

# SOYBEAN

Soybean is an important industrial crop being presently used in the antibiotic food processing and vegetable ghee making factories. A small portion of produce is also consumed as pulse. It contains 40% protein and 20% oil.

**CLIMATE REQUIREMENT:** Though soybean is a crop of temperate region, it grows well in plains as well from the end of June to October.

**SOILS:** It can be grown under a wide range of soils but fertile well drained loamy soils are best for its cultivation. The soil pH of 6 to 6.5 is best to the nodulation bacteria for the efficient conversion of atmospheric nitrogen. Water logging is harmful to the crop.

**LAND PREPARATION:** The land should be ploughed once with Tawi plough followed by disc harrow or desi plough two to three times. Each ploughing needs to be followed by planking so that good tilth is obtained.

**VARIETIES:**

- 1) BRAGG
- 2) CLARK-6
- 3) PB-1 for hilis.

**SEED RATE:** Use 62.5 kg of seed per ha

**INOCULATION:** Soybean is a leguminous crop & requires special treatment of seed with bacterial culture (Rhizobium culture) for its establishment in the area. The seed should be inoculated with bacterial culture at sowing time. Smear the seeds with 10% solution of Jaggery. Add bacterial culture and mix it well in the seed and sow the treated seeds immediately.

**TIME AND METHOD OF SOWING:** Soybean is sown with the onset of monsoon in the 1<sup>st</sup> week of July in subtropical areas. In other areas

its sowing time coincides with maize sowing. Heavy rains immediately after sowing adversely affects germination. It should preferably be sown after the pre-monsoon showers. The seed should be sown in lines 45 cm apart at an optimum seed depth of 2.5 to 5 cm.

Sow PB-1 Variety during 1st fortnight of May in hilly areas.

**FERTILIZER REQUIREMENT:** Apply the following plant nutrients to get a good yield

These plant nutrients can be made available from the following fertilizers:

(kg/ha)					
N	P	K	Urea	DAP	MOP
20	40	20	10	88	33

Drill whole DAP & MOP at the time of sowing. Top dress 10 kg urea.

**INTERCULTURE:** Weeding and hoeing should be done after 15th and 35th day after germination with khurpa or V-blade hoe.

**IRRIGATION:** It is a rainy season crop and generally no irrigation is given. However, if rains fail during the growing period, one irrigation at the time of pod filling is very useful.

**PLANT PROTECTION:** Hairy Caterpillar, Flea beetle, Jassids and White fly damage the crop. Adopt the following control measures to control these insect pests.

1.	HAIRY CATERPILLARS	i) Mechanical control same as in Til crop ii) Dust the crop with Lindane 1.3% D @ 25 kg/ha or spray the crop with Endosulfan 35EC @1.5 L/ha in 750 L of water
2.	JASSIDS AND WHITE FLY	Spray the crop with Dimethoate 30 EC @ 1 L ha in 750 L of water.

**HARVESTING:** The crop should be harvested when leaves fall off and the pods change colour. The harvesting of the crop should not be delayed otherwise the shedding of grains from pods will take place.

**THRESHING:** The threshing can be done with the conventional methods used in case of other pulses. Care should be taken to avoid severe trampling, as it reduces the quality and germination of the seed.

**STORAGE:** The moisture content of seed for storing should not exceed 7%. The seed should be stored in dry bins or in the bags kept on wooden racks. The properly stored seed remains viable for about a year. The seed can, however, be stored for a longer period for other uses.