

An Agricultural Extension Initiative  
of Dangote Fertiliser Limited

# GOOD AGRONOMIC PRACTICES FOR CASSAVA



  
**DANGOTE**  
FERTILISER

Power to Farmers



**C**assava is one of the most important staple food in Africa and industrial crop in Nigeria. Cassava based industries have provided a source of living for a high percentage of the rural population who are engaged at different levels of its production and processing. Cassava production dominates the southern part of the country, both in terms of area covered and number of farmers growing the crop. In Nigeria, 24 out of 36 states are involved in cassava production. The major states of Nigeria which produce cassava are Anambra, Delta, Edo, Benue, Cross River, Imo, Oyo, Taraba, Rivers and to a lesser extent Kwara and Ondo states also record significant production capacity.

### **CLIMATIC & SOIL REQUIREMENT**

Cassava requires a temperature of 21°C - 35°C and an annual rainfall of about 1000 - 2500 mm. It can tolerate drought and may even survive 4 – 6 months of dry spell provided this does not occur too soon after planting. Because of its drought tolerance nature, cassava can grow in areas with as little as 600 mm annual rainfall.

Cassava needs light textured and well drained soils with enough moisture and balance nutrients. Cassava is highly tolerant to acid soils and can form a symbiotic association with soil fungi that help its phosphorus and micronutrients. Since most of the absorbed nutrients are found in the stems and leaves, returning them to the soil helps maintain soil fertility for the next cropping season.

### **LAND PREPARATION**

Cassava production requires good soil preparation. The land should be cleared and tilled adequately before the onset of planting. Generally, ploughing and harrowing to a depth of 25 cm, followed by ridging 1m apart. Application of 5-10 tons of FYM per hectare is good in sandy soils to maintain soil fertility.

### **VARIETY SELECTION**

Recommended improved varieties are TMS 30572, TMS 1425, TME 419, TMS 30555 and TMS 30395, among others. These varieties are recommended based on yield potential, cyanide content, maturity period, storage and resistance to pests and diseases.

### **TIME OF PLANTING**

Cassava planting should be done as soon as rain is established. Cassava stem cuttings should be planted soon to avoid dehydration. Cuttings should be planted at a shallow depth of 5 to 10cm in heavy and wet soils, but slightly deeper in light-textured and dry soils to avoid surface heat and lack of moisture. The cuttings can be placed horizontally into the soil in dry climates while during the rainy season the cuttings are usually planted vertically to avoid rot. Best cuttings for planting are obtained from plants 6-12 months old. A total of 10,000 stem cuttings per hectare is required, with a spacing of 1m X 1m between rows and plants. Narrow spacing 1m by 0.5 m can be kept for the varieties that grow upright without branching. To prevent excessive heating on planting materials, planting should be done in the morning or evening when the sun rays are less intense.



## WEED CONTROL

Slow initial development of sprouts makes cassava susceptible to weed competition in the first 3-4 months. Regular weeding is required until the crops are able to form canopy and reduce weed infestation. Hoes or cutlasses can be used to clear out weeds in small farms, while tractor operated weeders can be used in large farms. However, herbicides are often used on larger farms when labour is either not available or too expensive. Herbicides such as Atrazine 50% WP + Pendimethalin 33% EC at (2 kg Atrazine + 2 litre Pendimethalin in 200 litre of water for one hectare) 3 - 5 days after planting as pre-emergence herbicide. Post-emergence herbicide Diuron 80% WP at 2 kg /hectare (mix in 200 litres of water and spray) 4 - 8 weeks after planting.



## FERTILISER MANAGEMENT

Cassava has an extensive root system and uses plant nutrients which are not easily accessible to other crops. Fertiliser should be applied based on soil test recommendations. In the absence of soil test report apply 90 kg N (200 kg Dangote Urea) 20 kg Phosphorus ( $P_2O_5$ ) and 75 kg potash ( $K_2O$ ) per hectare. Full dose of Phosphorus, Potassium and half dose of Nitrogen should be applied at initial stage after 6 weeks of planting and the remaining Nitrogen should be applied 12 - 16 weeks after planting.



## PEST AND DISEASE MANAGEMENT

Cassava Mealy Bug (*Phenacoccus manihoti*) and Cassava Green Mite (*Mononychellus tanajoa*) can cause up to 80% crop loss, which is extremely detrimental to the production of subsistence farmers. Spray Profenophos 50 EC @2 ml per liter of water + 1% soap solution for the control of mealybug and green spider mites. Cassava bacterial blight can be controlled by selection of tolerant varieties. Soaking of cuttings in hot water before planting, sterilizing farm tools with disinfectants and by inter-cropping can reduce plant-to-plant dissemination. Root rots are also common in cassava and can be controlled by sourcing planting material from healthy plant parents.



## HARVESTING

Harvesting should be done as soon as tuberous roots have accumulated sufficient amount of starch, but not too late i.e when tuberous roots become woody or fibrous. Depending on the variety and growing conditions, it could be harvested from 7 to 12 months after planting. Most cassava varieties attain optimum weight at about 18 months after planting when starch

accumulation is highest. Optimum time for harvesting cassava varies depending on time of planting, variety planted, climatic conditions, soil factors and market demand. Yield of 10-15 tons per hectare may be obtained under good farm management.

