

# Chayote, Mirliton, Vegetable Pear

*Sechium edule* is a member of the Cucurbitaceae (gourd) family.

The chayote plant has climbing vines and leaves that resemble those of cucumber. The plant is a perennial in the tropics, where stems have tendrils and can grow 50 feet long. The plant produces separate male and female flowers that are pollinated by bees. The light green pear-shaped fruit contains a single edible seed about 1 or 2 inches long. Fruits of different varieties range from almost smooth to deeply ridged, and from cream-colored to green, and may or may not be covered with nonsticking prickles. The mature fruit is 3 to 8 inches long, weighing from 8 ounces to more than 1 pound. Chayote was cultivated centuries ago by the Aztecs and Mayans of Central America.

**Other names.** *Tao tah* (Hmong); *hayato uri* (Japanese); *fut shau kua*, *ngow-lai choi*, *tsai hsio li* (Chinese); *sayote* (Filipino); *xu-xu*, *trai su* (Vietnamese); *cho cho* (West Indies); *mirliton* (Louisiana).

## Market Information

Chayote is found in many ethnic markets, including Asian, Indian, Caribbean, and Latin American markets. It is also a familiar sight in major supermarkets. The prickly varieties are seldom grown, but the unusual appearance and varied flavors of their fruit could make them a good crop for small growers.

**Current production and yield.** Chayote is available year-round, but is most abundant from September through May. California, Florida, Costa Rica, and Mexico are the main suppliers. Quantities of fresh and frozen chayote imported into the United States have increased steadily, from 5,232,000 pounds in 1980 to 13,543,000 pounds in 1988. Chayote yields 15 to 20 tons of fruit per acre.

**Use.** Chayote fruit has crisp, pale flesh and a flavor that is a blend of apple and cucumber. In many countries the young shoots, flowers, seeds, and roots are eaten. Chayote is served in many ways: creamed, fried, baked, and pickled, and in salads, soups, stews, and pies.



Chayote on sale at a grocery store.  
(Photo: Charlotte Glenn)

**Nutrition.** Chayote is low in calories: only 40 calories per cup. It is also low in sodium and is a good source of fiber. Its nutritional value is similar to that of summer squash.

## Culture

**Climatic requirements.** Chayote is a warm-season crop. Less-favorable climatic conditions promote luxuriant vine growth but much lower fruit production. Plant chayote in early spring or when the ground is sufficiently warm. The fruit may need to be covered completely to prevent cold damage.

Chayote blooms in the shorter daylight of late summer and autumn days, but the fruit must mature before winter. In the San Diego and Los Angeles areas, the plants bloom in late August or September. Winter frost causes the vines to die back, but they return with warmer temperatures. The same plant can continue to produce fruit for several years. In the Panama Canal Zone, where day length is about 12.5 hours year-round, chayote blooms and produces fruit every month of the year. The fruit reaches full size about 30 days after pollination.

Louis Aung et al. (see *More information*) write that chayote may be grown in temperate climates under a regime of artificially controlled day

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lengths. After 6 to 8 weeks of growth, the vines are shaded with dark cloth on a frame to limit sunlight to 8 hours a day for 4 to 6 weeks. Once flowers develop, the shades can be removed and vines can grow in normal daylight.

**Propagation and care.** Trellises or structures similar to grape arbors are required for chayote production. Vines are trained over the top of the trellis, and fruits are harvested from below. Some growers use vertical trellises instead. Plant one fruit per hill, with hills 12 feet apart and 12 feet between rows. Plant the whole fruit on its side with the stem end sloping upward. Fruits obtained from a supermarket will sprout when kept in subdued light, and are ideal for planting. For greater uniformity of plant type, you may want to plant from stem cuttings instead.

Fertilization requirements for chayote are similar to those for summer squash, with both nitrogen and phosphorus applications needed in many growing areas. Depending on temperature and soil texture, irrigation may be required once or twice a

week. Overmature chayote fruits will sprout on the vine but are still edible if properly prepared.

**Pests.** Leaf-eating beetles and snails occasionally reduce plant growth. Leaf-eating insects seldom require control. Nematodes occasionally reduce chayote yields and should be controlled several weeks before planting.

**Harvest and postharvest handling.** Ripe fruits are selected by size and pulled from the vines. Harvested chayote fruits can be wrapped individually in tissue paper or poly bags to reduce friction and water loss and placed in single-layer flats. Fruits stored in poly bags may decay since the bags increase moisture condensation. Seed germination is a storage problem if the fruit is held at temperatures above 56° or 58°F. Chayote fruit is also susceptible to chilling injury. Surface bronzing affects fruits held at 36° to 41°F, and surface pitting, decay, and internal browning appear in fruits held at 41° to 45°F. With a storage temperature of 45° to 50°F, you can expect chayote to have a shelf life of up to 4 weeks.

## Sources

### Seed

NOTE: Plant whole fresh fruit or propagate from stem cuttings.

### More information

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Prepared by Claudia Myers and Keith Mayberry as an update of Bernarr Hall and John MacGillivray's Chayote Production in California.

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