



PLANT FACT SHEET

Momordica charantia L.

GENUS *Momordica* FAMILY Cucurbitaceae

COMMON NAMES Bitter cucumber

EDIBLE PARTS AND USES

Edible parts: Fruit, Leaves, Seeds - spice, Flowers, Vegetable

The young bitter fruit are cooked and eaten. They are boiled, stuffed, fried or pickled. They are used in soups, stews and stir-fried dishes.

The seed mass of the ripe fruit is used as a food flavouring.

The leaves are also cooked and eaten as a flavouring.

The tender shoots and leaves are sometimes eaten.

CAUTION The leaves are considered to cause diarrhoea and vomiting.

DESCRIPTION

A pumpkin family plant. It is a slender annual climber with flowers of both sexes on the one plant. It has simple tendrils and vines can be 4 m long. It has bright green lobed leaves. The leaves are 5 to 12 cm long on thin leaf stalks 3-10 cm long. The flowers have 5 petals, are small, yellow and with a sweet smell. Fruit are green when young and orange when ripe. The fruit have a lumpy appearance, with ridges along its length and when fully ripe burst open. It has bright red covering on the seeds inside. The seeds are 10-16 mm long and 7 to 10 mm wide and pale brown. Considerable variation in the fruit occurs between varieties.

HABITAT

A tropical plant. It grows from sea level up to about 500 m and will probably grow to 1000 m altitude in tropical regions. They require a well drained soil preferably rich in organic matter. Seeds do not germinate below 15°C. Plants grow best with temperatures between 18°C and 35°C. In Nepal it grows to about 2100 m altitude. In Argentina it grows from sea level to 1,000 m above sea level. A soil pH of 6.5 is best. It suits hardiness zones 9-12. In Yunnan.

PRODUCTION

Cultivation

Plants are grown from seed. For large scale plantings, 6-7 kg of seed are required for planting one hectare. Seeds are planted at 50 cm spacing in the place where the plants are to grow and need a stick to climb up. The seeds are put at 2 cm depth. Often plants are grown on raised beds 2 m apart with 0.5 m between plants. The seed has a hard seed coat and germinates slowly. Soaking seeds for 24 hours before sowing gives a quicker more even germination. Regular watering is required.

Harvesting and Seed Production

Fruit are ready to harvest 45-55 days after planting. Fruit should be harvested when young and tender. Once fruit have begun to change colour to yellow they are past maturity for eating. Early removal of young fruit also ensures continuous fruit setting. This can allow 6-8 successive pickings of fruit. Fruit on the plant are sometimes wrapped in paper to prevent fruit fly damage. Seed well stored can remain viable for 4-5 years. The young bitter fruit are cooked and eaten. The fruit is blanched or soaked in salt water to reduce the bitter taste.

NOTES

The plant is being shown to have medicinal properties against virus type diseases, including HIV and Influenza. It has anticancer properties. There are about 50 *Momordica* species. Chemical composition (Chinese sample): Protein = 0.91%. Fat = 0.23%. Carbohydrate = 3.29%. Ash = 0.56%. Reported rich in Vitamins B1, B2, and C, with some Vitamin A present. It contains quinine which helps with malaria control.

It has 14.8 mg per 100 g dry weight and 6.1 mg fresh weight of alpha-tocopherol (Vitamin E).

PICTURES



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)

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