CROP: BLACK GRAM (Vigna Mungo)

**PlantCharacteristics**

Black Gram belongs to family Leguminoseae and sub family Papilionaceae. It is an annual herb growing to a height of 30-100 cm. Stem is slightly ridged and covered with brown hairs. The leaves are large and trifoliate. The inflorescence consists of a cluster of 5-6 flowers at the top of a long hairy peduncle. Black Gram is a self fertilised crop. Black gram may be grown as pure crop in rice fallows after the harvest of the first or second crop of paddy. It can also be grown as pure or mixed crop during kharif season.

**SelectionCriteriaForPlantingMaterials**

Always use certified seeds. Seed treatment with Thiram @ 2.5g per kg seed is recommended. Seeds should be inoculated with suitable Rhizobium culture before sowing.

**Varieties**

T-9, Co-2, S-1, TAU-2, TMV-1, KM-2 and Syama

[Variety T-9 is moderately tolerant to drought condition; TAU-2 is suited for partially shaded condition in coconut garden during rabi season in southern region; TMV-1 and KM-2 are suited for Onattukara tract during late kharif; and Syama is suited for the summer rice fallow of Onattukara]

**SeedsAndCultivation**

**Seed rate**

For pure crop 20 kg/ha

For mixed crop 6 kg/ha

**Sowing**

Plough the land 2-3 times thoroughly and remove weeds and stubbles. Spacing of 25 cm x 15 cm will give better yield. For seed treatment in black gram, two Rhizobium cultures viz. KAU-BG-2 and BG-12 are recommended.

**WaterManagement**

For rainy season crop, good drainage is required. In summer season, number and frequency of irrigation depend upon the soil type and weather prevailing. From flowering to pod development stage, there is need of sufficient moisture in the field.

**NutrientManagement**

**Manuring**

<table>
<thead>
<tr>
<th>Manure</th>
<th>Rate</th>
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</thead>
<tbody>
<tr>
<td>FYM</td>
<td>20 t/ha (as basal)</td>
</tr>
<tr>
<td>Lime</td>
<td>250 kg/ha or dolomite 400 kg/ha</td>
</tr>
<tr>
<td>N</td>
<td>20 kg/ha</td>
</tr>
<tr>
<td>P2O5</td>
<td>30 kg/ha</td>
</tr>
<tr>
<td>K2O</td>
<td>30 kg/ha</td>
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</tbody>
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Lime may be applied at the time of first ploughing. Half the quantity of N, the whole of phosphorus and potash are applied at the time of last ploughing. The remaining 10 kg N can be applied as foliar spray of 2% urea solution in two equal doses on the
15th and 30th day after sowing.

**Weed Management**

One or two hand weeding should be done up to 40 days of sowing depending upon the weed intensity.

**Plant Protection**

Apply carbaryl 0.15% suspension, if pests are observed in serious proportions.

**Harvesting**

Black Gram should be harvested when most of the pods turn black. If harvesting is delayed, it may result in shattering. Harvested crop is dried on threshing floor for few days and then threshed.

**Processing**

**Average Yield**

Grain yield 1.5-2 tons/ha