Ministers’ Brief

Issue 5, May 2021

Strengthening fruit and vegetable value chains in the Caribbean

Region on high alert for active hurricane season

Jamaican coconut farmers receive seedlings

Small scale sweet potato farmers given a head start
The Caribbean Agricultural Research and Development Institute (CARDI) in collaboration with the World Vegetable Center (WorldVeg) also known as the Asian Vegetable Research and Development Center (AVRDC), has entered into a Memorandum of Understanding (MOU) to diversify the Caribbean’s food systems by sustainably developing the fruit and vegetable value chains. To achieve this, both institutions will undertake joint research and development projects, capacity building initiatives and the sharing of experiences, knowledge, and technological advances.

According to the Food and Agriculture Organisation (FAO) and the World Health Organisation (WHO), individuals need approximately 400 grams or five pieces of fruits and vegetables daily. While we in the Caribbean have a wide variety of fruits and vegetables throughout the year, consumption across all countries is under the daily recommended rate per person (Organisation for Economic Cooperation and Development 2020). Access and availability are two major factors impacting the consumption of fruits and vegetables.

The signing of this MOU is timely, as 2021 has been designated the International Year of Fruits and Vegetables (IYFV) by the United Nations. This collaboration between CARDI and WorldVeg will not only strengthen the production and supply chains for fruits and vegetables but will also raise awareness and the importance of both, to the food and nutrition security of Caribbean peoples. The immediate focus is on participating in a project in Belize which seeks to promote vegetable diversity for more resilient livelihoods and healthier diets in the Latin America and Caribbean Region. This will involve field evaluation and promotion of new, improved vegetable varieties for domestic and export markets. Crops of interest are Tomato (Solanum lycopersicum), sweet and chilli peppers (Capsicum annuum) and Pumpkin (Cucurbita moschata). Capacity building in the areas of trial management and vegetable breeding is also included.

This partnership with WorldVeg will assist with developing and introducing new, improved varieties that meet production and market requirements, leading to farmers achieving improved production, productivity, efficiency, and economic returns.

While still reeling from the devastating impact of the COVID-19 pandemic on their economies, Caribbean countries are now being placed on high alert for a very active hurricane season. The National Oceanic and Atmospheric Administration (NOAA) is expecting between 13-20 named storms for the hurricane season which officially begins on June 1 and ends on 30 November. Based on the continued warmer than average sea temperatures in the Atlantic Ocean and the Caribbean Sea, scientists are projecting 3-5 of these storms to develop into major hurricanes.

The catastrophic impacts of hurricanes on the Caribbean’s agriculture sector over the years are well documented. They have resulted in the loss of crops and animals, disrupted livelihoods and compromised the food and nutrition security of the populace.

The NOAA is urging citizens to get ready and keep up to date with weather reports. Farmers are encouraged to stock up on water, medication and feed for animals. Keeping inventories updated and reinforcing the roofs of animal housing and farm structures are also worthy investments.

When hurricanes are imminent, crops that can be harvested should be and stored or sold where possible. A good preparedness strategy is diversifying farm operations – the inclusion of root crops is always a good option as they are more resilient to damage. On-farm assets such as drip lines and water tanks should be removed and placed in storage.

Farmers should keep seeds and planting material in stock so they can restart production with immediacy after disasters.

If available, farmers should invest in insurance as part of their recovery strategy.

CARDI will continue to work with the Seed Labs and Tissue Culture Labs in the Region to store planting material and make them available as part of the regional post-disaster recovery efforts. Additionally, the Institute will leverage its extensive network of partnerships to garner resources to assist in rebuilding efforts. The goals are to restore production quickly and build back stronger.

In Issue 4 of the Ministers’ Brief, in the article “Rewarding youth in Agriculture” it was incorrectly stated that the CARDI Award was established in 2017. We wish to apologize for this error.

The CARDI Award was started in 2008, under former Executive Director, Dr Arlington Chesney and former UWI Vice-Chancellor, Professor E Nigel Harris.
Jamaican coconut farmers receive seedlings

CARDI Jamaica in collaboration with the Coconut Industry Board (CIB) and Knockalva Polytechnic College (KPC), distributed the second batch of over 2,000 seedlings from the coconut nursery established at the KPC, Hanover. This was one of two nursery initiatives in Jamaica led by CARDI under Phase I of the EU/ACP funded Regional Coconut Industry Development Project. The nearly 4,000 seedlings supplied to date, potentially contribute to an approximately 60-acre (24-hectare) expansion of coconut trees planted on the island.

Seedlings have been distributed to 19 farmers from 6 parishes, with 4 of these being on the western side of the island. Previously, coconut farmers procured planting material from nurseries that are primarily located on the eastern side of the island. The KPC nursery, located in the west, will also be used to build the capacity of students and producers in the best practices in coconut nursery management. The practical skills will reinforce the theoretical concepts taught in the classroom. These training sessions will be facilitated by CARDI and CIB.

Small scale sweet potato farmers given a head start

In 2020, COVID-19 and drought led to growing food security concerns in St Lucia. The CARDI office took the initiative to supply planting material and train farmers in the propagation and post-harvest management of commodities such as sweet potato, hot pepper and breadfruit. The goal was to improve production and minimize post-harvest losses mainly brought about by the disruptions to food supply chains caused by the COVID-19 pandemic.

Adhering to strict COVID-19 protocols, 6 farmers from across the island were trained in the rapid propagation technique for sweet potato at the CARDI field station in Dennery. Traditionally, sweet potato is cultivated from vine cuttings 30-40 cm long acquired from healthy parent plants with the desired characteristics. However, with the rapid propagation technique, the stems are cut into one node or two-node pieces, treated, grown out in a nursery and transplanted into the field after one month. Under drought conditions, this method guarantees a higher establishment rate since the plant’s root ball is well developed by the time of transplanting.

The training was filmed in both English and Creole and shared via WhatsApp with more than 150 farmers. They were encouraged to share with their counterparts.

The CARDI germplasm bank in St Lucia houses over 30 varieties of sweet potatoes. More than 3,000 cuttings for the yellow, white, orange and purple-fleshed varieties were supplied to farmers by the Institute. Approximately 90% of farmers who received cuttings from CARDI were small farmers who cultivate less than 1-acre plots.

Small farmers lack the required resources to ensure their production systems are tolerant to the vagaries of climate change. The adoption of the rapid multiplication technique enabled farmers to successfully improve their production during a challenging period.

Jamaican coconut farmers receive seedlings

Jamaica is one of 12 countries benefiting from the 5.8 million Euros in funding, available under Phase II of the project and CARDI supports Jamaica’s vision for the development of the coconut industry. Minister of Agriculture, Floyd Green in his contribution to the 2021/22 Sectoral Debate in Parliament said the Government is seeking to boost coconut production by collaborating with private growers. Minister Green noted that “under this partnership, we are looking to produce 400,000 seedlings per year, which would be a 400% increase, and to plant over 3,000 acres of coconut.”

Under Phase II, the International Trade Centre, CARDI and the network of strategic partners are building on the foundation set to propel the regional coconut industry further along the envisioned development path. Training and research activities are being scaled up at the KPC along with on-farm activities in nursery management, climate smart agriculture, integrated pest management, inter-cropping, mother palm selection and value addition.
From the field

**Belize**
CARDI Representative, Omaira Avila-Rostant joined Prime Minister, Juan Antonio "Johnny" Briceño and Minister of Agriculture, Food Security and Enterprise, Jose Abelardo Mai on a tour of the Orange Walk District, 4 May, 2021.

**Barbados**
Students of the Barbados Youth Action Programme learning how to assemble a solar dryer and how it functions at the CARDI office.

**Grenada**
The construction of a cassava nursery was started at the CARDI Field station in Westerhall. This activity is supported under the Pilot Programme for Climate Resilience.

**Guyana**
Natural dye obtained from the dried coconut husk was used to colour this sample of sheepskin leather. Work is ongoing to perfect the product and determine its feasibility.