

ASHWAGANDHA



PLANT PROFILE

Family	: Solanaceace
English name	: Winter cherry
Indian name	: Ashwagandha, Varahakarni (Sanakrit) Askandhatilli, Asgandh, Punir (Hindi) Hiremaddinagida, Panneru, Ashwagandha Kiremallinagida (Kannada) Amukkira, Amukkiran Kizhangu (Tamil)
Species	: <i>Withania somnifera, W. congulans</i>
Distribution	: India, North Africa
Uses	: Drugs

MEDICINAL PROPERTIES AND USES

- Ashwagandha is mentioned as an important drug in ancient Ayurvedic literature.
- Several types of alkaloids are found in this plant, out of which '**Withanine**' and '**Somniferine**' are important.
- Leaves contain five unidentified alkaloids (0.09%), withanolides, glycosides, glucose and many free amino acids.

- The pharmacological activity of the roots is attributed to the alkaloids. The total alkaloid content in roots of the Indian types has been reported to vary between 0.13 and 0.31 per cent.
- The drug is mainly used in *Ayurvedic* and *Unani* preparations. Withaferine-A has been receiving good deal of attention because of its antibiotic and anti tumor activities. It is used for curing carbuncles in the indigenous system of medicine.
- The paste prepared out of its leaves is used for curing inflammation of tubercular glands and that of its roots for curing skin diseases, bronchitis and ulcers.
- In Rajasthan, roots are used for curing mainly rheumatism and dyspepsia; in Punjab they are used to relieve loin pain and in Sind for abortion. In some areas warm leaves are also used for providing comfort during eye diseases. However, roots are mostly used for curing general and sexual weakness in human beings.
- Fruits and seeds are diuretic in nature. Leaves are reported to possess anthelmintic and febrifuge properties. An infusion of leaves is given in fevers. For the treatment of piles, a decoction of the leaves is used both internally and externally. Leaves are also used as hypnotic in alcoholism. Externally, leaves are used as fermentation for sore eyes, boils and swellings of hands and feet.
- As an insecticide, they are useful for killing lice infesting the body. An ointment prepared by boiling the leaves, in fact, is useful for bed-sores and wounds.
- The fresh leaf juice is also applied for anthrax pustules.

PRODUCTION TECHNOLOGY

Soil

- Sandy loam or light red soils
- pH of 7.5-8.0 with good drainage

Climate

- Ashwagandha is a late rainy season (kharif) crop.
- It requires relatively dry season, and the roots are fully developed when 1-2 late winter are received.
- Areas receiving 650-750 mm rainfall are best suited for its cultivation.

Varieties

‘Jawahar Asgandh-20’

For variety details and availability of planting material please contact:

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Inputs

Sl.No.	Materials	Per acre	Per hectare
1.	Seeds (kg)	2 to 5	5 to 12
2.	FYM or Compost	The crop is mainly grown on residual fertility. Hence, no manure or fertilizers are recommended	

CULTIVATION

Direct sowing:

- Seeds can be sown directly in the field by broadcasting. Since it is largely grown as a rain fed crop, sowing is determined by monsoon.
- After receiving pre-monsoon showers, soils are brought to a fine tilth and the crop is grown during the second week of July.
- A seed rate of 5 kg per acre is sufficient when the crop is raised by this method.

Transplanting:

- About 2 kg of seeds are required to provide seedlings for an area of one acre.
- Seeds should be treated with Diathane M-45 at the rate of 3 g/kg of seeds before sowing.
- Seeds are sown in the nursery just before the onset of rainy season and are covered with light soil and they germinate in 6-7 days after sowing.
- When seedlings are of about 6 weeks old they are transplanted in the field in 60 cm wide furrows at 60 cm apart.

Note: In the directly sown crop, plants are thinned at 25-30 days after sowing, to maintain a plant population of 20,000-25,000 per hectare. Hand weeding at 25-30 days interval helps to control the weeds effectively.

Plant protection

Major insects	:	Shoot borer and mite
Major diseases	:	Seed roting, seedling blight and leaf blight

Schedule

1. Neem seed kernel extract will have more effect on mites.
2. Shoot borer can be controlled with Sumicidin at 10 ml per liter.
3. Treat the seeds before sowing the Captan at the rate of 5 g/kg of seed and drench Calphomin at 3 ml/litre in nursery before sowing.
4. The crop should be sprayed with Diathane M-45 at the rate of 3 g/litre of water, when 30 days old, and the spray should be repeated at 15 days interval if the diseases.

HARVESTING AND YIELD

- Harvesting starts from January and continues till March (150-170 days after sowing).
- Maturity of the crop is judged by the drying of leaves and red berries.
- The entire plant is uprooted for roots, which are separated from the aerial parts by cutting the stem 1-2 cm above the crown. They are then cut into small pieces of 7-10 cm to facilitate drying.
- The berries plucked from dried Plants are threshed to obtain the seeds.
- An average **yield of about 400-500 kg of roots and 50 kg of seeds** are obtained from one hectare.



Dried roots of Ashwagandha ready for market