Biochemical analyses for sweet potato varieties set to commence

Farmers Field Schools bringing new knowledge to farmers in white potato production

CARDI’s commitment to Vision 25 x 2025
**Biochemical analyses for sweet potato varieties set to commence**

Nineteen boxes of sweet potatoes have been harvested from research plots established in agro ecological zones in St Vincent and the Grenadines (SVG) and shipped to Trinidad for post-harvest evaluations and biochemical analyses. These activities are part of Component 2 of the Regional Sweet Potato project financed by the Caribbean Development Bank (CDB) and implemented by the Caribbean Agricultural Research and Development Institute (CARDI). The analyses are being done by the Faculty of Science and Agriculture, the University of the West Indies (UWI), St Augustine – lead consultant for Component 2 of the aforementioned project. The objective of this Component is to identify and select market preferred and climate resilient sweet potato cultivars and enhance production and processing technology. According to Dr. Oral Daly, UWI’s Project Lead the intention is “to increase industry productivity and promote the wider utilization of locally produced sweet potato.”

The varieties/accessions being analysed for St Vincent and the Grenadines are: Jackson, CARDI K847, Big Red, Rasta and Agriculture.

Similar analyses will be conducted for the five most popular varieties in Guyana, Antigua and Barbuda and Belize.

CARDI Representative in St Vincent and the Grenadines, Donawa Jackson remarked that “the project has generated a lot of interest in the country with many persons contacting Institute for planting material and information on sweet potato production.” In February, CARDI supplied sweet potato slips for the Jackson, Rasta, Big Red, Beauregard and Okinawa purple varieties to 16 farmers and 1 institution.

The Honourable Saboto Caesar, Minister of Agriculture, Forestry, Fisheries, Rural Transformation, Industry & Labour (MAFFRTIL), has extended congratulations to the Institute noting that “the research work regarding sweet potatoes in SVG has created significant interest among the farming community. He further stated that his Ministry will continue to advance sweet potato as a climate change resilient crop and wished all stakeholders the very best in the other stages of the research.”

Drought tolerant trials are set to begin in late March at the newly covered greenhouse facility at the CARDI Field Station in Orange Hill. The MAFFRTIL has provided the materials to cover the structure while through the project a drip irrigation system will be installed.

With climate change threatening food production across the Region identifying drought and heat tolerant varieties are crucial to improving food and nutrition security.

**Farmers Field Schools bringing new knowledge to farmers in white potato production**

In Dominica, white potato farmers are being guided on the best production practices, through a series Farmers Field Schools (FFS). The FFSs are taking place throughout the growing cycle of the crop so farmers are receiving hands on practical experience on crop production. The Ministry of Agriculture, Fisheries, Blue and Green Economy and the Caribbean Agricultural Research and Development Institute (CARDI) under the Sustainable Agriculture in the Caribbean (SAC) project implemented by the World University of Canada (WUSC) are conducting the training.

Earlier this year, farmers within the East Agricultural Region established their collective plot, and have now gone on to establish their individual holdings using the theoretical and practical knowledge received from the ‘learning by doing field schools.”

The SAC notes “The FFS methodology seeks to introduce new techniques and technology to farmers, integrating theoretical and practical sessions for easier adoption and understanding. We are proud to use this platform to reach new white potato farmers fostering a more inclusive and diverse community of agricultural producers.”

The White Potato program is a major initiative of the Government of Dominica which aims to reduce the islands food import bill and increase the sector’s contribution to GDP. The Government of Dominica has set a target for the island’s agriculture sector to contribute $700,000,000 to its GDP by 2030.

CARDI has been working with the Government and WUSC Caribbean to support the white potato program. CARDI Representative in Dominica, Dorian Etienne noted that “the Institute has been involved in the assessment of white potato varieties in different agro ecological zones and has worked with WUSC Caribbean and MoBGEANFS to the develop a cropping calendar.”

According to Dorian “location-specific research to develop and refine appropriate production systems relevant to targeted agro-ecological zones is crucial.” He continued by saying future research areas will target increasing the number of crop cycles within the period conducive to production, investigating appropriate tillage to minimize soil degradation, assessing and/or developing alternative inputs from locally available material for use as soil ameliorants, pesticides, and bio-stimulants, and evaluating white potato cultivation as part of an integrated crop production system.

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The role of climate-smart agriculture in Guyana’s push to reduce food imports

As Guyana plays its part in achieving CARICOM’s goal of reducing 25 per cent of the Caribbean’s food imports by 2025, the country is turning to climate-smart agriculture techniques as a means of sustainably increasing food production. But the country’s strategy to boost food security isn’t just about producing more of its main crops like rice and sugar.

A substantial portion of the country’s food import bill is made up by non-traditional crops – like berries, broccoli, cauliflower, and carrots, which the country is now making a push to produce on its own.

Data provided by Guyana’s President, Dr Irfaan Ali, shows that the country spent an estimated GYD $6 billion (US $28 million) to import broccoli, cauliflower, and carrots, from 2018 – 2020.

To keep up with the demand for these crops, and other crops that are not traditionally grown in the country, climate-smart farming techniques like shade houses and hydroponics farms are being used.

Farmers get $5m in Government grants

Agriculture Minister Kazim Hosein distributed over $5 million in cheques to 50 farmers on Friday 23 February 2024. The Ministry of Agriculture, Land and Fisheries in a news release said: “These farmers were all recipients of the Agricultural Finance Support Programme (Agro-Incentive Grant), which was introduced in 2018 and disbursed over $25 million to more than 200 stakeholders.”

The programme seeks to empower farmers to modernise their facilities, adopt new technologies, and improve efficiency and safety in their agricultural practices. It has been highly influential in achieving its goals, it added.

During the distribution ceremony for the sixth cycle of the programme at the City Hall Auditorium in San Fernando, Hosein urged the farming community to make use of the various services offered by the Ministry.

He said “the grants and services offered through the Ministry of Agriculture, Land and Fisheries are specifically designed to engage and empower farmers and fisherfolk, and have proven to be highly effective in promoting sustainable agricultural practices. By doing so, the region can take a significant step towards reducing its food import bill and achieving greater food security.”

SVG launches national white potato project

Thursday, 8th February, 2024: The National White Potato Production Project was launched at the Montreal Greenhouse Park unveiling Spunta and Desiree as the main potato varieties for the initiative.

This initiative is a key component of Saint Vincent and the Grenadines’ commitment to the CARICOM 25 by 25 initiative and Saint Vincent and the Grenadines’ National Diversification Programme.

Led by the Ministry of Agriculture, Forestry, Fisheries, Rural Transformation, Industry and Labour, in collaboration with the Inter American Institute for Cooperation on Agriculture (IICA), the Government of Dominica, and the Caribbean Agricultural Research and Development Institute (CARDI), the project aims to cultivate a skilled group of farmers dedicated to producing 5 million EC dollars’ worth of white potatoes annually for local consumption.

Hon. Saboto Caesar, Minister of Agriculture, Forestry, Fisheries, Rural Transformation, Industry and Labour, emphasized the importance of the initiative and encouraged farmers to seize the opportunity to participate. He also expressed optimism about the project’s success and its contribution to food security and sovereignty in Saint Vincent and the Grenadines.

Mr. Ruthvin Harper, Research Officer, highlighted the crucial role of the Extension Unit and the Research and Development Unit in providing technical support to farmers throughout the project. The White Potato Project comes at a time of increasing growth in the hospitality industry in Saint Vincent and the Grenadines, further highlighting the importance of local production to support economic growth and sustainability.

Agricultural Legislation to be amended

Under the legislative programme for 2024/2025, several key pieces of agricultural legislation will be amended, says Governor-General, His Excellency the Most Hon. Sir Patrick Allen.

Delivering the 2024/2025 Throne Speech in Gordon House on February 15, the Governor-General informed that these will include replacement of the Animals (Diseases and Importation) Act with the Animal Health and Welfare Act 2024, replacement of the Plants (Quarantine) Act with the Plant Health Act 2024, and Amendments to the Preaedral Larceny (Prevention) Act.

In addition, the Governor-General highlighted that the agriculture and fisheries sector achieved a sustained positive trajectory with eight consecutive quarters of growth up to the final quarter of the 2022 calendar year.

“In 2023, however, Jamaica experienced its hottest and driest year on record, and this inevitably posed several challenges for the sector. The Government’s interventions in 2023 sought to mitigate losses, increase the resilience of the sector, and ensure the country’s food security,” he pointed out.
CARDI’s commitment to Vision 25 x 2025

As the only CARICOM institution responsible for agricultural research and development, CARDI has a key role in the achievement of Vision 25 x 2025. This is CARICOM’s blueprint and governments’ collective commitment towards reducing the Regional food import bill by 25% while transforming the sector towards full commercialization.

Executive Director, Ansari Hosein notes that Institute has aligned its research programme and resource mobilization initiatives to contribute to achieving vision 25 by 2025, specifically by working to address the production gaps and develop the value chains of some of the priority commodities identified by the Ministerial Task Force.

In Belize, CARDI is conducting evaluation trials for new varieties of grains and legumes including biofortified ones and producing planting material for farmers. Annually, from 46 acres at our Central Farm research station in Belize, 85 MT of soybean and 166 MT of corn grain are produced. Both commodities are key ingredients in animal feed formulations and given the planned expansion of regional poultry production in particular, CARDI is positioned to support the production of both commodities.

With respect to niche vegetables like broccoli, sweet pepper and tomatoes, CARDI and the World Vegetable Center in Taiwan are conducting evaluation trials for improved lines of various vegetables in Belize and St Kitts and Nevis. The objectives are to conserve available vegetable biodiversity for future use and introduce and promote new vegetable varieties for the domestic and export markets to sustainably improve the livelihoods of resource-poor populations in Central America and Caribbean countries. These varieties are being assessed for heat and drought tolerance. Promising lines have been identified but further evaluations are required to assess their adaptability and acceptability.

Since 2015, the EU/CARIFORUM funded ‘Alliances for Coconut Industry Development’ has been CARDI’s flagship project, being implemented along with the International Trade Center, Ministries of Agriculture and other stakeholders. The project has made interventions in critical areas along the value chain to address various challenges including the unavailability of planting material, pest and disease management, capacity building and introduction of new varieties. Through the project, seventy one (71) nurseries have been established which can collectively produce between 300,000 – 400,000 seedlings per year. Producers have also been exposed to integrated pest management strategies for Red Ring Disease, South American Palm Weevil, Lethal Yellowing, Coconut Cockle and Coconut Mite. The introduction of the Brazilian Green Dwarf by CARDI – a high yielding water nut variety, tolerant to diseases like Lethal Yellowing has been hailed as a game changer for farmers in Guyana and Dominica who wish to tap into the growing, highly profitable coconut water market.

Another priority commodity group under 25 x 2025 is roots and tubers. In this area, CARDI has successfully introduced 2 new dasheen varieties from the Pacific to St Vincent and the Grenadines. These are high yielding, adapted to local conditions, tolerant to common pest and diseases with an acceptable cooking quality and taste. Both varieties are now being widely cultivated by farmers. The institute continues to conduct similar varietal evaluations for cassava, sweet potato and white potato varieties.

The Institute continues to work to find alternative feed formulations for small ruminants. Besides producing corn and soyabean in Belize, we have introduced silage technology and improved forages to farmers across several member states. CARDI has also introduced new high quality breeds of sheep and goat in Jamaica and Trinidad and Tobago and promoted practices such as embryo transfer and artificial insemination to improve productivity. Concurrently, the Institute is working with partners to build a climate resilient sector and promote the increased utilization of locally produced foods as part of a eat local campaign. Training and capacity building remains a priority area as providing up to date, science based evidence is key to driving change in the sector.

Did You Know?

In February 2024, St Vincent and the Grenadines (SVG) commenced their white potato cropping programme.

The programme is led by the Ministry of Agriculture, Forestry, Fisheries, Rural Transformation, Industry and Labour, in collaboration with the Inter American Institute for Cooperation on Agriculture (IICA), the Government of Dominica, and the Caribbean Agricultural Research and Development Institute (CARDI). It supports CARICOM’s 25x2025 and SVGs National Diversification Programme.

The Government is working to equip farmers on the island with the best knowledge to produce 5 million EC dollars’ worth of white potatoes annually for local consumption.
We were pleased to welcome Indonesian Ambassador, H.E Mr. Imam Edy Mulyono and his delegation which included Mrs. Dwi Retnani Hesto Marhaeni (wife), Mr. Basana Sidabutar, Minister Counsellor, and Mr. Adzikra Yastadzi Sidik, Attaché on 21 February 2024 to CARDI Headquarters.

Discussions revolved around strengthening the capacity of the Caribbean’s Coconut Value Chain. This initiative builds upon a virtual training on coconut product diversification organized by Indonesia and the NAM Center of South-South and Triangular Cooperation in September 2023. Opportunities for further training of Caribbean nationals were discussed as well as the design of a suitable program to address the specific needs of the Region’s coconut industry.

We were delighted to welcome a team from the Ministry of Agriculture, Fisheries and Barbuda Affairs headed by Minister the Hon. E.P Chet Greene. The team toured the CARDI Field Station at Betty’s Hope and held fruitful discussions on the Institute’s current work programme and future areas of collaboration.

CARDI Representative, Junior Greene visited Montserrat from 19 – 22 February 2024 where he met with several stakeholders including officials and staff from the Ministry of Agriculture to discuss the needs of the agricultural sector. From the discussions, it was agreed that CARDI will assist with bolstering livestock and vegetable farming on the island.

Moruga Red hot pepper seedlings being transplanted at the CARDI Field Station in Central Farm. The field is dedicated to commercial seed production.