Sweet potato value chain analysis now available

White potato cropping calendar, now available

Supporting agriculture development in Guyana

Caribbean likely to experience a milder than normal dry season
Sweet potato value chain analysis now available

Component 1 of the Caribbean Development Bank (CDB) funded, Regional Sweet Potato Value Chain Enhancement and Technology Transfer Project has concluded with the hosting of validation workshops in Antigua and Barbuda, Barbados, Guyana and St Vincent and the Grenadines. Under Component 1, a value chain analysis was conducted and business cases developed for each of the project countries. These workshops were organised by the project implementing agency CARDI.

The analysis was conducted by Jamaican based firm AZ Information Jamaica Ltd. During the validation workshops the consultancy team which included Value Chain Specialist, Dr. Govind Seepersad and Agricultural Economist, Dr. Noel Watson gave an overview of study and then zeroed in on the findings and actions required for propelling the Sweet Potato Industry forward. Dr. Seepersad noted that sweet potato serves an important role in the small farmer food system, rural income generation, food security for households and provision of employment. It has become increasingly popular as “functional foods” in the consumer markets.

Sweet potato production in the surveyed countries is below its potential. The study found a significant difference between the actual and potential yields of sweet potato - by as much as 55% in some countries. The unavailability of desirable, good quality planting material, low access to credit, no access to irrigation technology, mechanization and pest and diseases were some of the challenges that continue to impact production. Farmers also lamented that the lack of market access is hindering investment in production and needs to be urgently addressed in the short term. While a lot of the sweet potato produced in the Caribbean is consumed fresh, post-harvest handling also needs to be tackled as losses can be as high as 60%. At the workshops farmers and processors were encouraged to explore entrepreneurial opportunities for product development, as it will enable them to capture a higher market value and increase their incomes. According to the consultants, women and youth should be targeted for these business start-ups.

Across all countries stronger coordination between stakeholders is needed to move the industry forward. To this end the formation of a Sweet Potato Action Group (SPAG) comprising of representatives from each section of the sweet potato value chain and including players from the Government, private sector and CARDI was proposed. The SPAG, inter alia will act as an industry governance/consultative body to the Government and donors, to guide and coordinate the implementation of actions towards the improvement of the sweet potato industry.

The findings from this study will inform the other 2 components of the project. Component 2, will validate climate-resilient varieties and genotypes, including strains that are high yielding, drought tolerant, disease resistant and suitable for processing. Component 3, will develop several communication aids to demonstrate and share knowledge on best practices in sweet potato cultivation, processing and value addition.

White potato cropping calendar, now available

The cultivation of white potato has been on the rise in Dominica. The Government of Dominica continues to support the production of the crop, as a means of boosting food security and as part of the country’s resilience strategy. The Ministry of Blue and Green Economy, Agriculture and National Food Security (MoBGEANFS), imports elite seeds and makes them available to farmers prior to the cropping season which starts in October.

CARDI has been working with the MoBGEANFS, to evaluate some of these varieties in different agro ecological zones. In 2021 the Institute evaluated the Desiree variety. According to CARDI Representative, Dorian Etienne the information gathered from these evaluations is important in estimating national production, assessing productivity, and identifying areas for improving production and productivity.

To complement this activity the Institute collaborated the University Service of Canada (WUSC) and MoBGEANFS, to develop a cropping calendar for white potato in Dominica, under The Sustainable Agriculture in Caribbean (SAC) Project. The publication targets farmers and provides information which enables them to estimate their cost of production.

The calendar is simple and easy to follow and provides a snap shot of the entire production cycle for white potato. Guidelines are also provided for post-harvest management. Key areas covered are harvesting (maturity index), transportation and storage. White potatoes produced are bulk purchased by the Dominica Export Import Agency (DEXIA) who in turn sells it to local retailers.

The MoBGEANFS notes that white potato is considered a quick cash crop, with a return on investment approximately three months post planting. They see it as an entry point for youth and women to agriculture.

The cropping calendar can be downloaded from CARDI’s website.
St. Mary’s Michael Swaby is world’s best innovative coconut farmer

Since the tender age of 17, Michael Swaby has been an ardent coconut farmer in the scenic hills of Crescent, St. Mary.

Never did he imagine that the sustainable practices he employs to maintain his passion-turned-business on his 38-acre farm would one day make him the best in the world.

It was, therefore, the most delightful surprise when he received news in November, last year, that he was voted the ‘World’s Best Innovative Coconut Farmer,’ at a conference in Malaysia, topping entries from 21 coconut-producing countries. “It was shocking... hard to believe. A lot of the other countries, I didn’t know them and I thought they were more ahead of us in terms of practices and all the different [activities] that they were doing,” Mr. Swaby, now 54, tells JIS News.

Guyana, India to create a regional agri-tech campus to expand agriculture sector

Guyana’s President Irfaan Ali has announced the creation of a regional agri-tech campus between the country and India.

President Ali said the agri-tech campus is in keeping with his administration’s commitment to advance the region’s food security strategy. The president also underscored the discussions with Bangalore Bio-Innovation Centre will help to build Guyana’s agriculture sector with an ecosystem that includes a regional food hub.

This forms part of an ambitious strategy to stimulate a biotech ecosystem to expand the agriculture sector.

CDB approves US$5 million for Belize Agriculture Project

A multimillion-dollar project to improve agricultural productivity and resilience for small farmers in rural Belize, is receiving a US$5 million injection in funding from the Caribbean Development Bank (CDB). The bank’s board of directors approved the loan to the Government of Belize for the Resilient Rural Belize Programme (B-Resilient) project at their December 9 meeting.

The goal of the project is to improve the commercial agricultural output of small farmers, increase their access to markets and strengthen resilience to climate change.

Senior Operations Officer, Agriculture and Rural Development at CDB, Luther St Ville, explained the rationale behind it, noting that while agriculture is a key economic driver in Belize, the small farmers who make up much of the sector, require greater assistance to help it reach its full potential.

Additionally, this will help to create an agri-tech campus that will deal with the technological aspect, research and development, technology, human resource training, and improvement in policies that will lead to greater yield and productivity.

The State of Digital Agriculture in the Commonwealth

This new policy guide and the underlying framework are a starting point to enable Commonwealth member countries and regions to fully exploit new digital innovations. The Commonwealth Connectivity Agenda for Trade and Investment is designed to support member states in creating that policy enabling environment for the digitalisation of the sector so that it attracts the investment needed to support the goal of increased food security.

The state of digital agriculture in the region is assessed under (I) digital agriculture innovations, (II) agriculture data infrastructure, (III) business development services, and (IV) the enabling environment for the digitalisation of agriculture.
Supporting agriculture development in Guyana

Guyana’s thrust is to be the breadbasket for the Caribbean. Despite the country’s booming oil industry - agriculture remains an important contributor to GDP and employment.

To celebrate CARDI Day on 5 December, 2022 two events were hosted by the Institute. In the first event, CARDI donated a Davis Weather Station to the Faculty of Agriculture and Forestry Research Station, University of Guyana, Turkeyen Campus. The weather station was installed and will be maintained by the Hydromet Service. It is equipped to measure: humidity, rainfall, wind speed, wind direction, solar radiation, barometric pressure and UV radiation. The data is automatically logged and is also incorporated into a national weather system database. Based on discussions between CARDI and the Faculty, the weather station will provide useful information and practical experience for students enrolled in climate smart agriculture courses. In addition, for students and staff conducting research the weather station will provide valuable data. At present the Institute understands, there is no locally available weather data to correlate with events and observations in the area. The data provided by this weather station will fill this gap and further enhance the quality of the research.

Speaking at the handing over ceremony, Executive Director, Ansari Hosein said the weather station complements the Faculty’s research programme and the Institute was extremely pleased to help lay the foundation for better climate research and interventions by the Faculty for years to come.

In the second event, CARDI together with Ministry of Agriculture; The National Agricultural Research and Extension Institute (NAREI), Hope Coconut Industries Limited (Hope Estate), National Plant Protection Organisation and the International Trade Center launched the Brazilian Green Dwarf coconut variety. This is a superior water nut variety produced by the Tecnologia Na Produção De Coqueiros, Brazil. Under the EU/CARIFORUM financed Alliances for Coconut Industry Development, Expansion and Enhanced Support for the Caribbean (ACIDEES) project, 1000 seed nuts were imported for evaluation in Guyana.

Five hundred seed nuts each were distributed to NAREI and Hope Coconut Industries for evaluation. The purpose of the evaluation is to assess the performance and productivity of the variety under local conditions, create seed gardens to reproduce the variety and add to the coconut germplasm.

This activity supports the Government of Guyana’s objective of broadening the genetic base of coconuts, by introducing new superior varieties to improve production.

Productive new varieties like the Brazilian Green Dwarf presents opportunities for processors and agripreneurs as well as open the doors for farmers into new markets.

All partners eagerly anticipate the results of these evaluations. Once favourable, a new superior variety will be released to farmers - one that will guarantee higher incomes and improve livelihoods.

Caribbean likely to experience a milder than normal dry season

The dry season in the Caribbean starts in December and ends in May. During the dry season, temperatures are on average 26°C and may at times soar into the high thirties. These long humid days during the dry season poses challenges to agriculture, affecting – crop development, growth and production due to the high probability of heat stress and water stress. Water stress occurs when the demand for water exceeds the available amount during a dry season or when poor quality restricts its use. Especially in the early vegetative stages, these disadvantages can negatively impact photosynthesis, transpiration and root development.

According to Caribbean Agro Climatic Bulletin, most of the Caribbean in December experienced a moderate start to the dry season. This moderate dryness is set to continue as a less intense core of a dry season is expected to affect the Caribbean. Therefore there is a likelihood for a few, more wet days than usual, with the likely exception of The Bahamas, Cayman Islands and Cuba. As rainfalls in the Bahamas and Cayman Islands are predicted to be normal or below normal through the months February to April and drought concerns in Cuba with the high probability for dry spells in its western areas. Despite the minimal chance of excessive rainfall in March there is no significant predictions of major heat discomfort, expected. However, in April heat conditions can become rigid, leading to possible heatwaves in Belize, Cuba, Jamaica and Trinidad.

With the vast majority of the Caribbean predicted to experience a less harsh dry season, the Institute would still like to advise, farmers to make climate smart decisions with respect to on-farm water usage and conservation. Farmers should deploy where possible water conservation strategies to maintain production, such as scheduled drip irrigation systems. Capturing and storing water, planting drought tolerant varieties and applying compost and mulch also improves the soils’ water-holding capacities and conserves moisture. An added advantage of mulching and composting are they enhance soil fertility. Some crops that can tolerate drought conditions are cassava, sweet potato, tomato and beans. However, it is important to note there are critical stages during their growth cycles where water is essential.

For livestock, it is important that the animals have access to clean water and shade is provided in pastures. Forage conservation measures such as silage and hay will also guarantee animals have access to quality forage during the hot, dry days. Farmers can also implement rotational grazing on their pastures as it promotes regrowth and increases the fields’ water absorption and decreases water runoff.
Grenada

Executive Director, Ansari Hosein and CARDI Representative in Grenada, Reginald Andall paid a courtesy visit to Senator the Honourable Adrian Thomas, Minister of State with responsibility for Agriculture and Lands, Fisheries & Co-operatives (MALFC) and Permanent Secretary, Mr Aaron Francois.

The team had fruitful discussions on opportunities for strengthening the collaboration between CARDI and MALFC in small ruminants, protected agriculture, capacity building, roots and tubers, germplasm conservation and agro-processing.

Barbados

CARDI was pleased to host a group of students from Elon University, USA. The students were on a study tour of the island. During their visit to CARDI they learnt about the Institute’s work in hot pepper, sweet potato, cassava and coconut production.

Jamaica

Alliances for Action farmers of Hectors River Alliance, Portland listening keenly as CARDI Technician Desireina Delancy explains good agricultural practices in coconut production. CARDI has been providing coconut seedlings to farmers from nurseries established under the CARIFORUM/EU funded Alliances for Coconut Industry Development Expansion and Enhanced Support for the Caribbean project.

Belize

CARDI Belize has been providing 30–2nd year students enrolled in the Senior Project II Course at the University of Belize with practical experience in research design for agricultural projects. They participated in the establishment of a field trial where CARDI Belize is evaluating introduced lines of tomato, sweet pepper and hot pepper from World Veg in Taiwan and comparing their performance to local varieties.