

### Sautéed mixed vegetables with coconut milk

(Source: Mga Lutuing Katutubong Gulay)



#### Ingredients

- 4 cloves garlic, crushed
- 2 medium onions, sliced
- 2 medium bitter gourd, sliced into strips
- 3 medium tomatoes, sliced
- 1/4 kg yardlong bean, sliced
- 1 cup "dilis" (salted and dried anchovies)
- 1/4 kg pumpkin, cut into cubes
- 4 medium eggplants, cut into round shapes
- 1 tsp salt
- 1 small bag of seasoning mix
- 10 pieces of amaranth tops
- 2 pieces of coconut, grated
- Cooking oil

#### Procedure

- Fry garlic, onion and tomatoes.
- Add anchovies
- Next, add yardlong bean, pumpkin, bitter gourd and eggplant
- Add grated coconut
- Add salt and seasoning mix
- Let it boil
- When it is almost done, add the amaranth tops.
- Serve it hot.

### Other ways of food preparation

- Immature fruits, leaves, young shoots eaten, boiled, pickled, used in soups and curries.
- Immature fruits can be stuffed, curried, steamed, pickled, and added as ingredients for stir-fries, stews, and soups.
- The fruits can also be fried with eggs, and mixed with noodles.
- Fruits can also be canned or dried.
- In the Philippines, the leaves are added to soup dishes as a vegetable.
- Fruits, young shoots and flowers are used as a flavoring.
- The pulpy arils are used as a sweet.
- There are a number of ways to minimize the bitter flavor of the fruits. Discard the white core and the seeds before cooking, or blanch in boiling water for 2-3 minutes or soak the fruits in salt water. Another way to offset bitterness is to cook the fruits with garlic or chilli peppers.

# Know Your IVs



# Bitter gourd



## Introduction

Bitter gourd or *Momordica charantia* gets its name from the Latin word "*momordica*", which means "to bite", referring to the grooved edges of its seed which looks as if it has been chewed. It is a member of the gourd family (e.g., squash, cucumbers). Actually, bitter gourd looks somewhat like a cucumber with lots of warts. Despite its rather unflattering appearance and bitter flavor, it is one of the most nutritious gourds. Moreover, it is one of the most versatile vegetables that have multiple and integral uses. In Southeast Asia, bitter gourd is mostly grown for the local market.

## Local Name

English — *bitter gourd, bitter cucumber, balsam pear*

Bangladesh — *ucche, karala, korola*

Cambodia — *mreah*

Indonesia — *paria, pare*

Laos — *haix, s'aix*

Malaysia — *peria, peria laut, periok*

Philippines — *amargoso, ampalaya, paria, palia*

Thailand — *mara, phakha, maha, ma-ra-kee-nok*

Vietnam — *m[uw] [ows]p d[aws]ng, kh[oor] qua*

## Biodiversity

Bitter gourd originated in the Old World, and was first domesticated in eastern India and southern China. It is believed that the slave trade brought bitter gourd from Africa to Brazil, and that seed dispersal by birds is responsible for its spread within continents. Wild and cultivated forms are now widespread throughout the tropics.

Fruits vary in shape from 3-11 cm long and 2-4 cm wide; spiny and warty or almost smooth, pale yellow green to very dark green color. Bitterness is attributed to non-toxic alkaloid momordicine.

- Bitter gourd is a herbaceous climbing annual with ridged stems that can reach up to 5 m long.
- It has lobed leaves with 1-7 cm long petioles.
- It has small, yellow flowers, about 3 cm in diameter.
- Fruits contain numerous flat, oval-shaped, fibrous, brown seeds.
- Fruits are said to have a bitter flavor.



## Nutritional value

Bitter gourd leaves are a good source of calcium, iron, phosphorus, and vitamin B.

Nutrition Value (per 100 g edible portion of fruit)	
Water	83-92 g
Protein	1.5-2 g
Fat	0.2-1 g
Carbohydrate	4-10.5 g
Fiber	0.8-1.7 g
Ca	20-23 mg
P	38-70 mg
Fe	1.8-2 mg
Vitamin C	88-96 mg
Energy value	105-250 kJ/100 g
Antioxidant of fruit (by ABTSM) water	19 µm/g (Very Low)
Antioxidant of shoot (by ABTSM) water	73 µm/g (Medium)

Fruits contain polypeptide-P, vegetable insulin or charantin, which lowers blood sugar levels. The fruits and leaves contain guanylate cyclase inhibitor which impair chemical carcinogen induced increases in guanylate cyclase activity. Eleostearic acid is the dominant fatty acid in the oil of acids.

## Utilization

- Aside from its use as food, bitter gourd is sometimes used as an ornamental plant.
- In traditional medicine, ripe fruits are used to cure diabetes.
- The fruits are said to have anti-cancer properties, particularly against leukemia.
- Bitter gourd is also said to be an effective cure for blood boils, scabies, itching, psoriasis, ringworm, and other fungal infections.
- It is also known to delay the onset of cataracts.
- Plant juices are used for the treatment of skin disorders, arthritis, rheumatism, asthma, cholera, diarrhea, and alcohol dependency.
- Plant parts are used to expel parasitic intestinal worms.
- Seed extracts are used to induce abortion.
- Roots are used as folk medicine for respiratory problems.

## Cultivation

- Suggested spacing: 30-50 cm between hills in rows 2-3 cm apart.
- Use trellises for the vines to climb on.

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