

SENNA



Plant Profile

Family	:	Leguminosae
English name	:	Senna
Indian name	:	Svarnapatri (Sanskrit) Sanay Sana ka Patt (Hindi) Avuri (Tamil)
Species	:	<i>Cassia angustifolia</i> Vahl. <i>C. acutifolia</i> Del <i>C. obovata</i> <i>C. italica</i> <i>C. abovata</i>
Distribution	:	Indian, Southern Arabia, Yemen

MEDICINAL PROPERTIES AND USES

- “Tirunelvelly Senna” or “Indian Senna” is one of the most important source of organic laxatives.
- The leaves and young pods possess ‘Sennosides’, which are the laxative principles.
- It is being used as a laxative or purgative since ancient time in Unani system of medicine and is reported to be very safe and effective drug for habitual constipation and has world wide demand for use as a household drug or in pharmaceutical industries.

PRODUCTION TECHNOLOGY

SOIL

It is largely raised on red loams including coarse gravelly soils or alluvial loams and even on the rich clayey rice fields. It is found to grow well on sandy loam and lateritic

soils of low to moderate fertility with a pH ranging 7 to 8.5. It is very sensitive to water logged conditions and thus avoid crust forming sticky soils which hinder germination.

CLIMATE

The crop is very sensitive to heavy rainfall and therefore such location should be avoided to grow this crop. It prefers warm and dry weather during the growing season. Low temperature is also harmful as it affects the germination.

VARIETIES

ALFT-2, Anand Late Selection - from GAU, Anand
Sonal - from CIMAP.

INPUTS

Sl.No.	Materials	Per acre	Per hectare
1.	Seeds (kg)	2	5
2.	Farm Yard Manure (t)	4	10
3.	Fertilizers (kg)		
	N	32	80
	P ₂ O ₅	16	40
	K ₂ O	16	40

Note: Full dose of FYM, P₂O₅, K₂O and ½ dose of N is applied as a basal dose a planting. The remaining 40 kg of N is applied in two equal split doses of 90-95 and 120-125 days after sowing. That is after first and second leaf picking.

CULTIVATION

- It is sown either during January-February or June-July months. Before planting prepare the land by ploughing harrowing and bring the soil to a fine tilth.
- Apply BHC (10%) or Aldrin (5%) at 25 kg/ha with last operation during land preparation which protects the young seedlings from attack of white ants and cut worms.
- Prepare the beds of convenient size (3.7 x 2.7 m) and open ridge and furrows at 45 cm apart.
- Provide light irrigation and dibble seeds on one side of the ridge at a distance of 30 cm and the field is irrigated.
- To improve the germination, the seeds should be soaked in cold water for 8 hours and then shade dried.
- Further the seeds should be treated with Thiram/Captan/Agrosan G.N. at 25 g/kg to protect from damping off and seeding blight diseases which are of common occurrence.

IRRIGATION AND INTERCULTURE

- The crop is very sensitive to high moisture, therefore, provide a very light irrigation.
- In the beginning, the field is irrigated at an interval of 6-7 days and later the interval is widened to 15-20 days depending on the weather and soil conditions.
- Plots are kept weed free by earthing up the soil after 6 weeks of sowing and after each harvest.

PLANT PROTECTION

Major insects : White ants, cut worms and pod eating caterpillars
Major diseases: Damping off, seedling blight, leaf spot and leaf blight.

Schedule

- The crop is sprayed with 4 g of carbaryl in 1 litre of water at 70-80 days after sowing to combat the attack to pod eating caterpillars.
- If leaf spot and leaf blight is seen the crop is sprayed with 0.1% benlate at about 70-80 days after sowing.
- Spray neem kernel extract to control sucking insects.

HARVESTING, PROCESSING AND YIELD

- When bulk of the leaves are fully grown and are thick and bluish in colour, they are stripped by hand.
- The crop is usually harvested at 90 days and the subsequent two harvest will be at an interval of 30-35 days.
- Pods are picked after 15 days from sets as and when they mature and turn to golden yellow colour.
- The leaves and pods so harvested are spread indoors on a clean floor for 7-10 days and dried until 20 per cent moisture. The dried state is indicated by their light yellow colour. Drying of leaves and pods in sun should be avoided.
- On an average it may yield, **2,000 kg of dry leaves and 800-1000 kg of pods per hectare under irrigated** and good management practices. **Under rain fed conditions** the yield may be about **1000 kg of leaves and 400 kg of pods**, respectively, per hectare.