

# JICAMA

Yam Bean

*Pachyrhizus erosus*

Fabaceae

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## ECHO® PLANT INFORMATION SHEET

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### Description

Jicama, or the Yam Bean, is native from Mexico to northern South America and has been cultivated since the time of the Aztecs. It is widely grown throughout these regions and in areas of the Philippines and south China.

### Uses

The tuber is edible and is mainly a starch/carbohydrate source, relatively low in calories. The young seed pods are sometimes cooked and eaten as a vegetable. The leaves and beans contain rotenone, a natural insecticide.

### Common Names

- Malay
  - bengkuang
  - kacang sengkang

### Cultivation

- Rainfall: moderate
- Temperature: frost sensitive; 5-9 months of warm weather are required before large roots are produced.
- Soil: moderate, well-drained Jicama plants grow well in hot, humid environments with a long, warm, frost-free growing season.

Yam beans usually are propagated from seeds. Jicama prefers to be in well-drained soil and prefers full sun. This site choice helps prevent the tuberous roots from becoming restricted in growth and discourages fungal rot. Optimum pH is 4.8 - 7.3.

Yam bean does well when planted at the beginning of the rainy season. It requires short days for tuber production.

Plant seeds 2.5 cm (1 in) deep. Germination should occur within 6-12 days. The seeds or sprouted roots normally are planted at the beginning of the rains in well-prepared, ridged beds. Sometimes large, healthy sprouted roots are saved from a previous crop and planted. Planting roots should be done every four years to maintain desirable characteristics in the plants. Plants should be spaced 15-30 cm (6-12 in) apart in rows 60-100 cm (2-3 ft) apart; use lower densities for hill planting and intercropping. Jicama is a vining bean; staked or trellised plants will be more productive than those that are unsupported.

### Harvesting and Seed Production

Depending on growth conditions, it will take 4-8 months to produce a market-sized root. The best roots are approximately 10-15 cm (4-6 in) in diameter and weigh 2-3 kg (4.5-6.5 lb); overly large tubers tend to be fibrous and starchy. The preferred root shape is a flattened sphere, similar to a turnip. Roots are harvested by hand digging or plowing. Harvesting tubers should be done with care as the skin of the tubers is thin and can be damaged easily. The tubers gradually lose their sweet taste after harvesting, so it is recommended that they be eaten soon after harvesting, and, weather permitting, leave the rest in the ground. The tubers will keep for a month or more if not damaged during harvest. Seeds are somewhat flattened, mostly rounded, and 5-10 mm (1/4 in) wide; unlike other *Pachyrhizus* species, they are never kidney shaped. Under normal conditions, it takes 10 months to produce mature seed. For seed production, allow pods to dry on the plant, then thresh pods as you would any other bean.

### Pests and Diseases

Due to the presence of rotenone in the leaves, most insects will not bother this plant, though ECHO has had some problems with caterpillars.

### References

<http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=1582>

<http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=280568&isprofile=0&letter=P>