

CASSAVA
(*Manihot esculenta*)

LOCAL NAMES

- Ege(Yoruba)
- Paki(Yoruba)
- Rogo(Hausa)
- Garri(Ibo)

BOTANY

- Botanical name: *Manihot esculenta*
- Family: Euphorbiaceae
- Origin: South America, specifically North East Brazil

VARIETIES

- Sweet varieties/Low cyanide: TME-1; TMS – (2)-1425, MS 6.
- Bitter varieties/High cyanide: TMS 30574; NR 8082

CLIMATIC REQUIREMENT

- 1. Adapted to tropical lowlands
- 2. Perform best under good amount of rainfall
- 3. Optimum temperature ranged from 25 – 29°C
- 4. Drought tolerant varieties have been released for Kano and Lake Chad areas

LAND PREPARATION

- 1. Minimum tillage in fallowed lands
- 2. Plowing, harrowing and sometimes including ridging in lands under cultivation or hard soils
- 3. In water logged lands or riverine areas, mounds or ridging is encouraged to increase drainage

Production of Planting materials

- Harvest 1 meter long stakes from disease free plots cultivated for seed production
- Store seed stalks erect under shade or under tree and water them during dry season
- Close spacing 60cm x 60cm used for seed production
- Rapid multiplication of new varieties with 2 node cassava stem in sawdust before field planting

Planting for tuber production

- Time of planting in rainforest area: From April or steady rainfall for early season planting and August/Sept for late planting
- Methods of planting
- Angular for loamy soil
- , horizontal
- and vertical for sandy soil

Spacing

- Sole cropping 1m x 1m
- Intercropping 1m x 1.5m

Fertilizer and time of application

- 4 – 8 bags of NPK 15-15-15 per ha
- Or 5-10 tonnes of Organic manure
- Time: 8 to 12 weeks after planting
- Single dose application by banding or ringing

Weed control

- Pre-emergence
- Pendimetalin 375ml/15 litre Knapsack(sole crop)
- Atrazine +Metholaclor 375ml/15 litre knapsack
- Post emergence
- Fusilade(Selective against grasses)
- Gramozone(Non-selective herbicide)

Harvesting

- Ripe for harvesting at 8 to 12 months after planting
- Methods of Harvesting
- Manually by hand pulling
- Mechanical harvesters

Yield expectations

- Local varieties: 9 to 15 tonnes per ha
- Improved varieties: 30 to 40 t/ha

Pests

- Invertebrate pests
- 1. Grasshoppers (*Zonocerus variegatus*)
- 2. Termites
- 3. Mealybugs (*Phenacoccus manihotis*)
- 4. Mites
- A) Green spider mites (*Mononychellus tanajoa*)
- B) Red spider mites (*Tetranychus telarius*)

Control

- 1,2,3 controlled by Gammalin, or Nuvacron
- 4 controlled by miticides

Vertebrate pests

- Rats and bush hogs
- Bush fowls
- All controlled by hunting, traps and clean weeding

Diseases

- Cassava mosaic Virus disease spread by white fly(*Bemisia tabaci*). Leaves are light green and small
- Cassava bacterial blight causes wilting, defoliation and stem die-back. CBB caused by *Xanthosoma manihotis*
- Cassava anthracnose disease(CAD) Cankers or sore on stem and leaf petioles.
- Cassava leaf spot: white or brown spots or blighting of leaves

Control

- Plant disease resistant varieties
- Plant cassava early
- Plant only disease free plants
- Farm hygiene by regular weeding, rouging of infected plants.

Uses of Cassava

- Industrial uses:
- Glucose syrups, Glue, Ethanol, Starch
- Food uses:
- Cassava chips, High quality cassava flour, confectionaries(biscuits,cakes), Gari etc

