



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



CAES Caribbean
Agro-Economic
Society

Farm & Business

The Journal of the
Caribbean Agro-Economic Society

Theme:

**“Mitigating Climate Change Effects to
Ensure Food Security”**

Vol. 8, No. 1, July 2016

ISSN 1019—035 X



EDITOR-IN-CHIEF

CARLISLE A. PEMBERTON, Retired Professor,
Department of Agricultural Economics & Farm Management,
The University of the West Indies, St. Augustine,
The Republic of Trinidad and Tobago.

EDITORIAL ADVISORY BOARD

Compton Bourne, *UWI, St. Augustine, The Republic of Trinidad & Tobago*
Carlton G. Davis, *University of Florida, Gainesville, Florida, USA*
Vernon Eidman, *University of Minnesota, St. Paul, USA*
Holman Williams, *UWI, St. Augustine, The Republic of Trinidad & Tobago*

EDITORIAL COMMITTEE

Govind Seepersad, *UWI, St. Augustine, The Republic of Trinidad & Tobago*
Edward A. Evans, *UF/IFAS, University of Florida, Homestead Florida, USA*
Isabella Francis-Granderson, *UWI, St. Augustine, The Republic of Trinidad & Tobago*

Cover Design: **Kavita Butkoon**

ISSN 1019 – 035 X

CONTENTS

	Page No.
Editorial	vi
Remarks by the President of the Caribbean Agro-Economic Society.....	vii
Remarks by the Honourable Governor of the U.S. Virgin Islands	ix
List of Reviewers.....	xiii
List of Executive Committee of the CAES (2013 – 2015).....	xiii
Conference Programme	xiv
Contributed Papers	
<i>J.R. Deep Ford and Ekaterina Dorodnykh</i> Addressing Food and Nutrition Security Threats in the Caribbean: Lessons from the Cassava Value Chain in Barbados.....	2
<i>J.R. Deep Ford and Ekaterina Dorodnykh</i> Developing Food Value Chains to meet Tourism Demand in the Caribbean: Case Studies of St. Kitts Nevis and St. Lucia.....	31
<i>Edmund M. Tavernier</i> Elements of a Sound Online Education Program: A Blueprint for a Food Industry Management Administration Certificate	71
<i>Jeri L. Kelly and Carlisle Pemberton</i> An Assessment of the Household Food Security Status and Local Foods Grown in Rural Bahamas.....	82
Notes	
<i>D. Tago, J. Pradel, Ml. Percedo Abreu, MT Frias Lepoureau, V. Gongora, R. Lancelot, T. Lefrançois, N. Surujbally, C. Lazarus, P. Morales, S. Vokaty</i> Towards a Regional Approach for Animal Health Services Provision and Disaster Risk Reduction: The Economics of the Caribvet Network.....	98

Brendan Toote

The Impact of Hurricane Sandy (2012) on Local Farmers in the Bahamas.....	103
--	------------

Abstracts

Mahaicony Pig Farmers Add Value to Their Products	110
Global Value Chains and Trade in Value Added: Assessing the US Corn and Soya Contribution into the Caribbean Poultry Industry	111
Local Food Systems: U.S. Perspectives and Opportunities across the Caribbean	112
Climate Change and Adaption Measures: The Road to Increase Food Security in The Bahamas	113
Socioeconomic Assessment of Natural Disasters in the Caribbean Region: The Case of Grenada's Nutmeg Industry	114
A Modeling Framework for Designing Innovative Sustainable Agricultural Land Systems: Application to Guadeloupe	115
Economics of Soil Conservation Practices in Northern Haiti	116
Site Suitability Model for Haitian Blue Coffee using Spatial Multi-Criteria Decision Analysis (SMDA)	117
Are the Caribbean Ocean Areas within their Exclusive Economic Zones Healthy?.....	118
Comparing Price Volatility of the International Prices of Cocoa, Coffee and Oil	119
The Environmental Impact of El Nino Southern Oscillation Forecasts	120
Supply of Industrial Round-Wood in Caribbean and Central American Countries	121
Satisfaction and Quality of Housing among Older Persons in Rural Trinidad	122
Assessing the Impact of Tariff Removal on the Africa's Net Trade with the European Union	123

Experiences of The Inter-American Institute for Cooperation on Agriculture in Delivering its Technical Cooperation Programmes in Trinidad and Tobago and the Region.....	124
Analyzing Bilateral Trade using the Gravity Equation: Ex-Post Analysis of the Top Four African Exporting Countries to Europe	125
Stakeholders' Perceptions of the Impacts of Community-Based Tourism Events in Saint Lucia: A Case of the Fish Fry Events	126
Socioeconomic Factors Affecting Household Food Expenditure in North Trinidad	127
Does Gender Play a Role? Determinants of Food Security among Low Income Households in North East Trinidad	128
List of Participants.....	129
List of Sponsors.....	134

Editorial

This issue marks the resumption of the publication of the journal *Farm and Business*, the Journal of the Caribbean Agro-Economic Society which was last published with Volume 7 No. 1, June 2007. The Society has decided to continue the publication of the Journal to give its members another avenue for professional publication. The papers from the 31st West Indies Agricultural Economics Conference are being reviewed and as we have done for recent Conferences, some papers are being published in *Tropical Agriculture*, the Journal of the Faculty of Food and Agriculture, The University of the West Indies in St. Augustine. Other papers from the 31st West Indies Agricultural Economics Conference are being published in this edition of *Farm and Business*.

Papers in *Farm and Business* are available on the AgEcon Search Website at the link '<http://ageconsearch.umn.edu/handle/36826>' which has given these papers a great deal of accessibility. Members of the Society are urged to visit this site and to use these papers in their research.

Farm and Business is available to members of the Society as well as natural and social scientists and researchers to publish your articles, which will be peer reviewed to meet the highest academic standards. We plan to publish issues of the journals once sufficient articles are available and all publications will be available online on the Society's website and the AgEcon Search Website. Until further notice, there are no publication fees for *Farm and Business*.

We therefore look forward to receiving your articles for review and to a successful relaunch of our Journal.

Carlisle Pemberton
Editor-In-Chief
Farm and Business

Remarks by the President of the Caribbean Agro-Economic Society

Professor Carlisle A. Pemberton

At the Opening Ceremony of 31st West Indies Agricultural Economics Conference,
9th Aug 2015 at the Buccaneer Hotel, St. Croix, U.S. Virgin Islands.



Honourable Governor Kenneth Mapp, Commissioner Robles, President Dr. David Hall, Mr. Kwame Garcia, Participants, ladies and gentleman, the press, on behalf of the Caribbean Agro-Economic Society (CAES) I would like to welcome you to the 31st West Indies Agricultural Economics Conference. This Conference series was started in 1966 by the then Department of Agricultural Economics and Farm Management of the University of the West Indies and the Department organized the next nine (9) Conferences. The Caribbean Agro-Economic Society was formed in 1974 at the ninth Conference and thereafter the Caribbean Agro-Economic Society has been organizing the conference series. From the fifteenth conference in 1980 we have been having these conferences

every two (2) years. The Secretariat of the Society is housed in the Department of Agricultural Economics and Extension of the University of the West Indies, St. Augustine, Trinidad and Tobago.

This conference series has been held in many of the Caribbean states including Puerto Rico and even Orlando, Florida. However, this is the first time for the U.S. Virgin Islands and hence the first time in St. Croix. So it gives the Society great pleasure to be with such distinguished company in the U.S. Virgin Islands. To organize this conference in the Virgin Islands, the Society has received the most admirable support of the University of Virgin Islands, Cooperative Extension Service and the Agricultural Extension Station, the Department of Agriculture, the Department of Tourism, the Virgin Islands Port Authority and all the other places that will be visited on Wednesday.

Over the years, the West Indies Agricultural Economics Conferences have covered a wide range of themes and topics. Early emphasis in these conferences was on the diversification of Caribbean Agriculture because of the uncertainty of the market for Caribbean sugar and banana in the United Kingdom. Later conferences focused on topics of Agribusiness and sustainable development of Caribbean Agriculture.

Now the current focus is on climate change and food security. It has been apparent that the Caribbean is attempting to come to terms with the changing scenario that seems to be emerging with respect to climate change. This is a topic that has been studied to some extent in the Caribbean and we have some indication of increased temperature rise of 0.5 degrees

Celsius per decade and sea rise of one inch. While these figures may not seem to be very large, their impacts can be significant. Coming here to St. Croix and passing over Antigua, it is quite evident that the Leeward Islands are suffering quite markedly from the lack of rainfall. So that, we look forward to this conference and in particular the session on mitigating the effects of climate change and we take the point being made by President Hall and the Commissioner that the conference might be able to come up with some ideas as to how countries might deal with the problem of climate change.

The other topic that the Society has been focusing on in its conferences over the last few years is the topic of food security. The Caribbean is trying to come to terms with the emerging global food supply scarcity as the demand for food in this century is expected to increase particularly with the rising standards of living in some countries particularly China and Vietnam and countries in that part of the world. Also in the Caribbean, we are suffering from some of the effects of the lifestyle choices of individuals so there's now great need for the Caribbean countries to improve food and nutrition practices leading to more healthy diets so that we can reduce the incidence of lifestyle diseases such as obesity, hypertension, diabetes and so on. Again there will be a number of papers in this conference that would address the issue of food security and the factors affecting food security and also how countries can go about trying to ensure that their populations improve their diets. We hope we can contribute to the reduction of the crisis in terms of diabetes and hypertension that is sweeping not only the Caribbean but even the United States. So I'm sure at the end of this conference we would wish to report that the conference highlighted the scientific information and proposed practical ways in which people of the Caribbean can benefit from the research and development emanating from the scholars in the region. Thus, it is my hope that the conference can make a difference to peoples of the region especially to increase the food security and address the problem of climate change.

Now, as I said before, this conference has been fortunate to have the University of the Virgin Islands Cooperative Extension Service take the responsibility of staging the conference on behalf of the Society and they have done an excellent job as you can see, particularly an excellent choice of hotel. There is always a danger in calling names in fear of leaving someone out but I must give special thanks to Kwame Garcia, Stafford Crossman, Kofi Boateng and their staff here with us, who have done so much in planning this conference. I remember visiting St. Croix twice and Kwame took me to almost every hotel on the island as we tried to make a choice. I know it has been difficult for them given the high standard of living in St. Croix to get the hotel that we can afford but I think they've done a very excellent job. I must thank the staff of the University for the admirable hospitality and also the people of St. Croix because everywhere we have gone we have got the very highest standards of hospitality and service. So on behalf of the Caribbean Agro-Economic Society I sincerely welcome you all to this conference and I know we'll have a wonderful time and we look forward to the reception this afternoon and a most successful conference.

Thank you very much.

Remarks by the Honourable Governor of U.S. Virgin Islands

Mr. Kenneth Mapp

at the Opening Ceremony of 31st West Indies Agricultural Economics Conference,
9th Aug 2015 at the Buccaneer Hotel, St. Croix, U.S. Virgin Islands.



Dr. David Hall, President of the University of the Virgin Islands, the Honourable Carlos Robles Commissioner of Agriculture at the Department of Agriculture, Dr. Carlisle Pemberton of the University of the West Indies, Dr. Garcia, Master of Ceremonies Mr. Kofi Boateng. I'll also would to acknowledge the former Commissioner of Agriculture Dr. Petersen, our farmer, guests and participants of the Conference. Good morning and welcome to the Virgin Islands and St. Croix in particular.

When I received the invitation to attend the Agricultural Economics Conference we did not have a lot to conversations about me attending. Lieutenant Governor Potter and I during our campaign talked about the importance of agriculture to the economy of the Virgin Islands and our administration's commitment to growing the agriculture industry in the territory. Earlier this year, I was invited by the U.S. Department of Interior to attend a conference in Guam on Climate and Global Change. When I returned to the Virgin Islands and reported to the people of the Virgin Islands, I learned and recognized in that conference that Climate or Global Change that communities must prepare themselves for the effects of change in the environment. In the case of the Virgin Islands, we look at how higher temperatures affect our children, our senior citizens, how it affects fires in our islands and the government's response, how does rising sea levels affect our plan for capital projects, our ports, docks, waterfronts and how does it affect this administration and our industry in terms of farming, livestock, lack of water, lack of growth of food and food stock to support farms.

The outlay of the conference in Guam and how it would affect or benefit the people of the Virgin Islands will be seen sharing a part of a seven (7) million dollar pot to do as vulnerability assessment so that the government and the private sector and Dr. Hall with the assistance of the University of the Virgin Islands in how do we plan and put in place strategies and procedures on how we are going to deal with the changes in the environment and Climate Change. Therefore when temperature reaches over 90 degrees, how does the Department of Human Services respond to senior citizens and children? What notices or public educational campaigns do we give to parents that they are aware of their children playing in the heat will have a health effect? How do we look for senior citizens that are vulnerable in their homes that may not have appropriate attendant care and do not have access to air conditioning to ensure they are properly hydrated or brought to centres to ensure they are protected from the

environment? How do we plan a 200 Million dollar improvement Charlotte Amalie Waterfront and recognize that rising water levels may affect it 10 – 20 years from now and so; how do we develop an infrastructure to protect our assets? How does it affect policies at the department of agriculture to ensure we immobilize sufficient water and food and assistance to our farmers to ensure that we are surviving through the change of rising temperature in this part of the world? My federal programmes coordinators has been dispatched last week in furtherance of the conference in Guam with the Department of Interior this week in terms of how do we move closer to getting the aspects and foundation of this vulnerability assessment study to be put in place and to be paid for and done so that all of us in the territory can understand and recognize that there is a change in our environment and how to respond appropriately for these issues.

With respect to agriculture it is an industry and a science that I know as a child. I'm a product of our grandparents in St. Croix, my grandmother and grandfather who managed and operated a successful farm on St. Croix. My grandparents had 13 children that worked that farm. And when we were sent back from New York at age five in 1961 with my grandmother the farm was striving and as a five years old I learned very quickly what you had to do with sheep, goats, cows, pigs, ducks, chickens and in terms of my grandmother planting her fruits and vegetables and preparing and taking care of the soil and getting the products out so that on Saturday her goods could be sent to the market in Christiansted to be sold so we could eat. And the rule on the farm was really very simple if you didn't work you couldn't eat. This is how we got our food and certainly supermarkets came in 1960 but for all intents and purposes our eggs and dairy products and vegetables and fruits and meats and poultry and my uncles going on the bay side on Saturday morning is how we got fish. Now this was a young man coming out of Brooklyn at five years old and learning to live off of the land and they only say and tell you that story to tell you all our passion in this administration for agriculture farming and fishing. So what are we going to do?

I want to start by letting you know that in consideration of the conditions that exist today we are meeting with representatives of the US Farm Services this afternoon to make sure we understand what a declaration of emergency should provide. I'm not one high on symbolism and would not sign a state of emergency just to say we signed one. How should it be properly constructed, what would be the resources and the assets provide to all our farmers and the territory. Even beyond just loans from the federal government in terms of low interest because some of our farmers may not be able to support loans and so what do we need to do? In that regard want to thank Senator John McMillan for sponsoring an amendment or appropriation for \$500,000 which is now on my desk that I will approve and will have the budget director a lot to Commission Robles and the Department of Agriculture so that we can bring support and resources to the farming community.

In my budget submission to the legislature earlier this year, one would note that the budget for the Department of Agriculture in fact was increased. We have asked the budget director that any means for allotment to reduce expenditures in the executive branch and we manage our cash flow, not be appended to the department of agriculture. I've said to my commissioner, we met up the lastly I want you to get in the habit of boldly asking. I do not give charges and responsibilities and tasks to the members of the cabinet without a commitment on my part to make sure we find the resources that they need to do the job. And our business and agriculture in this administration is not going to be one of symbolism.

This week we will be sending a built-in legislature the Agriculture Revolving Fund that we will create and how we're going to fund it beginning in January 1st of 2016 to ensure a minimum of one million dollars to the Department of Agriculture for support services. We are putting up a prohibition in the language in the construction of this fund that not more than 10 percent or \$100,000 could be used for administrative purposes. Thus the Department of Agriculture can have equipment, can purchase water buffaloes, and can provide feed and stock to begin this process that the administration is committed to doing called "Farm to Table" in our school lunch program. We access about eight and a half million dollars annually for our school lunch program. Our school lunch program is filled with sugars and processed food and you can see what happens when you're filled with processed sugars and food and I'm a good example of what you look like and so we have to change that strategy of our school lunch program and provide healthier fresh foods for our children. The good part of that is the federal government is saying to us that the more you move to fresh organic food, fruits and vegetables in the school lunch program, the more federal dollars you can access and that's just a beginning.

As I travel abroad and as I work with Commissioner of Tourism, Beverly Nicholson Dodi, one of the things that we recognize that is very important is when many guests and looking at restaurant who only prepare meals from fresh and organic foods. And so it's going to be important and even part of our strategy in Tourism and growing the economy that we are able to grow fresh organic foods in territory to provide for all public institutions, school lunches, Hospitals, the Head Start programs and the two persons who used the SNAP program or food support subsidies as well as to be able to provide stock and inventory to our restaurants and eateries into territory as we move to fresher and healthier unprocessed and none sugar foods.

So I wish the conference well. I am pleased and honoured for the invitation to be here. We look forward to it the work that will result from this conference so that we can be further guided in the policies and processes we need to pursue in this territory as we begin to launch and grow real or greater food production in the U.S. Virgin Islands to provide a wider range of healthier foods to our territory and to our visitors.

The farming community, please be assured that you have our full support. We will complete this process of assessment in what a declaration of emergency should look like; how it would affect the 0.5 million dollars we will make available to the Department of Agriculture with regards to how they can spend the money and be able to timely acquire the support systems and water and food that they need to supply; but what language this declaration must also have that can lead itself for the response of the federal government. I know that some folks have mentioned that Puerto Rico has already declared a 'State of Emergency' and have access to federal dollars. However, the distinction between the Virgin Islands and Puerto Rico is that we are not a member or part or included in the U.S. Drought Monitor System and Puerto Rico is, so that the data collected from the Drought Monitor System when Puerto Rico and jurisdiction reacts to that data and that data and process determines on which bases is a 'State of Emergency' is declared, then results in response to a federal level of support and subsidy from the U.S. Government.


We are not going to look back and say when it should have been done, if it should have been done, make sure we are included and that the proper monitoring devices are deployed throughout the territory but today we are not included so just a general declaration or 'State of Emergency' would not result in just immediate federal dollars in the territory. And I think it is important that we are to point that out but we are going to subsidizes that process by making

sure we put local dollars on the table and then figure out where we can reach out to our partners at the USDA and the Department of Interior and access additional resources to be able to support the agriculture community and we will often timely and affectively let you know when the results of our efforts.

I look forward to hosting each and every one of you at the government house at 7pm. I will be there and I ask each and every one of you to come and spend some time in the less formal environment and I know you are going to have a productive conference and I want to wish you all well. Thank you so much for the opportunity to be here and I look forward to working with you over the course of the next 4 years.

Thank you.

The Reviewers of this Publication:

- 
- | | |
|----------------------------|---------------------------|
| ▪ Mr. Scott Mahadeo | ▪ Ms. Melony John |
| ▪ Dr. Edmund Tavernier | ▪ Prof. Neela Badrie |
| ▪ Prof. Edward A. Evans | ▪ Dr. Ekaterina Dorodnykh |
| ▪ Prof. Carlisle Pemberton | ▪ Dr. Antoinette Browne |
| ▪ Ms. Jeri Kelly | ▪ Dr. Ermanno Affuso |

List of Executive 2013 – 2015

The following is a list of Executive Members dated 2013 – 2015.

- | | |
|----------------------------|--------------------------------|
| ▪ President | - Professor Carlisle Pemberton |
| ▪ Vice President | - Mr. Nkosi Felix |
| ▪ Secretary | - Dr. Hazel Patterson- Andrews |
| ▪ Assistant Secretary | - Ms. Afiya DeSormeaux |
| ▪ Treasurer | - Mr. Edric Harry |
| ▪ Director of Publications | - Dr. Govind Seepersad |

Elected Members:

- Mr. Winston Ramautarsingh
- Dr. Ronald Gordon
- Dr. Carel Ligeon
- Dr. Wayne Ganpat
- Mr. Bruce Lauchner

31st WEST INDIES AGRICULTURAL ECONOMICS CONFERENCE
August 9-14, 2015
The Buccaneer Hotel

THEME: MITIGATING CLIMATE CHANGE EFFECTS TO ENSURE FOOD SECURITY

PROGRAM

SUNDAY – AUGUST 9, 2015

1:00 pm – 4:00 pm

Registration – The Brass Parrot, Buccaneer Hotel

MONDAY – AUGUST 10, 2015

8:30 am – 4:30 pm

Registration – The Brass Parrot, Buccaneer Hotel

SESSION 1 – *Opening Ceremonies*

Master of Ceremonies

Mr. Kofi Boateng

Associate Director and Assistant Professor

UVI/Cooperative Extension Service

9:00 am – 10:30 am

REMARKS

Mr. Kwame Garcia Sr.

State Director and Assistant Professor

UVI/Cooperative Extension Service

Robert W. Godfrey, PhD

Director and Professor, Animal Science

UVI/Agricultural Experiment Station

The Honorable Beverly Nicholson-Doty

Commissioner, VI Department of Tourism

The Honorable Neville James

Senator and President

31st Legislature of the US Virgin Islands

The Honorable Carlos Robles

Commissioner
VI Department of Agriculture

David Hall, SJD

President, University of the Virgin Islands

Carlisle Pemberton, PhD

President, Caribbean Agro-Economic Society

The Honorable Kenneth E. Mapp

Governor, US Virgin Islands

10:30 am – 11:00 am

Morning Break

SESSION 2 – *Improvements to Value Chains*

Moderator: Edmund M. Tavernier

11:00 am – 11:30 am

2.1 Global Value Chains and Trade in Value Added:
Assessing the US Corn and Soya Contribution into the
Caribbean Poultry Industry
Scott Mahadeo, Govind Seepersad, Ardon Iton

11:30 am – 12:00 pm

2.2 Local Food Systems: U.S. Perspectives and
Opportunities across the Caribbean
Ronald L. Rainey

12:30 pm – 1:30 pm

Lunch Break

SESSION 3 – Sustainability Issues
Moderator: Hazel Patterson-Andrews

- 1:30 pm – 2:00 pm **3.1** Comparing the Volatility of the International Prices of Cocoa, Coffee and Oil
Carlisle Pemberton, Afiya De Sormeaux, Hazel Patterson-Andrews
- 2:00 pm – 2:30 pm **3.2** Socioeconomic Factors Affecting Household Food Expenditure in North Trinidad
Vidwatee Ramdhanie, Carlisle Pemberton, Isabella Francis-Granderson
- 2:30 pm – 3:00 pm **3.3 VIDEO** – Meeting the Challenges of an Invasive Alien Species: The Case of Citrus Greening Disease in the Belize Citrus Industry
- 3:00 pm – 3:30 pm** **Afternoon Break**

SESSION 4 – Natural Resources and Disasters
Moderator: Deacue Fields

- 3:30 pm – 4:00 pm **4.1** Supply of Industrial Round-Wood in Caribbean and Central American Countries
Carel Ligeon, Curtis M. Jolly
- 4:00 pm – 4:30 pm **4.2** Socioeconomic Assessment of Natural Disasters in the Caribbean Region: The Case of Grenada’s Nutmeg Industry
Govind Seepersad, Ardon Iton, Nkosi Felix, Faraad Hosein
- 6:30 pm** **Bus Departure from Buccaneer Hotel Lobby to Government House**
- 7:00 pm – 10:00 pm** **Welcome Reception**
Government House

TUESDAY – AUGUST 11, 2015

8:30 am – 4:30 pm

Registration

SESSION 5 – *Novel Methods for Addressing Climate Change Challenges*

Moderator: Govind Seepersad

9:00 am – 9:30 am

5.1 Elements of a Sound Online Education Program
Edmund M. Tavernier

9:30 am – 10:00 am

5.2 A Modeling Framework for Designing Innovative Sustainable Agricultural Land Systems: Application to Guadeloupe
Pierre Chopin, Jean-Marc Blazy, Loïc Guindé, Thierry Doré

10:00 am – 10:30 am

5.3 Economics of Soil Conservation Practices in Northern Haiti
Sènakpon. E. H. Kokoye, Curtis M. Jolly, Budry Bayard, Dennis Shannon, Joseph J. Molnar, Philippe Mathieu

10:30 am – 11:00 am

Morning Break

SESSION 6 – *Novel Methods for Addressing Climate Change Challenges (cont'd)*

Moderator: Isabella Francis-Granderson

11:00 am – 11:30 am

6.1 Site Suitability Model for Haitian Blue Coffee using Spatial Multi-Criteria Decision Analysis (SMDA)
Shivani Seepersad, Roselin Moncher, Govind Seepersad

11:30 am – 12:00 pm

6.2 Are the Caribbean Ocean Areas Within Their Exclusive Economic Zones Healthy?
Curtis M. Jolly, Carel Ligeon, Pauline E. Jolly

12:00 pm – 12:30 pm

6.3 Climate Change and Adaption Measures: The Road to Increase Food Security in The Bahamas
Erecia Hepburn

12:30 pm – 1:30 pm

Lunch Break

SESSION 7 – Climate Change Effects**Moderator: Erecia Hepburn**

- 1:30 pm – 2:00 pm **7.1** The Impact of Hurricane Sandy (2012) on Local Farmers in The Bahamas
Brendan Toote
- 2:00 pm – 2:30 pm **7.2** The Environmental Impact of El Nino Southern Oscillation Forecasts
Ermanno Affuso
- 2:30 pm – 3:00 pm **7.3** Towards a Regional Approach for Animal Health Services Provision and Disaster Risk Reduction: The Economics of the CaribVET Network
D. Tago, M. I. Percedo Abreu, V. Gongora, R. Lancelot, T. Lefrançois, N. Surujbally, C. Lazarus, P. Morales, M. T. Frias Lepoureau, S. Vokaty, J. Pradel
- 3:00 pm – 3:30 pm Afternoon Break**

SESSION 8 – Improvements to Value Chains (cont'd)**Moderator: Winston Ramautarsingh**

- 3:30 pm – 4:00 pm **8.1** Developing Food Value Chains to Meet Tourism Demand in the Caribbean
J.R. Deep Ford, Ekaterina Dorodnykh
- 4:00 pm – 4:30 pm **8.2** Addressing Agricultural Development, Food and Nutrition Security in the Caribbean: Lessons from the Cassava Value Chain
J.R. Deep Ford, Ekaterina Dorodnykh
- 4:30 pm – 6:30 pm CAES GENERAL MEETING**

WEDNESDAY – AUGUST 12, 2015

**SESSION 9 – University of the Virgin Islands
Albert A. Sheen St. Croix Campus
North West Wing Great Hall**

8:15 am	Bus Departure from Buccaneer Hotel to UVI
9:00 am – 10:45 am	<p><i>Special Institutional Session</i></p> <p><i>Virtual Presentation - Mr. Kervin Stephenson</i> Regional Project Specialist Inter-American Institute for Cooperation on Agriculture (IICA)</p> <p><i>Experiences of the Inter-American Institute for Cooperation on Agriculture in Delivering its Technical Cooperation Programmes in Trinidad and Tobago and the Region</i> Mr. Edric Harry Policy Analyst and Planning Specialist Inter-American Institute for Cooperation on Agriculture (IICA)</p> <p>VIDEO 1: Ag-Technology</p> <p>VIDEO 2: Re-Engineering the Caribbean Citrus Industry</p>
10:45 am – 11:00 am	Morning Break
	<i>EDUCATIONAL TOURS</i>
11:00 am – 12:30 pm	Campus Tour - UVI/Agricultural Experiment Station/ Cooperative Extension Service
12:30 pm – 1:30 pm	Lunch Break
1:45 pm – 2:25 pm	Estate Whim Museum
2:40 pm – 3:15 pm	Tropic Hydroponic Farm
3:30 pm – 4:30 pm	Captain Morgan (Diageo) Rum Distillery

EDUCATIONAL TOURS

WEDNESDAY – AUGUST 12, 2015

UVI COOPERATIVE EXTENSION (CES)



Homemakers at CES 4-H Family and Consumer Sciences Lab

The Cooperative Extension Service (CES) helps carry out the Land-Grant functions of the University. Through the federal network of the Land Grant University System, CES is federally empowered as an agency for public education and information dissemination. It is dedicated to delivering research-based educational programs and information that addresses critical issues affecting families, individuals and the local community. CES carries out programs in agriculture and natural resources, 4-H, family and consumer science, information technology, and communications.

UVI/AGRICULTURAL EXPERIMENT STATION (AES)

The UVI/Agricultural Experiment Station (AES) conducts basic and applied research to help farmers increase production, develop new enterprises, and protect the natural resource base. AES has research programs in animal science, aquaculture, biotechnology, forage agronomy, as well as fruit, ornamental, and vegetable crops.



UVI's St. Croix Hair Sheep Flock

ESTATE WHIM MUSEUM



With its slave quarters, Great House, mill and factory complex, Whim is the only sugar plantation museum in the Virgin Islands. Each year, thousands visit the 12-acre site, where the restored 18th century buildings stand as a testament to the skills and labor of enslaved Africans and the hopes and dreams of Europeans seeking wealth in the "sugar islands" of the Caribbean.

TROPICS HYDROPONIC FARM

The farm is owned and run by Brian McCullough, who specializes in growing Bibb lettuce and varieties of vine-ripened tomatoes. The farm grows plants primarily in covered spaced-in containers without soil. Plants receive all of their nutrition from water, enriched with nutrients and micro-nutrients. They also grow cucumbers, zucchini and cantaloupe.



CAPTAIN MORGAN (DIAGEO) RUM DISTILLERY



Diageo's Captain Morgan's Rum Distillery and Visitor Center is a central part of several tourist initiatives on the island of St. Croix and the latest connection to St. Croix's long agricultural history dominated by the production of sugar cane and rum. The distillery is a global leader among premium spirits producing the second leading rum in the world.

THURSDAY – AUGUST 13, 2015

SESSION 10 – VIRGIN ISLANDS SESSION
AGRICULTURAL ECONOMY IN THE U. S. VIRGIN ISLANDS

Moderator: *Frank Mills, PhD*

Vice Provost, Research and Public Service
 University of the Virgin Islands

9:00 am – 9:20 am	<i>The Honorable Carlos Robles</i> Commissioner VI Department of Agriculture
9:20 am – 9:40 am	<i>Robert Godfrey, PhD</i> Research Director and Professor UVI/Agricultural Experiment Station
9:40 am – 10:00 am	<i>Mr. Kwame Garcia, Sr.</i> State Director and Assistant Professor UVI/Cooperative Extension Service
10:00 am – 10:20 am	<i>Sommer Sibilly-Brown</i> Founder and Executive Director Virgin Islands Good Food Coalition
10:20 am – 10:40 am	<i>Dale and Yvette Brown</i> Sejah Farms St. Croix, US Virgin Islands
10:40 am – 11:10 am	Morning Break
11:10 am – 11:40 am	V.I. Montessori School (4-H Club) Students Peter Gruber International Academy Students Charlotte Amalie High School Music Technology and 4-H Club Ivanna Eudora Kean High School FFA Chapter Youth member of the vocational training program at My Brother's Workshop <i>Agro-Economic activities that lead to increased sales of healthy, food including freshly grown leafy greens, farm-raised tilapia and whole wheat baked goods.</i> Nate Olive, MA, PDC. Phd Candidate, Ridge to Reef Director, Frederiksted, St. Croix, Serving the US Virgin Islands. <i>Ridge to Reef Farm</i>

11:40 am – 12:00 pm Open Discussion

12:30 pm – 1:30 pm Lunch Break

SESSION 11 – *Trade Issues*

Moderator: Carel Ligeon

1:30 pm – 2:00 pm **11.1** Analysing Bilateral Trade using the Gravity Equation:
Ex-Post Analysis of the Top Four African Exporting
Countries to Europe
Nkosi Felix, Govind Seepersad, Edward Evans

2:30 pm – 3:00 pm **11.2** Assessing the Impact of Tariff Removal on Africa's
Net Trade with the European Union
Nkosi Felix, Govind Seepersad, Edward Evans

3:00 pm – 3:30 pm Afternoon Break

SOCIETY BANQUET – Mermaid Restaurant

6:00 pm – 7:00 pm Cocktail Reception

7:00 pm – 9:00 pm Dinner

KEYNOTE SPEAKER

The Honorable Stacey Plaskett

VI Delegate to Congress and
Member, House Committee on Agriculture

FRIDAY – AUGUST 14, 2015

SESSION 12 - SYMPOSIUM II – *Fostering Caribbean Food Security*

Moderator: Curtis M. Jolly

9:15 am – 9:30 am	12.1 An Assessment of the Household Food Security Status and Local Foods Grown in Rural Bahamas <i>Jeri L. Kelly, Carlisle Pemberton</i>
9:30 am – 9:45 am	12.2 Stakeholders' Perceptions of the Impacts of Community-Based Tourism Events in Saint Lucia: A Case of the Fish Fry Events <i>Titus Mathurin, Sharon D. Hutchinson, Martin Franklin, Carlisle Pemberton</i>
9:45 am – 10:00 am	12.3 Satisfaction and Quality of Housing among Older Persons in Rural Trinidad <i>Isabella Francis-Granderson, Carlisle Pemberton, Afiya De Sormeaux</i>
10:00 am – 10:15 am	12.4 Does Gender Play a Role: Determinant of Food Security among Low Income Household Families in North East Trinidad <i>Francis-Granderson, C. Pemberton, H. Patterson-Andrews, M. Webb, A. McDonald, K. Rocke</i>
10:30 am – 11:00 am	Morning Break
11:00 am – 12:00 pm	Discussion & Resolution
12:00 pm – 12:30 pm	CLOSING CEREMONY
12:30 pm – 1:30 pm	Lunch Break

RESOLUTION of Symposium I

From the AAEA/COSBAE/CAES/SRMEC Pre-Conference Symposium held in 6th July, 2014 in St. Thomas, US Virgin Islands

Be it resolved that given the prolonged lack of development in agriculture in the Caribbean especially smaller islands that the Forum continue as an agency for agricultural development and to convey to policy makers recommendations for the development of agriculture in the Region through research and presentations of Policy documents to regional governments.