

FODDER CROPS

MAIZE

Maize occupies the largest area among cereal crops in this State. At present, it is mainly grown for grain purpose. However, it could be cultivated for fodder purpose also because of its good quality green fodder and high yield. Maize is the most ideal crop for silage making too. In irrigated areas, one crop of maize for fodder purpose may be taken preferably alongwith cowpea before monsoon, i.e. from March to June to get green fodder during summer. Under ideal conditions, it gives upto 600 q green fodder per hectare. For fodder, African Tall and local varieties are recommended.

Seed rate

50-60 kg of seed should be sown per hectare preferably by *kera* method. For early crop, seedling should be done during mid March to mid April. Monsoon crop should be seeded at the beginning of monsoon.

Nutrient requirement

80 kg N and 60 kg P₂O₅ per hectare are recommended to obtain good yield. 1/2 N and full P and K should be applied at sowing time and the remaining 1/2 N as for maize.

In maize fodder, attack of shoot fly start just after germination. It lays white eggs on lower side of leaves. After hatching, it enters the central shoot and starts damaging the primary roots as a result of which plants get dried. For control, spray 750 ml endosulfan (Thiodan 35 EC) in 500 L water/ha. Maize fodder should not be fed to cattle for atleast 3 weeks.

TEOSINTE (MAKCHARI)

It is an excellent multicut fodder for mid-hills of the State. It produces tillers and has dark green narrow leaves than maize and remains green for a longer period and gives two cuttings. It has a yield potential of 700-900 q/ha. The common type is recommended for cultivation.

Sowing

It should be seeded at the advent of monsoon. 45 kg seed per hectare should be sown in rows 30 cm apart by *kera* followed by heavy planking.

Nutrient requirement: 90 kg N and 60 kg P₂O₅ /ha.

SORGHUM (JOWAR)

It is quite soft, palatable and fast growing annual fodder crop adapted to areas upto 1500 m altitude. Under irrigated conditions two crops of jowar may be taken in one year, one during March to June and the second during regular monsoon season, i.e June to October. It has a yield potential of 600 q green fodder per hectare. It should be harvested for fodder purpose after flowering or after the onset of rains as there is risk of HCN poisoning, if fed at an early stage.

Varieties :

SSG-59-3 : It is an early maturing variety having thin stem and broad leaves. Tillers per plant vary from 8 to 10. Very suitable variety for two cuttings. It has also HCN content.

MP Chari : It is a medium-maturing variety thin stem with dark green leaves. Average number of tillers varies from 5 to 7 per plant. Under suitable conditions, it gives two cuttings.

Soil and its preparation

It can be grown on all types of soils varying from sandy loam to clay loam. Alkaline or water logged areas are not suitable for its cultivation. Land should be prepared by giving 2 to 3 ploughings.

Sowing

For early crop sowing should be done during mid March to mid April and for monsoon crop, sowing should be done at the beginning of monsoon by broadcasting seed @ 55 kg/ha.

Nutrient requirement : It requires 80 kg N and 60 kg P₂O₅ per hectare.

Irrigation and interculture

The early crop requires in all about five irrigations. For monsoon crop, irrigation should be given depending upon the rainfall. One good weeding after about 20 days of germination is very beneficial.

BAJRA

It is a quick growing fodder crop suitable for areas below 1,500 m altitude. As there is no risk of HCN poisoning, it can be fed to the animals at any stage. On an average, fresh fodder yield of about 500-600 q per hectare can be obtained.

Varieties : L-72 and local varieties should be grown

Soil : It can be grown on all types of soils free from water logging.

Nutrient requirement : It requires 90 kg N and 60 kg P₂O₅ /ha.

COWPEA

It is a leguminous fodder crop suitable for the areas below 500 m altitude. It can be grown as a pure crop or in mixture with maize, teosinte or napier-bajra hybrid. It is quite rich in protein (18%) and supplements the nutritive value on non-leguminous fodder. Being a leguminous crop, it enriches the soil too. In irrigated areas, it can be sown in March to obtain green fodder in the month of May to June and another crop may be taken during monsoon season.

Variety

Russian Giant : It an early variety which is ready for harvesting within 65 days of seedling. It gives about 230 q and 32 q green fodder and dry matter yield per hectare respectively.

Soil and its preparation

It can be grown successfully on any type of soil from sandy loam to heavy clays. However, loam soils are the most suitable ones for its growth. Land should be levelled and well drained. One cross ploughing is sufficient.

Sowing

The ideal time of sowing is the beginning of May but can be extended till mid July. Sowing can be done by *pura* or drill in rows 30 cm apart at the rate of 30 kg per hectare.

Nutrient and interculture

Before the start of monsoon, crop should be irrigated every two weeks. Hoeing should be done atleast once to check the growth of weeds.

VELVET BEAN

It is a fast growing leguminous fodder crop suitable for areas below 1,500 m altitude. It has a potential to give fresh fodder yield of 300 q per ha. Its fodder is very palatable and nutritious. It is also rich in calcium, phosphorus and iodine and is thus an excellent fodder for all farm animals, particularly for young stocks. It can be successfully grown in mixture with maize, teosinte or jowar, etc. The mature seed contains toxic alkaloid and hence it is not recommended as a concentrate feed for livestock.

Variety: Palampur Selection-1 is an improved variety recommended for cultivation.

Soil : Well drained soil is needed for its cultivation.

Nutrient requirement : It requires 30 kg N and P₂O₅ per hectare which should be applied at the time of sowing.

FIELD BEAN

It is a fast growing short-lived perennial suitable crop for areas below 1,500 m altitude. It can be grown as pure crop or in mixture with maize, jowar, etc. It is a long duration crop which remains green till December. It may give 300 q green fodder per hectare.