SP18

Extending the shelf life of fresh cassava roots for increased incomes and postharvest loss reduction in Uganda: Current business case

Kelly Wanda^{1*}, Abass Adebayo¹, Alenkhe Bamidele¹, Harriet Muyinza², Moses Matovu², Sharon Achieng², Geoffrey Menya², Ephraim Nuwamanya², Pamela Nyamutoka³, Robert Kaliisa³, Peter Waigumba³, Jorge Luna⁴, Dominique Dufour^{4&5}

1) <u>IITA-Uganda, Plot 15B Naguru East Road. P.O. Box 7878 Kampala.</u> 2) NARO-Uganda, 3) IIRR, Plot 6 Charles Lwanda Road, Ntinda P.O. Box 35536 Kampala. Uganda. 4) CIAT, Cassava Program, Cali, Colombia. 5) CIRAD, Qualisud, Montpellier, France. * <u>wandakelly2002@yahoo.fr</u>

Abstract

The major constraint facing large-scale production, marketing and utilization of fresh cassava (Manihot esculenta) roots is rapid postharvest physiological deterioration (PPD).

PPD implies short marketing period, low trading volumes, and losses beyond 50%. In Uganda, fresh roots total consumption is increasing.

Demand will increase by an average of 60% per year, reaching a total of 841,917 tons in 2018 (RTB Market study 2015).

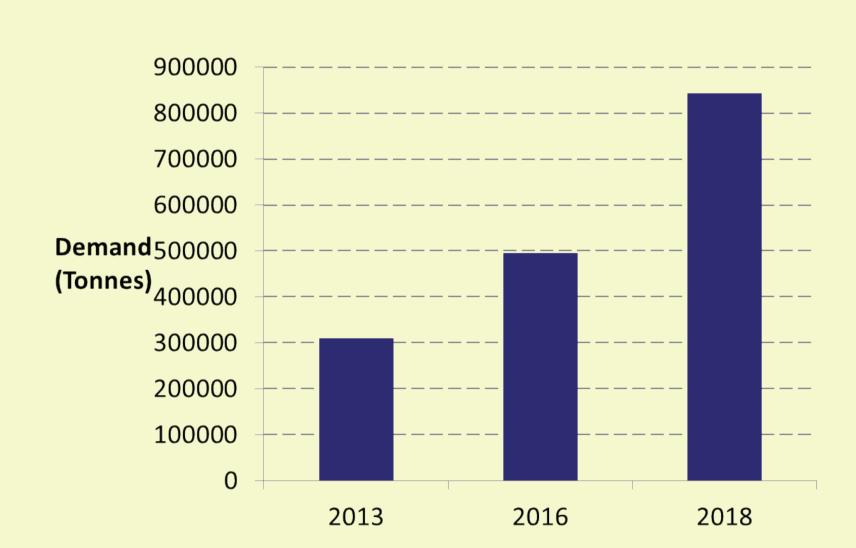
Waxing and RH storage can increase fresh root shelf-life, reducing postharvest losses.

The Root Tuber and Banana (RTB) research programme is assessing the technical and economic feasibility of these technologies.

Research outputs include increased incomes, better functioning gender sensitive value chains and improved marketing.

Key words: Fresh cassava roots, PPD, Gender, Market, Income

Demand trend



Introduction

• Cassava (Manihot esculenta) is the second most important source of calories in Africa. Uganda is the sixth largest producer in Africa, production 4.2 million metric tonnes in 2010 (MAAIF, 2011). Production is dominated by smallholders.

- It is a major cash earner has increased. About 50% of cassava sold is marketed as fresh.
- It is consumed as a snack, boiled, steamed, fried or roasted.
- It is a major source of employment for the youth both women and men. The fresh value chain is very efficient and aims to combat PPD.
- A number of technologies exist to combat PPD such as waxing and relative humidity storage. While these are in commercial use elsewhere ie Latin America, they are new in Uganda. This research assesses the technical, economic and institutional feasibility of these technologies in Uganda.

Assessing effect of pruning on PPD



M&M

The approach was uniquely collaborative and participatory involving qualitative and quantitative analysis.

- Initial capacity building to the implementing partners IITA, IIRR and NARO done by CIAT in Colombia.
- Demand and supply analysis was done.
- Varietal selection and lab testing of technologies and setting up two pilot houses

Results

Suitable varieties have been selected.

Pruning is easy and can improve both eating quality and shelf-life. Waxing and RH storage have

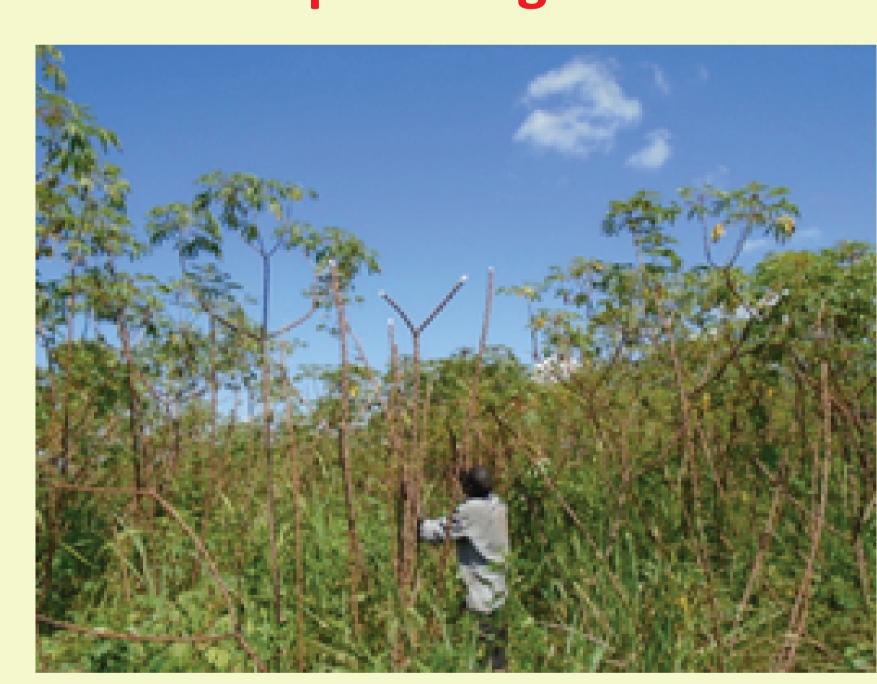
extended the shelf life beyond 25 and 14 days respectively so far. All the respondents interviewed were interested in investing in these new technologies.

The demand for cassava is increasing due to urbanization, demography and eating habits. Extending the shelf-life can potentially even out supply deficiencies.

Extending the shelf-life of cassava allows access by these producers to distant markets.

Technology is low cost. It does not require heavy investment. It uses simple equipment. Surplus of labor exists.

A farmer prunning cassava



Acknowledgements

Funding is from the European Union and technical support from IFAD.
Implementation is by International Potato center, National Agricultural Research Organization, International Institute of Tropical Agriculture, & International Institute of Rural Reconstruction.

Conclusion

Current success in identifying suitable varieties and extending the shelf-life of fresh cassava roots will enhance incomes and food security of value chain actors both male and female.

