

## Harvesting:

Harvesting is done when the crop is fully matured. Seed are well dreid and stored in a cool and dry place.



# TECHNOLOGY FOR SOYABEAN PRODUCTION



Prepared by:  
VISAKHO SHUNYU  
Subject Matter Specialist  
Agronomy /Plant Breeding

**Krishi Vigyan Kendra**  
Nagaland University  
Lumami, Zunheboto  
Nagaland

Soybean is a potential oilseed crop of India. It contains about 20% oil. In NEH Region, its productivity is of 1000kg/ha, which is much higher than the national productivity level (822kg/ha). It is cultivated as a kitchen garden crop and consumed as pulse crop by the people of this region. It grows well in slopes and terraces. It is grown as a pure crop as well as intercrop with maize, paddy, arhar etc. Experimental results have shown that productivity of soybean can be increased considerably following the improved production technology.

#### **Variety:**

The recommended varieties are JS-80-21, JS-75-46, Bragg, JS (SH) 89-2 and PK-472. Among different cultivars, maximum yield was recorded with JS-80-21 under mid altitudes. For high altitudes (1300-1900msl), PK-71-21, DS-74-42 and PK-73-213 were found promising. Soybean varieties recommended by the national research centre on Soybean to Nagaland condition were JS-80-21, Ahilya1 (NRC-2), RAUS-5, MAUS-71, Indira soya-9.

#### **Soil:**

Well drained loamy and sandy loam soils are most suitable. Low lying areas where water stagnation during rainy season must be avoided. Two cross ploughing are sufficient to get the soil well pulverized and weed free land. Apply lime @ 500kg/ha in furrows and incorporate into the soil at least 1-2 weeks before sowing the crop.

#### **Sowing:**

Generally sowing is done during May/June at mid and low altitudes at the onset of monsoon. Seeds are sown at a depth of 3-5 cm at a spacing of 45x10cm. A seed rate of 25-30kg/ha would be sufficient for pure stand. Spacing may be reduced in upper terraces where water retention is very low. The seeds should be treated with captan or bavistin @ 2g/kg to prevent infestation of seed borne diseases.

#### **Fertilizer management:**

Soybean, being leguminous crop does not require high dose of nitrogen. However, a starter dose of 20kgN/ha is sufficient for healthy crop stand, a dose of 60kg PO and 30kg KO are recommended.

#### **Weed management:**

The crop should be kept weed free up to 60 DAS. Two hand weeding (20 and 40 DAS) are sufficient for higher yield. Among weed control treatments, pre-emergence application of pendimethalin 750g/ha followed by one hand weeding at 40 DAS and butachlor @ 1kg a.i./ha followed by one hand weeding at 40 DAS registered higher seed yield and were found at par with the yield recorded two hand weeding at 20 and 40 DAS.

#### **Cropping system:**

Intercropping of soybean with maize and rice has been found promising.

#### **Disease and pest management:**

Leaf blight, leaf spot, seedling rot, frog eye leaf and rust are the major diseases of soybean. Seed treatment with thiram @ 3g/kg was found effective. Application of Dithane-M-45 @ 0.2 percent solution or Topsin M @ 2g/lit of water is recommended for effective control of diseases. Leaf folder, semilooper, stem fly etc. are the major pest of soybean. Spray nuvacron 1.25ml/lit or dimethoate (0.04 %) or endosulfan (0.10%) at 45 DAS for control of leaf folder. Seed treatment with imidachloprid @ 7.0g/kg of seed reduces the problem of leaf folder, white fly etc. in soybean.