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## Clove bean (A Underutilized vegetable of Tamil Nadu)

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One of the most significant underutilized crops is the clove bean (*Ipomoea muricata* (L.) Jacq.), which is grown primarily for its fruits and thicker pedicel. In Tamil Nadu, a vegetable by the name of Mookuthi avarai is highly popular. This vegetable is very easy to grow and is not season-specific, so it may be grown all year. It is used to make Delicious Fries, Oran (Upperi), and other foods. This plant's resistance to insect and pest attacks is another advantage. The plant is simple to grow and requires very little effort.



### Nutritional values of clove bean

It is fortified with fibre, calcium, potassium, vitamin C, and other nutrients

Source	mg/ 100g
Protein	1.00-1.50 g/ 100g
Phosphorus	120-150 mg/ 100g
Iron	0.13-0.19 mg/ 100g
Calcium	200-220 mg/ 100g
Ascorbic acid	30- 40 mg/ 100g
Crude fiber	0.67-3.33%

### **Nutritional properties**

The seeds, stems, and leaves are claimed to be effective in healing a variety of skin conditions, including hazardous wounds, cuts, and blisters brought on by burns. E seeds were discovered to possess analgesic and antibacterial qualities. The seeds include the indolizidine alkaloids ipalbine, ipalbidine, ipalbinium, and ipomine. Additionally, antifungal and antimicrobial substances were found.

### **Botany**

Clove bean is an annual vine that climbs trellises to heights of several meters. Because of the numerous tiny speculum protuberances sprouting from the epidermis, stems are herbaceous and rough.



### **Leaves**

The base is cordate, the lobes are rounded, the apex tapers into a short caudex, and the leaves are straightforward, smooth, whole, and simple. The petioles can be up to 10 cm long, and the light green, palmately netted-veined blades are 4–9 cm broad and 6–10 cm long.

### **Inflorescence**

Axillary, one to few- flowered inflorescence. Each one to few is flawless and supported by a peduncle that is not quite as long as the petiole. Actinomorphic, pink-purple, campanulate, and funnel-shaped describe the nighttime corolla.

### **Fruit**

Fruit is a valve-dehiscent capsule with a thin wall. 0.8–1.5 cm in diameter, ovoid. Fruits range in size from (2–3) cm in length, 5–6 cm in girth, and 2-3 g in weight. Each capsule contains two to four glabrous, black-colored seeds.

### **Propagation**

Mookuthi avarai is grown from seeds. The seeds are planted at a distance of 1.0 m by 0.6 m, at a rate of 6-7 kg per hectare.



### **Fertilisers & Manures:**

FYM is administered at 10 t/ha. 35:50:25 kg/ha N: P<sub>2</sub>O<sub>5</sub>: K<sub>2</sub>O guideline is made for the crop.

### **Aftercare:**

The crop may be produced in rainfed conditions in rainy seasons with very little irrigation needed since it uses so little water. Bamboo sticks, trellises, or fences can be utilized to provide the crop with the support it needs as it grows.

### **Harvesting and yield:**

The pedicel and fragile fruits are picked 60 to 70 days after planting. A plant's yield might vary from 2.5 to 4.5 kg. Five to six tonnes are typically produced per acre. Crop duration is between 150 and 170 days.