

10. FORAGE CROPS

(i) FODDER CHOLAM MULTICUT FODDER SORGHUM (*Sorghum bicolor*)

A. CROP IMPROVEMENT

I. SEASON AND VARIETIES

Zone/District/Season	Month	Varieties
Irrigated		
All Irrigated districts	Jan - Feb and Apr – May	CO (FS) 29 and CO31

II. PARTICULARS OF MULTICUT FODDER SORGHUM VARIETIES

PARTICULARS	CO (FS) 29	CO 31
Parentage	Derivative of the cross TNS 30 x <i>Sorghum sudanense</i>	Gamma ray induced mutant of CO (FS) 29
Duration (Days)	Multicut (3 years)	Multicut (3 years)
Average green fodder yield (t/ha)	160-170 (6-7 cuts)	190 (6-7 cuts)
Morphological characters		
Plant height (cm)	260-280	270 -290
Number of tillers	10-15	12-17
Number of leaves/stem	8-10	9-11
Leaf length (cm)	80-90	85-95
Leaf breadth (cm)	3.5-4.6	4.5 - 5.0
Leaf stem ratio	0.2-0.25	0.26
Quality characters		
Protein content (%)	8.64	9.86
Dry matter (%)	23.60	25.90
Crude fibre (%)	21.00	19.80
IVDMD (%)	50.30	52

B. CROP MANAGEMENT

I. GREEN FODDER PRODUCTION

IRRIGATED FODDER CHOLAM

1. Soil

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

2. Preparatory cultivation

Plough with an iron plough once and with a country plough twice. Form ridges and furrows of 6 m long and 60 cm apart and plant on either side of the ridge

3. Sowing

- Seed treatment: Treat the seeds with 3 packets (600 g)/ha of *Azospirillum* and 3 packets (600g) of *Phosphobacteria* or *Azophos* 6 packets (1200g)
- Seed rate: 5 kg/ha
- Spacing: 30 x 10 -15 cm

4. Nutrient management

- Spread 25 tonnes/ha of FYM or compost on the unploughed field, along with 10 packets of *Azospirillum* inoculants (2000 g) and 10 packets of *Phosphobacteria* (2000g) or 20 packets of *Azophos* (4000g)
- Apply 45 : 40 : 40 kg N,P, K/ha as basal and 45 kg N as top dressing on 30 DAS followed by the application of 45 kg N/ha after every cut. After 4th cut, apply 40 kg P and 40 kg K along with 45 kg N to sustain the fodder yield and quality.
- Application of *Azospirillum* (2000g/ha) and *Phosphobacterium* (2000g/ha) together as a mixture or *Azophos* (4000g/ha) along with 75% required dose of N and P fertilizer will enhance the yield besides saving of 25% of fertilizer dose.

5. Irrigation management

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

6. Weed management

First hand weeding on the 20th day of sowing and if necessary 2nd hand weeding between 35 - 40 days after sowing. After each harvest a weeding may be given before fertilization.

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. Harvesting

Green fodder should be harvested at 50% flowering stage. First harvest at 65-70 days after sowing and there after the ratoon crop may be harvested once in 50 days depending on flowering.

9. Green fodder yield

As green fodder under irrigated conditions, a pure crop yields about 170 to 190 t/ha (6-7 cuts) of green fodder