

# BITTER GOURD

African Cucumber, Bitter Melon, Karalla, Balsam Pear, Alligator Pear

*Momordica charantia*

Cucurbitaceae

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## ECHO® PLANT INFORMATION SHEET

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### Description

*Momordica* comprises about 40 species, the majority of which are African. The fruits of several wild species are consumed as a vegetable, whereas several others are used in traditional medicine. Bitter gourd is one of the most popular vegetables in Southeast Asia and China. It was first found growing in India.

### Uses

The immature gourds and tender vine tips are consumed as a cooked vegetable. Edible leaves and shoots. Chop green fruit and stirfry with eggs, or stuff with meat and boil. The medicinal benefits of the gourd are being studied as a treatment for infectious diseases and diabetes.

### Common Names

### Cultivation

- Elevation: 0-1700 m (5,500 ft)
- Rainfall: If cultivated in too wet conditions, bacterial and fungal wilt and fruit cracking can become major problems, resulting in a lower percentage of high-quality fruits and a shortened shelf life of the fruits.
- Temperature: daytime temps between 24-27° C (75-80° F) ideal
- Soil: deep well-drained sandy loam or silt loam soils with a high organic matter content and water-retaining capacity

In the tropics, bitter gourd can be planted year round, although irrigation may be needed during the dry season. The crop is reportedly day neutral.

Many farmers grow the crop in the cool and dry season, which may give good results. Still, bitter gourd is not easy to grow. Many farmers use mulch to keep soil moisture conditions balanced. It demonstrates day-neutral characteristics. Like other cucurbits, this one must grow in a frost-free area such as tropical lowlands.

Seeds soaked in water will germinate sooner. Since this is a very fast growing vine, producing many fruits that will rot on moist soil, trellising will reduce diseases and make harvesting easier. When the vine reaches the top of its trellis, it is recommended that all lateral branches from the soil up to the 10th node as well as the growing tip of the vine be cut off as this will stimulate the upper branches and produce a higher yield.

### Harvesting and Seed Production

Vines bloom over a six month period providing there are enough sunny days to allow honeybees to visit the flowers and pollinate them. The developing fruits must be watched closely or they grow too large and become bitter. Eight to ten days after blossom drop, when the fruits are 10-15 cm (4-6 in) long, light green in color and pear shaped, the gourds should be harvested. Some vines should be left in the field to produce gourds for seed. Seeds continue to mature inside the gourd even after harvest. Seed that is washed, sorted and stored in a cool, dry spot, will remain viable for 2-3 years.

### Pests and Diseases

Like other cucurbits, Bitter Gourd vines are susceptible to several diseases like downy mildew, mosaic virus, wilt, fungi and pests like root-knot nematode. It is best to plant resistant varieties, mulch to prevent weed competition and use pesticides that are not toxic to honeybees. It is a host of papaya ring spot virus

### Cooking and Nutrition

Bitter Gourds do not store over two weeks even with ideal conditions of 12-13° C (53-55° F) and high humidity. The fruits are high in folate and vitamin C and the leaves are rich in vitamin A and calcium. They are very versatile in cooking as they can be boiled, fried, curried, pickled or baked. To remove bitterness, soak the chunks in salt water for several hours.