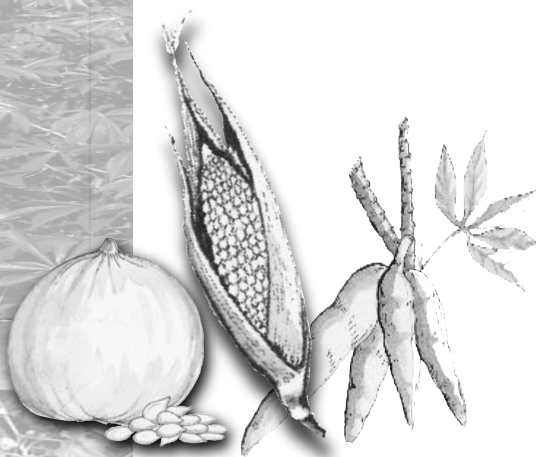


COMMERCIAL CROP PRODUCTION GUIDE SERIES

Growing Melon and Maize with Cassava in Nigeria



United States Agency for
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Growing maize and melon with cassava

Choice of Land

A well drained, deep, friable soil will support Melon/Maize/Cassava mixture.

Land Preparation

TRADITIONAL MANUAL

- **FOREST AREA:** Clearing of land should be done in January, followed by felling of trees and burning in February to allow seed bed preparation to be completed after the first rains.
- **SAVANNA AREA:** Clear land in February and incorporate residue into the soil where possible or arrange residue in rows to clear the seedbed area.

MECHANICAL

To obtain a good seed bed, the use of heavy equipment (bulldozer) which will remove the top soil should be avoided. The land should be ploughed, harrowed, and ridged.

RECOMMENDED VARIETIES

- **MELON:** Bere, Serewe, and Sofin
- **MAIZE:** Western Yellow 1: TZSR-Y-1 (Streak Resistant), DMR-LSRY (Downy Mildew & Streak Resistant).
Check for other available varieties in "Growing Maize in Nigeria."
- **CASSAVA:** TMS 30395, 30572, 30555 and 50395.

Time of Planting

Melon is planted with the first rains in March followed by maize as soon as rains become steady and cassava as soon as possible after the emergence of maize.

Plant Population

- **MELON:** Plant at 100 x 100 cm to give a population of 10,000 plants/ha with 1 or 2 seeds/hole.
- **MAIZE:** Plant at 1–2 seeds/hole at 100 x 100 cm to give a plant population of 10,000 plants per hectare. About 7.0 kg of seeds is required for one hectare.
- **CASSAVA:** Plant at 100 x 100 cm to give 10,000 plants/ha. Cuttings should be from mature stems with about 5 nodes and 20–25 cm long.

Fertilizer Rate and Time of Application

- **FOREST AREAS:** Under continuous cultivation, apply 300 kg (6 bags) of NPK 25:10:10/ha at planting as band or broadcast application to give 75 kg N, 30 kg P₂O₅ and 30 kg K₂O per hectare.
- **SAVANNAH AREAS:** Apply 400 kg (8 bags) of NPK 25:10:10, 100 kg (2 bags) of single super phosphate and 3–5kg of zinc sulphate/ha at planting as band or broadcast application to give a total of 100 kg N, 58 kg P₂O₅, 40 kg K₂O, 14 kg S, 1–2 kg Zn per hectare.

CAUTION

- *The above fertilizer recommendation may be modified to suit the prevailing soil nutrient status.*
- *If the above fertilizer recommendation has been used repeatedly on the same field for more than two years, it is advisable to carry out soil test before any further fertilizer application.*

Weed Control

First weeding should be done three weeks after planting melon; second weeding after the melon has been harvested and subsequent ones as necessary.

Diseases and Pest Control

DISEASE

Plant crops early to minimize attack by diseases and use available recommended varieties that are known to be resistant to the most important diseases in the locality.

VERTEBRATE

- **RODENTS:** Keep the plots and surrounding free of weed to minimize attack.

INSECTS

- **STEM BORERS:** Stem borer attack should be controlled by applying 1.68kg active ingredient of Vetox 85® per hectare, i.e., 3 standard filled match box per 4.5 litres (1 gallon) of water. Two applications are required for effective control, the first at 2 weeks after planting and the second, 2 weeks after.
- **GRASSHOPPERS AND ARMY WORMS:** Spray monocrotophos at the rate of 28 ml/9 liters of water.
- **TERMITES:** Termite hills in the field and surrounding areas should be located and destroyed. Apply Nogos 50™ to destroy termite hills at 25–50 ml/4.5 liters of water per hill depending on the hill size. For the control of the other pests and diseases of maize and cassava in this mixed cropping, please refer to control measures in sole crop of maize and cassava.

Harvesting

- **CASSAVA:** Spread the harvesting over consumption period or harvest as required over 12–18 months.

Expected Yield

- **MELLON:** 100–300 kg dry unshelled seed/ha.
- **MAIZE:** 1000–2000 kg dry grains/ha.
- **CASSAVA:** 10–15 tonnes fresh tuber/ha.

Storage

- **CRIB STORAGE:** Protect maize cobs with Actellic® applied at the rate of 1 part Actellic® to 5 parts of water or 20 kg Actellic® (2%) dust/kg of cob.
- **AIR-TIGHT CONTAINER:** Dry grains should be protected with Phostoxin at the rate of 1 tablet to 25 kg of maize or 50 kg.

About ICS-Nigeria

Information and Communication Support for Agricultural Growth in Nigeria (ICS-Nigeria) is a project which aims to increase the quantity and quality of information available for increased agricultural production, processing, and marketing and also strengthen the capacity of farmer assistance organizations to package and disseminate information and agricultural technologies to farmers for the alleviation of rural poverty.

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