Ashwagandha

Withania somnifera (Linn.) Dunal

Family: Solanaceae

An erect branched under shrub up to 1.25 m in height, minute, smooth and shiny hairs throughout the plant. Leaves are ovate, with hairs and soft to touch. Flowers are greenish. Roots fleshy, tapering and whitish brown in colour. Leaves and roots are narcotic in large dose.

Common Names:

Sanskrit : Ashwaganda
Hindi : Asgandh
English : Winter Cherry, Indian Ginseng
Kannada : Hiremaddina gida, Asvagandhi
Tamil : Amukkira, Asuvagandhi
Telugu : Pennerugadda, panneru, Vajigandha
Malayalam : Pevette

Distribution

Globally the species is distributed in Africa, Mediterranean to India and SriLanka. In India it is distributed in the sub-Himalayan tracts, ascending upto 1000 m. It is found in Himachal Pradesh, Punjab and throughout the drier parts of India. This species is globally distributed from Africa to Sri Lanka. Within India, it is distributed in the sub-Himalayan tracts, ascending upto an altitude of 1000 m. It is found throughout the drier parts (subtropical) of India like Rajasthan, Punjab, Haryana, Uttar Pradesh, Gujrat, Maharastra and Madhya Pradesh. In Karnataka it’s found in large quantity in Talacauvery.
Agroclimatic Requirements:

This species grows in subtropical and tropical climates and prefers dry weather for successful growth. Annual rainfall of 600 to 750 mm is best suited for its growth. 1-2 late winter rains are sufficient for its roots to develop fully. Sandy loam or light red silt with good amount of organic matter, soil pH should be between 7.5-8 and good drainage is conducive for its growth.

Varieties: Poshita, Jawahar Asgandh-20, Jawahar Asgandh-134

Cultivation: It can be propagated using seeds.

Seed Propagation:

Flowering occurs during July-September and fruiting in November-December. The seeds are washed to remove mucilage and dried in sunlight. Prior to sowing the seeds are soaked in cold water for 24 hours. Seeds are directly sown in the main field by broadcasting and covered with light soil. Seeds may also be sown in sunken beds adopting a spacing of 5 cm. Sowing is taken up in October-January or from July to September. In 6 to 7 days seeds germinate and 80 percent germination is obtained.

Transplanting and aftercare

The seedlings are transplanted when they are 6 weeks old, during late rainy season, in 60 cm spaced rows. 25 to 30 days after sowing the excess seedlings are thinned out to maintain a population of about 20,000-25,000 plants per hectare. Hand weeding at 30 days interval, in order to control the weeds, is necessary.

Inputs:

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Materials</th>
<th>Per acre</th>
<th>Per hectare</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Seeds (kg)</td>
<td>2 to 5</td>
<td>5 to 12</td>
</tr>
<tr>
<td>2</td>
<td>Farm Yard Manure (t)</td>
<td>No manure or fertilizers are recommended, Crop can be grown on residual fertility</td>
<td></td>
</tr>
</tbody>
</table>

Plant Protection:

Major Insect: Shoot borer and mite.

Major Diseases: Seed rotting, Seedling blight and leaf blight.
Schedule:

- To control mite spray ethion 10ml/litre as soon as mites are noticed.
- Shoot borer can be controlled with sumicidin at 10ml per litre.
- Treat the seeds before sowing with Captan at the rate of 5g/Kg of seed and drench Calphomin at 3ml/litre in nursery before sowing.
- The crop should be sprayed with Dithane M-45 at the rate of 3g/litre of water, when 30days old and the spray should be repeated at 15days interval if the diseases persist.

Harvest and Yield:

Harvesting starts from January and continues till March. 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. Maturity of the crop is judged by the drying of leaves and red berries.

Yield: 600 – 800 kg roots and 50 kg seeds per hectare.

Cost of Cultivation: Approximate cost of cultivation comes around Rs.25,000/- per hectare.

Parts used: Leaves, Roots.

Medicinal Uses:

The root of Ashwagandha is used in the form of powder to treat consumption, excessive emaciation, bronchial asthma, rheumatic ailments, insomnia, cardiac diseases, wound due to accident, suppression of urine, and for conception in sterility. Root powder mixed with honey and ghee in equal parts is recommended for impotence or seminal debility. For improving sight, a mixture of Ashwagandha root powder, liquorice powder and juice of amalaka is recommended for internal administration.

For lumbago, pains in the loins and knee pain powder of Ashwagandha and sugar candy, in ghee is recommended.

Mandukaparni, *(Centella asiatica)*, sankhupuspi *(Convolvulus microphylla)*, ashwagandha and satavari *(Asparagus racemosus)* should be used in order to promote intellect, life-spin, stability and strength.

One may also take powder of sarkara, ashwagandha and pippali *(Piper longum)* mixed with ghee and honey for rejuvenation and in spermatorrhoea.