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Cultivation Practice of Sarp Gandha

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Sarp Gandha is also known as "Chandrabhaga" and Serpentine wood (smelling like snake). It is an important medicinal plant used from ancient times. Sarp Gandha treats different types of disorders such as Hypertension, insomnia, anxiety neuro disorders due to the presence of alkaloids reserpine, ajmaline, desipridine. Alkaloid present in root, stem and leaves. It is a perennial shrub that grows up to 3.5 feet and has a tuberous root. The plant is bushy in nature, with flower colors of purple, white, and pink. It occurs in the incense type of inflorescence. It is cultivated in Uttar Pradesh, Bihar, Jharkhand, Odisha, and Andhra Pradesh.

Botanical name: *Rauvolfia serpentina*

Family: Apocynaceae

Origin: South East Asia

Chromosome Number: 2n=22

Soil

The Sarp Gandha can grow in various types of soil, but acidic to neutral soil is preferred for its successful cultivation. The pH of the soil should be 4.6-6. The soil should be rich in organic matter and have good drainage facilities.

Climate

The plant requires a frost-free climate. It grows in both tropical and subtropical climates (10-35 °C). It requires hot and humid climates and 1000 to 2500 mm of annual rainfall.

Cultivar

R.S-1 developed from Jawahar Lal Nehru Agricultural University

Propagation

Various propagation methods are used for the multiplication of Sarp Gandha, such as seed, root cutting, and stem cutting. For commercial purposes, seeds are the best method of multiplication of Sarp Gandha.

Propagation method	Requirement (hec.)	Sowing time
Seed	5-6 kg	May - June
Root cutting	100kg roots(5-10cm)	July - August
Stem cutting	100kg stem(15-20cm)	June-July

Manure and fertilizer

20-25 tonnes FYM/hectare

15 kg Nitrogen/hectare

55-60 kg P₂O₅/hectare

Weeding

To obtain a high yield of Sarp Gandha, the field should be kept free from weeds to avoid competition between the crop and weeds. In the initial year (2-3), weeding is required. After that, it depends on the field condition.

Irrigation

generally sarpandha cultivated as rainfed crop in summer season it require 10-15 days interval during winter once in a month irrigation is required.

Harvesting

Economic yield obtain 2-3 years of planting roots are harvested in winter season because this time root contain higher amount of alkaloid .After harvesting root should be cleaned.cut in to 10 to 15 cm as needed then dry up to 4 percent moisture after that packed in air tightly polythene for storage .

Yield

3500kg/hectare obtain after 3 years of plant

Pest

Nematode: Root knot nematode attack on root

Control: intercropping with marigold infested field and spray 25 kg carbofuran per hectare

Caterpillar: It damages leaf area

Control: Spraying 0.2 percent rogar

Diseases

Leaf spot caused by *Cercospora rauvolfiae*

Control: Spray Diathane M-45

Anthracnose caused by *Colletotrichum gloeosporioides*

Control: Spray with fungicide