

# **MAIZE (*Zea mays*):** *A Dual Purpose Crop*

Maize is an ideal forage crop grown throughout the country. It is quick growing high yielding and supplies palatable and nutritious forage which can be fed at any stage of growth without any risk to animals. It can be fed as green or dry and makes excellent silage.

Maize produces good quality herbaceous fodder with high palatability. On average, it contains 9-10%CP, 60-64% NDF, 38-41% ADF, 23-25% Hemicellulose, and 28-30% Cellulose on dry matter basis when harvested at milk to early-dough stage.

**Soil and its preparation:** Well-drained, levelled and fertile loamy soil with neutral to slightly acidic reaction is best suited for its growth. One operation with soil turning plough followed by two cross harrowings and levelling are adequate to get a weed free and levelled seed bed.

**Sowing time:** For summer sowing in irrigated areas, last week of February to last week of March-April is the appropriate time. Rainy season crop is sown with the beginning of rains in June-July. Rabi crop is sown in October-November particularly in eastern and southern parts of the country. In hills sowing is taken up in May.

**Seed rate & sowing:** Maize has bold seed size. It requires 50-60 kg seeds depending upon size. Seed should be sown in lines spaced at 30 cm. The disease is seed borne and may be escaped by seed treatment with Thiram @ 2g/kg seed.

**Fertilizer:** 100 Kg N+30 Kg P<sub>2</sub>O<sub>5</sub> /ha is required for fodder maize. Half of the N dose should be given at sowing and remaining half at knee high stage of the crop. In zinc deficient soils (below 0.56 ppm Zn) 15-20 Kg zinc sulphate per hectare should also be broadcast at sowing.

**Weed control:** At 3-4 weeks crop stage hoeing with weeder cum mulcher takes care of the weeds. Pre-emergence spray of Atrazine @ 0.75 to 1.0 kg a.i. /ha in 600 litres of water ensures effective control of weeds.

**Mixed cropping:** Cowpea is the preferred legume for mixed cropping with maize. For mixed crop 30 Kg maize+ 20 kg cowpea/ha should be sown in paired alternate rows (2:2). For mixed crop 35 Kg N+40 Kg P<sub>2</sub>O<sub>5</sub>/ha should be added at sowing time and another 35 Kg N at knee high stage of maize. Atrazine should not be used for weed control in mixed crop otherwise cowpea will also be killed.

**Varieties:** African Tall, Vijai, Moti, Jawahar composite, J-I006, A-de cuba and VL-54, Pratap, MPFM-8

**Irrigation:** The maize crop is comparatively MORE to sensitive to excess moist and stress. It requires 5-6 irrigations at 10-12 days interval during summer season, 3-4 during Rabi and 1-2 during rainy season when rainfall interval exceeds 12 days.

**Insects & diseases:** Downey mildew, which can easily be identified with symptoms like narrow, chlorotic or yellowish stripe later developing in brown lesions. The bacterial stalk rot in which plant shows rotting from base of stalks upward or from the top downward. The important & insects attacking the maize is shootfly shoot borer or cut worm. These can be controlled by spraying of Malathion.

**Harvesting and yield:** Green fodder yield 350-800q/ha depending on varieties. The crop is ready for harvest at silk stage for fodder purpose, which continues up to milk stage. The early harvesting though produce good quality fodder but yield is reduced. In case of late harvesting the fodder quality is impaired.

For detail information please contact to:-

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