

Sweetpotato bread for better nutrition—South Africa

Tackling malnutrition and driving business growth



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This project investigates the potential for introducing sweetpotato-enriched bread to South Africa. Beyond the benefits for family nutrition, it seeks to support farmers by increasing demand for value-added sweetpotato products.

Malnutrition is widespread throughout sub-Saharan Africa, with **vitamin A deficiency** affecting almost half of young children.

This project seeks to investigate the market for processed **sweetpotato** products—**primarily enriched bread**—in South Africa.

With view to achieving broad social impacts on the nutrition and economic development of disadvantaged communities.

Background

Malnutrition is widespread throughout sub-Saharan Africa, with vitamin A deficiency affecting almost half of young children. Lack of vitamin A can lead to preventable childhood blindness and increases the risk of death from common illnesses like diarrhea. The International Potato Center (CIP) has developed varieties of orange-fleshed sweetpotato containing high levels of vitamin A to support healthy growth in children and provide benefits to the nutrition of the whole family.

Building on successful experiences in Kenya and Tanzania, this project seeks to investigate the market for processed sweetpotato products—primarily enriched bread—in South Africa.

Objectives

The overall goal is to generate robust and up-to-date evidence on the technical and economic viability of producing sweetpotato puree and related products for the South African market. We will accomplish this goal by fulfilling the following objectives:

- To understand the entry points for sweetpotato puree-based bread products;
- To develop recipes based on consumer assessment and acceptance;
- To determine technical packaging data;
- To assess supply chain options;
- To develop detailed expenses and profit/loss models; and
- To support operational start-up, if appropriate .

Approach

The project will seek to work with Premier Foods, one of the three leading industrial bakeries operating in South Africa. Premier Foods has 16 bakeries and 24 distribution centers across the country and is looking to develop healthier bread products. Laboratory access and other services will be provided by the University of Pretoria and the project will be hosted by the African Union's Southern Africa Network for Biosciences.

The first step is to learn about entry points for sweetpotato bread in the South African market. The team will work with

a local market research company to review current market studies and consult with experts. Existing bread products will also be analyzed in order to develop a strategy for reformulation.

Next, the team will develop appropriate recipes for sweetpotato bread through technical studies and testing with consumers. This stage includes assessment of potential pricing structures. Accurate assessment of nutritional content is important for product labelling, and CIP food scientists will work with in-country partners to develop accurate technical packaging data, including shelf-life.

It will be important to have a reliable supply chain of ingredients to ensure consistent quality. CIP food scientists and agronomists will assess the orange-fleshed sweetpotato varieties currently available in South Africa for their processing characteristics. They will also analyze the economics of different supply chain options. This information will be fed into a detailed cost and profit analysis of puree production and supply, bread formulation, and baking and retailing.

Once the project receives the go-ahead, CIP scientists will continue to provide technical support to the start-up phase.

Expected outcomes

The findings will support decision-making on further investment in the production and use of processed sweetpotato, with view to achieving broad social impacts on the nutrition and economic development of disadvantaged communities.



Duration

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Budget

CAD 300,000

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