

Tomatillo

(*Physalis philadelphica*)

Wyatt Grindy



Classification

- ▶ Genus: Physalis
- ▶ Species: philadelphica
- ▶ Family: Solanaceae - contains 102 genera and nearly 2,500 species, many of which are considered economically important food and drug plants
- ▶ Other Family Members: Potato, Tomato, Pepper, Tobacco, Deadly nightshade

Origin and Cultivation Geography

- ▶ Origin: It is believed that this species originated in central Mexico, where presently both wild and domesticated populations may be found.
- ▶ The Aztecs first grew tomatillos as far back as 800 B.C. and they have been popular in Mexico and other Latin American countries for many years.
- ▶ Before 1863, it was thoroughly naturalized and commonly growing in abundance in the far west of the United States near Los Angeles.
- ▶ American growers named the fruit “Jamberry” and introduced it as a new fruit by Iowa State College in 1945.
- ▶ Tomatillos are grown as annuals throughout the Western Hemisphere, but most typically in Central America, and in Texas in the United States

Morphological Description

- ▶ The Mexican husk tomato is highly self-incompatible (not self pollinating.)
- ▶ The tomatillo grows to an annual height of 1.2 meters
- ▶ The fruit is approximately 2.5 centimeters or more in diameter
- ▶ The number of fruits each plant has is variable, and the largest fruit spawn from the first flowers of the main branches
- ▶ The tomatillo fruit is enclosed in an envelope, known as a calyx or husk that stops growing before the fruit, allowing the fruit to split the calyx
- ▶ The fruit is large, round, sticky and varies in color from purple, to red, to yellow-green

Features of Cultivation

- ▶ This species is not ultra-tropical but tropical and, like the tomato, is grown in summer in temperate regions.
- ▶ The plant needs full sun. It will grow in any soil suitable for tomatoes but not in wet situations.
- ▶ The seeds are sown in a greenhouse in early April and transplanted to a field around May fifteenth to twentieth
- ▶ These seeds germinate in seven to ten days, followed by the growth of the primary shoot
- ▶ The first flower appears four to five weeks in, and the first fruit appears one week after that
- ▶ By eight weeks, the fruit already has a diameter of 3 centimeters, and by eleven weeks, the plant has reached maximum fruit production

Plant Uses

- ▶ Often consumed ripe, raw, and out of hand
- ▶ Is a key ingredient to salsa verde, or the green sauce that you see in many Mexican restaurants
- ▶ Many recipes for stewing, frying, baking, cooking with chopped meat, making into soup, marmalade, and dessert sauce
- ▶ The fruit is often added to salads and curries, and is made commercially into jam in Australia
- ▶ It contains a minimum of 14 potent anti-cancer compounds that have demonstrated the ability to halt and even dissolve aggressive tumors in animals.

Uses in North America by Native Americans

- ▶ Historians have documented a long history of medicinal use of wild *tomatillos* by numerous Native American tribes
- ▶ The Omaha, Ponca, and Winnebago tribes used wild tomatillos to treat headache and stomachache and to dress injuries
- ▶ The Iroquois used it against sexually transmitted diseases
- ▶ The Lakota tribe used it to enhance appetite

Historical Facts

- ▶ Staple crop for Aztec and Mayan societies earlier than 800 B.C.
- ▶ Grown extensively in California between 1930 to about 1939
- ▶ Introduced to India in 1950
- ▶ 1952, seeds shipped to Bahamas, Puerto Rico, and Jamaica. Plantings were successful in the Bahamas and Puerto Rico, but there was not enough interest for further cultivation.
- ▶ Recently has been planted in Trinidad and Taiwan, and plants have fruited well in greenhouse culture in England.



Thank You

