

BHUMI AMLA



PLANT PROFILE

- Family** : Euphorbiaceae
English name : Country gooseberry
Indian name : **Bhuamlaki, Bahupatri** (Sanskrit)
Jangliamli, Hazardana, Jaramala (Hindi)
Keela nelli (Tamil)
Nela usirika (Telugu)
Nela Nelli, Kiranelli (Kannada)
Bhonya amla, Anmali (Gujarathi)
Bhuivali (Marathi)
Bhuiamla (Bengali)
Kizaneli (Malayalam)
- Species** : *Phyllanthus amarus* Schum & Thonn (*P. niruri* auct. Non L.)
P. fraternus Webster
- Distribution** : America, China, Phillippines, Cuba,
Nigeria, Guam, West Africa

It is a wonder herb found growing as a weed of rainy season in India. The plant is found to grow sufficiently in many parts of country like Punjab, Uttar Pradesh, Tamil Nadu, Maharashtra and Sikkim as a weed.



MEDICINAL PROPERTIES AND USES

- The main alkaloids are in the form of lignins, like **Phyllanthin** and **Hypophyllanthin**.
- In many parts of the world it is used as a folk medicine to treat liver disorders particularly due to **Hepatitis-B and Jaundice**, intestinal infection, diabetes etc.
- In traditional system of medicine, it is one of the essential ingredients of many formulations used in the recovery of bronchitis, leprosy, asthma and hiccough.
- In Unani system the fruit is useful for wounds, scabies and ring worm.
- An infusion of root is a good tonic.

PRODUCTION TECHNOLOGY

Soil

- It is found to grow well on a wide range of soil varying from clay to loamy soils in different parts of the country.
- pH ranging from 5.5 to 8.0.
- Grows satisfactorily in well drained calcareous soils also

Climate

- It is a circumtropical weed and survives under tropical and high rainfall conditions.
- It tolerates temporary water logging.

Varieties

A selection namely “**Navyakrit**” from CIMAP, Lucknow has been found superior to get high herbage yield and active constituents.

For variety details and availability of planting material please contact:

Director,
Central Institute of Medicinal & Aromatic Plants,
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Lucknow -226 015, U.P.
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Inputs

Sl.No.	Materials	Per acre	Per hectare
1.	Seeds (kg)	0.4	1.0
2.	Farm Yard Manure (t)	4	10
3.	Fertilizers (kg)		
	N	60	150
	P ₂ O ₅	24	60
	K ₂ O	24	60

Note: Half does of N and full does of P and K should be applied at the time of transplanting and remaining half of N at the time when plants attain a height of 40-45 cm.

CULTIVATION

Nursery preparation

- The plants are propagated by **seeds** collected by allowing plants to dry and fruits to split on paper.
- Seeds are sown in well prepared nursery beds.
- Mix the seeds with dry sand or soil to get uniform distribution as they are very tiny.
- The seeds are sown between late April to late May in order to get good germination and adequate herb yield.
- Appropriate moisture is maintained till the commencement of seed germination.

Transplanting

- 35-40 days old seedlings of 10-15 cm height are transplanted in the field at 15 x 10 cm spacing.
- A light irrigation just after transplanting ensures good establishment of seedlings.

Irrigation and Interculture

- In areas of frequent rainfall during the growing period, there is no need to impose irrigation. However, in Northern plains where there is fluctuation in rainfall, irrigation at fortnightly interval will be effective.

- Since the plant is herbaceous and tender in nature, regular hand weeding twice a month is recommended. Application of herbicides is not advisable as it affects the crop adversely by leaving residues in the crude drugs.

Plant Protection

Major insects	:	Leaf eating caterpillar and stem weevils
Major disease	:	Powdery mildew

Schedule

1. Spray the plants with 0.2% Nuvacron to control the insect pests.
2. Powdery mildew can be effectively controlled by applying the sulphur containing fungicide like Sulfex @ 0.25%.

Harvesting and Yield

- The crop is ready for **harvest after 3 months of transplanting**, when the plants are greenish and herbaceous.
- As the crop grows, there is an increase in height but the quantity of leaves is reduced because of the fall of the lower leaves. Since major active ingredients are confined to the leaves, production of maximum leaf biomass is the aim of harvesting at an appropriate time.
- Under Bangalore condition, September month has been found to be the optimum time of harvesting for high drug yield.
- The herb is shade dried for 3-4 days with constant raking with sticks. After drying the material is stored in gunny bags and kept in a cool dry place.
- The yield of herb varies very much with the spacing. By adopting a spacing of 15 x 10 cm an average yield of **2000 kg of dry herb per hectare** can be achieved. The total *Phyllanthin* content in herb may range from **0.4% to 0.5%**.



Bhumi-Amla Seeds