

FN-SSB.912

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 *Salmonella*. 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. This is often called foodborne illness. Properly selecting, storing, washing, and preparing produce gives you better nutrient retention, reduces waste, decreases risk of foodborne illness, and ensures fresher, better tasting food.

SELECTING THE BEST

A visit to your local farmers' market increases the chance you will be buying fruits and vegetables picked within a day. U pick farms are also a great activity for families to visit the farm and pick seasonal produce, such as strawberries, blackberries, apples, or pumpkins. High-quality fresh fruits and vegetables are young, crisp, and brightly colored. If you want a fresh peach or melon, a strong scent means they're ripening nicely. Good produce doesn't have to be picture perfect. Sometimes you can remove blemishes easily and their less-than-perfect appearance may make them cheaper in price. As fruits and vegetables ripen though, they gradually lose flavor and nutrients and become limp or soft, losing their crispness. So, avoid bruised or damaged fruits or vegetables. If you buy pre-cut, bagged, or packaged produce, such as half of a watermelon or bagged salad greens, look for



those that are refrigerated or surrounded by ice. In your grocery cart, be sure to separate fresh produce from raw meat, poultry, and seafood. Juices from these items may contain bacteria that could contaminate your produce.

SHOP SEASONALLY

Finding great-tasting produce to buy is easy when they're at their peak or in season. The Kentucky Department of Agriculture has developed a Kentucky Proud Seasonal Produce Guide (https://www.kyagr.com/marketing/documents/FM_ProduceAvailabilityGuide.pdf) which 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 keep in 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. Store fresh fruits and vegetables 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. Refrigerate vegetables such as lettuce, herbs, and mushrooms in covered containers to prevent drying. Store apples, avocados, cherries, peaches, pears, and berries in the refrigerator for two to three days with a minimal loss of quality. Melons, grapes, and papaws do well in a cool place for several days. Store potatoes, onions, and winter squash unwashed in a cool, dry, dark place. The Kentucky Food Code suggests keeping refrigerators cold at 41 degrees 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 for up to two days. For more information on storing fruits and vegetables, check out the University of Kentucky Extension Recommended Food Storage Times publication (<http://www2.ca.uky.edu/agcomm/pubs/FCS3/FCS3595/FCS3595.pdf>).



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. You should wash all fresh produce before eating or preparing, no matter where you bought it. 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. You can scrub the skins of firm fruits and vegetables, such as melons, cucumbers, and potatoes, 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 countertops. 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. Often experts have not tested their effectiveness.

PESTICIDE CONCERNS

All of us are concerned with pesticide residue that could be found on fruits and vegetables we plan to consume and the implication on our health. The Food and Drug Administration (FDA) enforces tolerances established by the

Environmental Protection Agency (EPA) for amounts of pesticide residues that may legally remain on food. Pesticide applications in the field are designed so that residues are gone by the time the crop is harvested. Very small amounts of pesticides that may remain in or on fruits and vegetables decrease considerably as crops are harvested, transported, exposed to light, washed, prepared, and cooked. The presence of a detectible pesticide residue does not mean the residue is at an unsafe level. To find out more about the USDA's Produce Monitoring Program, check out their website at <https://www.ams.usda.gov/datasets/pdp>. At this time, health professionals recommend eating a varied diet and continuing to follow safe handling practices, including washing all produce.

ORGANICS

Some consumers buy organically grown produce because they are concerned about industrial farming practices that may affect our environment. The USDA allows produce to be labeled as organic if “it’s certified to have grown on soil that had no prohibited substances applied for three years prior to harvest. Prohibited substances include most

synthetic fertilizers and pesticides.” 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 carry an official USDA seal. Many smaller scale farmers are not “certified organic,” but their farming methods may be organic. Ask your favorite farmers’ market vendor about their philosophy and farming practices or check out USDA’s Organic 101 for more information (<https://www.usda.gov/media/blog/2012/03/22/organic-101-what-usda-organic-label-means>).



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