Cooking Banana Marketing Protocol

Expanding Utilization of Roots, Tubers and Bananas and Reducing Their Postharvest Losses

September 2016

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This protocol is an output of Expanding Utilization of Roots, Tubers and Bananas and Reducing their Postharvest Losses (RTB-ENDURE) project implemented by CGIAR Research Program on Roots, Tubers and Bananas (RTB) with funding from the European Union and technical support from IFAD.

Photo credit: Sara Quin [CIP]
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Introduction

The East Africa highland cooking banana (AAA-EA) often referred to as Matooke in Uganda is a major source of food and income for many households in Central, South, South Western and some Eastern parts of the country. The Uganda national banana production was estimated to be 8.9 million tons in 2014, with the East African highland banana producing approximately 8.2 million tons as compared with other staple crops such as cassava (2.9 million tons) and sweet potato (1.8 million tons). Production is mainly by smallholder farmers owning an average of less than 0.5 hectares, with medium-sized farms gaining prominence in the South East. Currently Western Ugandan districts of Isingiro, Mbarara and Bushenyi are the highest producers of cooking bananas contributing more than 1.5 million tons annually. However, farm gate prices are low due, among the other reasons, to the low quality [e.g., small sized and sometimes diseased fingers, poor shape and color] of most of the harvested bananas coupled with poor postharvest handling practices and the mismatch between the markets demanded varieties and those largely grown by the farmers. In addition, the way the bananas are marketed involving farmers selling individually and a long chain of middlemen [5-7] between the producer and the final consumer also affects the prices earned by the farmers.

This protocol therefore is designed to support farmers to improve (1) the quality of their bananas in the field and (2) the postharvest practices in a bid to facilitate access to better prices and niche markets. The protocol is organized into three sections as below:

Section 1: Good Agricultural Practices (GAP)

Section 2: Proper Harvest and Handling Practices

Section 3: Good Marketing Practices (GMP).
Section 1: Good Agricultural Practices

Increase production of the market demanded varieties

A market study conducted in major markets in Uganda identified four banana varieties that are highly demanded in local and export markets. These varieties are: Mbwazirume, Nakitembe, Kibuzi and Musakala. The features that make these varieties popular are:

### Nakitembe and Mbwazirume
- Stout pseudo-stems
- Compact bunches
- Medium-sized fingers
- Fast maturing
- Golden yellow, soft and tasty food
- Nakitembe has the best flavour (according to consumers)

Photo credit: Elliot Baligeya [UFVEPA]
Kibuzi
- Stout pseudo-stem
- Big and compact bunches
- Long shelf-life
- Hard skin (does not bruise easily)
- Makes tasty food with a nice aroma

Musakala
- Big bunches
- Big and loosely packed clusters
- Long fingers
- Makes soft and tasty food
- A few fingers give a lot of food
Recommended agronomic practices

The following agronomic practices will give you quality bananas that can fetch better market prices.

1️⃣ **Use disease free planting materials**

Most banana diseases are transmitted through planting materials and once diseased plants are introduced into a banana field, they can spread diseases to other healthy plants and the whole field may be affected.

**USE DISEASE FREE PLANTING MATERIALS TO PROTECT YOUR FIELD FROM DISEASES.**

*Photo credit: Elliot Baligeya [UFVEPA]*

⚠️ **CAUTION**

It is possible for a diseased plant not to show symptoms yet the suckers may be infected and can still transmit diseases.
USE PLANTING MATERIALS FROM THESE TRUSTED SOURCES:

✓ Tissue culture nurseries
✓ Macro-propagated planting materials

Macro-propagated planting materials:

✓ Low cost planting materials
✓ Produced locally but under relatively safe conditions
✓ Labelled with variety name
✓ Available in large quantities

Photo credit: Elliot Baligeya [UFVEPA]
2 Mulching and weeding

Keep the banana plantation well mulched and free from weeds at all times.

Photo credit: Sara Quin [CIP]

✓ Mulching helps in nutrient cycling, moisture conservation, weeds suppression and in controlling soil erosion

✓ Timely weeding reduces competition for nutrients and disease pressure.

**AVOID WEEDS IN YOUR PLANTATION BECAUSE THEY HARBOR PESTS WHICH CAN TRANSMIT DISEASES.**
De-suckering and dry material removal

Through de-suckering [leaving only 3 suckers per plant] the plant population is reduced which helps in getting a bigger bunch.

Dry material removal reduces disease incidences especially the leaf spots like Black and Yellow Sigatoka and pests such as banana weevils.

ONLY REMOVE THE DRY LEAVES AND LEAF SHEATH.
4 Improve water infiltration and retention

Dig trenches in your plantation to improve water infiltration and retention.

Photo credit: Elliot Baligeya [UFVEPA]
Banana bacterial wilt control and management

Control and fight banana wilt in the following ways:

**HOW TO PREVENT BANANA WILT...**

IMMEDIATELY AFTER THE LAST HAND OF BANANAS HAS FORMED, BREAK OFF THE FLOWER USING A FORKED STICK.

**WHAT DO I DO IF MY PLANTS ARE SICK?!**

CUT DOWN SICK PLANTS AT GROUND LEVEL...

...AND REMOVE THE CENTRE OF THE STEM TO MAKE SURE IT WON'T GROW BACK!

**STOP INFECTIONS FROM SPREADING**

AFTER CUTTING DOWN ALL SICK PLANTS, DISINFECT THE MACHETE IN FIRE.

DO NOT REMOVE ANY LEAVES OR HEALTHY SUCKERS FOR 4 MONTHS.

DO NOT LET GOATS, SHEEP OR COWS BROWSE AMONGST THE BANANAS.

**REMEMBER TO INSPECT YOUR BANANA PLANTS WEEKLY FOR BANANA WILT SYMPTOMS! CUT DOWN ALL VISIBLY DISEASED PLANTS INCLUDING DISEASED SUCKERS.**
Section 2: Proper Harvest and Handling Practices

1 Harvest at the right time

A bunch that is harvested immaturely:
- Will have small fingers
- May rot as they mature
- Does not taste well
- Fetches low prices because of the low quality
- Get dehydrated fast

Conversely a bunch that is harvested when over mature will have big fingers but will RIPEN and ROT quickly.

Photo credit: Brenda Kituyi
What is the right time to harvest?

- A Kibuzi bunch grown in Isingiro district, Rugaga Sub County is best harvested between 133 and 150 days from the time it flowers. Then it will stay green for between 10-19 days i.e., if harvested at 133 days, it will stay for 19 days while at 150 days, it will stay for 10 days.
- A Kibuzi banana grown in Rakai District, Dwaniiro Sub County is best harvested between 133-142 days from the time it flowers. Then it will stay green for between 10-15 days i.e., if harvested at 133 days, it will stay for 15 days while at 142 days, it will stay for 10 days.

2 Harvest gently

Gentle harvesting helps in reducing physical damage in form of bruises to the fingers.

- A quality bunch MUST be free from bruises
- Unbruised bananas can target niche markets and fetch better prices.

Photo credit: Sara Quin [CIP]
3 Avoid contaminating the bananas

Do not place the harvested bunches on the bare ground to avoid contamination. The bananas can be placed on a tarpaulin or banana leaves or any other material other than the bare ground.

4 Grading

Grade the bananas according to variety and physical characteristics like bunch size, color, shape, finger length, finger girth and extent of damage.

Grading is also important in preparing bananas for the different markets demanding specific quality, such as supermarkets and the export market.
5 Packaging

Use clean and perforated packaging materials that offer good conditions for storage and work in a clean environment.
Packaging materials MUST protect the bananas from pilferage, dirt, mechanical damage, physiological and pathological deterioration during handling. They should be:

- Easy to stack
- Easily labeled
- Attractive
- Biodegradable or re-usable
- Immobilize the bananas during transit and storage.

**CAUTION**

Packing bananas in polyethylene bags is not a good practice because it results in deterioration and ripening due to heat buildup.

✓ It is a good practice to cushion the bananas before transportation
✓ Bananas can be cushioned using locally available materials
✓ Cushioning protects the bananas from damage from sharp edges of the truck.
Transportation

Bananas must be moved as quickly as possible and kept as cool as possible during transportation.

Protect the bananas from excessive heat during loading and off-loading.

- Transporting bananas at night when the temperatures are cooler is a good practice.
- If the bananas are to be distributed to several locations, packages that will be off loaded first should be loaded last.

Stacking should be done in such a way that the packages/bunches get locked with each other. This will help immobilize the packages/bunches.

The best loading factor must be achieved, that is the maximum load that can be carried economically under satisfactory quality conditions.
7 Storage

Banana is a perishable commodity and should be dispatched to the traders within 24 hours after harvesting.

- Keep the bananas in a shade while harvesting
- In the absence of a shade, cover the bananas using a shade net [if available] or any available material to reduce heat buildup.

Do not use tarpaulin to cover the bananas as heat builds up under it.
Section 3: Good Marketing Practices

1. Market intelligence and foresight

This will help in identifying and understanding the different markets and their needs.

2. Plan ways of entering and satisfying the market needs

It is VERY important to respond to and satisfy the needs of the market. To achieve this it is recommended you do the following:

1. Collective marketing
2. Presentation forms

Collective marketing:

Collective marketing offers a number of advantages:

✓ Farmers jointly negotiate [with buyers] the terms of production and marketing
✓ Farmers jointly develop a production and harvesting plan to ensure consistent supplies of bananas to the market
✓ Farmers act as one entity, speak with one voice and negotiate a fair price
✓ The rules of the game cease to be unilaterally dictated by the buyers.

Benefits exist for both the farmers and buyers such as:

- Uniformity of products
- Access to volumes
- Quality control
- An optimal price-quality ratio
An example of a collective marketing approach at farmer group level

**Marketing Committee**
- Market intelligence
- Bulking
- Searching for markets [existing and new]
- Negotiating with the identified buyers

**Production Committee**
- Pest and disease control
- Quality control
- Agronomic practices

**Monitoring and information exchange:**
- Agronomic practices
- Market information
- Pest and diseases control practices
- Quality standards
- Traceability system

**Farmer Group**
- Group volumes by variety and grade
- Group quality status
- Assess farmer volumes by variety and grade
- Pest and diseases status
- Quality status

- Selling date
- Volumes required by variety, quality and grade
- Market information - prices, buyers
- Consumer trends
- Formal and informal networks

- Technology
- Natural environment and resources
- Formal and informal networks
- Extension

- Technology
- Natural environment and resources
- Formal and informal networks
- Extension

Market information - prices, buyers

Consumer trends

Formal and informal networks

Extension
Presentation forms
Sell bananas in forms required by the markets such as:

**Bunches**

![Bunches](image1)

**Clusters**

![Clusters](image2)
Unpeeled fingers

Peeled fingers
Solar dried and processed

✔ Emerging markets like supermarkets and the export markets require particular presentation forms

✔ These forms are also less susceptible to physical damage.
3 Weight based pricing systems

4 Niche markets and their requirements

Export to Europe and Middle East

The export market requires compliance with international health and safety standards and demands consistency in quality and quantities. Bananas are traded by weight and as clusters, fingers and in processed form (sun dried and flour). Sales are made on contract basis and the prices are better than in the domestic market.
Supermarkets

This is an emerging market for clusters and fingers. Quantities traded are still very low but steadily picking up thus an important market for the future. This market is also very sensitive to quality, food safety and consistency in quantities. Sales are made on contract basis. Price are good but the terms of payment are not always favorable.

Regional markets

Regional markets include Sudan and Kenya. Bananas are marketed in various forms including bunches, clusters and fingers. The current quantities are still small but the prices are also better than in the domestic market.