Saunasa HORZON

HORIZON - MARCH 2010

Common names: bitter melon, bitter gourd, pawikkai (Tamil) goya (Japan), Karella (Hindi)

Botanical name: Momordica charantia Family: Cucurbitaceae

One of the popular vegetable and medicinal plant known as Karavila in Sri Lanka has been cultivated in Asia and Africa for a long period of time. It is widely grown in India and other parts of Indian subcontinent, China, Africa and Caribbean. This tropical vine is a tender perennial. The fruit is edible when harvested green and cooked. The taste is bitter. Bitter melon



has twice the potassium of bananas and also rich in vitamin A and C. It has long been utilized within the Ayurvedic and Unani medicine systems.

Botanical features

Karavila grows well in

hot and humid climates. It has the ability to grow in Victorian conditions over spring to summer. The plant is very sensitive to frost.

The plant is much branched climbing annual, the stem is angled and grooved and the young tender parts densely hairy. The herbaceous, tendril bearing vine can grow up to 5 m. It bears simple, alternate leaves 4-12 cm across, with 3-7 deeply separated lobes. Each plant bears sepa-

Prate male and female flowers. The flowers are lemon yellow. The fruit itself, which is the vegetable, varies from pale greenish yellow to deep green depending on the variety. The skin of the fruit is ribbed with numerous triangular tubercles giving it the appearance of crocodile skin. The unripe fruit contains a series of cream or greenish seeds. The seeds turn a bright vermillion colour when ripe.

There are two varieties of this vegetable. One grows to about 20 cm long, is oblong and pale green in colour. The other is the smaller variety, less than 10 cm long, oval and has darker green colour. Both varieties have seeds that are white when unripe and that turn red when they are ripe. The vegetable fruit turn reddish orange when ripe and becomes even

100 grams of karavila comprises of the following nutrients:

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| Calcium | 19 mg |
| Copper | 0.034 mg |
| Dietary Fibre | 3 g |
| Folate | 72 mcg |
| Iron | 0.43 mg |
| Magnesium | 17 mg |
| Manganese | 0.089 mg |
| Pantothenic Acid | 0.212 mcg |
| Phosphorus | 31 mg |
| Potassium | 296 mg |
| Protein | 1 g |
| Sodium | 5 mg |
| Zinc | 0.8 mg |
| Total Carbohydrates 4 g | |
| Total Fat | 0 |
| Cholesterol | 0 |
| Sugars | 0 |
| | |

more bitter.

In southern part of Sri Lanka another member of the same species is seasonally available and is known as "Thumba Karavila". Some regard this species as native to Sri Lanka, though it bears a close resemblance to the variety identified in Kerala, India.

Karavila contains a bitter compound called momordicin that is said to have a stomachic effect.

Nutritional Benefits

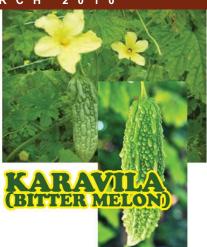
There are a number of chemical constituents isolated from the fruits.

Karavila is very low in calories but dense with precious nutrients. It is an excellent source of vitamins A, C, magnesium, folic acid, Zinc, phosphorus, manganese and has high dietary fiber. It is rich in iron, contains twice the beta carotene than broccoli, twice the Calcium than spinach and twice the potassium than banana. Karavila contains a unique phyto constituent that has been confirmed to have a hypoglycaemic effect called

charantin. There is also another insulin like compound known as polypeptide P which have been suggested as insulin replacement in some diabetic patients.

Culinary uses of karavila

In Sri Lankan cuisine karavila is utilized in several ways. The bitterness is



removed by repeated washing in salt water and cooking with the pre ripe local variety of tomato. Cooking is generally in the form of a curry with the usual ingredients that are used to cook any vegetable curry. Other method frequently done in local households is the fruit is cut, rid of the seeds and sliced thin. It is then either deep fried or sun dried, and consumed as a salad with lime juice and plenty of red onions sliced into it.

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