



CWA Technical Seminars

CRFM Concept Note

Title: Sargassum Seminar on Supporting Climate-Smart Fisheries, Aquaculture, and Agriculture through Product Innovation

Background/ Introduction

1. Climate change is one of the main contributing factors to the Sargassum influxes which have been negatively impacting the marine sector, and in particular fisheries, for over a decade. However, Sargassum also presents an opportunity for sustainable blue economic growth in the context of marine algae use and diversification. Sargassum is a living marine resource that can be harvested for the production of biostimulants and compost. These novel agricultural inputs can bolster food production and thereby contribute to improved regional food and nutrition security and overall food sovereignty. This would, furthermore, mitigate the negative impacts of Sargassum influxes on the marine sectors and coastal communities across the Caribbean and improve climate resilience.
2. This seminar seeks to engage with fisheries and agriculture stakeholders on the ongoing work being done by the CRFM in partnership with the New Zealand Institute for Plant and Food Research Limited (PFR) under the “Sargassum Products for Climate Resilience in the Caribbean” project. This initiative aims to mitigate the environmental and socioeconomic impacts of Sargassum influxes in affected Caribbean countries through the creation of technologies and value-chains for marine biomass. This is underscored by three key concepts:
 - a. The project results in bolstering Caribbean agribusiness innovation and climate resilience;
 - b. There is circular use and zero waste of the Sargassum resource; and
 - c. The precautionary approach ensures safety from potential hazards all along the value chain.
3. The project is funded by the New Zealand Ministry of Foreign Affairs and Trade (MFAT) and implemented by the New Zealand Institute for Plant and Food Research Limited (PFR) and the Caribbean Regional Fisheries Mechanism (CRFM).
4. The project has four components: 1: Raw material safety testing & harvest operations review; 2: Product and Process Development; 3: Product Commercialisation Strategy Development; and 4: Outreach and Supply Chain Development.
5. Through our collaboration with CARDI and UWI, the CRFM-PFR project has optimized the production of a liquid Sargassum biostimulant and conducted preliminary glass house trials which have shown favorable results with cucumbers. Field trials of the liquid

biostimulant are currently underway for cucumber and sweet pepper with select farmers in Barbados.

6. Safety testing has been conducted for heavy metals in the liquid biostimulant, the cucumbers grown with the biostimulant, as well as the soil from the glass house trials. The results have shown that heavy metal levels are well below the safety limits.
7. The PFR-CRFM teams are also seeking to develop a commercialization strategy and pilot plant for the production of the liquid biostimulant in collaboration with a private sector partner and fishers as harvesters of the Sargassum. There are also plans to investigate the feasibility of developing a compost from the residue of the liquid biostimulant production, in accordance with the circular economy principle.
8. CARICOM policy-makers, including the Council for Trade and Economic Development and the Ministerial Council of the CRFM, have maintained keen interest in the progress of the project, recognizing it as one of the most important regional and potentially impactful interventions aimed at mitigating the negative impacts of Sargassum and supporting valorisation of the raw material in the region.

Objectives:

The objectives of the Sargassum seminar are to:

- Showcase the innovative work being done by PFR and CRFM, in partnership with CARDI and UWI, to develop a biostimulant and compost from Sargassum using the principles of the circular economy and the precautionary approach, to ensure safety across the value chain;
- Create awareness about the Sargassum liquid biostimulant as one of the options to mitigate the negative impacts of Sargassum and support valorization of the raw material through the development of a commercialization strategy with a private sector partner in the region; and
- Improve knowledge and awareness about the requirements for safety and use of Sargassum in developing a biostimulant and compost to bolster regional agribusiness and contribute to improved food security.

Proposed Partners

New Zealand Institute for Plant and Food Research (PFR), Caribbean Agricultural Research and Development Institute (CARDI), Centre for Resource Management and Environmental Studies - University of the West Indies (UWI CERMES), CARICOM Private Sector Organisation (CPSO), and Caribbean Chemicals & Agencies Ltd.

Target Audience

Fisherfolk, CRFM Member States, Fisheries Divisions/Departments, National Fisherfolk Organizations, Farmers, Agriculture Divisions/Departments, Academia, Private Sector, Potential Funders/Donors/ Investors, IICA, CAHFSA

Proposed Agenda of Seminar

- 9:00 - 9:05 **Welcome** [*CRFM Secretariat*]
- 9:05 - 9:10 **Introduction of Speakers / Panelists** [*Event Chair/Moderator*]
- 9:10 - 9:20 **Overview of the Sargassum influxes and their impacts on Caribbean fisheries and aquaculture (including mariculture) sector** [*CRFM*]
- 9:20 - 9:30 **Addressing Sargassum influxes through the Sargassum Products for Climate Resilience in the Caribbean project** [*PFR*]
- 9:30 – 10:00 **Developing a Sargassum Value Chain** [*CRFM, PFR, CARDI*]
- (i) Options for harvesting and storage of Sargassum taking into account instability of supply [*CRFM/PFR*]
 - (ii) Production of the liquid biostimulant with a focus on safety standards and heavy metal testing [*CARDI*]
 - (iii) Circular Economy Approaches to Sargassum Utilization [*CERMES*]
- 10:00 – 10:45 **Commercialization and Marketing of the Liquid Biostimulant: Opportunities and Challenges**
- (i) Tapping into the Caribbean biostimulant market to boost domestic and intraregional trade [*Caribbean Chemicals & Agencies Ltd*]
 - (ii) Unlocking farmer buy-in to enhance the private sector’s role in reducing CARICOM’s fertilizer import bill and building food sovereignty [*CPSO*]
- 10:30 - 10:55 **Q & A**
- 10:55 - 11:00 **Wrap Up**

Budget

Particulars	Amount (USD)
1. Travel, Accommodation, and DSA	TBD
2. Communications and Event Logistics	3,000.00
3. Catering	300.00
4. Contingency (20%):	660.00
ESTIMATED TOTAL	3,960.00