

PULSES

Summer black gram
(*Vigna mungo* L.)

Varieties:

Varieties	Year of release	Duration (days)	Days to first picking	Grain yield (q/ha)	Reaction to diseases
Pant U 19	1996	75-85	65-70	10-12	Tolerant to YMV and Cercospora leaf spot
SBC 40	-	75-85	65-70	10-12	Resistant to YMV and Cercospora leaf spot

Time of Sowing:

The optimum time for sowing summer blackgram is from mid February to March

Soil Type:

Blackgram can be grown on a wide range of soils, but sandy loam soil is preferable.

Field Preparation:

The land is to be ploughed 2-3 times followed by leveling.

Fertility Management:

Application of FYM or compost @ 4-5 t/ha or 6 q/bigha not only adds fertility but also improves soil structure.

Nutrient	Requirement (kg/ha)	Form	Fertilizer requirement	
			kg/ha	kg/bigha
A. Without Rhizobium culture				
N	15	Urea	32	4.5
P ₂ O ₅	35	SSP	220	30
K ₂ O	15	MOP	25	3.5
B. With Rhizobium Culture :				
N	10	Urea	22	3
P ₂ O ₅	35	SSP	220	30
K ₂ O	15	MOP	25	3.5

Diammonium phosphate (DAP) @ 75 kg/ha or 10 kg/bigha can be applied in lieu of urea and SSP in non-inoculated crop. NPK may also be supplied in the form of mixed fertilizers.

Application of Lime:

CaCO₃ in the form of dolomitic lime @ 65.5 kg/bigha should be applied 15 days before seeding and incorporate in the soil in area where multiple cropping is practiced.

Seeds are to be moistened carefully with clean water so as to avoid excessive wetting. Rhizobium culture is to be mixed with seeds @ 50 g/kg so that a thin layer of inoculum is deposited on the seed coat. Treated seeds are to be dried under shade. Inoculated seeds should not be exposed to sun.

Seed Rate:

Line sowing : 22.5 kg/ha (3.0 kg/bigha)

Spacing:

Row to row : 30 cm

Plant to plant : 10 cm

Interculture:

One weeding at 20 – 25 days after sowing is to be done.

Plant Protection

Disease/ Insect pest	Fungicide/ Pesticide	Dose	Conc. (%)	Spraying interval
A. Diseases:				
Leaf spot	Cu-oxychloride	1.8-2.0 kg in 600-700 lit of water	0.3	7-10 days
Blight	Hexaconazole	1.2-1.4 lit/ha in 600-700 lit of water	0.2	12-15 days
Powdery mildew	Wettable sulphur	1-1.4 kg/ha in 500-700 lit of water	0.2	As soon as disease appears
B. Insect pests :				
Aphids & Jassids	Lamda-cyhalothrin 5EC	150-250 ml/ha	-	-
Pod borer	Chlorantraniliprole 18.5SC	20 g a.i./ha	-	-

Harvesting:

Harvesting is to be started when pods mature indicating full darkish colour and brittle on slight pressure. Harvesting should be completed in 2 to 3 pickings.

Protection against storage pests:

Properly dried seeds of black gram should be mixed thoroughly with black pepper seed powder @ 3g/kg of seed for protection against bruchid infestation during storage. Treated seeds should be kept in polybags with outer covering of gunny bags.