

Okra

Not to be confused with **Okara** (disambiguation).

This article is about the plant. For the plateau with this name, see **Nanos (plateau)**.

“bhindi” redirects here. It is not to be confused with **Bindi** (disambiguation).

Okra or **Okro** (US /ˈoʊkrə/ or UK /ˈɒkrə/; *Abelmoschus esculentus* Moench), known in many English-speaking countries as **ladies' fingers**, **bhindi**, **bamia**, **ochro** or **gumbo**, is a flowering plant in the mallow family. It is valued for its edible green seed pods. The geographical origin of okra is disputed, with supporters of West African, Ethiopian, and South Asian origins. The plant is cultivated in tropical, subtropical and warm temperate regions around the world.^[2]

1 Vernacular names in English-speaking nations

The name *okra* is most often used in the United States and the Philippines, with a variant pronunciation in Caribbean English and Nigeria of *okro*. The word *okra* is from the Igbo *ókúrú*.^{[3][4]} The plant and its seed pods are also known as “lady’s fingers”.^[5] In various Bantu languages, okra is called (*ki*)ngombo or a variant,^[6] and this is possibly the origin of the name “gumbo”, used in parts of the United States and the English-speaking Caribbean.^[7] In Swahili, the fruit is called Bamia, with the whole plant being referred to as Mbamia. In much of South Asia, it is called by some variant of *bhindi*, a name also heard in the United Kingdom, but English-speakers in Bengal call it *dherosh*.

2 Structure and physiology

The species is an annual and perennial, growing to 2 m tall. It is related to such species as cotton, cocoa, and hibiscus. The leaves are 10–20 cm long and broad, palmately lobed with 5–7 lobes. The flowers are 4–8 cm in diameter, with five white to yellow petals, often with a red or purple spot at the base of each petal. The fruit is a capsule up to 18 cm long, containing numerous seeds.

Abelmoschus esculentus is cultivated throughout the tropical and warm temperate regions of the world for its fibrous fruits or pods containing round, white seeds. It is among the most heat- and drought-tolerant vegetable



Okra plant while flowering

species in the world and will tolerate soils with heavy clay and intermittent moisture, but frost can damage the pods. In compound farms in the rainforest of southeastern Nigeria,^[8] farmers have developed a multi-crop system that provides a diversified and continuous production of food, combining species with different maturity periods such as yams, cassava, cocoyams, bananas, plantain, maize, okra, pumpkin, melon, leafy vegetables and a variety of trees and shrubs, 60 of which provide food products. This ensures a balanced diet but also reduces the need for storage in an area where post-harvest losses are high.^[9]

In cultivation, the seeds are soaked overnight prior to planting to a depth of 1–2 cm. Germination occurs between six days (soaked seeds) and three weeks. Seedlings require ample water. The seed pods rapidly become fibrous and woody, and, to be edible, must be harvested within a week of the fruit having been pollinated. The fruits are harvested when immature and eaten as a vegetable.^[10]

The most common disease afflicting the okra plant is verticillium wilt, often causing a yellowing and wilting of the leaves. Other diseases include powdery mildew in dry tropical regions, leaf spots, and root-knot nematodes.^[11]

3 Origin and distribution

Okra is an allopolyploid of uncertain parentage (proposed parents include *Abelmoschus ficulneus*, *A. tuberculatus* and a reported “diploid” form of okra). Truly wild (as opposed to naturalised) populations are not known with certainty and the species may be a cultigen.



Whole plant



Raw okra slices

The geographical origin of okra is disputed, with supporters of South Asian, Ethiopian and West African origins. Supporters of a South Asian origin point to the presence of its proposed parents in that region. Supporters of a West African origin point to the greater diversity of okra in that region.

The Egyptians and Moors of the 12th and 13th centuries used the Arabic word for the plant, *bamya*, suggesting it had come from the east. The plant may have entered southwest Asia across the Red Sea or the Bab-el-Mandeb strait to the Arabian Peninsula, rather than north across the Sahara, or from India. One of the earliest accounts is by a Spanish Moor who visited Egypt in 1216 and described the plant under cultivation by the locals who ate the tender, young pods with meal.^[7]

From Arabia, the plant spread around the shores of the Mediterranean Sea and eastward. The plant was introduced to the Americas by ships plying the Atlantic slave trade^[12] by 1658, when its presence was recorded in Brazil. It was further documented in Suriname in 1686. Okra may have been introduced to southeastern North America from Africa in the early 18th century. By 1748, it was being grown as far north as Philadelphia. Thomas Jefferson noted it was well established in Virginia by 1781. It was commonplace throughout the southern United States by 1800, and the first mention of different cultivars was in 1806.^[7]

4 As food

The products of the plant are mucilaginous, resulting in the characteristic “goo” or slime when the seed pods are cooked; the mucilage contains a usable form of soluble fiber. Some people cook okra this way, others prefer to minimize the sliminess; keeping the pods intact, and brief cooking, for example stir-frying, help to achieve this. Cooking with acidic ingredients such as a few drops of lemon juice, tomatoes, or vinegar may also help. Alternatively, the pods can be sliced thinly and cooked for



Stir fried okra



Okra pickles

a long time so the mucilage dissolves, as in gumbo. The immature pods may be pickled.

Okra leaves may be cooked in a similar way to the greens of beets or dandelions.^[13] Since the entire plant is edible, the leaves are also eaten raw in salads. Okra seeds may be roasted and ground to form a caffeine-free substitute for coffee.^[7] When importation of coffee was disrupted by the American Civil War in 1861, the *Austin State Gazette* said, “An acre of okra will produce seed enough to furnish



Sushi with okra slices



Dried okra fruits in market in Bosnia and Herzegovina

a plantation of fifty negroes with coffee in every way equal to that imported from Rio.”^[14]

Okra is a popular health food due to its high fiber, vitamin C, and folate content. Okra is also known for being high in antioxidants. Okra is also a good source of calcium

and potassium.^[15]

4.1 Regional preparations

Okra is considered a delicacy in the American Deep South, particularly when breaded with corn meal and deep fried. Several cafe and nationwide restaurant chains serve deep fried okra, typically with a side order of a sauce such as buttermilk (or ranch) dressing.

In Syria, Tunisia, Egypt, Albania, Bosnia, Greece, Bulgaria, Republic of Macedonia, Iran, Iraq, Sudan, Jordan, Lebanon, Turkey, and Yemen,^[16] and other parts of the eastern Mediterranean, including Palestine, Cyprus and Israel, okra is widely used in a thick stew made with vegetables and meat. In the Turkish cuisine, other than the stew, which can also be made using dried okra, *bamya* is also made as a cold starter or meze dish with the use of olive oil and is eaten sprinkling lemon juice over the plate. In Bosnia and most of West Asia, okra is also known as *bamia* or *bamya*. West Asian cuisine uses young okra pods, usually cooked whole. In India, the harvesting is done at a later stage, when the pods and seeds are larger.

Okra is popular in Indian and Pakistani cuisine where chopped pieces are stir-fried with spices, pickled, salted or added to gravy-based preparations such as *bhindi ghosht* and *sambar*. It is also simmered in coconut-based curries or tossed with ground mustard seeds. In India, it is also an ingredient in curries, in which it is used whole after trimming only the excess stalk and keeping the hard conical top, which is discarded at the time of eating. In South India, okra is cut into small circular pieces about 1/4 inch thick and stir-fried in oil with salt and hot pepper powder to make curry. However, when used in *sambar*, it is cut into pieces which are one inch thick to prevent it from dissolving when the *sambar* is let to simmer.

In Malaysia okra is commonly a part of *yong tau foo* cuisine, typically stuffed with processed fish paste (*surimi*) and boiled with a selection of vegetables and tofu, and served in a soup with noodles.

In Malawi it is preferred cooked and stirred with sodium bicarbonate to make it more slimy. It is then commonly eaten with *nsima* (*pap*) made from raw maize flour or maize husks flour.

In the Caribbean islands, okra is eaten in soup. In Curaçao the soup is known as *jambo* which primarily is made out of the okra's mucilage. It is often prepared with fish and *funchi*, a dish made out of cornmeal and boiling water. In Haiti, it is cooked with rice and maize, and also used as a sauce for meat. In Cuba, it is called *quimbombó*, along with a stew using okra as its primary ingredient. In the Dominican Republic okra is eaten in salad and also cooked with rice. In Trinidad and Tobago okro is used as one of the main ingredients in the thick soup-like melting-pot dish called callaloo. In Trinidad and Tobago and other West Indian territories such as Barbados it is also used as

a main ingredient in the cornmeal-based meal called cou-cou that is similar to polenta.

Okra became a popular vegetable in Japanese cuisine toward the end of the 19th century, served with soy sauce and *katsubushi* as tempura and more recently as a nigiri sushi topping.

In the Philippines, okra can be found among traditional dishes like *pinakbet*, *dinengdeng*, and *sinigang*. Because of its mild taste and ubiquity, okra can also be cooked adobo-style, or served steamed or boiled in a salad with tomatoes, onion and bagoong.

Okra forms part of several regional “signature” dishes. *Frango com quiabo* (chicken with okra) is a Brazilian dish especially famous in the region of Minas Gerais, and it is the main ingredient of *caruru*, a Bahian food with *dende* oil. Gumbo, a hearty stew whose key ingredient is okra, is found throughout the Gulf Coast of the United States and in the South Carolina Lowcountry. Deep- or shallow-fried okra coated with cornmeal, flour, etc., is widely eaten in the southern United States.^[17] Okra is also eaten in Nigeria, where draw soup is a popular dish, often eaten with *garri* or cassava. In Vietnam, okra is the important ingredient in the dish *canh chua*. Okra slices can also be added to *ratatouille*.

4.2 Okra seed oil

Greenish-yellow edible okra oil is pressed from okra seeds; it has a pleasant taste and odor, and is high in unsaturated fats such as oleic acid and linoleic acid.^[18] The oil content of some varieties of the seed can be quite high, about 40%. Oil yields from okra crops are also high. At 794 kg/ha, the yield was exceeded only by that of sunflower oil in one trial.^[19] A 1920 study found that a sample contained 15% oil.^[20] A 2009 study found okra oil suitable for use as a biofuel.^[21]

5 Fibre

Bast fibre from the stem of the plant has industrial uses.^[22]

6 See also

- *Abelmoschus caillei* (West African okra)
- Luffa, also called “Chinese okra”
- Mulukhiyah, also called “bush okra”
- Okra soup

7 References

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8 External links

- *Abelmoschus esculentus* at ITIS
- *Abelmoschus esculentus* (L.) Moench Medicinal Plant Images Database (School of Chinese Medicine, Hong Kong Baptist University) (traditional Chinese) (English)
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