

Cultivation Aspects and Goodness of Ivy Gourd

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Ivy gourd or little gourd, well known as Kundru (*Coccinia grandis* syn. *Coccinia indica*), is a tropical vine belonging to the Cucurbitaceae family and is cultivated throughout India. It is grown mainly for its immature fruits, which are cooked as a vegetable, especially in southern, eastern, and western India. In India, it is commercially cultivated in Chhattisgarh. Ivy gourd is a herbaceous, semi-perennial, and dioecious creeper. The plants grow vigorously, having long stems and tuberous roots. The flowers are unisexual, axillary, and white in colour. The fruits are usually ovoid, elliptical, or cylindrical in shape.

A 100 g edible portion of the fruit contains:

1. 1.2 g protein
2. 0.1g fat
3. 3.1 g carbohydrate
4. 0.07 mg Vitamin B₁
5. 0.08 mg Vitamin B₂
6. 0.7 mg niacin
7. 15 mg Vitamin C
8. 1.4 mg iron
9. 30 mg phosphate

Young shoots are a good source of β -carotene and protein and are more nutritious than the fruits.

[Fact : Eating 50 g of ivy gourd a day keeps the blood sugar level in balance]



Cultivation Aspects of Ivy Gourd

Ivy gourd generally requires a humid and warm climate. It becomes dormant during winter, while abundant flowering and fruiting occur during summer. It can be grown up to 2,000 metres above mean sea level. Well drained sandy loam soil rich in organic matter is best suited for its cultivation.

Ivy gourd is propagated through vine cuttings and tuberous roots. Vine cuttings measuring 1.0–1.5 cm in thickness and 25–30 cm in length, with 3–4 nodes, are commonly used for propagation.

Since the crop produces vigorous growth, it requires a bower system for training the vines. The plants can also be trained on bamboo poles with G.I. wires. About 3,500 cuttings are needed to establish one hectare of crop at a spacing of 3 m × 3 m.

Regular annual pruning keeps ivy gourd productive and highly profitable. Pruning encourages new vegetative growth and increases fruit yield.

Effective Nutrient management for ivy gourd requires a balanced mix of organic manure and chemical fertilizers, specifically applying 6 to 8 tonnes of farm yard manure along with 80 to 100 kg Nitrogen, 50 to 60 kg of phosphorous, 40 to 50 kg potassium per hectare.

Ivy gourd requires irrigation at an interval of 15–20 days during winter and 7–10 days during summer. Drip irrigation is the most suitable method for obtaining higher yields. In areas with heavy rainfall, the crop is grown on ridges to prevent excess water from accumulating in the root zone.

[Fact: Ivy gourd can tolerate water stress but cannot withstand waterlogging.]

Harvesting begins 55–60 days after planting or pruning. Tender, fully grown, immature green fruits are harvested 7–10 days after fruit set. Picking should be done at intervals of 3–4 days. Delayed harvesting should be avoided because the seeds turn pink and the fruits fetch a lower market price.



Harvesting continues for about **9–10 months**. Initially, ivy gourd produces an average yield of 10–15 tonnes per hectare in the first year, which gradually increases to **30–40 t/ha**. After 4–5 years, the yield starts declining, and the crop requires severe pruning to maintain profitability. Under intensive crop management, yields of **100–120 t/ha** can be achieved.



Postharvest processing of Ivy gourd

From a post-harvest perspective, drying is one of the most commonly adopted processing methods for ivy gourd. Dried ivy gourd is becoming increasingly popular because of its longer shelf life and better nutrient retention.

[Fact: Dried ivy gourd can be consumed as a healthy snack and adds valuable micronutrients to the daily diet.]

Ivy gourd can be dried using either **a solar dryer or the open sun drying method**. The processing steps include:

Washing the fruits

Slicing them into 2 mm thick pieces

Blanching with salt and turmeric

Dehydrating at 60°C for 6 hours

This process helps retain important nutrients such as β -carotene and vitamin C, while producing a shelf-stable product that can be stored for up to 6 months.

After dehydration, the dried slices are packed in airtight pouches or containers. Low-Density Polyethylene (LDPE) pouches are commonly used to maximize shelf life (up to 6 months) and prevent the reabsorption of moisture from the surrounding environment.

Conclusion

Being an underutilized vegetable crop, ivy gourd has not gained much popularity among the general public. However, because of its excellent nutritional benefits and medicinal value, it is now gradually gaining recognition among the growing population. The many health benefits of ivy gourd can help create greater public awareness and encourage its regular consumption. There is a clear need to focus more on increasing ivy gourd production. Further research should be carried out, and appropriate measures should be taken to promote this underutilized vegetable as a regular part of the daily diet. Including ivy gourd in everyday meals can contribute to a healthier lifestyle while also encouraging the cultivation and utilization of this valuable vegetable crop.

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