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CULTIVATION OF RAPESEED AND MUSTARD



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Rape seed and Mustard is an annual herb which contains 30-48% edible oil. In North Eastern Region, rapeseed & mustard is cultivated in an area of 0.40 lakh ha and the average yield is 888kg/ha, which is much lower than the national average (941 kg/ha). The low yield is due to untimely sowing with local variety, poor crop stand, inadequate nutrition, moisture stress and almost no plant protection measures. Therefore, it is important to follow proper agronomic management practices for realizing higher yield potential of Rape seed and Mustard.

Soil: The rape seed/mustard perform well in light to sandy loam soils. Foot hills, terraces, tilla land and wetland with good drainage are suitable for Rape seed/Mustard cultivation. A fine seed bed is essential for uniform germination. The field should be ploughed 4-6 times followed by laddering in order to obtain a fine tilth.

Sowing Time: Rape seed/Mustard is sown between last week of *September to middle of October*. Timely sowing utilizes the residual moisture effectively. Delay in sowing results exposure of crop to moisture stress at reproductive stage. Early sowing helps in escaping the attack of Aphids and White rust infestation.

Depth of sowing: 2-3 cm

Variety: Rape seed:

Average yield: 10-12q/ha

M-27 (90-95days)

TS-36 (90-95days)

TS-38 (90-95days)

TS 46 (85-90 days)

Mustard:

Average yield:12-13 q/ha

TM-2 (110-115 days)

TM-4 (110-115 days)

Varuna (115-120 days)

Thinning: Thinning should be done at 3-4 weeks after sowing to maintain plant to plant distance of 10-15 cm. One hoeing is done after 3-4 weeks of sowing.

Seed Rate: 5-6 kg/ha

(660-800 g/bigha)

Spacing: 30-40 cm line to line.

Fertilizer management: FYM@2.5 t/ha and 54 kg Urea,187 kg SSP and 25 kg MOP/ha OR 7 kg Urea, 25 kg SSP, 3 kg MOP/bigha

Application of Zinc Sulphate ($ZnSO_4$) @ 20 kg/ha improved seed and oil yield of mustard.

Water Management : Normally no irrigation is require for mustard as it is sown on residual soil moisture and it received one or two shower during October and November month. However in case of moisture stress one irrigation at *flower bud formation stage* is required to obtain good yield. Irrigation increases yield of mustard significantly.

Flowering and siliqua formation stages are critical stages in mustard for irrigation. Mulching with straw or local weeds can also be used to conserve moisture and obtain good yield.

Weed Management : Weed reduces the crop yield drastically. Normally no weeding is required. Whenever necessary handweeding at 20 and 40 days after sowing can be done or application of Isoproturon @ 0.75 kg a.i or Pendimethalin @ 1kg a.i/ha within 2-3 days of sowing control the weeds effectively and produce higher yield in rapeseed and mustard

Harvesting : Rapeseed & Mustard is generally harvested when it turn yellowish. Normally, the crop is ready for harvest after 90-95 days of sowing. The crop is harvested by pulling out whole the plant or cutting by sickle. Preferably, harvesting should be done in morning hours to avoid shattering loss.

Plant protection:

1. Aphids : Rogor 1.5 ml/lit water (0.05%) or Dimecron 0.25 ml/lit of water (2-3 times) at 10 days interval.

2. White rust and Alternaria blight : Blitox-50 (0.3%) or Dithane M -45 @ 2g/lit of water at 10 days interval.

Late sowing increases the Aphid and White rust infestation. So timely sowing is necessary to avoid Aphid and White rust infestation.