

Sarpagandha



Rauvolfia serpentina (L.) Benth. ex Kurz

Family: Apocynaceae

Habit: Under shrub

Origin & Distribution: It is indigenous to the moist, deciduous forests of South-East Asia. In India it is found in some parts of West Bengal, Assam, Meghalaya, in certain parts of Central India and Western Ghats. In West Bengal: North Bengal and mixed deciduous forests of South West Bengal.

Therapeutic Uses:

Roots: Used in the treatment of snakebite, insect stings, nervous disorders, mania, epilepsy, intractable skin disease, such as psoriasis, excessive sweating and itching; gynecological ointments for menopause, toxic goiter and in condition such as angina pectoris and to promote uterine contraction in childbirth.

Leaves: Used in removal of opacities of the cornea; decoction used in pneumonia.

Cultivated variety: RS-1, released by Jawaharlal Neheru Krishi Viswa Vidyalaya, College of Agriculture, Indore.

Soil: It prefers clayey or clayey loam with large percentage of humus with P^H 4.6- 6.2. However it grows on a variety of soils from sandy alluvial loam to red laterite loam. Avoid water logged and problematic soils.

Climate: It can be grown in wide range of climatic condition- it grows well in areas with high rainfall with properly drained soil and temperature ranges from 10-30° C.

Land preparation: Land should be prepared by thorough weeding and then ploughing at least twice up to 30 cm. depth to fine tilt with



mixing of 25-30 MT. FYM, 10 kg Nitrogen, 60 kg Phosphate and 30 kg Potash and leveled. Land is divided into small plots with small canals to facilitate drainage of excess water during rains as well as watering in dry weather.

Propagation: For satisfactory production of roots, propagation should be done by seeds than vegetative propagation or by root

cuttings. Generally seedlings are raised in the nursery and then transplanted in the field.

Seeds are soaked in water for overnight and then sown in well prepared raise bed using FYM, Sand and Good earth in 1:1:1 proportion and covered with fine mixture of FYM and Sand and finally straw at the end of May. Germination commences after 18-20 days of sowing and continues up to 40-45 days. During this time general nursery practices are followed. Use as much as possible fresh seeds for better germination.

Planting: Seedlings of age 45-50 days having 4-6 leaves are planted in the field at 30 cm. apart in 15 cm. deep furrows to be laid at 45 cm. apart. Irrigation is essential soon after planting.

Manuring: The plants respond better to chemical fertilizers than organic manures. Therefore 10 kg Nitrogen in moist soil at 50 days of planting and another dose of 10 kg Nitrogen at 170 days of planting is enough for better growth.

Irrigation: According to the moisture condition of the soil. Generally irrigation is provided at 15 days interval in hot and dry season.

Weeding: 2 weeding by hoeing during growing season and 1 weeding at the end of season is required.

Pest and diseases: Caterpillar (*Glyphodes vertumnalis*) and Cockchafer grubs (*Anomala polita*) feed on leaves resulting in poor growth; can be controlled by spraying 0.2% Rogor or Metacid or effective organic pesticide..

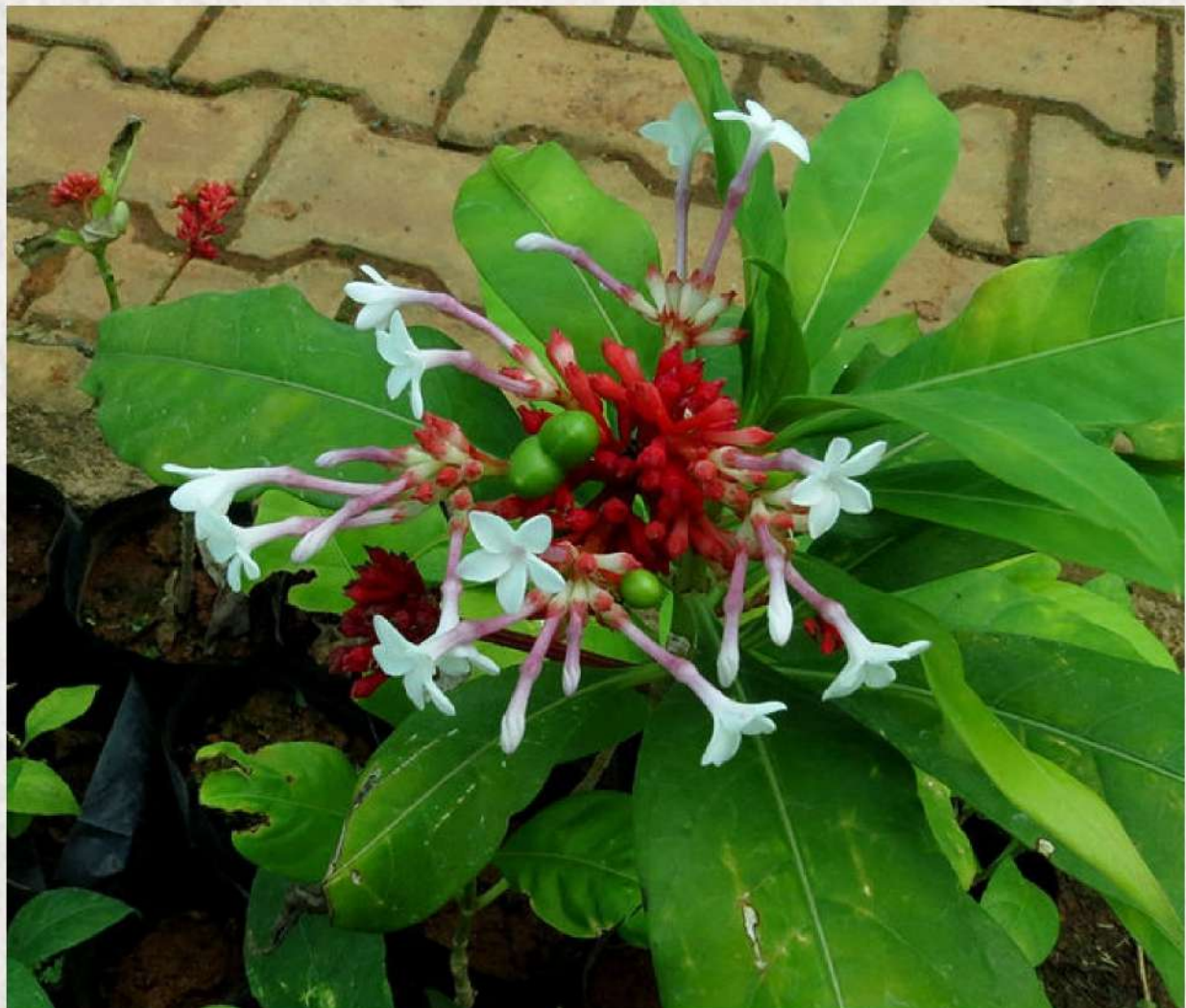
Spraying Dithin M-45 can control dark brown coloured leaf spot are caused by *Cercospora rauvolfiae*, resulting in defoliation of plants. Mosaic is common disease- symptom comprises of vein banding and the gradual yellowing of leaves and ultimately the leaves drop off.

Plant parts harvested for trade: Roots.

Harvesting: Generally harvesting is done after 2-3 years of planting manually. However it can be done after 18 months onward. Roots are harvested in winter when the plants shed their leaves with care keeping the rootlets and root bark intact.

Yield: Approx. yield – Fresh root per plant varies from 0.1- 4 kg. Average yield of dry roots from 2 years old plantation- 2200 kg/ ha. and from 3 years old plantation- 3300 kg/ ha.

Post harvest management: Harvested roots are washed if necessary or cleaned and then air-dried and packed in gunny bags with moisture up to 8% and stored in cool and dry places.



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