

# OKRA

(*Abelmoschus esculentus*:  
Malvaceae)



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# Classification:

- Genus: *Abelmoschus*
- Species: *A. esculentus*
- Family: Malvaceae
  - Also called mallows, dicotyledon angiosperms, contains over 1000 species, leaves are alternate, large flowers with 5 unjoined petals -
- Other family members: Cocoa, cotton, Hibiscus species, durian fruit, and balsawood

# Origin and Cultivation Geography:

- Exact origin is unknown; Africa vs South Asia
- Geobotanists: Abyssinia Center (present day Ethiopia)
- Cultivated by ancient Egyptians by 12 B.C.
- Came to the US in the 1700s, probably through slaves from West Africa
- Cultivated in tropics, subtropics, and warm temperatures around the world
- It prefers long, hot growing seasons (the south), but can be grown anywhere

# Morphological description:

- The species is an annual and a perennial (in the tropics)
- Self-pollinating
- Grows to about 1-2 meters tall
- Leaves are 10-20 cm long, they are heart shaped and broad, palmately lobed with 5-7 lobes
- Flowers are 4-8 cm and have 5 white/yellow petals, often there is a red or purple spot at the base of the petals
- Fruit can be up to 18 cm long and contains numerous round white seeds---varies in color green, yellow, and red

# Features of Cultivation:

- Cultivated for its edible seed pods, harvested when immature
- Seeds soaked overnight prior to planting 1-2cm deep, germination occurs between 6 days and 3 weeks, pods appear about 50 to 60 days after planting
- Requires a long, warm and humid growing period (between 24°C and 28°C)
- Sensitive to frost and extremely low temperatures
- Soil: loose, friable and well manured, pH 6.0-6.8 is ideal
- Prone to damage from insects, fungi, nematodes, and viruses (i.e. ants, aphids)

# Plant Uses:

- Fruit eaten raw, pickled, or cooked
- Ornamental plant
- Thicken stews, gumbo
- Okra juice: for coughing/sore throats, skin moisturizer, treat fever and headache
- Okra seeds: treat/prevent muscle spasms
- Mucilage (slim): lubricant/laxative in intestine, binds with cholesterol, treats inflammation
- Okra coffee (ground okra seeds)
- Okra seed oil



# Historical Facts:

- Egypt in 12 Century B.C.---brought to US in 1700s
- Also called Lady fingers, gumbo, bamya, quilobo
- It's name is from the Igbo language of SE Nigeria as *okwuru* became *ochra* and *okra*.
- Found wild on the banks of the Nile River
- Now it is popular in Africa, the Middle East, Greece, Turkey, India, the Caribbean, South America and the Southern U.S.
- Used as coffee substitute during Civil War in 1860s

# Uses in North America and by Native Americans:

- Main use in the US is for food
- Grows well in the south, can grow in the north with warm summers---grown all over the world
- In the South, used as a staple vegetable, and in many recipes (stew, gumbo, etc.)
- Frenchmen formed alliances with Native American tribes (mainly in the south), introduced them to okra
- Chickasaw word for okra is “kombo”



# Interesting facts:

- A slimy goop called mucilage is found in okra pods, its viscosity increases as heat is applied
- The mucilage is good at thickening
- To get rid of the slime: keep it whole (cutting releases the slime), add lemon or lime juice when boiling, cook it long enough so it disappears, cook with tomatoes (acidity)