

Seed corm production techniques in elephant foot yam

**M. Nedunchezhiyan, R.S. Misra
and S.K. Naskar**



Why seed corm ?

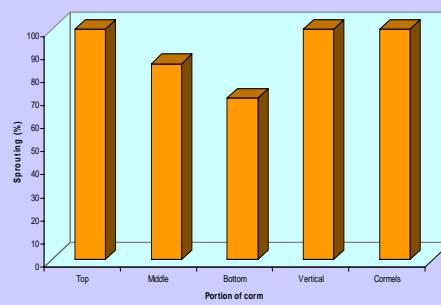
- Whole seed corm
- High multiplication rate



Influence of size of corm on elephant foot yam corm yield

Corm size (g)	Whole corm	Cut corm
	Yield (kg ha ⁻¹)	Yield (kg ha ⁻¹)
400	25480	22369
450	26721	23776
500	28270	25369
550	29807	27023
600	30863	28147
650	31727	29042
700	32572	29912
750	33023	30554
CD @ 5%	2746	2962

Part of the corm on sprouting

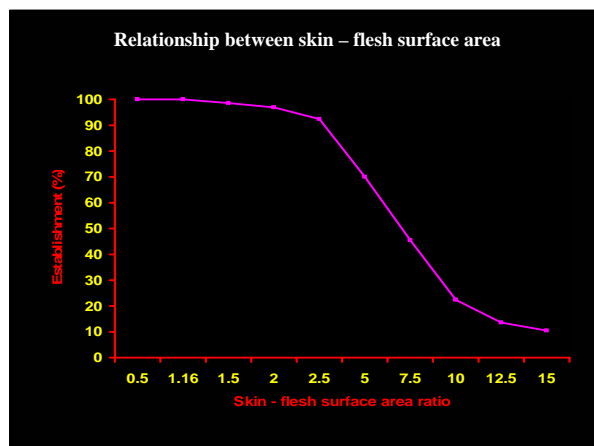


Size of cut corm on yield

Size of the cut corm	Yield (g/plant)
50	364.0
100	692.5
150	993.0
200	1252.0
250	1432.5
300	1572.0



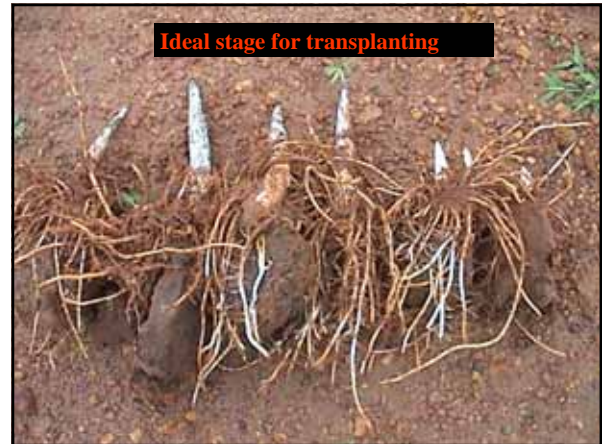




Corm sett size on sprouting

Corm sett size (g)	Sprouting (%)	
	Direct planting	Nursery
50	56.5	68.5
100	90.0	100.0
150	90.5	100.0
200	95.5	100.0
250	97.5	100.0
300	100.0	100.0

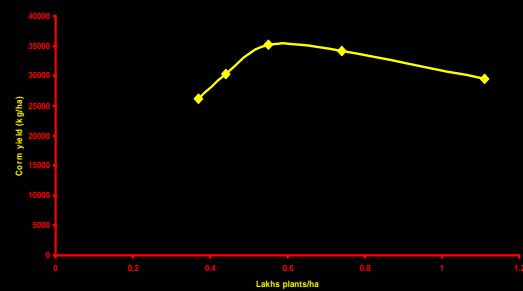




Effect of spacing on elephant foot yam corm yield

Spacing	Population (Plants ha ⁻¹)	Planting material required (kg ha ⁻¹)	Yield (kg ha ⁻¹)
30 x 30 cm	111111	11111	29444
45 x 30 cm	74074	7407	34152
60 x 30 cm	55555	5555	35221
75 x 30 cm	44444	4444	30310
90 x 30 cm	37037	3704	26148
CD @ 5%	-	-	1927

Plant density – yield relationship



Effect of graded doses of fertilizers on corm yield

Fertilizer (N:P:K kg ha ⁻¹)	Yield (g plant ⁻¹)	Yield (kg ha ⁻¹)
60:60:60	578	32124
80:60:80	622	34536
80:80:80	658	36547
100:80:100	683	37920
100:100:100	688	38214
CD 5%	29	1626





Conclusions

- 35-38 t ha⁻¹ of elephant foot yam seed corm of 500-700 g size could be produced by planting vertically cut 100 g size tubers in the nursery and then transplanted in 60 x 30 cm spacing with the application of NPK @ 100:80:100 kg ha⁻¹ along with 25 t ha⁻¹ of FYM.
- Store the corms in single layer keeping apical bud upward.
- Corm treatment with fenitrothion (0.05%) and mancozeb (0.2%) prevents mealy bug and corm rotting during storage.

