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CROPS SOCIETY**

**45**

**Forty Fifth  
Annual Meeting 2009**

**Frigate Bay  
Federation of St. Kitts and Nevis**

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Number 1  
T-STAR Invasive Species Symposium**

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Caribbean Food Crops Society  
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July 12-17, 2009

St. Kitts Marriott & Royal Beach Casino  
Frigate Bay, St. Kitts and Nevis

**“Reality and Potential of Food Security and Agricultural Diversification in Small Island  
Developing States”**

**“Realidad y Potencial de la Seguridad Alimentaria y la Diversificación Agrícola en  
Pequeños Estados Insulares en Desarrollo”**

**"Sécurité alimentaire et diversification agricole dans les petits états insulaires en  
développement: réalisations et perspectives".**

**United States Department of Agriculture,  
T-STAR Sponsored Invasive Species Symposium**

**INVASIVE SPECIES SAFEGUARDING: IMPERATIVE FOR CARIBBEAN  
REGIONAL AGRICULTURAL DIVERSIFICATION AND FOOD SECURITY**

**Special Symposium Edition  
Edited by  
Waldemar Klassen, Carlton G. Davis, Edward A. Evans, Sikavas Na-Lampang  
and Wanda Lugo**

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**TOWARDS ACHIEVING ENHANCED FOOD SECURITY THROUGH COMBATING INVASIVE SPECIES: National Agricultural Research Perspective**

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Good morning! Thank you, Carlton for your introduction. I will address some of the issues involved in the quest to achieve enhanced food security through combating invasive species from a national agricultural research perspective (Table 1). I will use Dr. Carol Thomas' talk as my point of departure.

We need action. We need to move from inertia. We need the right mission. We need to encourage participation.

As we develop R&D plans we need to take into consideration the many vulnerabilities of Caribbean agriculture (Table 2) with emphasis on the following:

1. Limited land and natural resource bases
2. A fragile marine ecosystem
3. Exposure to natural and man-made disasters
4. Limited economic diversification
5. Debilitating domestic and foreign debt
6. High cost of infrastructure, goods and services
7. Lack of economies of scale
8. Market imperfection
9. Lack of food security
10. Paucity of research and development
11. Loss of competitiveness
12. Need for cheaper food, feed and fuel
13. Inadequate quality resources
14. No reward system, low morale, low motivation
15. Limited qualified staff
16. Weak management systems

Essentially the latter are a function of the limited resource endowments that exist within the framework of small island developing states (SIDS). One can ask the question: "If all of that is the case, should we attempt to be food secure?" There are many, both within the Region and outside the Region, in particular some of our development partners, who are suggesting that we should plan hunger and import our foods. We are basically saying: "No!" to that position. Our position is ruled by a holistic view of the production system which reports our activities in the area of research relative to invasive species. That view was expressed in the early 1980s. The view now held is much wider than purely agricultural production systems (see Figure 1).

The issue of invasive species touches every facet of life in our small island developing states. There is a constitutional responsibility held by the National Agricultural Research System to provide for the Nation. And as sovereign states, although we are small, we have the right to determine our future. We have the right to provide safe and nutritious food for our citizens as well as our visitors. But there is a dilemma, which is placed upon some small island developing states, and that dilemma says you may have a certain per capita income and consequently you may be deemed to have a certain level of resources; and this ignores the fact that you have the ability to grow –and consequently you are always poor.

My experience suggests that a number of the Development Agencies see you drowning, bring you to the shore, leave you on the sand, and say you are now safe. But, of course, when the first high tide comes, you are washed back into the sea. That is the problem which we now have.

The legal and regulatory agenda needs to be addressed if we are to deal effectively with invasive species. We have to encompass disaster planning and mitigation because we know that two weeks after 9-11 the shelves in some of the supermarkets in some Caribbean nations were empty of food because we were relying on food, which we have to import. The issue of disaster planning also brings home the fact that usually after a disaster occurs there are many benefactors. You run the risk, however, that you are likely to encounter invasive species if you allow your systems to disintegrate such that you do not take on board the necessary precautions to ensure that you continue to be safe.

Do not forget the sea, as a small island developing state. It is the biggest resource available to you, and an important source of food.

## **OTHER ISSUES**

Other issues: (1) Getting more out of less; (2) addressing the issue of intellectual property within the context of a small framework, because ultimately they may be the only thing that allows us some competitive advantage; (3) Focusing on sustainable food consumption. Until now we have focused on food production, but we also must take on board consumer preferences. If you look in the supermarkets at what people are now eating, you will see that they are not eating as many yams and sweet potatoes as you believe; they are eating mostly processed foods. Therefore, the paradigm must take on board the fact that people are moving from fresh yams and fresh carrots to products where these things are processed and become more convenient for consumption by people who have some money in their pockets.

We need private sector leadership, not just participation. Hardly any one of us in here is going to invest in agricultural production or processing. We encourage, we facilitate, but we don't do it. And the same applies for any national public system. We need private sector leadership to advance the cause of agriculture generally across the Caribbean.

(4) Advancing urbanization within a small state because there is a balance approach that is needed because it can't be all agriculture, it can't be all tourism. We all have to live here. (5) Farmer income security, safety net. From a small state farmer income and security point of view, there is a need to shorten the technology transfer cycle.

Small states cannot do it all by themselves. Within each region there are a number of enabling institutions (Table 3), both national and international, that are there to assist us in our domestic spaces. Similarly, there are a number of national, regional and international agreements to which we are signatories (Table 4) that inform our actions in dealing with invasive species. And these Agreements are important and critical because of the reasons we signed them; although we are challenged to service them as effectively as we would like. When you go to one of these meetings, you may be only one person from your country who attends the SPS meeting in Geneva and you sit across the table from the delegate from the United States who is supported by a battalion of over 100 persons. When you return, that is not the only hat that you wear.

We need to proceed in an interdisciplinary manner. There is leadership; there is competency; there is delegation; there is communication; and there is institutional support. And this has to bring on board all of the resources which are available in any particular small island state – whether those resources are national, regional or international; whether those resources are in the Ministry of Agriculture or in the Ministry of Health.

### **NEW DRIVERS TO ACHIEVE ENHANCED PRODUCTION, PROCESSING AND TRADE INTEGRATION**

New drivers for positive change are listed in Table 5.

Leadership in other sectors is critical and important because agriculture provides the financial framework for the benefit of the nation. Capital generated in agriculture was invested in tourism and manufacturing. We now need to see a backflow of capital from these industries into agriculture to set in motion the redevelopment of agriculture.

We need to avoid “redo-itis”. We have a way of redoing what has been done before because we believe that our way is safer; but that is not the case.

We need to introduce best practices.

We need to outsource but own the process and output. We need to outsource because we do not have all of the resources, so we must be able to engage USDA, the University of Florida, or the University of the West Indies to help us do what we are supposed to do.

We need to lean on Diaspora to send us money and to assist in our development; we need to get the diaspora to send us the intellectual capacity of a number of Caribbean persons such as Carlton Davis, to go back to Jamaica and help in Jamaica.

We need to work smart. Barbados now has a program that is called the National Initiative in Service of Excellence, which is something that is important.

We need to strengthen capacity and institutional capabilities. Barbados is now engaging officials from the IDB to help us audit and strengthen our laboratories and to deal with the legal and institutional framework needed to deal effectively with invasive species.

The issue is bigger than agriculture. If we do not deal effectively with invasive species, we will compromise our natural resources, we will compromise our beaches, and we will compromise our water. The issue is bigger than agriculture, so we have to think big!

We need increased response to services, and honesty in reporting on the occurrence of pests. We must do pest risk analyses.

We must develop our pest lists, and we must share them fearlessly with our trading partners. We must not hide them.

We need to eliminate the mentality which says let us go after the small guy. Why should we in the Caribbean be talking about trade where we are going to disenfranchise the farmers in our neighboring states? Instead, why don't we get together and tackle the market in the United States which has the capacity to absorb all of our production?

We need collective action at all levels. We need to develop low input sustainable systems, low chemical systems.

We need to consider cross border investments in production and to follow the example of Singapore. Because not all of the production takes place in Singapore; some takes place in Australia and some takes place in Thailand.

Production, processing and trade integration has to be the way forward in the Caribbean.

Thank you very much.



The cotton seed bug, *Oxycarenus hyalinipennis* (Costa), a threat to cotton in the Western Hemisphere. Original photo from IITA and displayed in the photo gallery of the Cooperative Agricultural Pest Survey Program, Florida Department of Agriculture and Consumer Services.



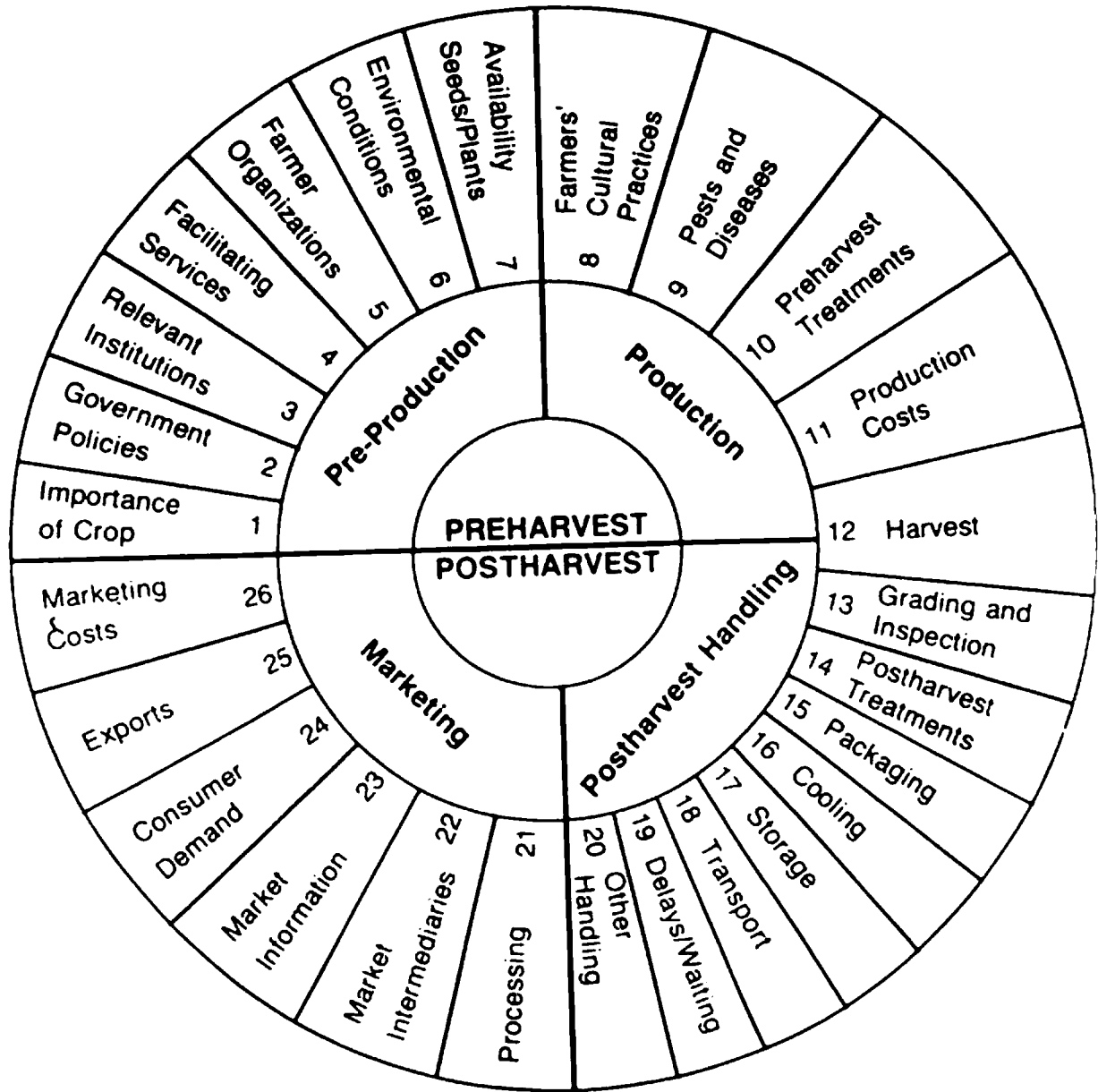


Figure 1. Holistic view of agriculture with emphasis on pre-production factor, production, postharvest handling and marketing.

Table 1. Issues in the quest to achieve enhanced food security through combating invasive species as seen from a national agricultural research perspective

<ol style="list-style-type: none"> <li>1. Constitutional responsibility</li> <li>2. Sovereignty</li> <li>3. The right to safe, nutritious food</li> <li>4. SIDS development dilemma</li> <li>5. Legal and regulatory agenda</li> <li>6. Resource endowment</li> <li>7. Disaster planning, mitigation and management</li> <li>8. Do not forget the sea, the biggest resource</li> <li>9. Getting more out of less</li> </ol>	<ol style="list-style-type: none"> <li>10. Addressing intellectual property</li> <li>11. Focusing on sustainable food consumption</li> <li>12. Dynamic consumer preferences</li> <li>13. Farmer first</li> <li>14. Private sector leadership</li> <li>15. Advancing urbanization, nuisance trade</li> <li>16. Farmer income security, safety net</li> <li>17. Shortening the technology transfer cycle</li> </ol>
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Table 2. Vulnerabilities of Caribbean agriculture

<ol style="list-style-type: none"> <li>1. Outdated technology</li> <li>2. Less than optimum staff deployment</li> <li>3. Protecting the turf, Protecting each other</li> <li>4. Accountability not all pervasive</li> <li>5. No systematic approach to staff development</li> <li>6. Men at work, not working</li> <li>7. Misguided political will</li> <li>8. Market imperfection</li> <li>9. Lack of food security</li> <li>10. Paucity of research and development</li> <li>11. Loss of competitiveness</li> <li>12. Need for cheaper food, feed and fuel Inadequate quality resources</li> </ol>	<ol style="list-style-type: none"> <li>13. No reward system, low morale, low motivation</li> <li>14. Limited qualified staff</li> <li>15. Weak management systems</li> <li>16. Exposure to natural and man-made disasters</li> <li>17. Limited land and natural resource bases</li> <li>18. A fragile marine ecosystem</li> <li>19. Limited economic diversification</li> <li>20. High degree of economic openness</li> <li>21. Foreign trade accounting for more than two-thirds of GDP</li> <li>22. Debilitating domestic and foreign debt</li> <li>23. High cost of infrastructure, goods and services</li> <li>24. Lack of economies of scale</li> </ol>
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Table 3. Shared regional responsibilities

- Revised Treaty of Chagauramus
- CSME, CAHNSA, COTED, CROSQ, CRFM
- CDB, CARDI, UWI,
- CCCCC, CIMH, CRNM
- CARICOM Expert Zoo and Phyto sanitary Teams
- Caribbean Pesticide Control Boards
- IICA, FAO, OAS, ACS, CABI, UNDP

Table 4. International agreements that must be managed.

- World Trade Organisation
- Sanitary and Phyto Sanitary
- Technical Barriers to Trade
- Intellectual Property
- Biosafety and Biosecurity
- Biodiversity
- Persistent Organic Pollutants
- Prior Informed Consent Procedure
- Chemical Weapons
- Bioterrorism
- IPPC, ISPM
- OIE, CODEX
- ICCAT
- WMO, CMO

Table 5. New drivers to achieve enhanced production, processing and trade integration

<ol style="list-style-type: none"> <li>1. Leadership from other sectors</li> <li>2. Consumer preferences</li> <li>3. Convenience</li> <li>4. Avoid redo-itis</li> <li>5. Eliminate turf wars</li> <li>6. Introduce best practice</li> <li>7. Outsource but own the process and output</li> <li>8. Lean on Diaspora</li> <li>9. Working smart</li> <li>10. NISE (National Initiative in Service of Excellence, Barbados).</li> </ol>	<ol style="list-style-type: none"> <li>11. Strengthen Capacity and capability</li> <li>12. Bigger than agriculture, water, services</li> <li>13. Increased response to services</li> <li>14. Honesty in reporting</li> <li>15. Eliminate mentality which says let us go after the small guy next door</li> <li>16. Collective action at all levels</li> <li>17. Low input sustainable systems, low chemical systems</li> <li>18. Cross border investments in production</li> <li>19. Production, processing and trade integration</li> </ol>
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