



Supporting commercial sweetpotato production and marketing in the PNG highlands

Overview

The economy of the PNG Highlands, especially in those areas with relatively good transport infrastructure, is evolving rapidly, as smallholders turn from subsistence farming to market-oriented production. Sweetpotato (kaukau) plays a key role in this evolution; it has become a cash crop in its own right and assures food security in more diverse systems with coffee, vegetables and small livestock providing a cash income.

This project supports smallholders to turn from subsistence farming towards market-oriented production, producing specifically for the market and managing production to meet market/customer requirements.

This project will support an expansion in market-oriented sweet potato value chains by strengthening supply chains to selected high value markets and promoting enterprise development along supply chains. It will also improve crop production capacity by introducing a scheme to supply clean, high performing planting material. An increase in market-oriented production will create income generating opportunities for growers, and enable other groups to enter sweetpotato fresh product and sweetpotato-based food product supply chains.

Research

The project has three specific objectives:

1. To develop and strengthen market-oriented sweetpotato supply chains
2. To build the capacity of sweetpotato value chain players
3. To develop a 'clean seed' scheme to increase availability of clean planting material of sweetpotato

The project's long term outcome will be increased, sustained contribution of sweetpotato to the cash income and food security of producers and their communities in selected PNG Highland communities.

ACIAR project number

HORT/2014/097

Start date and duration

1ST March 2016 (5years)

Location

Papua New Guinea

Budget

\$4,998,084

Project leader and
Commissioned
Organisation

Prof Phil Brown
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To achieve this outcome, the project is:

- identifying and prioritising value chain opportunities, and addressing technical and capability gaps in these chains
- ensuring availability of clean (pathogen-free) planting material for growers and adoption of associated production management practices to achieve higher yields, better quality and greater returns per labour input.

Achievements

- Three commercial growers have multiplied foundation clean planting material stock in insect proof screenhouses. Clean planting material from these sites has been distributed to more than 25 commercial and semi-commercial growers in the Jiwaka, Hagen and Asaro regions.
- 17 growers have given their consent to establish larger scale commercial nurseries for multiplying clean planting material.
- Korowest and Rachel, two commercially important varieties of sweetpotato, have been tissue cultured and are being treated to remove viruses so they can be included in the clean seed scheme.
- We have established initial protocols for rapid virus testing using Loop-Mediated Isothermal Amplification.
- We have completed a socio-economic review of sweetpotato production and marketing in PNG.
- We have mapped sweetpotato supply chains and interviewed 88 commercial growers/traders using the Commcare app.
- We have developed training materials for grower communities, and reached an in principle agreement for the training to be accredited under the PNG National Standard for Community Development Workers.
- All project staff appointments have now been made, with a PNG-based training coordinator and an Australia-based value chain researcher appointed in 2017.

Impact story

Growers in Jiwaka and Western Highlands provinces have reported that crops grown from clean seed supplied through the project not only produce higher yields but that the quality of the harvested roots is higher. One benefit of this improved quality is that buyers at roadside and town marketplaces prefer these sweetpotatoes, so the produce sells faster.

As women are nearly always responsible for selling produce in the markets, faster sales mean that they need to spend less time at the markets. Facilities are often lacking at markets, and security can be an issue for women, so the opportunity to sell produce faster is a welcome benefit of the project's clean seed technology.

