

(iv) GUINEA GRASS (*Panicum maximum*)**A. CROP IMPROVEMENT
I. SEASON AND VARIETIES**

Zone District/ Season	Month	Varieties
Irrigated		
All Districts	Throughout the year	CO 2 and CO (GG) 3
Rain fed		
All Districts	Jun – Sep / Oct - Nov	CO 2 and CO (GG) 3

II. PARTICULARS OF GUINEA GRASS VARIETIES

PARTICULARS	CO 2	CO (GG) 3
Year of Release	2000	2009
Year of Notification	SO.821(E)/13.09.2000	SO.1919(E)/30.07.2014
Parentage	CO 1 x Centenario	Clonal selection from Mumbasa
Duration (Days)	Perennial	Perennial
Green fodder yield (t/ha/year)	270 (7harvests)	340-360 (7harvests)
Morphological characters		
Plant height (cm)	150-200	210-240
Number of tillers/clump	80-100	40-50
Leaf length (cm)	65-75	97-110
Leaf width (cm)	2.5-2.9	3.2 - 4.5
Leaf-stem ratio	-	0.73
Quality characters		
Dry matter (%)	25.94	20.2
Crude protein (%)	8.92	6.35
Crude fibre (%)	34.6	30.3
Phosphorus (%)	0.29	0.19
Calcium (%)	0.59	-
Magnesium (ppm)	0.38	-
IVDMD (%)	49.5	-

B. CROP MANAGEMENT

1. Soil

All types of soil with good drainage.

2. Preparatory cultivation

Plough 2 to 3 times to obtain a good tilth and form ridges and furrows at 50 cm spacing.

3. Nutrient management

- Spread FYM or compost at 25 t/ha 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 the blanket recommendations of 100:50:40 of NPK in kg/ha. Apply full dose of P, K and 50% N basally before planting.
- Top dressing of 50% N on 30 DAP.
- Repeat the application of 75 kg N/ha after each cut for sustaining higher yield.

4. Planting

- i. Irrigate through the furrows and plant one rooted slip per hill.
- ii. Spacing 50 x 50 cm and 40,000 rooted slips are required to plant one hectare.

5. Irrigation management

Irrigate Immediately after planting, give life irrigation on the third day and thereafter once in 10 days.

6. Weed Management

Hoeing and weeding on 30th day after planting. Earthing up should be practiced once after every three harvests.

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

First harvest on 75 - 80 days after planting. Subsequent cuts at the interval of 45 days.

9. Green fodder yield

As green fodder under irrigated conditions, a pure crop yields about 270 to 360 t/ha of green fodder.

Note:

- Guinea grass can be intercropped with *Desmanthus* (Velimasal) at 3:1 ratio and can be harvested together and fed to the animals.
- Rooted slips uprooted from 90 days old crop can be used for further propagation.