t have to be picture perfect. High-quality fresh fruits and vegetables are young, crisp, and brightly colored. If you think of a fresh peach or melon, a strong scent means they’re ripening nicely. As fruits and vegetables ripen, they gradually lose flavor and nutrients and become limp or soft, losing their crispness.

Shop Seasonally

Finding great-tasting produce to buy is easy when they’re at their peak or in season. The Kentucky Harvest Calendar indicates when produce is at its peak. The following list is a brief overview.



Spring: asparagus, blackberries, green onions, leeks, lettuces, new potatoes, peas, red radishes, rhubarb, spinach, strawberries

Summer: blueberries, cherries, cucumbers, eggplant, fresh herbs, green beans, hot peppers, melons, okra, peaches, plums, sweet corn, sweet peppers, tomatoes, zucchini

Fall: apples, broccoli, Brussels sprouts, cauliflower, collard greens, grapes, kale greens, pears, persimmons, pumpkins, winter squash, sweet potatoes, yams

Winter: beets, cabbage, carrots, Daikon radishes, onions, rutabagas, turnips, winter squash

A Note about Waxing

Many fruits and vegetables make their own natural waxy coating to help retain moisture. After harvest, extensive washing removes the natural wax. Therefore, waxes are often applied to replace the natural wax that is lost.

These edible wax coatings help retain moisture during shipping and marketing; help inhibit mold growth; protect produce from bruising; prevent other physical damage and disease; and enhance appearance. Waxing maintains a healthy harvest if the produce is of high-quality to begin with.

Keeping It Fresh



Proper storage of fresh fruits and vegetables can affect both quality and safety. Fresh fruits and vegetables should be stored for as short a time as possible to prevent loss of moisture, nutrients, flavor, and texture. Many fruits and vegetables lose sweetness as soon as they are picked. Potatoes, onions, and winter squash should be stored unwashed in a cool, dry, dark place.

Refrigerate other vegetables, such as lettuce, herbs, and mushrooms in covered containers to prevent drying. Apples, avocados, cherries, peaches, pears, and berries can be stored in the refrigerator for two to three days with a minimal loss of quality. Melons, grapes, and pawpaws do well in a cool place for several days. Keep refrigerators cold at 40°F or below. To prevent drying and discoloration of peeled or cut produce, store in a tightly covered container in the refrigerator within two hours of peeling or cutting.

Wise Washing

Begin preparing fresh fruits and vegetables by washing your hands for at least 20 seconds. Use warm, soapy water, then rinse and dry.

All fresh produce should be washed before eating or preparing. Use clean, running water only, rubbing soft fruits and vegetables with your hands.

Strawberries, lettuce, herbs, and mushrooms are delicate and porous. These items tend to absorb water easily, so wash gently just before using. The skins of firm fruits and vegetables, such as melons, cucumbers, and potatoes, can be scrubbed with a clean and sanitized vegetable brush. Wash produce, even if you plan to peel it before eating it.

Always wash, rinse, and sanitize equipment, utensils, and counter tops. A good sanitizing solution is 1 teaspoon of chlorine bleach to 1 quart of warm water. Lastly, wash your hands after finishing your preparations. Washing fruits and vegetables with soap, detergent, or a commercial produce wash is not recommended, as these chemicals are easily absorbed through the outer covering of produce.

Soap and Hand Sanitizers

Nothing can take the place of soap and warm, running water. Soap is made of two parts, a fat component and a water-loving component. The fat component attaches to dirt, oil, and bacteria. Then the fat component is surrounded by droplets of water. The scrubbing motion lifts these items off the surface of the hands, and the running water rinses away the contaminants.

According to the Centers for Disease Control and Prevention (CDC), antibacterial soaps are not necessary in



the home setting. These soaps use chemicals that must be left on the hands over two minutes to be effective. Hand sanitizers are an effective way to wash your hands when traditional soap and water are not available. These products work by stripping away the oil in the outer layer of the skin.

To be most effective, a dime-sized amount of the alcohol gel should be rubbed into the hands for 30 seconds. If your hands become dry after 10 to 15 seconds, you haven't used enough gel. Moisturizers are often included in the gel to reduce drying. Regardless, hand washing is one of the most effective ways to prevent illness.

Pesticide Concerns

Some people are concerned with pesticide residue that may be found on fruits and vegetables. Pesticide applications in the field are designed so that residues are gone by the time the crop is harvested. The United States Department of Agriculture (USDA) maintains a Pesticide Data Program (www.ams.usda.gov/science/pdp) that analyzes and reports on pesticide residues in our food supply. At this time USDA recommends eating a varied diet and to wash all produce.

Organics

Some consumers purchase organically grown produce because they are concerned about industrial farming practices that may impact our environment. USDA defines organic as a "food produced by farmers who emphasize the use of renewable resources and the conservation of soil and water to enhance environmental quality for future generations."

Organic food is produced without using conventional pesticides; fertilizers made with synthetic ingredients or sewage sludge; bioengineering; or ionizing radiation. Foods that meet certain criteria can be labeled with an official USDA seal. Many smaller scale farmers are not "certified organic," but their farming methods may be organic. Ask your favorite vendor about their philosophy and farming practices.



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Sandra Bastin, PhD, RD, LD, CCE
Extension Food and Nutrition Specialist

Teresa Ford, BSBA
Project Associate

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