

(ii) FODDER MAIZE

A. CROP IMPROVEMENT

I. SEASON AND VARIETIES

Zone District/Season	Month	Varieties
Irrigated		
All Districts	Through out the year	African tall

II. PARTICULARS OF FODDER MAIZE VARIETIES

PARTICULARS	African Tall
Parentage	Composite
Duration (Days)	60-70
Green fodder yield (t/ha)	35-40
Morphological characters	
Plant height (cm)	302.00
Number of leaves	13.30
Leaf length (cm)	81.30
Leaf breadth (cm)	8.15
Stem thickness (cm)	1.77
Leaf-stem ratio	0.21
Quality characters	
Crude protein (%)	9.80
Dry matter (%)	17.65

B. CROP MANAGEMENT

1. GREEN FODDER PRODUCTION

1. Soil

All types of soil with good drainage. Does not come up well in flooded or water logged conditions.

2. Preparatory cultivation

Plough the field twice with an iron plough and three or four times with country plough. Form ridges and furrows using a ridger, 30 cm apart and form beds of size 10 m² or 20 m² depending on the availability of water and slope of the land.

3. Nutrient management

- Spread FYM or compost at 12.5 t/ha along with 10 packets of *Azospirillum* (2000 g) and 10 packets of *Phosphobacteria* (2000g) inoculum or 20 packets of *Azophos* (4000g) and incorporate the manure into the soil during ploughing.
- Apply NPK fertilizers as per soil test recommendation as far as possible. If soil testing is not done, follow blanket recommendation of 30: 40: 20 kg N, P₂O₅ and K₂O / ha. Apply 30 kg N/ha at 30 days after sowing as top dressing.

4. Sowing

- Seed treatment: Treat the seeds with Captan @ 2g/kg + Carbaryl @ 200mg/kg⁻¹ of seeds 24 hours before sowing. Then, Treat the seeds with 3 packets (600 g) *Azospirillum* inoculant and 3 packets (600 g) of *Phosphobacteria* or 6 packets of *Azophos* (1200 g) before sowing.
- Spacing : 30 x 15 cm,
- Seed rate : 40 kg/ha

5. Water management

Irrigate immediately after sowing and give life irrigation on the third day and thereafter once in 10 days.

6. Weed management

First weeding at 25th DAS. Next hand weeding may be given as and when necessary.

7. Plant protection

As per CIB&RC, insecticide is not recommended for the management of pests in fodder crops. No insecticide is registered/label claimed against the pests of fodder crops.

8. Harvest

At 50% flowering (65-70 days after sowing)

9. Green fodder yield

As green fodder under irrigated conditions, a pure crop yields about 35 to 40 t/ha of green fodder.

Note:

- *Fodder maize can be intercropped with fodder cowpea varieties CO 5 or CO (FC) 8 at 3:1 ratio and harvested together to provide balanced nutritious fodder.
- TNAU vermicompost at 5 t/ha + 75% recommended dose of fertilizer for intercropping of maize and cowpea produces green fodder yield of 105 t/ha/yr (3 crops/year) which is sufficient to maintain 7 adults and 3 calf.

2. SEED PRODUCTION

VARIETAL SEED PRODUCTION

Land requirement

- Land should be free of volunteer plants. The previous crop should not be the same variety or other varieties of the same crop. It can be the same variety if it is certified as per the procedures of certification agency.

Isolation

- For certified quality seed production leave a distance of 200 m all around the field from the same and other varieties of the crop.

Seed rate

- 20 kg/ha.

Spacing

- 60 x 20 cm (65 x 15 cm)

Fertilizer requirement

- Apply NPK @ 175 : 90 : 90 kg / ha + 25 kg ZnSO₄ / ha as basal application.

Harvest

- Seeds attained physiological maturity on 40th day after anthesis.

Seed treatment

- Treat the seeds with Carbendazim @ 2 g / kg of seed along with carbaryl @ 200 mg / kg of seed.
- Treat the seeds with halogen mixture (CaOCl₂ + CaCO₃ + *arappu* leaf powder mixed in the ratio of 5:4:1 @ 3 g / kg as eco-friendly treatment.

Storage

- Store the seeds in gunny or cloth bags for short term storage (8 - 9 months) with seed moisture content of 10 - 12 %.
- Store the seeds in polylined gunny bag for medium term storage (12 - 15 months) with seed moisture content of 8 - 10 %.
- Store the seeds in 700 gauge polythene bag for long term storage (more than 15 months) with seed moisture content of less than 8 %.