Scientific name – *Lagenaria siceraria*

English common name – Bottle gourd and calabash gourd. Do not confuse with true calabash (*Crescentia cujete*).

Asian common names –
- Thai: น้ำเต้า nam tao
- Japanese: ゆうがお yuugao
- Vietnamese: 葫芦瓜 hu lu gua
- Hindi: lauki (लौकी / લૌકી), dudhi (दूदी / દૂદી) or ghiya (घीया / ઘીયા)
- Khmer: ឈីម khlôôk
- Lao : namz taux
- Chinese: 葫芦瓜 hu lu gua

Varieties –
- **Om Koi**: Edible fruit up to 60 cm (24 in.) long.
- **Burmese**: Produces very large fruit up to 50 cm (20 in.) long.
- **ECHO**: Light green fruit; 15 cm (6 in.) long. Mature fruits can be made into bottles or bird houses when dry.

General description and special characteristics – A vining annual that grows up to 9m (30 ft) in length, it is grown throughout Asia for its edible shoots, leaves and fruit. The mature fruit dries to produce a gourd with a hard woody shell that can be used as water bottles, ladles and cups. The fruit can be 7.5-15.2 cm (3-6 in) long and varies in shape, from oval to bottle-shaped.

Crop uses (culinary) – Bottle gourd fruit is eaten when very young throughout Asia, in the same way as pumpkin, and is often used in curries. The young shoots and leaves are also eaten as vegetables. The seeds, containing 45 percent oil, can be pressed for cooking oil.

Other uses – Oil extracted from the bottle gourd seed can be used in hair products. The dried gourd has also been cultivated for centuries for use as water containers and in a variety of other ways including cups, utensils, pipes, musical instruments and as a floatation aids for fishing nets. For such use, the fruits are harvested when dry with the necks cut open to remove flesh inside. Remaining flesh is allowed to decay and then emptied out. The prepared gourd is treated with ashes and hung over the smoke of fires for further curing.

Seasons of production – Bottle gourd can be planted year round, although rainy and cold seasons are best for growth. If irrigation or sufficient access to water is available, bottle gourd can also be grown in the hot season. Optimal daytime temperature for cultivation is from 30 to 35°C (86-95°F). Beyond this temperature range, the proportion of male flowers increases at the expense of fruit production.

Length of production and harvest period – Bottle gourd fruits will appear within three months after planting, and can generally be harvested 55 to 75 days after sowing.

Production methods – Seeds should be sown at the foot of a strong trellis if they are allowed to climb, otherwise they can sprawl on the ground. Plant two or three seeds 1.82 m (6 ft) apart between hills and rows. Once established, the vines grow very fast in hot weather. Only one or two fruits should be allowed to grow to maturity on each plant unless the young fruits are harvested for consumption, then there is no need to thin immature fruits.
Pollination – Prone to cross pollination, gourd flowers are naturally pollinated by insects, mainly bees, in early morning and at twilight. The male flowers open in the evening, are slightly fragrant by nightfall and continue to grow during the night; they may remain open until midday. The female flower has a long stalk and an ovary covered in hairs. Hand pollination should be performed in the morning.

Environmental conditions for production – Generally suited to semi-dry areas but found throughout sub-tropical and tropical environments.

Soil requirements – Bottle gourd grows best in well-drained, loose soil with a good layer of compost. Extreme acidity, alkalinity, and salinity are all undesirable.

Pests and diseases – Slugs and snails can be a problem when the plants are young, although the fuzzy leaves repel many other kinds of pests. Hand removal of the pests may be required. Powdery mildew can also be a problem in hot, humid conditions.

Seed saving – Seeds are corky and light brown with a bisection down the middle. Once harvested, the fully mature fruit can be stored for a long time until the insides become mushy, at which point the seeds can then be extracted from the pulp and dried.

References –


