

CHAYOTE

Sechium edule



Introduction

- ▶ Chayotes (pronounced chahy-oh-tee or cha-yo-tay) are a light green, pear shaped fruit with a single, large pit and edible flesh and skin.
- ▶ It is also known as christophene or christophine, cho-cho, pear squash or vegetable pear squash, mirliton or merleton (Creole/Cajun), chuchu (Brazil), Ishkus or Chowchow (India), Pataste (Honduras), Tayota (Dominican Republic), Sayote (Philippines)
- ▶ Chayotes are a popular ingredient in Central American cuisine, as well as in the Southern United States.
- ▶ It is an edible plant belonging to the gourd family Cucurbitaceae, along with melons, cucumbers and squash.



Some historical facts

- ▶ Chayote squash is native to the cultural and regional areas of Mesoamerica, specifically Central America- Mexico. It is one of the earliest cultivated plants within the New World.
- ▶ Though there is no definitive archaeological evidence to prove just how long Chayote squash has been in existence, it's global presence now places it on every continent throughout the world besides Antarctica, growing at sea level heights up to 6,000 feet
- ▶ It was one of the many foods introduced to Europe by early explorers, who brought back a wide assortment of botanical samples.

Geography

- ▶ Chayote is originally native to Mexico where it grows abundantly and has little commercial value. Today, It has been introduced as a crop all over Latin America, and worldwide.
- ▶ The main growing regions are Brazil, Costa Rica, Veracruz, Mexico and Abkhazia . Costa Rican chayotes are predominantly exported to the European Union, whereas Veracruz is the main exporter of chayotes to the United States.
- ▶ It was introduced into the Antilles and South America between the eighteenth and nineteenth centuries
- ▶ No one knows exactly where the cultivation of Chayote began. It seems that it was widely grown in Mexico and central America by the Aztecs and Maya before the Spanish colonizers arrived in America.

Morphology

- ▶ In the most common variety, the fruit is roughly pear-shaped, somewhat flattened with coarse wrinkles, ranging from 10 to 20 cm in length. It looks like a green pear, and it has a thin, green skin fused with the green to white flesh, and a single, large, flattened pit.
- ▶ Some varieties have spiny fruits. The flesh has a fairly bland taste, and a texture is described as a cross between a potato and a cucumber. Although generally discarded, the seed has a nut-like texture and may be eaten as part of the fruit.
- ▶ The chayote vine can be grown on the ground, but as a climbing plant, it will grow onto anything, and can easily rise as high as 12 meters when support is provided. It has heart-shaped leaves, 10–25 cm wide and tendrils on the stem.
- ▶ The plant bears male flowers in clusters and solitary female flowers. It's fruit is light green and elongated with deep ridges lengthwise.
- ▶ The roots can run deep and wide and its vines can grow up to 50 feet in length, which has placed the plant on some regions' invasive plant lists
- ▶ Chayote is an herbaceous perennial vine with branched tendrils



Features of cultivation

- ▶ It prefers warm climates, ample soil moisture and long summer days (at least 12 hours of sunlight are needed for the plant's to flower) .
- ▶ Chayote requires 120 to 150 frost-free days to reach harvest.
- ▶ Site- Plant chayote in full sun; chayote will grow in partial shade but the yield will be reduced. Grow chayote in loose, well-drained but moisture-retentive soil, rich in organic matter. Chayote prefers a soil pH of 6.0 to 6.8.
- ▶ Planting time- Plant chayote 3 to 4 weeks after the last average frost date in spring when the soil temperature has reached at least 65°F. In short-summer regions, grow chayote in a container so that it can be brought indoors when the temperatures cool.
- ▶ Water and feeding- Give chayote even, regular water; do not let the soil dry out.
- ▶ Container growing- Chayote can be grown in a container, but the yield will not be significant.
- ▶ Harvest- Chayote will be ready for harvest when the fruit is tender and about 4 to 6 inches in diameter, usually 120 to 150 days after planting. Cut chayote from the vine with a knife or hand-pruner. Harvest chayote before the flesh gets hard.



Plant uses

- ▶ As food- The fruit does not need to be peeled to be cooked or fried in slices. It is commonly served with seasonings (e.g. salt, butter and pepper or in a dish with other vegetables and/or flavorings. It can also be boiled, stuffed, mashed, baked, fried, or pickled in escabeche sauce.
- ▶ Both fruit and seed are rich in amino acids and vitamin C. Fresh green fruits are firm and without brown spots or signs of sprouting. Smaller ones are more tender.
- ▶ Medicinal Uses- Its leaves can be used to make tea and it is reported to dissolve kidney stones as well as a treatment for arteriosclerosis and hypertension. The leaves and also fruits have diuretic and anti-inflammatory properties.
- ▶ Chayote is an important part of traditional diets across Mesoamerica, and can be found in a variety of dishes.



Selection and Preservation

- ▶ Firm to touch
 - ▶ Smooth bright skin
 - ▶ Skin should not be too loose or excessively wrinkled
- ▶ Preservation- Whole chayote can be preserved for as long as four week.
Cut or sliced should be placed in an air tight container for 3-5 days

Myths and Facts

► **Myth: Chayote is unknown in United States.**

Fact: Although chayote is native to Central America and was an important part of the Maya and Aztec diets, it's still a common ingredient in indigenous and other ethnic groups' recipes in the United States.

► **Myth: Chayote has very few food applications.**

Fact: The chayote's taste is mild, similar to a zucchini, and the texture is firm. Its flesh, stems and leaves can be consumed. The fruit, which is the most widely seen and used in the United States, can be peeled and incorporated into soups, casseroles and stews; used for children's dishes, including porridges, mock applesauce; jams; and dried for snacks.

► **Myth: Chayote isn't nutritious.**

Fact: According to the Center for Disease Control and Prevention, ½ cup of chayote squash has 17 percent of the daily requirement for Vitamin C and 2 percent of the daily iron and calcium in a 2,000-calorie diet. Chayote truly delivers beneficial fiber in the diet.

► **Myth: There is no evidence of the medicinal uses of chayote.**

Fact: Historically, chayote has been used for medicinal uses in ethnic populations. The chayote leaves have been infused and used in treatments to dissolve kidney stones and assist with arteriosclerosis, hypertension and genitourinary problems; however, no human research exists to verify the beneficial use of chayote in any of those health conditions.

