

# GROWING CASSAVA THE ORGANIC WAY



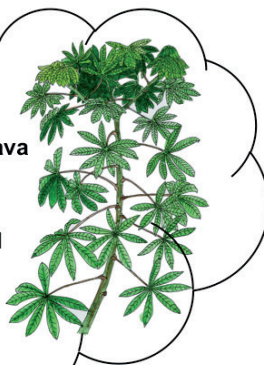
Organic cultivation of cassava focuses on proper crop and postharvest management. This contributes to higher yields and better quality.

According to the International Federation of Organic Agriculture Movements (IFOAM, 2008) organic agriculture is «a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.»

## Selection of suitable cultivars



- › Suitable for local soils and climate
- › Resistant to cassava mosaic disease
- › Fast maturing
- › Good for food and other uses
- › Good for storing in the ground



- › Cassava is generally drought tolerant, sensitive to water logging and grows on most soils.
- › Varieties with tubers with a dry matter content of more than 30 % give better quality products.
- › Early bulking varieties compete better with weeds and are more suitable for drier areas.
- › Varieties that store well in the ground leave more time for harvest.

## Proper preparation of cuttings and planting

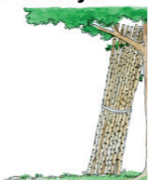
### 1. Use clean tools



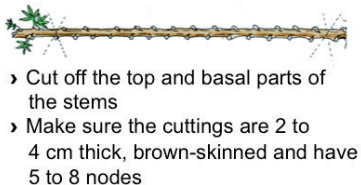
### 2. Select healthy plants



### 3. Store under shade for 10 days

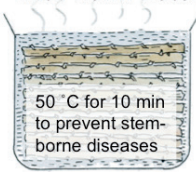


### 4. Make 30 cm long cuttings



- › Cut off the top and basal parts of the stems
- › Make sure the cuttings are 2 to 4 cm thick, brown-skinned and have 5 to 8 nodes

### 5. Treat cuttings with warm water



50 °C for 10 min to prevent stem-borne diseases

Many diseases in cassava are stem-borne and can be controlled by proper selection of planting material.

### Planting

- › Plant at the beginning of the rainy season.
- › Plant cuttings upright in sandy soil, angled in loamy soil and flat in dry climates.

## Enhancement of soil fertility to improve yields

### Apply manure



### Grow green manures



### Mulch in trash lines

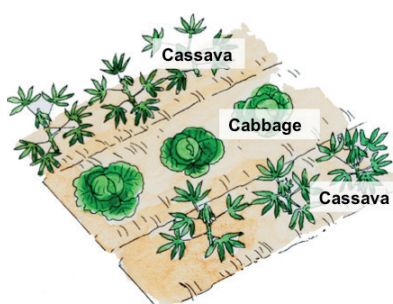


Cassava stems, roots, leaves

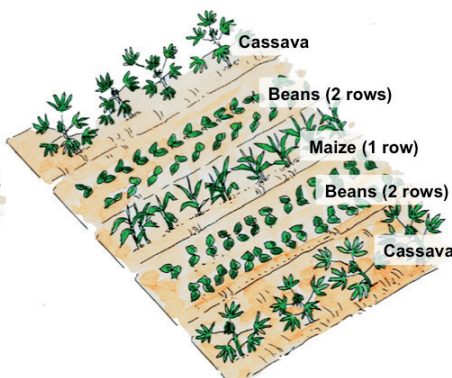
- › Cassava can be grown in poor soils, but has better yields in soils with improved fertility.
- › Good nutrient availability in early growth stages particularly increases yields.
- › The Brazilian '**Parcagem**' approach recommends leaving a high number of cattle during 60 consecutive nights on the field before planting cassava.
- › At harvest leave cassava residues in the fields.

## Increasing plant persistence against pests, diseases and weeds

### Simple intercropping



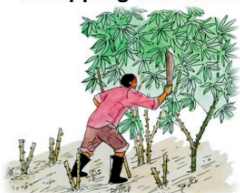
### Complex intercropping



- › Planting hedges encourages natural enemies of pests.
- › Crop rotation, timely planting and use of healthy cuttings prevent diseases.
- › Enhance rapid initial development of cassava plants during the first 3 to 4 months escape weed competition.
- › Cleaning seedbeds, mulching and complex intercropping help to reduce weed pressure.

## Harvest and proper storage

### 1. Topping before harvest



### 2. Harvesting



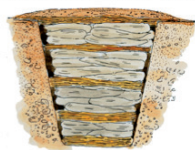
Pulling in sandy soils or during the rainy season

Digging

### 3. Careful transportation



### Storage in straw-lined trenches



### Storage in woven bags



- › Harvest cassava when it reaches maturity.
- › Freshly harvested cassava is highly perishable. Bruising and dehydration cause quality losses. Tubers damaged during harvest are prone to fungal attacks.
- › Storing mature roots in the soil is possible, but makes them woody and exposes them to pest attacks.
- › Under proper storage conditions roots can be kept several months.