

PULSE CROPS MOONG AND MASH

Mash and Moong are the most important pulse crops of rainy season. Pulses are next to cereals as main valuable source of protein. Growing of pulse crop also improves soil fertility.

CLIMATE: These crops thrive best under hot and humid climate of subtropical plains.

SOIL: These pulse crops do well on all type of soils, but light sandy loam to heavy clay are ideal soils for Mash/Moong cultivation. Prefer heavy soils for moong cultivation.

PREPARATION OF LAND: Plough the land with Tawi plough followed by 1-2 ploughing with desi plough or disc harrow. Each ploughing should be followed by planking to get the desired tilth.

VARIETIES:

i)	MASH	PANT U-19 UTTARA	Suitable both for kharif season and for summer sowing.
ii)	MOONG	PDM- 54 ML-131 ML-818	However varieties of moong, viz. PS-16, PS-7 can be sown, during summer season only.

SEED RATE: Use 15 to 20 kg of seed per ha. Treat the seed with Thiram or Captan @ 3g per /kg of seed before sowing.

INOCULATION: It is better to inoculate the seed with Rhizobium culture before sowing for getting higher yields.

TIME & METHOD OF SOWING: Kharif mash crop is sown with onset of monsoon upto 15th July in sub-tropical area and end of June in intermediate area upto 750m altitude. However upto 800 m altitude it can be sown upto 1st week of July. Summer crop of mash is sown from 15th March to 1st week of April. However, summer moong can be sown upto 20th April. The crop should be sown in lines 30 cm apart by 'Kera' method. The seed should be sown 4 to 6 cm deep.

MANURES AND FERTILIZER: It is better to get the soil tested and apply fertilizers according to the recommendations. In general, following schedule of fertilizer combination is recommended:-

Nutrients (kg/ha)		Fertilizer (kg/ha)
N	P	DAP
16	40	90

Whole quantity of DAP should be drilled before sowing with pora.

i) **CULTURAL WEED CONTROL PRACTICES:** Give one weeding and hoeing one month after sowing when the plants acquire the height of 15-20 cm with hand blade hoe, khurpa or medium cultivator.

ii) **CHEMICAL METHOD:** Use Fluchloralin @ 0.75kg a.i./ha in 800-1000 L of water as pre-plant incorporation to control weeds in the field or Pendimethalin @1kg a.i. /ha as pre-emergence application.

IRRIGATION: Generally during kharif, mash crop does not require any irrigation, but in case of failures of rains, the crop should be irrigated. In case of heavy rains, water should be drained off from the field, otherwise it will damage the crop.

In case of summer sowing, regular irrigations at an interval of 10 to 15 days may be given to the crop. However summer crop requires 2 irrigations under heavy soil, 3 under medium and 4 under light soil conditions. Last irrigation should be given at pod formation stage.

PLANT PROTECTION: Adopt the following measures to control the insect pest and diseases.

i) Mechanical control same as in Til crop.

ii) **HAIRY CATERPILLAR:** Spray Endosulfan 35 EC @ 15 L/ha or Carbaryl 50% WP @ 1.5 kg/ha in 750 L water.

iii) **WHITE FLY:** These damage the crop by sucking the cell sap from leaves and pods. White fly also spreads mosaic virus from one plant to another.

Spray the crop with Malathion 50 EC @ 1 ml/L of water

LEAF SPOT DISEASES: Spray the crop with Zineb (0.2%) or Mancozeb (0.25%)

VIRUS DISEASES: Remove the infected plants and burn them.

HARVESTING: The crop may be harvested when the leaves fall off and most of the pods turn grayish black. Uprooting of the matured crop should be avoided. Threshing should be done by using conventional method.