

# SMOOTH LUFFA

Sponge Gourd, Dishcloth Gourd, Vine Okra

*Luffa aegyptiaca*

Cucurbitaceae

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## ECHO® PLANT INFORMATION SHEET

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### Description

Smooth Luffa or Sponge Gourd and its sister species, Angled Luffa, originated in India. Both species now are distributed widely in the tropics. It is a 30-60 cm (1-2 ft) long, cylindrical, smooth skinned gourd. The interior contains white flesh as well as a fibrous structure that is dried and used as a sponge

### Uses

Although the fruit of both species may be eaten raw or as a cooked vegetable, Smooth Luffa is grown chiefly for commercial sponge production whereas Angled Luffa is preferred for vegetable production. Cleaned sponges may be bleached in dilute household bleach or hydrogen peroxide (to whiten them) and then dried in the sun. Smooth Luffa sponges are used commonly as bath sponges or as household cleaning sponges. Other reported uses include as cushions in sandals and saddles, and as doormats. Younger sponges are sources of the softer bath sponges; older fruits yield more abrasive coarser sponges more useful for scouring utensils or household cleaning.

### Common Names

- Hindi
  - बुधल

### Cultivation

- Light: full-sun
- Temperature: frost sensitive
- Soil: well-drained, sandy loams Luffas may be planted year round in the tropics but best growth is obtained by planting at the beginning of the rainy season.

Planting and growing Luffa species is similar to that for other gourd species. Make the soil loose and pile it up in ridges or mounds 1.5 m (5 ft) apart for planting. Planting along a fence provides support for the trailing vines, keeping the fruits free from direct contact with the soil and retarding fruit rot. Fences or trellis supports for Smooth Luffas need to be sturdy to support the weight of the fruits. Vines can be allowed to trail over the ground in the dry tropics but trellis supports are essential for Smooth Luffa growth in the wet tropics.

### Harvesting and Seed Production

For eating, the young fruits (15-20 cm/6-8 in) are harvested while still tender and relatively free from the inner fibrous skeleton. Immature fruits are very delicate and must be handled with care to avoid bruising them. Pack them in small baskets for transport. Whole fruit storage is limited to a few days to possibly 2 weeks at room temperatures. Avoid sunlight exposure to stored fruit. To prepare the Smooth Luffas to use as sponges, soak the mature (4-5 months after planting) green Smooth Luffa fruits in water for several days; wash away the disintegrating pulp and seeds to expose the fibrous sponge-like skeleton. If Smooth Luffas are allowed to dry to brown on the vine, the soaking is needed only to soften the skin, which can be peeled away easily.

### Pests and Diseases

Fruit rot diseases may attack Smooth Luffa. Well ventilated trellised vines are less susceptible to fruit rots than those on the ground. Cucumber mosaic virus and a mycoplasma that produces witches' broom disease may infect Smooth Luffa leaves. Burn diseased vine remains to help control disease spread. Crop rotation with non gourd species is also an advised disease control measure. Reported Smooth Luffa plant pests are: root nematodes, squash bugs, cucumber beetles, the red pumpkin beetle, and Dacus fruit flies.

### Cooking and Nutrition

Smooth Luffa fruit may be eaten raw; sliced like cucumber, in salads. Slices also may be pickled or dried for later use in soups, stews or curries. Mostly, the fruits are eaten as a cooked vegetable or combined with meats or curries. Older fruits and some varieties of the Smooth Luffa contain purgative substances in the fruits and are bitter tasting. Use other non bitter Smooth Luffa varieties for eating or select the Angled Luffa species if the principal luffa use is food. Smooth Luffa seeds can be used as an oil source or to make a vegetable curd similar to soybean tofu. Seeds also may be roasted with salt as a food delicacy. The seeds must be from a variety lacking seed bitterness or they may contain poisonous substances. Non bitter seeds and their products are considered safe to eat. Stem tops, young leaves, flower buds, and flowers can be steamed and served over rice.