Climate Information and Outreach in the Jamaican Agriculture Sector

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Introduction

- Jamaica is sensitive to climate as climate to a large extent determine a number of the lifestyle and economic activities we engage in.

- Two of our major economic activities, Tourism and Agriculture are highly dependent on climate.

- The agriculture sector in particular is sensitive to rainfall and temperature climatology which help to determine planting and reaping, influences disease and pest cycles and water availability.
Introduction

Prior to the Caribbean Agrometeorology Initiative which began in 2009 (CAMI) there were no specific climate information tool for the agriculture sector

The main objective of the CAMI project was to increase and sustain agricultural productivity at the farm level in the Caribbean region through improved dissemination and application of weather and climate information using an integrated and coordinated approach.
Introduction

- As a result of the CAMI project in 2012 the agriculture sector began receiving the CAMI Bulletins which were the first specific climate information product.

- The bulletins are prepared by the Jamaica Meteorological Services.
Information sharing within the Ag Sector

- Within the Agriculture sector a National Agriculture Disaster Risk Management Plan (ADRM) was developed in 2009 through the assistance of the FAO.

- It is within the context of the ADRM plan that any information relating to weather was passed to farmers.

- The information disseminated was however in relation to extreme weather events (reactive) and were in the form of pamphlets, text and voice messages and word of mouth.
AGRICULTURE DISASTER PREPAREDNESS TIPS FROM RURAL AGRICULTURAL DEVELOPMENT AUTHORITY

FARMERS!!

June marks the beginning of the hurricane season and the Rural Agricultural Development Authority (RADA) through its Agricultural Disaster Risk Management (ADM) programme is prepared and ready to help farmers in disaster prevention and mitigation. The ADM Plan emerged from the vision of the Minister of Agriculture & Fisheries of the need for a national framework to reduce the impact of especially hydro-meteorological hazards on agricultural livelihood. The activities and measures for disaster risk management in the agricultural sector are aimed at mitigation, prevention and preparedness; emergency response; recovery and rehabilitation. In this context our programme outlines organizational and operational structures as well as institutional relationships and responsibilities that facilitate effective implementation of activities for Agricultural Disaster Risk Management at all stages of the DRM Cycle. The ADM operation is headquartered at RADA’s corporate office, Hope Gardens, and operates across all parishes through a collaborative effort involving relevant stakeholders including the Ministry of Agriculture & Fisheries Agencies, ODPEM, IBCA, JAS, NWA, SDC, parish council, the police, community members and agricultural input suppliers among others.

RADA communicates with farmers through text messages sent to registered farmers prior to, during and after a disaster to help farmers in managing their operations. Brochures on disaster prevention measures are available at the RADA parish offices and at our website www.rada.gov.jm.

What farmers should do before a hurricane

- Check radio weather broadcasts periodically for latest forecasts and warnings.
- Maintain drains, check dams, diversion ditches as necessary.
- Assess property for damage to buildings, animals, crops, equipment etc.
- Be alert and look for fallen or broken high powered electrical wires which may still be alive and dangerous.
- Do not turn on electrical devices until proper checks by a competent person confirm it is safe to do so.
- Dispose of dead animals immediately, by burial or burning.
- Report signs of livestock distress/infection to livestock officer or veterinarian.
- In cutting broken or fallen trees, make sharp, clean cuts at a 45° angle to prevent water settling on the cut surface. Use tools such as pruning saw, roll-cut/secateur, chain saw.
- In the case of trees that were uprooted, prop-up trees and cover roots with top soil where possible, avoid damage to the base of the trunk.
- Do not consume food/feed that has been in contact with flood waters.

During a Hurricane

- Keep fruit trees no more than 15 feet tall and not overhanging buildings.
- Cut back tree branches and open the canopy so winds pass through readily thus reducing the level of damage during the storm.
- Reap mature fruits and store in a cool, dry place for use after the event.
- Make a checklist of all farm animals
- Remove cattle and small ruminants from low lying areas to higher ground away from river banks and areas likely to have landslides or flooding.
- Stockpile feed and place at least 2 feet above ground in dry, flood-resistant and leak-proof area to last at least one week.
- Remove irrigation lines and equipment and store in area secure from damage.
- Establish protected seedling production centres for early replanting after a hurricane.

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secure bee hives to ground and reduce openings

After a Hurricane

- Call your RADA extension officer, Parish office, farmers’ group representative, Agriculture Emergency Operations Centre and report the damage caused by the hurricane.

For further information, contact your extension officer, your RADA parish office or call our toll free number 1-888-ASK-RADA or 1-888-275-7232.

Protected Agriculture - before and after the hurricane

- During construction, use special locking profile to attach plastic/mesh to houses.
- Establish protected seedling production centres for early replanting after a hurricane.
- Hours before the event, remove cladding, lay plants flat and cover with plastic sheeting held down by twine tied across house posts.
- Overtake, repair and re-hang trellis plants, replace cladding on house and treat plants after the event.
- Team up and clean sinkholes to avoid flooding
- Construct and maintain drains/diversion ditches/check dams
- Avoid planting crops in flood-prone areas
Climate information needs of the Sector

1. Daily, Weekly and monthly/quarterly weather bulletins
   - Daily weather information– work information – spraying, harvesting, fertilizing, land preparation, planting;
   - Weekly – fortnightly – longer term planning – planting, land prep, pest and disease, weed management, drainage and irrigation,
   - Monthly – Three Monthly long term – crop selection and markets, pests and disease outlook; weed outlook; drainage

2. Early Warning Systems
   - EWS for Flooding
   - EWS for Drought

3. Predictability
Challenges to using climate information within the Sector

- Limited access to climate information in general
- Information is not always simple or easily understood e.g. CAMI Bulletin
- RADA Officers have been trained to collect weather data from automatic weather stations however most officers do not know how to interpret the info or forget how to collect
Challenges to using climate information within the Sector

- Where climate information do exist it does not always reach the farmers

- Limited capacity to generate tailored climate product for specific farmer activities by location

- How to communicate this information and the medium of communication for the various areas and stakeholder groups
Challenges to using climate information within the Sector

- Limited skill of the extension services to integrate climate information into their operations
- General lack of targeted climate info dissemination to users
- Limited farmer understanding of the climate info
- Poor integration of climate information by extension services and farmers
Current Situation: Climate information Tools

- National SPI (3Month forecast) (predictive mode) JA FIRST TO DO IN THE CARIBBEAN
- Short term weather forecast portal
- Seasonal rainfall forecast
- Monthly rainfall summary
- Revised CAMI Bulletin
- Continuous training of extension staff and in agrometeorology and use of climate info
- Climate Information Working Group for the Ag Sector
Next Level

- Completing the work on the soil water balance for Irish Potato

- Influence decision making at different levels in a targeted way utilizing the current products

- Development of a Climate Change Strategy for the sector in keeping with the climate change policy
Questions?