How to handle and multiply cassava planting material

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Ensuring self-sufficiency in quality cassava planting materials

Vegetative propagation through cuttings is the method used for multiplication of improved cassava planting materials. However, the rate of multiplication is low. Rapid multiplication technology has been developed to increase the rate of multiplication.

- The procedures for preparing cuttings involve preparation of the ministem cuttings
- The stem is cut into several small pieces
- Each piece should have more than one nodes, depending on the portion of the stem from which it is cut
- Pieces cut from the bottom of the stem (hardwood) may have one or 2 nodes
- Those from the middle of the stem (semi-mature) may have 4-6 nodes
- Cuttings from the tip portion (top green and tender) may have 6-10 nodes
The hardwood and the semi-mature cuttings are prepared using sharp tools such as shears, secateurs, pangas or a handsaws.

Cuttings from the top portion are prepared using the secateurs or sharp knives.

**Multiplication methods**

Two methods for establishing rapid multiplication are described below.

**Method 1**

- Research has resulted in improvement in cassava seed multiplication method called **multi-compartment tray**
- The tray compartments are filled with loamy soil, which is well moistened and then the cuttings are stuck each per compartment with the bud pointing upwards.
- The trays are kept under shade with sunshine penetration until the plants have sprouted and ready for transplanting.
- The trays can be put in a simple dome-shaped polythene-covered structure to enhance sprouting.
Method 2
The other method for seed multiplication is through nursery seedbed
- This method is good for cuttings from the middle and top parts of the stem (semi-matured and top green)
- The cuttings should be 7-10 cm long and planted vertically at a spacing of 10 × 10 cm in the nursery bed with two-thirds of each cutting buried in soil
- The oldest end of the cuttings are the ones to be buried
- It is then watered regularly to ensure that the cuttings do not dry
- Black-potted bags with soil method uses similar procedures of soiling and handling as the tray method

- The cassava plants are watered adequately to ensure fast growth and after 4-6 weeks, they are transplanted to field either to be irrigated or immediately after onset of rains

- Clear polythene bags without soil method is another option

- Cutting nursed for 4-6 weeks in polythene bags without soil, thus providing a quicker, less expensive and more convenient method
Apart from the emphasis on multiplication of planting materials, steps are taken to ensure their effective accessibility by farmers. The chronic and transitory inaccessibility of planting materials can be overcome by

- Private and mission cassava seed business
- Farmers’ field days
- CBO demonstration plots
- Multilocational on-farm trials
- Farmer-to-farmer movement of planting materials and training farmers on storage
- CBO demonstration plots: farmers can acquire improved seeds from their demonstration plots
- Farmers’ field days enables farmers get knowledge management practices and improved varieties
- Multilocational on-farm trials where the varieties are supplied to farmers for testing with the retaining of good selected varieties
- Conservation of improved planting materials is essential after harvesting as it ensures availability of improved planting materials the next season
- Handling and transportation of planting cuttings from source to distant field is very important in order to preserve the integrity of the stems. Quite often the buds break-off easily when cuttings rub on each other resulting poor germination