Building a sustainable and profitable dasheen value chain in the Eastern Caribbean

Congratulations to the Region’s top Agriculture Science student!

Introducing farmers to best practices in onion production

Identifying new vegetable lines suited to Caribbean conditions
Building a sustainable and profitable dasheen value chain in the Eastern Caribbean

In February, CARDI Representative in St Vincent and the Grenadines, Greg Linton participated in an assessment of the dasheen value chain for the Commonwealth of Dominica, Grenada and St Vincent and the Grenadines. This activity is part of a cluster of regional projects, launched by the Food and Agriculture Organization of the United Nations (FAO) that aims to boost local production and export of agricultural produce through Regional Value Chain Development. FAO’s Caribbean Value Chain team facilitated these discussions which were attended by 50 stakeholders including farmers, exporters and government representatives from the above mentioned countries.

Greg Linton contributed to the session on Production & Post-Harvest opportunities and weaknesses. During his presentation he expounded on the post-harvest issues such as corm rot caused by a complex of fungi (Pythium and Botryodiplodia), and bacteria (Erwinia). These enter wounds created during harvesting and handling, and hamper marketing of the crop. The Institute through funding provided by the Committee Linking Entrepreneurship – Agriculture – Development (COLEAD) is working with the Eastern Caribbean Trading Agriculture and Development Organisation (ECTAD) and the Ministry of Agriculture, Forestry, Fisheries, Rural Transformation Industry and Labour (MAFFRTIL) to test more environmentally friendly based pesticides such as lime sulphur, Bacillus subtilis and potassium salts of phosphoric acid as potential post-harvest treatment options.

Metalaxyl, the single most important post-harvest treatment for dasheen going to extra regional markets such as Europe, has been banned from many CARICOM countries. These new genotypes have the advantage of faster growth, drought and disease tolerance, as well as acceptable taste and texture. The main market for these new genotypes has been Trinidad, with growing interest from North America and Europe.

Prior to the FAO assessment a one day Value Chain Consultation with over 150 dasheen farmers was hosted by MAFFRTIL. Key distributors in Florida, and Trinidad gave their experiences as well as insights into accessing these markets.

Under the EU financed International Network for Edible Aroids (INEA) project – “Adapting clonally propagated crops to climatic and commercial change” CARDI evaluated 50 dasheen genotypes from the Pacific. From these, 3 genotypes - CE/IND/24, Somoana and a purple variety showed great promise. The success of CE/IND/24 and Somoana in St Vincent has prompted interest from many CARICOM countries. These new genotypes have the advantage of faster growth, drought and disease tolerance, as well as acceptable taste and texture. The main market for these new genotypes has been Trinidad, with growing interest from North America and Europe.

In 2019, CARDI and MAFFRTIL conducted preliminary tests on a locally-produced lime sulphur base organic treatment, which protected 70% of the exported corms. According to Linton, “It is important to identify alternative, organically based post-harvest treatment options to secure these European markets especially in France where demand for St Vincent dasheen is extremely high. If an intervention is not made soon then there is the possibility of losing the market.”

The Caribbean Agricultural Research and Development Institute (CARDI) extends warmest congratulations to Joshua Adrian for coping the CXC®/CARDI Top Award for Outstanding Performance in Caribbean Secondary Education Certificate® (CSEC®), Agricultural Science for 2022. Joshua hails from Guyana and graduated from the Diamond Secondary School. He was one of several regional top performers at the CSEC level from Guyana.

He was very thankful for the support of his family, teachers and wider community, noting that their support was central to his academic achievements.

Joshua pursued 11 subjects at CSEC level including Agricultural Science (DA). Speaking with CARDI Joshua explained, that he was surprised when he learnt through his mother that he had bested the regional students in the Agricultural Science exam. He was very thankful for the support of his family, teachers and wider community, noting that their support was central to his academic achievements. Joshua’s family grows an assortment of vegetable crops in their home garden. He notes that the experience gained from assisting his parents was helpful and relatable to the practical aspects of the course.

Currently, Joshua is working and contemplating his future career path. In the new academic year he plans to commence studies at the University of Guyana.

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With the 2023 CXC exams set to commence soon in the Caribbean, Joshua would like to remind students to ‘don’t over work yourself, take time to read and write down what you learn, don’t rely on memory alone. It helps you to remember a lot’.

The management and staff of CARDI wish Joshua all the best in his future academic pursuits.

In Memoriam – Dr. Reginald Pierre

Dr. Reginald Pierre who served as CARDI’s first Executive Director from 1975-1977, passed away on 22nd March, 2023 at the age of 90.

Before his appointment, Dr. Pierre worked at the Regional Research Center (RRC) in Jamaica – the forerunner to CARDI.

As the first Executive Director, Dr. Pierre was instrumental in establishing the Institute’s financial and administrative systems and also laid the ground work for getting some of the earliest country offices off the ground.

Following his stint at CARDI, Dr. Pierre remained active in the sector. He moved to Inter-American Institute for Cooperation on Agriculture (IICA) where he served as IICA’s first Regional Director for the Caribbean and later as Advisor to the Director General.

In 2013, Dr. Pierre was conferred with Executive Director Emeritus title by CARDI.

May he rest in peace!
Grenada looks to digital agriculture and innovation for an improved agriculture sector

The Food and Agriculture Organisation of the United Nations (FAO) and The Ministry of Agriculture and Lands, Fisheries and Cooperatives jointly launched two projects to promote digital agriculture and resilient agri-food systems in Grenada, on March 22, 2023.

The Global Network of Digital Agriculture Innovation Hubs (DAIH) and the Regional E-Agriculture (REA) for the Caribbean, a post COVID–19 mechanism to promote resilient agri-food, were both launched during an Inception and Workplan Validation Workshop.

The projects aims to support current initiatives being implemented by the Ministry of Agriculture and Lands, Fisheries and Cooperatives with FAO’s technical support and to strengthen the enabling environment for the adoption of digital agriculture strategies at the national level. They will also establish a national digital agriculture innovation hub and programme to accelerate the development and uptake of digital innovations that support farmers and other value chain actors, especially youth and women, to become more competitive.

Agriculture Ministry Allocated $21.25 Billion for 2023/24 Fiscal Year

The Ministry of Agriculture and Fisheries, Jamaica has been allocated $21.25 billion to undertake activities for the 2023/24 fiscal year.

This represents a 19 per cent increase or $3.39 billion more than the previous year.

Portfolio Minister, Hon. Pearnel Charles Jr. made the disclosure during a meeting of the Standing Finance Committee of the House of Representatives at Gordon House on March 1.

He informed that the sector achieved a 9.9 per cent increase in domestic production from 770,456 tonnes in 2021 to 846,508 tonnes in 2022, representing a culmination of seven consecutive quarters of growth in the sector.

Why Is Latin America and the Caribbean the World’s Costliest Region for a Healthy Diet?

Around 3.1 billion people are unable to afford a healthy diet, reflecting the impact of higher food prices for consumers during the pandemic and more frequent extreme weather events that are disrupting supply chains, according to the United Nations Food and Agriculture Organization (FAO).

This increase is mainly explained by Asia where 78 million more people could not afford to eat this type of diet in 2020 followed by Africa (25 million more), while in Latin America and the Caribbean and North America and Europe accounted for eight million and one million more people respectively.

This study, with input from researchers at US private research institute Tufts University and the World Bank reveals that Latin America and the Caribbean is the region where a healthy diet costs the most at $3.89 per person per day in 2020, followed by Asia ($3.72), Africa ($3.46), North America and Europe ($3.19) and Oceania ($3.70).

Law to protect farmers’ crops, livestock finally proclaimed in Barbados

Legislation to help farmers protect their produce from thieves is now in force. The Protection of Agricultural Products Act 2022 was proclaimed on Monday, according to the March 6, 2023 Official Gazette.

Minister of Agriculture, Indar Weir said the legislation was long overdue and he was satisfied that it properly represented the best interest of farmers who were key stakeholders in the creation of the document. He said there were a few milestones about which he was especially pleased, including that under the Act, fines for praedial larceny are stiffer.

The Protection of Agricultural Products Act 2022 provides for fines of up to $100,000, imprisonment for five years, or both. Before the enactment of the legislation, the maximum fine was $5,000.

Read More
Introducing farmers to best practices in onion production

Though many times, onions are accompanied by snifflers and tears from watering eyes, they are considered a staple in many Caribbean kitchens, and are, the go to seasoning, when it comes to cooking, making the crop, high in demand. In Tobago, CARDI has been conducting evaluation trials to identify suitable onion varieties that are well adapted to local conditions and which meet grower requirements - high marketable yield, disease resistance, good quality and storage potential. The varieties evaluated were Mercedes, Caballero, Red Onion and Granex Yellow.

On Wednesday 22 March, 2023, CARDI in collaboration with the Division of Food Security, Natural Resources, the Environment and Sustainable Development hosted a Field Day to highlight the results of these trials at the Goldsborough Demonstration and Training Centre in Tobago.

The Field Day was aimed at equipping farmers and students, with the best information and resources to improve production and increase their profitability.

The Field Day provided farmers and interested stakeholders with information on best practices for onion cultivation. Topics covered included land preparation, fertilizer application, pest and disease management, harvesting and post-harvest handling and storage. In addition the performance of each variety was discussed and an onion production schedule introduced to those in attendance. CARDI’s Technician in Tobago, Selby Quashie facilitated the Question and Answer segment which followed the field tour.

According to CARDI’s Executive Director, Ansari Hosein, the Field Day was aimed at equipping farmers and students, with the best information and resources to improve production and increase their profitability.

Identifying new vegetable lines suited to Caribbean conditions

CARDI is continuing to work with the Taiwan based World Vegetable Center (WorldVeg) to conduct evaluation trials for improved vegetable lines produced by the Center. This activity falls under their project “Promoting vegetable diversity for more resilient livelihoods and healthier diets in the Latin America and Caribbean Region” financed by the Taiwanese Government. The objectives of the project are to conserve available vegetable biodiversity for future use and introduce and promote new vegetable varieties for domestic and export markets to sustainably improve the livelihoods of resource-poor populations in Central America and Caribbean countries.

The purpose of these on-station trials will be to identify new breeding lines developed by WorldVeg that may better meet the needs of local consumers in the area and that are also adapted to the local growing conditions with tolerance to abiotic and biotic stresses.

Previously, CARDI evaluated the performance of 13 tomato varieties, 10 hot pepper varieties and 7 sweet pepper varieties for yield and disease tolerance in Belize. They were all World Veg open pollinated lines. From these, 4 tomato varieties: AVTO1954, AVTO1903, AVTO2101 and AVTO1915 were selected as high performers with potential in Belize. Under this phase of the project, CARDI will identify farmers to evaluate these selected lines in on-farm trials following best management protocols and practices. Data to be collected include adaptability to local conditions, tolerance to local stresses (pests and diseases) and consumer preferences with respect to flavour and taste.

Additionally, CARDI will conduct on station adaptation trials for 4 tomato, 3 sweet pepper and 5 hot pepper lines in Belize. Also, in St Kitts and Nevis evaluation trials will commence for 7 tomato, 9 broccoli and 3 sweet pepper lines. During these evaluations all World Veg lines will be checked against local farmers preferred varieties. The purpose of these on-station trials will be to identify new breeding lines developed by WorldVeg that may better meet the needs of local consumers in the area and that are also adapted to the local growing conditions with tolerance to abiotic and biotic stresses.

The selected crops, specifically tomatoes and broccoli are among the niche vegetables identified in CARICOM’s 20 x 2025 plan for increased production, as part of the Region’s import replacement programme.

Did You Know?

When you chop an onion, you’re releasing sulfurous compounds and enzymes into the air. Mixed together, they form an eye-irritating gas. Your eyes react to this gas by producing tears.

Some simple hacks to stem the flow of tears while chopping onions are:

1. Chilling your onions before slicing, so the sulfur compounds become inactivated.
2. Keeping your kitchen breezy (open windows, turn on fans).
3. Using a sharp knife minimizes damage as it slices through the onion and does not crush it.
4. Using kitchen goggles to protect your eyes (yes they do exist!)

Upcoming Events

Jamaica
Farmers’ Month

1 - 30 April

St Kitts and Nevis
Agriculture Open Day

27 - 28 April

Belize
National Agriculture and Trade Show

28 - 30 April
On March 10, we welcomed Mr. Lichun Zhou, Counsellor, Embassy of the People's Republic of China and Mr. Zheng Bin, Attaché at the Embassy to CARDI's Headquarters. They met with Ansari Hosein, Executive Director and Fayaz Shah, Manager Science and Technology and discussed potential areas for collaboration between both entities in the Caribbean. Areas of interest include human resource development, forage development, coconut, small scale mechanisation, digital technologies and protected agriculture.

Belize

Participated at the National Meteorological Services' Information Fair to commemorate World Meteorological Day 2023. CARDI staff shared the impacts of the changing climate on food production in Belize and across the Region with more than 500+ students.

Trinidad & Tobago

Grenada

CARDI's Agronomist and Country Representative in Grenada, Reginald Andall in collaboration with the Climate Smart Agriculture Rural and Enterprise Program (SAEP) and the Ministry of Agriculture facilitated a training workshop on Nursery Management. More than 80 participants gained insights into making their nursery operation productive and profitable.

Cayman Islands

At the Agriculture Show in Cayman Brac CARDI Representative, Dr. Annika Minott highlighted the Institute's work on developing the cassava value chain.