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o help ensure that the vegetables you grow and prepare are of high quality, you need to harvest them at peak maturity, handle them properly, and store them under optimum conditions.

Vegetables continue their life processes even after they are picked. If the vegetables are mature at harvest, their life processes need to be slowed by chilling. If they are immature produce such as green tomatoes, store them at room temperature to enhance the ripening process.

Except for ripening, storage does not improve a vegetable's quality. To be acceptable, a vegetable must be cultivated properly and of good quality at harvest.

It can be difficult to determine when vegetables reach peak quality. The first step is to keep a record of the cultivars planted and the dates they were planted.

Although some vegetables are more prone to damage during harvesting than others, avoid bruises and cuts in handling all produce. Discard any vegetables with signs of decay or rot to prevent them from affecting the good produce. Some vegetables should be washed in cold running water immediately after they are harvested to remove any soil, dust, or other contaminants and to help lower their temperature.

Three keys to protecting the quality of your produce after harvest are temperature, moisture, and ventilation.

Temperature: For produce such as peas and sweet corn, the conversion of sugar to starch is critical to interrupt at harvest. To minimize this conversion, the produce must be cooled immediately. If possible, harvest these vegetables early in the morning or right before you intend to use them.

*Moisture:* The proper humidity level for storage varies by commodity. Leafy-type vegetables require a high humidity of about 95 percent; in contrast, onions can be stored in drier conditions, such as 65 to 70 percent relative humidity.

**Ventilation:** Minimize wilting and tissue breakdown by ensuring that air can circulate properly.

## Recommendations for specific vegetables

Follow the guidelines below to help ensure a high-quality harvest.

Asparagus: Cut, just below soil line, shoots that are 6 to 8 inches tall. The stalks should be fresh and firm with compact, closed tips. Angular or flat stalks are apt to be woody.

Store asparagus in the refrigerator and wash just before use.

Beans—broad, lima, and green shell: Harvest these beans when the pods are well filled but have not begun to yellow. Keep the beans cold and humid, and use them as soon as possible.

Beans—snap: For maximum tenderness, harvest snap beans before they are fully mature, when the pods are almost full size but before the seeds begin to bulge. They should be free from scars and strings when snapped.

Keep snap beans cold (at 45 to 50 degrees F) and humid, and use as soon as possible. Wash the beans before storage to help retain their moisture content.

Beets: Pull early beets when they are about 2 inches in diameter. If they are allowed to get much larger, they become woody, especially in warm, dry weather.

For late-crop beets, remove all but about  $1\frac{1}{2}$  inches of the tops. Wash and refrigerate them immediately.

**Broccoli:** Harvest broccoli when the flower heads are fully developed but before

the individual flower buds open enough to show the bright yellow flowers. Cut them

off at 6 to 7 inches below the flower heads. The small, tender leaves are also edible and nutritious.

Store harvested broccoli in the cold drawer of the refrigerator.

Brussels sprouts: Harvest when the sprouts (buds) at the base of the plant become solid. Remove the buds higher on the plant as they become firm, but do not strip the leaves from the plants since they are needed for further growth.

Store the sprouts in the cold section of the refrigerator.

Cabbage: Harvest cabbage when the head becomes solid and firm. The outer leaves should be a uniform green or purple (depending on the type). Excessive water uptake by plant roots causes splitting. To prevent mature heads from splitting, twist the plants enough to break several roots.

Store harvested cabbage in the crisper and use within 1 to 2 weeks.

**Carrots** are ready to be harvested when they are small and succulent. Do not let them get over about 1 inch in diameter.

Always pull the largest carrots in the row. Remove the tops and wash the carrots before transferring them to refrigerated storage.

Cauliflower should be harvested when

heads, are full sized (6 to 8 inches) but still compact, white, and smooth. Curds exposed to sunlight appear

rough, coarse, and cream colored. When the head is 3 to 4 inches across, loosely tie the tips of the outer leaves above the curd to exclude sunlight.

Chill cauliflower immediately after harvest.

Celery can be cut when the plants reach 12 to 15 inches tall. While



they are young and tender, remove the lowest leaves (8 to 10 inches long) from a few plants and use them in salads, soups and cooked dishes.

Wash and store harvested celery in the refrigerator.

Corn—sweet: Watch corn for signs of ripeness for earliest harvest. Corn silks darken and dry out as the ears mature. As the kernels fill out toward the top, the ends become more rounded instead of pointed.

Pick sweet corn in the milk stage, when a milklike juice exudes from the kernels if crushed with a thumbnail. Because sweet corn converts from sugar to starch very rapidly, cook, eat, or chill it immediately after harvest.

Cucumbers: Harvest them when fruits are bright, firm, and green and before they get too large. A rule of thumb: harvest sweet pickles at 1½ to 2 inches long; harvest dills when they are 3 to 4 inches long, bright green, and less crisp. Avoid yellowed cucumbers.

You can store cucumbers in the refrigerator 5 days. Do not try to pickle saladtype cucumbers.

Eggplant: Harvest eggplants when the fruits are near full size—about 6 to 8 inches

in diameter—but still firm and bright in color. Older fruits become soft, seedy, and dull colored.

Keep the harvested fruit cool and humid.

Garlic should be harvested when the leaves lose color and the tops begin to fall over.
Store it in a cool, dry place.



Gourds: Harvest the edible gourd varieties when the fruits are young, tender, and 8 to 10 inches long; harvest the ornamental varieties when the fruits are mature and fully colored but before the first fall frost.

Greens: There are many kinds of greens, including beet greens, collards, dandelions, kale, mustard greens, Swiss chard, turnip greens, and others. Break off the outer leaves when they are 6 to 10 inches long and before they start to yellow. Avoid wilted or flabby leaves.

Wash and chill the harvested leaves immediately.

Horseradish: Harvest horseradish when the roots have reached maximum size in late fall or early spring.

**Jerusalem artichoke:** Dig the tubers after early fall frosts or in very early spring before the new growth starts. Wash and store artichoke heads in the refrigerator.

**Kohlrabi** can be harvested when the "bulbs" (thickened stems) reach 2 to 3 inches in diameter. Store them in the refrigerator.

Lettuce: Harvest leaf varieties of lettuce when the outer, older leaves are 4 to 6 inches



long; harvest heading varieties when the heads are moderately firm. The older, outer leaves may be removed from plants of either type of lettuce as soon as the leaves are 4 to 6 inches long. New leaves provide a continuous harvest of tender, tasty lettuce until hot weather brings on bitter flavor and seed stalks start.

After harvest, wash the lettuce and store in the refrigerator.

Melons—honeydew: Harvest honeydew when it is yellowish to creamy white with a soft, velvety feel. The rind should be slightly soft at the blossom end and have a faint, pleasant odor.

Melons—muskmelon: Harvest muskmelon when it is at three quarters to full slip; full slip or ripe is when the stem separates readily from the fruit under moderate pressure and leaves a circular depression. The outer rind should not have any green color.

If the melons are fully ripe, store them in the refrigerator. If not, store them in a cool area.

Melons—watermelon: Harvest watermelon when the fruits are full size and have a dull surface and a cream-colored ground spot.

Okra: For optimum quality, harvest okra that is 3 to 4 inches long. Harvest the pods before they reach the hollow, puffy stage and while they are easy to break or cut from stalk. For continued harvest, pick okra every day or two. Chill the harvested okra immediately.

Onions: The ideal onion bulb is 2 to 4 inches in diameter. Pull all onions when

the tops fall over. Remove any adhering dirt. Do not harvest onions when the soil is wet. Let the harvested onions dry for a day or two with the tops on; then clip 1 inch above bulb before storing them in a cool, dry place.

Harvest green onions when they are 6 to 8 inches tall.

Parsley: Cut parsley when the older leaves are 3 to 5 inches long. Continue to take the outer leaves for fresh, tender parsley until the first killing frosts of winter.



Store harvested parsley in the refrigerator.

Peas: If the peas will be shelled, harvest the pods when they are shiny green and fully developed. Overly mature peas are of poor quality. For the edible podded varieties (such as snow and Chinese peas), harvest when the pods are fully developed (about 3 inches) and before the seeds are more than half developed.

After harvest, peas deteriorate rapidly at high temperatures. Wash and chill them immediately.

**Peppers:** Harvest bell peppers when they are 4 to 5 inches long and have full, well-formed lobes. Immature peppers are pale, soft, pliable, and thin fleshed.

Harvest jalapeños when they are 2 to 2½ inches long. Mature peppers turn orange or red; this does not mean that they are hotter.

Store harvested peppers at 45 to 50 degrees F.

Potatoes—Irish and "new": For Irish potatoes, a good harvest size is 2 to 3

inches in diameter. However, individual preference is the rule here.

Harvest "new" potatoes at any size, but generally do not dig before they are 1¼ to 1½ inches in diameter. Let the potatoes dry several hours in garden after digging them.

Do not expose potatoes to sunlight for any length of time. Remove any adhering soil, but do not wash the potatoes before storing them. Store harvested potatoes in a cool, dry area.

Pumpkins: Pick pumpkins when they are full size, the rind is firm and glossy, and the bottom of the fruit (the portion touching the soil) is cream to orange colored. Store harvested pumpkins in a cool, dry area.

Radishes: Harvest radishes when they are about 1 inch in diameter. Wash and chill them immediately.

Rutabagas: Harvest rutabagas when the roots reach full size but before heavy fall frosts. Thin the rutabagas early to ensure that they have rapid, uniform growth and highest quality. Store harvested rutabagas in the refrigerator.

**Spinach** should be harvested when the large leaves are 4 to 6 inches long. Pull the larger, whole plants or harvest the older leaves and allow new growth to develop.

Wash the leaves thoroughly and store them in the refrigerator.

Squash: Harvest squash when it is 4 to 6 inches long for yellow crookneck squash, 6 to 8 inches long for yellow straight neck, and 3 to 4 inches in diameter for white scallop. A glossy color indicates tenderness.

Harvest winter squash when the fruits

are full size. The rind is firm and glossy and bottom (portion touching soil) of fruit is cream to orange colored. Light frost will not damage mature fruit.

Because squash, like cucumbers, are susceptible to chilling injury, do not store them at cold temperatures for more than 2 to 3 days.

**Sweet potatoes:** Harvest sweet potatoes late in the fall but before the first early frost. Lift the sweet potatoes to avoid cuts, bruises, and broken roots. Remove the ad-

hering soil but do not wash the potatoes. Cure them for at least 14 days in a warm, well-ventilated location. Store them in a cool, dry place.

Tomatoes: Harvest tomatoes when they are fully colored but still firm. Harvest red tomatoes for eating fresh, cooking, or canning. Do not can overripe tomatoes! If necessary, pick mature green or slightly pink tomatoes and ripen them at room temperature, out of direct sunlight.

Store ripe tomatoes in the refrigerator.

**Turnips:** Harvest the turnips when the roots are  $1\frac{1}{2}$  to  $2\frac{1}{2}$  inches in diameter but before heavy fall frosts. For greens, harvest the leaves 4 to 6 inches in length. Keep topped turnips cold and humid.

## Acknowledgments

This publication was revised from earlier versions written by Sam Cotner, Professor Emeritus and former Extension Horticulturist, and Al Wagner, former Professor and Extension Horticulturist.

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