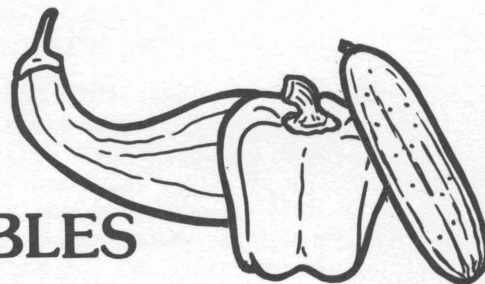


## HARVESTING AND HANDLING VEGETABLES



Al Wagner and Sam Cotner\*

Harvesting at peak quality, handling properly and storing under optimum conditions help the overall eating quality of vegetables. Consider these points if vegetables are to be processed or eaten fresh.

Vegetables continue to carry on life processes even after picking. It is important to retard these living reactions in mature products. For immature products such as green tomatoes store at room temperature to enhance the ripening process.

Except for ripening, storage does not improve quality. A vegetable must possess high quality characteristics and be cultivated properly for it to be acceptable.

Determining the point at which vegetables reach peak quality is no easy task. Keeping a record of the varieties used and when they were planted, along with the following guidelines, is helpful in determining maturity.

Some vegetables are more prone to damage during harvesting than others, but avoiding bruises and cuts in handling is important with all commodities. Discard any with decay or rot so it does not affect the good produce. Washing certain vegetables in cold running water immediately after harvesting removes soil, dust or other contaminants and helps lower the temperature.

To store any vegetable successfully, the following requirements need careful consideration.

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*Temperature.* The conversion of sugar to starch is critical in products such as sweet corn and peas. It is necessary to cool these products immediately to minimize this change. If possible, harvest vegetables early in the morning or right before you intend to use them.

*Moisture.* Proper humidity varies with commodities. Leafy-type vegetables require a high humidity (95 percent) whereas onions should be stored in a drier atmosphere, such as 65 to 70 percent relative humidity.

*Ventilation.* Wilting and tissue breakdown are minimized by proper air circulation.

A discussion on harvesting, handling and storing the more common homegrown vegetables follows.

### VEGETABLES

**Asparagus** - Cut, just below soil line, shoots that are 6 to 8 inches tall. Stalks should be fresh and firm with compact, closed tips. Angular or flat stalks are apt to be woody. Store in refrigerator without washing.

**Beans, broad, Lima, green shell** - Harvest when pods are well filled but have not begun to yellow. Keep cold and humid and use as soon as possible.

**Beans, snap** - For maximum tenderness, harvest before maturity when pods are almost full size but before seeds begin to bulge. Should be free from scars and without strings when snapped.

Keep cold (45° to 50° F.) and humid and use as soon as possible. Washing before storage helps retain moisture content.

**Beets** - Pull early beets when about 2 inches in diameter. If allowed to get much larger, they become woody, especially in warm, dry weather. Remove all but about 1 1/2 inches of tops on late crop beets. Wash and refrigerate immediately.

**Broccoli** - Harvest when flower heads are fully developed but before individual flower buds are open enough to show the bright yellow flower. Cut off 6 to 7 inches below flower heads. The small, tender leaves are also edible and quite nutritious. Store in cold section of the refrigerator.

**Brussels sprouts** - Harvest when sprouts (buds) at base of plant become solid. Remove buds higher on the plant as they become firm, but do not strip leaves from the plants since they are necessary for further growth. Store in cold section of the refrigerator.

**Cabbage** - Harvest when head becomes solid and firm. Outer leaves should possess a uniform green or purple color (depending on type). Excessive water uptake by plant roots causes splitting. To prevent mature heads from splitting, twist plants enough to break several roots. Store cabbage in crisper and use within 1 to 2 weeks.

**Carrots** - Harvest when small and succulent. Do not let them get over about 1 inch in diameter. Always pull largest carrots in the row. Remove tops and wash before transferring to refrigerated storage.

**Cauliflower** - Harvest when curds (aborted flower heads) are full sized (6 to 8 inches) but still compact, white and smooth. Curds exposed to sunlight become cream-colored, rough in appearance and coarse textured. When curds are 3 to 4 inches across, tie the tips of the outer cauliflower leaves loosely above the curd to exclude sunlight. Chill immediately after harvest.

**Celery** - Cut when plants become 12 to 15 inches tall. While young and tender, remove the lowest leaves (8 to 10 inches long) from a few plants and use in salads, soups and cooked dishes. Wash and store in the refrigerator.

**Corn, sweet** - Watch for signs of ripeness for earliest harvest. Corn silks darken and dry out as ears mature. As kernels fill out toward the top, ends become more blunt instead of pointed. Pick sweet corn in the milk stage, when a milk-like juice exudes from kernels if crushed with a thumbnail. Sweet corn is very susceptible to

rapid sugar-to-starch conversion; therefore, cook, eat or chill immediately after harvest.

**Cucumber** - Harvest when fruits are bright, firm and green before they get too large. A good rule of thumb is as follows: sweet pickles - 1 1/2 to 2 inches long; dills - 3 to 4 inches long, bright green in color and less crisp. Avoid yellowed cucumbers. Store in refrigerator 5 days. Do not try to pickle salad-type cucumbers.

**Eggplant** - Harvest when fruits are near full size (approximately 6 to 8 inches in diameter) but still firm and bright in color. Older fruits become dull colored, soft and seedy. Keep cool and humid.

**Garlic** - Harvest when foliage loses color and tops begin to fall over. Store in cool, dry place.

**Gourd** - Harvest edible varieties when fruits are 8 to 10 inches long, young and tender; harvest ornamental varieties when fruits are mature and fully colored but before first fall frost.

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

**Horseradish** - Harvest when roots have reached maximum size in late fall or early spring.

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

**Kohlrabi** - Harvest when "bulbs" (thickened stems) reach 2 to 3 inches in diameter. Store in refrigerator.

**Lettuce** - Harvest leaf varieties when outer, older leaves are 4 to 6 inches long; harvest heading varieties when heads are moderately firm. Older, outer leaves may be removed from plants of either leaf or head 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. Wash and store in refrigerator.

**Melons - Honeydew.** Harvest when 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.

**Muskmelon.** Harvest at three quarters to full slip. When stem separates readily from the fruit under moderate pressure and leaves a circular depression, the full slip or ripe stage has been

reached. Outer rind should not have any green color. If melons are fully ripe, store in refrigerator. If not, store in cool area.

*Watermelon.* Harvest when fruits are full size, have a dull surface and creamy colored ground spot.

**Okra** - Three to 4 inches is an optimum length for harvesting before pods reach the hollow, puffy stage and while they are easy to break or cut from stalk. Pick okra every day or two for continued harvest. Chill immediately.

**Onion** - Ideal bulb diameter is 2 to 4 inches. Pull all onions when tops fall over. Remove adhering dirt. Do not harvest when soil is wet. Let dry for a day or two with tops on; then clip 1 inch above bulb before storing in a cool dry place. Harvest green onions when 6 to 8 inches tall.

**Parsley** - Cut when older leaves are 3 to 5 inches long. Continue to take outer leaves for fresh, tender parsley until heavy frosts of winter. Store in refrigerator.

**Peas** - If you expect to shell the peas, harvest pods when they are shiny green and fully developed. Overly mature peas are poor quality. For edible podded varieties (snow, Chinese) harvest when pods are fully developed (about 3 inches) before seeds are more than one half developed. Deterioration proceeds rapidly at high temperatures. Wash and chill immediately.

**Peppers** - Harvest bell peppers when they are 4 to 5 inches long with full, well-formed obes. Immature peppers are soft, pliable, thin fleshed and pale. Harvest jalapenos when they are 2 to 2½ inches long. Mature peppers turn orange or red; this does, not mean they are hotter. Store at 45° to 50° F.

**Potatoes, Irish and "new"** - For Irish potatoes, a good tuber size is 2 to 3 inches in diameter. Individual preference is the rule here. Harvest "new" potatoes at any size but generally do not dig before tubers are 1¼ to 1½ inches in diameter. Let potatoes dry several hours in garden after digging. Do not expose potatoes to sunlight for any length of time. Remove adhering soil but do not wash before storage. Store in cool, dry area.

**Potatoes, sweet** - Harvest late in fall but before first early frost. Lift to avoid cuts, bruises and broken roots. Remove adhering soil but do not wash. Cure for at least 14 days in a warm, well-ventilated location. Store in a cool, dry place.

**Pumpkins** - Pick when the fruits are full size, the rind is firm and glossy and the bottom of the fruit (portion touching the soil) is cream to orange colored. Store in cool, dry area.

**Radishes** - Harvest when diameter reaches approximately 1 inch. Wash and chill immediately.

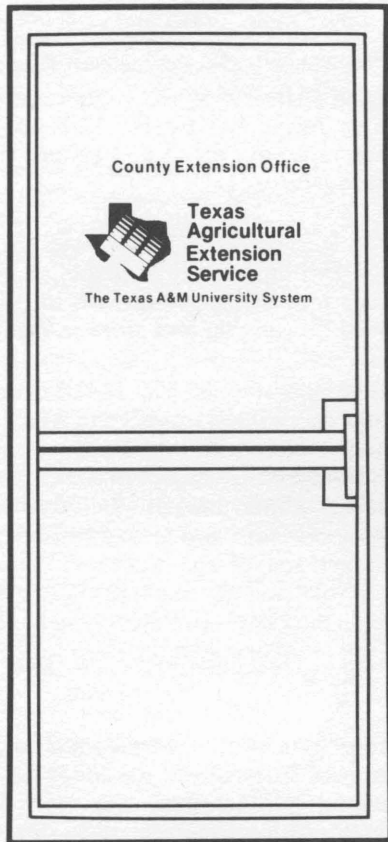
**Rutabagas** - Harvest when roots reach full size but before heavy fall frosts. Thin early to insure rapid, uniform growth and highest quality. Store in refrigerator.

**Spinach** - Harvest when large leaves are 4 to 6 inches long. Pull larger, whole plants or harvest older leaves and allow new growth to develop. Wash leaves thoroughly and store in refrigerator.

**Squash** - Harvest when fruit is 4 to 6 inches long for yellow crookneck squash 6 to 8 inches for yellow straight neck and 3 to 4 inches in diameter for white scallop. Glossy color indicates tenderness. Harvest winter squash when 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. Squash, like cucumbers, are susceptible to chilling injury; do not store at cold temperatures for more than 2 to 3 days.

**Tomatoes** - Harvest 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 at room temperature, out of direct sunlight. Store ripe tomatoes in the refrigerator.

**Turnips** - Harvest when roots are 1½ to 2½ inches in diameter, but before heavy fall frosts. For greens, harvest leaves 4 to 6 inches in length. Keep topped turnips cold and humid.



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