

(iii) NEELAKOLUKATTAI (BLUE BUFFEL GRASS) - (*Cenchrus glaucus*)

A. CROP IMPROVEMENT

I. SEASON AND VARIETIES

Zone District/Season	Month	Variety
Rain fed (Pasture grass)		
All Districts North-East Monsoon	Oct - Dec	CO 1

II. PARTICULARS OF NEELAKOLUKATTAI VARIETY

PARTICULARS	CO 1
Parentage	Clonal selection from Vellakoil local (FS 391)
Duration (Days)	Perennial
Green fodder yield (t/ha/year)	40 (4 cuts)
Seed yield (kg/ha/year)	55 - 60
Morphological characters	
Plant height (cm)	120-130
Number of tillers	60-65
Number of leaves	550--600
Leaf length (cm)	25-30
Leaf width (cm)	0.8-1.0
Leaf stem ratio	0.93
Quality characters	
Dry matter (%)	28.00
Crude protein (%)	9.06
Crude fibre (%)	34.6
Phosphorus (%)	0.26
Calcium (%)	0.58
Manganese (ppm)	56
IVDMD (%)	49.4

B. CROP MANAGEMENT

1. Soil

Well drained soil with high calcium content is suitable. It can also be grown in saline/alkaline soils.

2. Preparatory cultivation

Plough the field twice or thrice with an iron plough to ensure good tilth and form ridges and furrows at 50 cm spacing.

3. Nutrient management

- Spread FYM or compost at 5 t/ha and incorporate the manure into the soil during ploughing.
- Apply NPK fertilizers as per soil test recommendations. If the soil test is not done, follow the blanket recommendation of 25: 40: 20 kg N, P and K per hectare.
- Basal dressing: Apply full dose of NPK before sowing.
- Top dressing: After every harvest apply 25 kg N/ha during the rainy season.

4. Sowing/planting

- Seed treatment: Fresh seeds have dormancy for 6 - 8 months. To break dormancy, soak the seeds in 1 % potassium nitrate solution for 48 hours prior to sowing.
- Seed rate: 6 - 8 kg/ha or 40,000 rooted slips/ha.
- Spacing: 50 x 30 cm.

5. Weed management

Hand weeding can be done as and when necessary.

6. 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.

7. Harvest

First cut on 70th or 75th day after sowing and subsequent 4 - 6 cuts depending on growth.

8. Green fodder yield

As green fodder under irrigated conditions, a pure crop yields about 40 t/ha/year (4 – 6 harvests) of green fodder.

Note:

- Tolerant to drought conditions.
- Kolukattai grass can be intercropped with *Stylosanthes scabra* in the ratio of 3:1.

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 10 m all around the field from the same and other varieties of the crop.

Pre-sowing seed treatment

- Scarify the seeds with sand at 2:1 ratio for 2 min for improved seed germination.

Harvest

- Harvest the crop when the panicle dried completely.

Seed grading

- Grade the seeds with BSS 14 x 14 wire mesh sieve.

Storage

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