

# Solanum americanum Mill.

**Synonym:** *Solanum nigrum* L.

**Family :** Solanaceae

## Various names

**Common/Trade name:** Black Night Shade

**Sanskrit names:** Kakamaci, Bahuphala,  
Jaghenephala

**Hindi names:** Makoi

**Popular name/s in the southern region**

- *Andaman & Nicobar Islands:* Not reported
- *Andhra Pradesh:* Kachchipandu
- *Karnataka:* Kaakihannu
- *Kerala:* Manithakkali, Karimthakkali
- *Lakshadweep:* Manithakkali, Karimthakkali
- *Puducherry:* Manathakkali
- *Tamil Nadu:* Manathakkali
- *Telangana:* Kachchipandu



## Distribution

*Solanum americanum* is native to Eurasia, globally distributed in the tropics. Within India, it is found throughout as a weed in disturbed habitats, roadsides and gardens.

## Description

Erect annual herbs; stem glabrous or sparsely hispid. Leaves 2-5 × 1-3 cm, ovate or elliptic, base rounded, shortly decurrent on the petiole, subentire, acute to acuminate at apex, membranous; petiole to 5 cm long. Flowers small, in axillary to extra-axillary umbellate cymes. Corolla white, 3-4 mm across. Berry, 4-5 mm across, globose, purplish-black; seeds many, about 1 mm long, discoid, minutely pitted.

## Uses

The whole plant is useful for rheumatism, swellings, cough, asthma, bronchitis, wounds, ulcers, flatulence, dyspepsia, hepatomegaly, otalgia, hiccup, ophthalmopathy, vomiting, cardiopathy, leprosy, skin diseases, fever, splenomegaly, emollient, antiseptic, anti-inflammatory, expectorant, anodyne, vulnerary, digestive, laxative, diuretic, cardiotonic, depurative, diaphoretic, febrifuge, rejuvenating, sedative and tonic.

## Agro-ecological requirements

The plant comes up very well in tropical and subtropical climate up to 2000 m altitude. They can be raised on a variety of soils good in organic matter. The plant grows in different kinds of soil including dry, stony, shallow or deep soils. It usually grows in moist habitat in wastelands or as weed. It can be cultivated in tropical and sub-tropical agro-climatic regions.

## Cultivation

**Planting - stock production:** Propagation is by seeds. Seeds are collected from ripe fruits and dried under shade and stored in room condition. Seeds have long viability period. Since the seeds are small and sometimes it is difficult to separate them from the fruits and therefore, entire fruit may also be sown. However care should be taken not to sow them deep. Optimum germination temperature for seed is between 25 - 30°C. May-June is the best time for raising seedlings. Fruits/ seeds are sown in rows or in flat beds after mixing them with fine soil for better distribution. The seedlings are first raised in the nursery and transplanted to the main field 30-45 days after sowing when the plants attain 8-10 cm height.

**Field Planting:** During rainy season, planting is done on ridges while during summer in furrows, at a spacing ranging from 30-90 cm depending upon the stature and spreading habit of the plant. The transplanted seedlings should be given temporary shade for 2 - 4 days during summer.

**Manuring/ Fertilizer:** Farmyard manure/compost is applied at the time of land preparation.

**Weeding:** One or two weeding are needed to control the weeds.

**Irrigation:** The nursery beds and plantation should be irrigated periodically as and when required weekly or fortnightly. The plants are irrigated till it flowers. Irrigation is needed at 3-4 days interval during summer and on alternate days during fruiting period.

**Pests and diseases:** Shoot borers, mealy bugs, leaf webbers, root knot nematode, wilting, miners and mosaic disease are noted on the crop. Field sanitation, crop rotation and burning of crop residues are recommended.

## Harvesting & Post-harvest processing

Plants need staking to avoid lodging due to heavy bearing. The crop is usually ready for harvesting after 4-6 months depending upon the climate and soil. The plants are collected and dried in shades

## Yield

12-20 tonnes of fresh herbage per hectare.

## Economics of cultivation

Market price: *Dried herbage* - ₹ 170 per kg (as on July 2019).

## Quantitative quality standards (acceptable limits)

- *Foreign material*: Not more than 1%
- *Total ash*: 11.29 %
- *Acid-insoluble ash*: 6.2 %
- *Ethanol-soluble extractive*: 5.2 %
- *Water-soluble extractive*: 17 %

**Note:** The farmers are advised to adopt suitable cultivation practices so as to meet the quality parameters and standards of the buyers.