

Nursery techniques in cassava

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CASSAVA the food-feed-fuel and future crop is cultivated in Kerala, Tamil Nadu, Andhra Pradesh, Chhattisgarh and in North-Eastern parts of India. The crop is propagated through vegetative means by stem cuttings / setts / stakes; hence the preparation of stakes for multiplication is very important for better crop and higher yield. The main problems with the vegetatively propagated crops like cassava are easy spread of various pests and diseases, less shelf life, bulky nature and less multiplication ratio. Delayed onset of monsoon is another problem faced by cassava farmers and in order to circumvent this, stakes can be raised in nursery for 1-3 weeks before the onset of monsoon. This technique also assures uniform, disease free and healthy planting material. Protocols for nursery techniques in cassava are described here.

Use mature, disease-free and healthy cassava stems having 2-3 cm diameter. Discard top tender part of about 30 cm and lower woody portion of about 10 cm. Cut the remaining part of the stem into pieces (setts / stakes) of 15-20 cm length having 8-12 nodes. Dip the stakes in fungicide solution @ 0.1-0.2% (Carbendazim) for 5-10 minutes and in pesticide solution @ 0.02% (Chlorpyrifos) and shade dry before planting. Prepare nursery beds of 1.0 m width, 15 cm height and of convenient length. Approximately 40 square meter nursery area is required to produce sprouted stakes for transplanting in one hectare. Plant the stakes vertically 5 cm apart so that 400 setts can be planted in one square meter area of nursery. Dense planting with 700-800 setts is also practised if transplanting can be done within a week. Mulching with coconut fronds (leaves) reduces moisture loss from the setts. Provide sufficient irrigation for initiating sprouting. The setts sprout within a week. The sprouted setts can be transplanted in the main field at 2-3 leaf stage, after moistening the beds and uprooting the plants. The plants can be retained in nursery for 2-3 weeks also for the onset of rains.



Protocols



Use a sharp knife or hack-saw blade to prepare stakes. Mature, disease-free, healthy stems being cut into stakes



Prepared stakes of 15-20 cm length



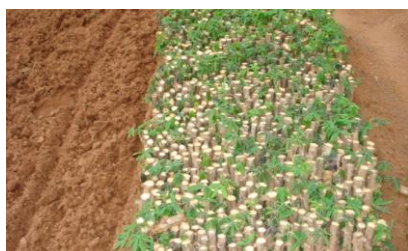
Planting stakes on nursery bed



Mulching with coconut leaves



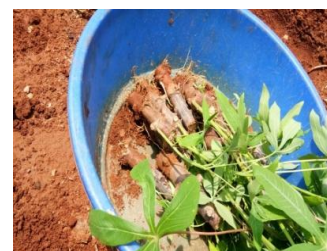
Sprouted stakes with new leaves



Sprouted stakes ready for transplanting



Uprooted healthy rooted stakes ready for transplanting to main field



Advantages

- 40 square meter nursery sufficient for one hectare planting
- Selection of healthy and disease-free plantlets for planting
- Assured uniform stand in the main field
- Delayed planting is possible with onset of rains