- Manual Weed Control (Hand Weeding)
   Use machetes, hoes, cutlasses, and any other adapted tool to clear weed.
- Chemical Weeding
   Herbicides may be applied pre- or postgermination, depending on the ecology of the
   area. Use of pre-emergence herbicides is
   recommended to ensure early weed control and
   post emergence to ensure optimum yield and
   weed free harvest

#### Pre emergence Application:

Apply agrochemicals like Primextra Gold@4lts/ha, or Dual Gold@1.5lt/ha that ensure good weed control for the first 12 weeks after planting

Post emergence Application

Applly paraquant like Grammoxone super@3lts/ha at 12 and 24 weeks to control using a spray guard with or cone nozzle.

Safe use of Herbicides
 Spraying of herbicides can be harmful to humans and the environment if proper guidelines are not followed.

## FERTILIZER USE IN CASSAVA PRODUCTION

Fertilizer application is critical during the first phase at 5-8 weeks after planting when the thin and thick roots are being rapidly produced and can absorb nutrients from the soil. It is also essential during 14-16 weeks after planting when the tubers begin to bulk up and there is a high demand for sucrose, which is stored in the tubers.

### HOW TO APPLY FERTILIZER IN CASSAVA

There are different ways of applying fertilizers to the field. They include:

- 1. Broadcasting
  - Apply uniformly on the ground around each cassava plant

- Ensure the right quantity by taking at least a matchbox full of fertilizer (NPKS) per plant.
- Avoid placing the fertilizer too close to the plant or on exposed roots or tubers.

#### 2. Row/Band or Ring Placement

- Prepare lines, bands or ring 6 cm deep and 10cm away from the cassava stem
- Take a match box full of fertilizer and apply uniformly.
- The bands should be on both sides of the rows of cassava.
- Avoid any contact between fertilizer and any part of the plant.

# THE USE OF BIO-PRODUCTS (ORGANIC) IN CASSAVA PRODUCTION

Bio-product refers to preparation containing live microbes which helps in enhancing soil fertility. They also biologically control soil pests and diseases and are farmer pocket friendly.

#### METHODS OF HARVESTING

Cassava harvesting is mostly done manually in the humid tropics.

- Before harvesting, cut off the plants at 40-60 cm.
- Use the length left as handle for pulling the roots out of the soil if the soil is soft.
- If the soil is hard, the roots can be dug or lifted using a pointed metal bar or a metal fork attached to a wooden handle and used as a lever.

#### ADDITIONAL INFORMATION

- a. Growing Cassava Commercially in Nigeria: An illustrated guide
   A.A. Adekunle, A. Dixon, J. Ojurongbe, P. Ilona, L. Muthada, S. Adisa
- Incentives for the adoption of Good Agricultural Practices: Background paper for the FAO Expert Consultation on a Good Agricultural Practice approach Rome, Italy, 10-12 November 2003







## GOOD CASSAVA, GOOD MONEY

GOOD AGRICULTURAL PRACTICES
FOR IMPROVING CASSAVA



#### LAND SELECTION AND SOIL TYPE

Cassava production depends on soil texture and fertility. Soils with good texture for cassava are deep light sandy loams with good water holding capacity that are easy to work, while optimal soil fertility can be found in soils with dark colours.

### LAND AND CLEARING

Land clearing begins from late January and lasts up to March or even April. Clear land with axe and or cutlass. Do not burn your fields during land clearing.

### PRE TILLAGE HERBICIDE TREATMENT

Spray weeds with glyphoshate and allow to work for 10-14 days before start of land preparation this ensure better weed control

### LAND PREPARATION

Prepare land as heaps or ridges at the start of the rains. Make ridges across the slope to reduce the speed of run-off water. Land preparation method adopted depends on the soil type and depth of the water table.

### STEM SELECTION HANDLING AND MANAGEMENT

Cassava is normally planted using the stem cuttings. The sticks are best harvested or cut when they are between 9-16 months old. Avoid older stems that grow poorly with reduced yield. Select healthy stems that are matured, long with more buds per stake and more stakes per stick with no or minimal damage by pests and diseases.

To record good germination, handle stems very carefully to prevent damaging the nodes.

- 1. Stem Harvesting
  - Cut stems at 25-30cm from ground level with sharp cutlass.
  - Trim off the top after about 100 -120cm depending on variety

- Physical damages to stems start occurring from the harvesting point. Be careful when assembling the stems after cutting so as not to cause bruises on the stem and nodes.
- Arrange your stems in bundles (50 sticks each) and tie them up with rope. Don't tie them too tight so the nodes does not get bruised.
- 2. Stem Selection.

Select only:

- Matured stems that are between 9 16 months
- Clean stems that are free from pests and diseases
- 3. Transportation of cassava stems
  - Cassava stems are best transported in tied bundle of 50 sticks or cut into planting stakes that are tied up in 25-30 stakes packs.
- 4. Storage of cassava Stems
  - If stems are not to be used immediately, they should be stored under a shade as sticks standing or in polybags to avoid sun drying. To store as stakes, cut the sticks into stakes of about 20-25cm long with 5-10 nodes.
- 5. Cutting your Sticks into Stakes for planting or Storage.
  - Be very careful when cutting your Sticks into Stakes.
  - Select hardwoods or semi-hardwoods.
  - Cut them with very sharp instrument/equipment
  - Do NOT place the stick on top of hard object or wood when cutting into stakes
- 6. Treating your stakes against insects & fungi
  - Dip the hard wood end of the stake for 5-15 minutes in a fungicide/insecticide to protect the stems from soil borne pests and diseases.



- Remove and allow solution to drip off the stakes.
- You may now plant or put in a transparent nylon for pre-sprouting as needed.
- Examples of pre-planting treatment chemicals are Ridomil gold 68 Mz,Actara Champion, Benlate, Diazinon and Nutrex

### **PLANTING**

It is a bad practice to use the stake to open the soil during planting. Open the soil with a cutlass, a trowel or a hoe before inserting the cassava stake.



#### **WEED CONTROL:**

Use cultural, chemical, biological, and mechanical weeding to control weed.

- Cultural Weed Control
- Mechanical Weeding Method

Mechanical weed control includes use of animal-drawn or motorized plough and harrowing equipment. It should be done 21 to 35 days after planting.