

RAISING SUCCESSFUL CROP OF SUMMER MUNGBEAN



AVRDC

The World Vegetable Center
Regional Center for South Asia



Punjab Agricultural University

Tips for Summer Mungbean

Mungbean is an important pulse crop rich in protein (about 24%) and iron (6 mg/100 g dry seeds) and its cultivation improves soil fertility by adding 3040 kg N/ha after the harvest of the crop. The succeeding crop requires about 25% less nitrogen application. Mungbean is considered the hardiest of all pulse crops and grows well in hot and dry climate. It can be sown in summer as well as *kharif* (rainy) season. In summer mungbean can be grown after potato, wheat and raya (mustard). For its high productivity and quality the following package of practices should be adopted:

Soil

Well drained loamy to sandy loam soils are suitable while saline-alkaline or water-logged soils are unsuitable for its cultivation.

Variety

SML 668 developed from AVRDC line NM 94 by the Punjab Agricultural University, Ludhiana, India is a short-duration (60-65 days), short-statured, variety with a very good synchronous maturing. The seeds are bold shining green with good cooking quality. It is tolerant to mungbean yellow mosaic virus (MYMV). The average grain yield is 1.2 t/ha.

Land preparation

2-3 ploughing followed by planking. Seed bed should be well leveled, free from clods and weeds. At the time of sowing good soil moisture is very essential for proper germination and crop establishment.

Seed treatment

Treated seeds with captan or thiram @ 3 g/kg of seed against fungal diseases. Application of *Rhizobium* also increases the yield performance.

Seed rate

Use 37.5 kg/ha seed. (15kg/acre)

Time of sowing

20 March to 10 April is the best time. Sowing can be done upto 20 April after the harvest of wheat. Sowing done after 20 April is risky as the maturity coincides with early monsoon rains. Do not sow summer mungbean before 20 March as low temperature can adversely affect the germination, plant growth and yield.

Method of sowing

Row to row and plant to plant distance should be 22.5 x 10cm and seed should be sown 4 to 6 cm deep with seed-cum-fertilizer drill. There should be around 40 plants/in².

Weed control

Apply Basalin 45 EC(fluchloralin) @ 2.5 L/ha or Treflan 48 EC (trifluralin) @ 2.0 L/ha as pre-sowing or Stomp 30 EC (pendimethalin) @ 2.5 L/ha pre-emergence or apply 1.5 L/ha Stomp 30 EC as pre-emergence with one hoeing four weeks after sowing. 500 L of water/ha is sufficient for herbicide spray. Spray the herbicide immediately after sowing for pre-emergence application.

Fertilizer

Drill 12.5 kg of N (27.5 kg of urea) along with 40 kg of P₂O₅ (250 kg Single Super Phosphate)/ha at the time of sowing.

Irrigation

3-5 irrigations are required depending upon soil and climatic conditions. First irrigation should be given about 25 days after sowing. The last irrigation should be stopped about 50 days after sowing.

Insect-pest and disease control

For the management of insect-pest infestation any one of the following insecticides can be applied using 200-250 litres of water/ha.

Thrips - Trizophos40EC(hostathian)@1.5L
Thiodan 35 EC (endosulfan) @2.25 L
Rogor 30 EC (dimethoate) @250 ml,
Malathion 50 EC (malathion) @250 ml,
Metasystox 25 EC(oxydemeton methyl) @300ml.

Pod borer - Thiodan 35 EC (endosulfan) @2.5 L

Hairy caterpillar - Thiodan 35 EC (endosulfan) @1.25 L
Nuvan 100 (dichlorvos) @500 ml.

Semilooper - Nuvan 100 (dichlorvos) @500 ml.

Powderymildew - Sulfex@400gorwettablesulpher@500g

Cercospora leaf spot - Dithane Z-78 or Dithane M45 @800g.

Harvesting and Threshing

Harvest when about 80% of pods are mature. Keep the harvested plants in field for 2 to 3 sunshine days to dry the pods and then separate the grains using a thresher.



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