

## **STANDARD CULTIVATION PROCEDURE FOR SATAVARI**

**INTRODUCTION:**→ ASPARAGUS RACEMOSUS (SATAVARI) FAMILY - LILIACEAE plant is a perennial, prickly climber excessively branched prickly under shrub found throughout the tropical & subtropical parts of India upto 1200 m. Roots tuberous, 15-40 cm long greyish.

**VARIETY:** →

**Satavari (*Asparagus racemosus*):** Found in Africa, China, Sri Lanka, India and the Himalayas. The height of plant is 1-3 m, flowers are 3 cm long and Perianth is 3 mm long.

**Satavari (*Asparagus sarmentosa* Linn.):** Found in Sutherland, Burchell and South Africa. The height of plant is 2-4 m long and perianth 1 inch long.

**CULTIVATION:**

**SOIL AND CLIMATE:**→ Plant usually grows in a variety of soils including medium black having pH 7-8, electrical conductivity 0.15, organic carbon 0.79% and phosphorus 7.3 kg/acre. It can be easily grown in sub-tropical & Sub-temperate agro-climatic regions up to 1400 m.

**LAND PREPARATION:**→ The soil is given 20-30 cm deep ploughing followed by 2-3 harrowings after few days. Grasses and weeds are removed. The land is properly levelled and 40-45 cms broad ridges are prepared for plantation, leaving 15-20 cms furrow space as a channel for irrigation. **NURSERY RAISING AND PLANTING** Seeds are sown in April in raised beds at 5 cms apart to facilitate decay of its hard seed coat by the time monsoon commenced. Germination start in 8 to 10 days after the first shower of monsoon in June. The seedlings were transplanted on ridges at 60 x 60 cms apart and provided bamboo stakes when the plants attained a height of 45 cms. Vegetative propagation is by division of rhizomatous disc present at the base of the aerial stem. The rhizomatous disc develops several vegetative buds around the aerial shoots. The disc is divided in such a way that each piece possessed at least two buds along with 2-3 tuberous roots. These pieces are planted conversing the buds with 1 cm of soil followed by irrigation. The sprouting commenced in 8-10 days after plantation.

**WEEDING:** → Two weedings are carried out during the rainy months, thereafter one in next 2-3 months.

**IRRIGATION:**→ Irrigation is given after the rainy season is over, at the rate of two irrigations in winter season and one per month in summer season.

**MANURES, FERTILISERS AND PESTICIDES:**→ The medicinal plants have to be grown without chemical fertilizers and use of pesticides. Organic manures like, Farm Yard Manure (FYM), Vermi-Compost, Green Manure etc. may be used as per requirement of the species. To prevent diseases, bio-pesticides could be prepared (either single or mixture) from Neem (kernel, seeds & leaves), Chitrakmool, Dhatura, Cow's urine etc.

**HARVESTING/POST HARVESTING:**→ The plant are harvested after 40 months in winter. The roots are dugout collected and cleared. The roots are peeled off with the help of sharp knife immediately after harvesting. It is observed that in case the roots are not peeled off within a few days, it is a bit difficult to remove the skin as such. In such a condition the roots are kept in boiling water for about 10 minutes, followed by cold-water treatment to facilitate peeling. After removing the skin, it is cut transversely into small pieces and dried in shade. Yield The average yield is reported to about 2607 gms fresh weight per plant after 40 months age. Estimate yield of 5-7 tons/hectare dry roots is reported Precaution may be taken for rodents and rats which occasionally eat tender shoots.