

APHIS Greater Caribbean Safeguarding Initiative (GCSI) and Linkages to International Services

**Caribbean Pest Diagnostic Network
(CPDN) – Diagnostician Training**

Gainesville, FL

June 17, 2010

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APHIS IS Lead Plant Health Technical Director

GCSI IS Liaison

Background

- 1999: Stakeholder Review of the APHIS-PPQ Safeguarding System, “Safeguarding American Plant Resources”
- 2006: PPQ designated an Offshore Initiatives Coordinator in Florida for the Caribbean Safeguarding Initiative (CSI) pilot program
- 2008: PPQ converted CSI from a pilot program in Florida into a national program, the GCSI coordinated by PPQ headquarters.

Focus for the Redesign of GCSI

- Strengthen APHIS' partnership with countries in the GCR for the on-going regional development of offshore pest detection and control activities, for the benefit of the GCR.
- Broaden scope of the program to include a perimeter approach that will strive to prevent the introduction and spread of high risk plant pests in the GCR, including the United States, through collaborative efforts to harmonize quarantines, exclusion strategies and other safeguarding initiatives among partners in the GCR.

Through GCSI:

- APHIS seeks to continue building upon the existing efforts and foundation within the GCR by strategically enhancing and strengthening these efforts
- APHIS offers a coordinated effort to bring issues of mutual concern in the GCR to the forefront within USDA and among other agencies

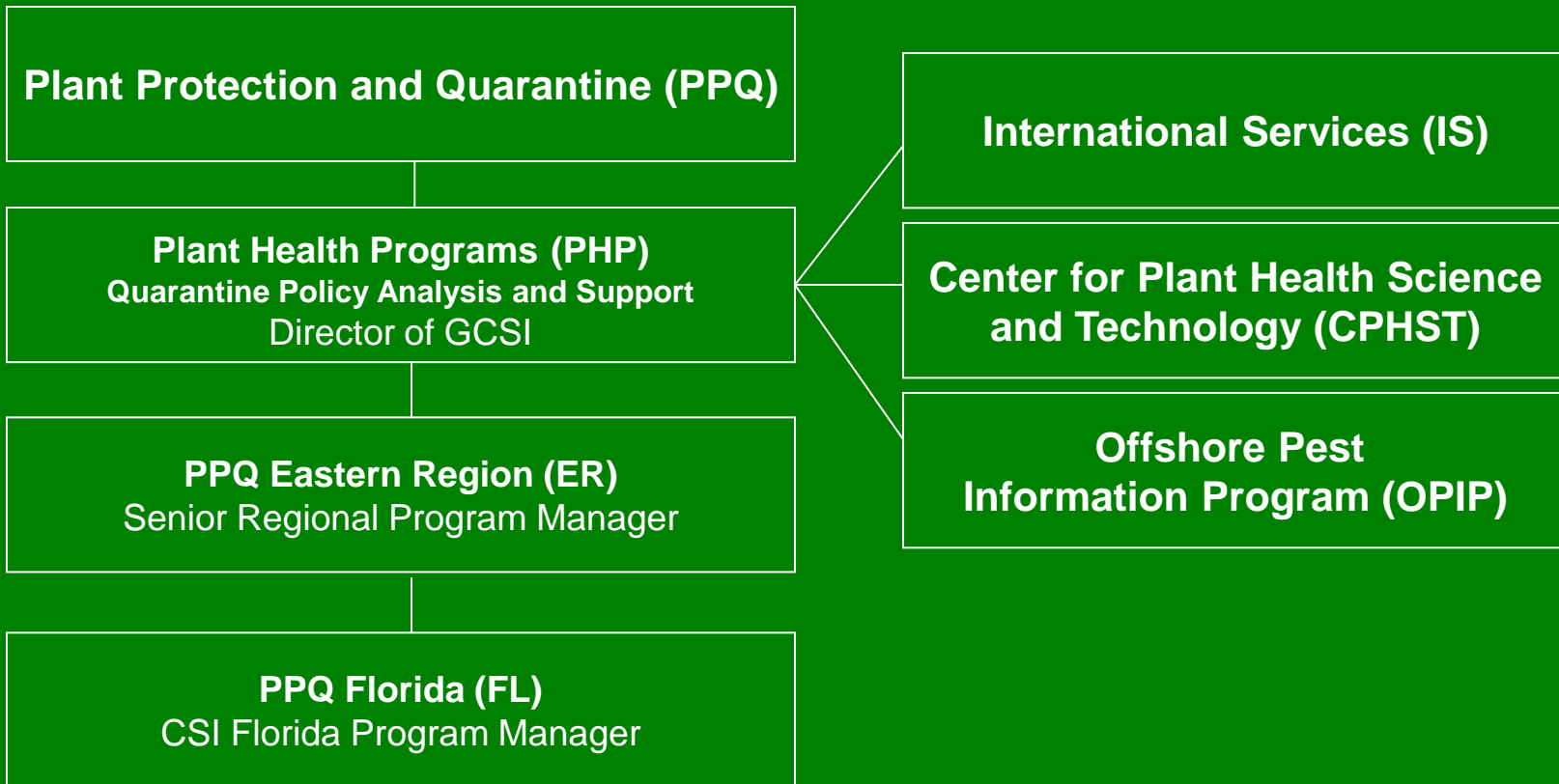
Greater Caribbean Region

Greater Caribbean Safeguarding Initiative

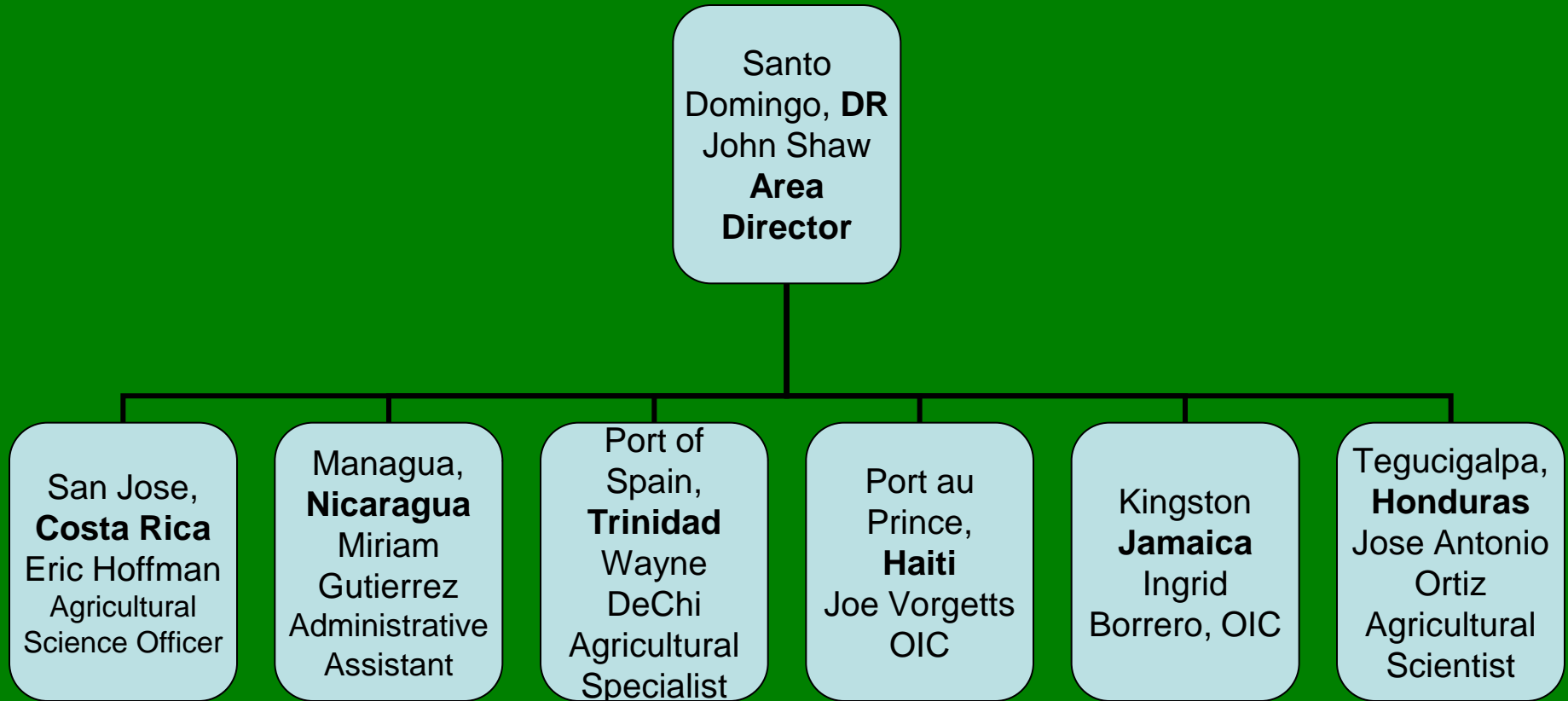
- Caribbean Islands
- Central America
- Florida
- French Guiana
- Guyana
- Panama
- Puerto Rico
- Suriname
- US Virgin Islands
- Venezuela



Greater Caribbean Safeguarding Initiative Structure

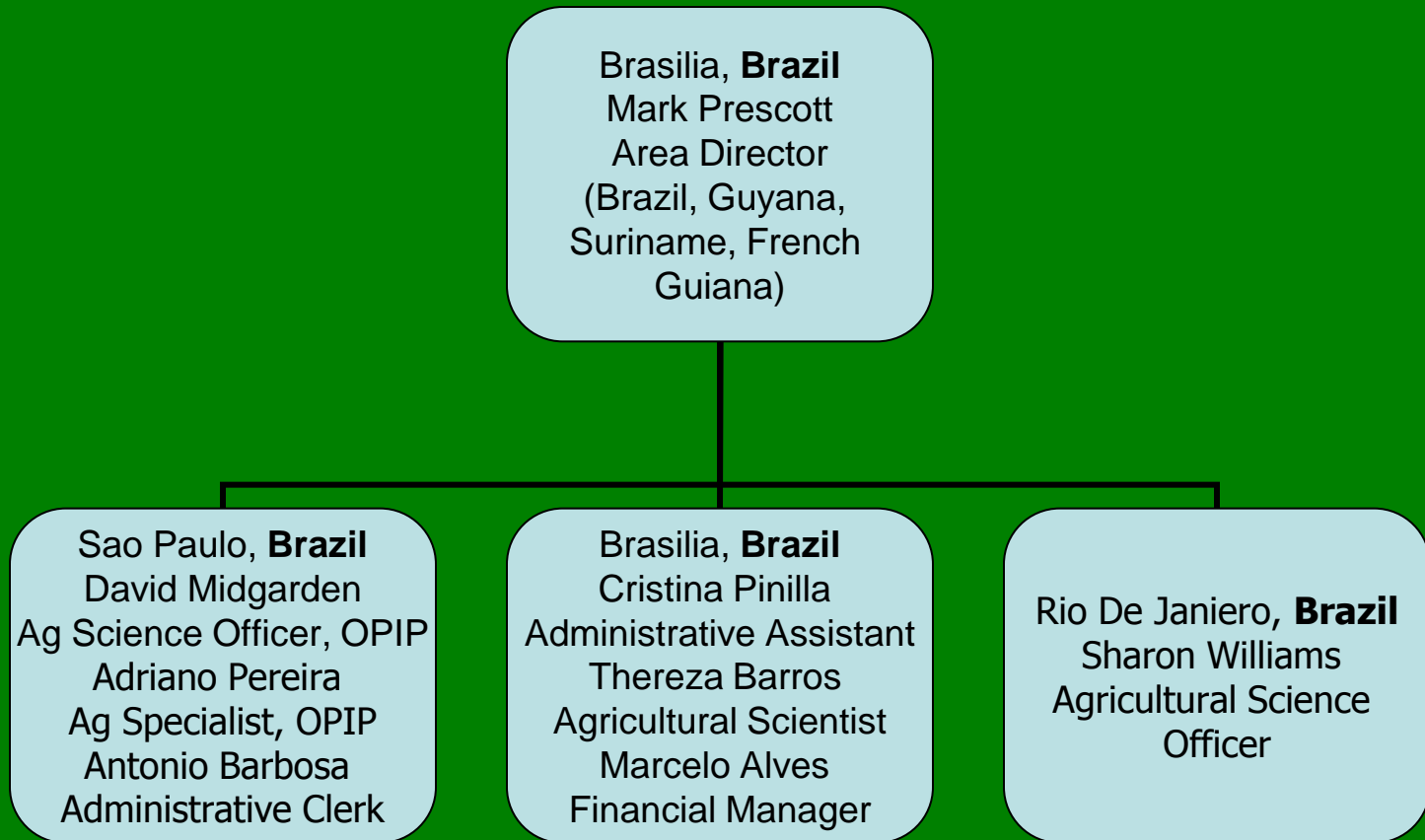


International Services - Caribbean Area



DOMINICAN REPUBLIC	HAITI
Christopher Cobbs, Agricultural Science Officer OPIP	Yena Bernard, Admin Asst
Alester Simmons, Agricultural Science Officer PPIP	Marc Joseph Ocellus, Program Supv
Paula Morales, Agricultural Scientist	Ygains Michaud, Program Supv
Ana Teresa Sánchez, Administrative Specialist	Daniel Joseph, Inspector
Miriam Reyes, PPIP Program Assistant	Jean Marie Joseph, Inspector
Rocio Perez, Secretary	Jean Mario Felix, Inspector
COSTA RICA	Philisnel Fenelus, Inspector
Marco V. Gonzalez Agricultural Specialist	Daniel Jean-Pierre, Inspector
Inge Sanou Office Manager	Frantz Chatelain, Inspector
Renata Badilla Administrative Assistant	Robens Saint Louis, Inspector
JAMAICA	Edith Depas, Inspector
Maydene Campbell Administrative Assistant	Marc Antoine Dupiton, Inspector
Patrick Samuels Agricultural Inspector	Guirlene Altidor, Inspector
Christopher Prendergast Agricultural Inspector	Pierre Alain Nicolas, Inspector
	Guepson Pierre-Louis, Inspector
	Opheny Louis, Driver

International Services – N. South America



Summary of Strategic Plan

GCSI provides the Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ), and its partners in the Greater Caribbean Region (GCR), the opportunity to establish a perimeter defense against the introduction of high risk plant pests into the GCR through collaborative efforts to harmonize quarantines, exclusion strategies and other safeguarding initiatives before they reach the borders of our nations.

GCSI Mission Statement

To **strengthen** the **safeguarding** system in the Greater Caribbean Region by establishing **partnerships** with countries in the GCR to **prevent, detect,** and **control** existing and emerging plant pest threats.

GCSI Vision

Collaboratively build and maintain a robust **perimeter** safeguarding system through a partnership network that actively works to **prevent the introduction** and **control the spread** of exotic plant pests of mutual interest into and within the GCR.

Overview of GCSI Strategic Goals

- Build coordinated framework and **partnership network**
- Strengthen **pest exclusion** activities within GCR
- Enhance **pest detection** activities within GCR
- Strengthen **pest mitigation** and **suppression** activities within

GCR

Objectives for Strategic Goal 1

Objective 1.1: Enhance the partnerships with and among NPPOs and non-NPPOs in the GCR

Objective 1.2: Increase U.S. & Caribbean industry (agriculture, tourism, natural resources, etc) interest and involvement in plant health safeguarding activities in the GCR

Objective 1.3: Collaborate with the appropriate national plant health regulatory authorities in the GCR to achieve regional harmonization with Sanitary and Phytosanitary (SPS) obligations and international phytosanitary standards

Objectives for Strategic Goal 1

continued

Objective 1.4: Identify the current pest exclusion, detection, emergency preparedness and risk mitigation capacities of the NPPOs in the GCR

Objective 1.5: Strengthen the current pest exclusion, detection and risk mitigation capabilities of the U.S. entities (FL, PR & USVI) in the GCR

Objective 1.6: Establish a collaborative process to develop projects that enhance pest exclusion, pest detection, risk mitigation and facilitation of safe trade within the GCR

Objectives for Strategic Goal 1

continued

Objective 1.7: Ensure that GCSI initiatives, technology transfers, and projects are based on ‘sound science’

Objective 1.8 Establish a framework to identify the pest threats to the GCR

Objective 1.9: Establish a process to evaluate the effectiveness of GCSI projects

Objectives for Strategic Goal 1

continued

Objective 1.10: Identify the existing communication and IT infrastructure resources available to support plant health activities in the GCR

Objectives for Strategic Goal 2

Objective 2.1: Identify pests approaching and moving within the GCR

Objective 2.2: Mitigate high risk pathways for movement of plant pests into and within the GCR

Objectives for Strategic Goal 3

- Objective 3.1:** Develop a cooperative pest detection strategy for emerging plant pest threats to the GCR
- Objective 3.2:** Explore alternate, cost effective approaches to increase capacity for pest detection
- Objective 3.3:** Jointly develop emergency preparedness and response guidelines for potential plant pest threats

Objectives for Strategic Goal 4

Objective 4.1: Develop cooperative pest mitigation strategies for the priority plant pests identified in Goals 1 and 3, and not yet present or widespread in the GCR

Objective 4.2: Implement the cooperative pest mitigation strategies, developed in Objective 4.1, in the GCR

Objective 4.3 Develop pest management and control options and strategies for the high risk target plant pests

Objective 4.4: Ensure port of entry pest interception reports support pest trace-back and mitigation activities

Summary of the Past Year - GCSI

- Completed a 5-year strategic plan in August 2009 (English and Spanish versions available)
- Began implementation of a 1-year operation plan in January 2010
- Initiated efforts to increase coordination of plant health safeguarding activities within the GCR
- Close coordination & collaboration with APHIS International Services

Overall GCSI Focus

- **Strengthening partnerships and collaboration**
- **Pest detection and control**
- **Perimeter approach**
- **Sustainability**
- **Harmonization and Regionalization:**
 - Quarantines
 - Exclusion
 - Other plant health safeguarding initiatives

Current GCSI Focus in the GCR

- **GCSI Pest List**
- **Emergency preparedness and response**
- **Increased Communication**
- **Plant health legislation and regulations**
- **Caribbean Plant Diagnostic Network (CPDN)**
- **Caribbean Pathway Analysis**

GCSI Involvement & Support

- **Partnership and network building efforts**
- **Caribbean Plant Health Directors (CPHD) Forum and Technical Working Groups (TWG)**
- **Caribbean Food Crop Society (CFCS)**
- **Caribbean Invasive Species Working Group (CISWG)**
- **Capacity Building**

Areas of APHIS' Continued Focus for the GCR

- **Giant African Snail (*Achatina fulica*)**
- **Jamaican slug (*Veronicella sloanii*)**
- **New information and detections of citrus greening disease (Huanglongbing)**

Areas of APHIS' Continued Focus for the GCR (2)

- Detection and reporting new distributions of Citrus Tristeza Virus (CTV), Citrus Variegated Chlorosis (CVC) and Citrus Leprosis Virus (CiLV)
- Tracking and monitoring the movement of palm pests in the GCR such as Red Palm Weevil (*Rhynchophorus ferrugineus*)
- Cotton Seed Bug (*Oxycarenus hyalinipennis*)

Pest Threats to the Caribbean

- Exotic fruit flies such as *Ceratitis capitata*, *Bactrocera carambolae*, and *Bactrocera invadens*
- Tomato moth (*Tuta absoluta*)
- UG-99 Black stem rust, Ugandan Strain

Pest Threats to the Caribbean (2)

➤ **Mites:**

- Citrus Hindu Mite (*Schizotetranychus hindustanicus*)
- Two-spotted Spider Mite (*Tetranychus roseus*)
- Red legged Earth Mite (*Halotydeus destructor*)

➤ **Citrus Black Spot (*Guignardia citricarpa*)**

For Additional Information

GCSI Internet

http://www.aphis.usda.gov/international_safeguarding/plants/gcsi/index.shtml

GCSI Fact Sheet

http://www.aphis.usda.gov/publications/plant_health/content/printable_version/fs_caribbean_safeguard10.indd.pdf

REPORTING NON- COMPLIANCE, COMMUNICATION, AND METHODS OF CONTROL

**3rd Meeting of the Caribbean Plant Health Directors
6-7 June 2010
Port of Spain, Trinidad**

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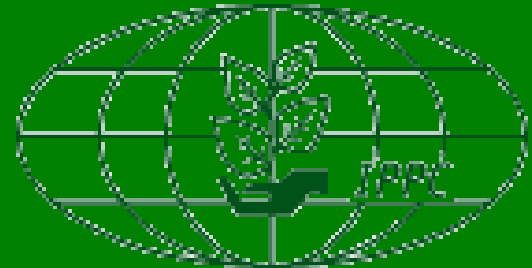
NON-COMPLIANCE REPORTS?

- **Why are non-compliance reports useful?**
- **How do they tie into the current broader regional goals?**
- **How do we report non-compliance?**
- **Are there international standards for this reporting?**

NON-COMPLIANCE REPORTS 2

- **Non-compliance reporting is an essential component to facilitating safe trade.**
- **Non-compliance reporting can strengthen regional and national pest exclusion activities within the GCR.**
- **ISPM #13 is the International Standard for reporting non-compliance to trading partners**

INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES ISPM No. 13



***GUIDELINES FOR THE NOTIFICATION OF
NON-COMPLIANCE AND EMERGENCY
ACTION (2001)***

ISPM # 13 SCOPE

This standard describes the actions to be taken by countries regarding the notification of:

- Failure to comply with specified phytosanitary requirements, **including the detection of specified regulated pests**
- Failure to comply with documentary requirements for phytosanitary certification

ISPM # 13 SCOPE cont.

- **Emergency action taken on the detection of a regulated pest not listed as being associated with the commodity from the exporting country**
- **Emergency action taken on the detection in an imported consignment of organisms posing a potential phytosanitary threat.**

ISPM #13 OUTLINE OF REQUIREMENTS

- **IPPC requires reporting quarantine pests detected in import consignments**
- **Importing NPPO must notify the exporting NPPO ASAP**
- **Notification should ID the pest so the exporting NPPO may investigate and make the necessary corrections**

ISPM #13 OUTLINE OF REQUIREMENTS

cont.

- **Required information for notification includes**
 - reference number
 - date of notification
 - identity of the NPPOs of the importing and exporting countries
 - identity of the consignment
 - date of first action
 - the reasons for the action taken,
 - info re: the nature of non-compliance or emergency action,
 - the phytosanitary measures applied.

ISPM #13 OUTLINE OF REQUIREMENTS

cont.

- **Importing NPPO should investigate any new or unexpected phytosanitary situation where emergency action is taken**
- **Exporting NPPO should investigate significant instances of non-compliance to determine the possible cause.**

USE OF NOTIFICATION INFORMATION

- **Notification is normally bilateral**
- **Notifications and info used for notification are valuable for official purposes but may be easily misunderstood or misused if taken out of context or used imprudently**
- **To minimize the potential for misunderstandings, countries should be careful to ensure that notifications are distributed only to the exporting country.**

USE OF NOTIFICATION INFORMATION

cont.

- **The importing country should provide the opportunity for the exporting country to investigate instances of apparent non-compliance, and correct as necessary, before changes in the phytosanitary status of a commodity or area, or other failures of phytosanitary systems in the exporting country are confirmed or reported more widely**
- **Especially for baggage interceptions, the country of origin may be suspect (transit passengers)!**

WHY ARE NOTIFICATIONS/ COMMUNICATION IMPORTANT?

- **Allows the exporting country to investigate a potential problem they may not be aware of & to correct the situation in the field**
- **Information exchange supports transparency and risk analysis by:**
 - ✓ **Promoting the control of pests and preventing their spread**
 - ✓ **Sharing technical information on which to base decisions**
 - ✓ **Following international standards**
 - ✓ **Promoting *harmonization* of phytosanitary measures**
 - ✓ **Meeting the public information requirements of the Convention.**

WHY ARE NOTIFICATIONS/ COMMUNICATION IMPORTANT? cont.

- **Countries use this information to assess the risks associated with moving plants and plant products across borders, and to manage those risks wisely**
- **Sharing information on regulations, pest outbreaks, control, surveillance and treatments builds cooperation and enhances member countries' capacity to protect their plant resources**

U.S. NOTIFICATION PROCESS

- **Pest interceptions at the POE are entered into a database**
 - **Nursery stock is inspected by PPQ at Inspection Stations**
 - **Cargo, means of conveyance, mail & pax are inspected by CBP**
- **Information is compiled for each country**

U.S. NOTIFICATION PROCESS cont.

- **USDA APHIS PPQ PIM sends letters to NPPOs**
 - **Individual shipment details**
 - **Summary tables for the month**



United States Department of Agriculture
Animal and Plant Health Inspection Service

Plant Protection and Quarantine



United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine
4700 River Road, Unit 140
Riverdale, MD 20737

May 01, 2010

National Plant Protection Officer
Ministry of Agriculture
Dear Sir or Madam:

We are writing to inform you that the materials specified in the enclosed reports were found to be non-compliant with the phytosanitary requirements of the United States. As a result, the phytosanitary actions detailed in the reports were applied to the non-compliant material.

In order to avoid similar phytosanitary actions in the future, we ask that you take steps to ensure that all consignments meet the phytosanitary entry requirements of the United States. In addition, we will be monitoring ongoing occurrences of quarantine pest interceptions and may require additional measures, as appropriate, if interceptions continue.

Please note the enclosed list may include non-compliances concerning mail or passenger baggage that we recognize your service has limited control over. Our main concerns are the items on the enclosed list consisting of non-compliant commercial shipments arriving as certified by your National Plant Protection Organization.

Should you have any questions concerning the report, please feel free to contact us.

Sincerely,

Assistant Deputy Administrator
Phytosanitary Issues Management
Plant Protection and Quarantine

Enclosures



**USDA APHIS Plant Protection & Quarantine
Report of Noncompliant Shipments Imported from Country X**

Ref #	POE	Commodity	Quantity	Shipper Name & Address	Country of Loading	Reason for Notific.	Pest ID #	PC #	Place Cert. Issue	Cert. Issue Date	Action Taken	Issue Date	Status
1750xyz	NY JFK CBP	Luffa sp	1068 Kg	Marko 1 High St	X	APNY102 Lygaeidae, species of, APNY103 Thrips palmi Karny (Thripidae) APNY104 Noctuidae, species of	123 yyz	X1234	Metro	03/01/2010	Treat	03/04/2010	Closed



USDA APHIS Plant Protection and Quarantine

**Report of Noncompliant Wood Packing Material Shipments Imported
From X**

Ref #	Port of Entry	Com-mod	Quantity	Shipper Name and Address	Country of Lading	ISPM 15 Mark-ing	Reason for Notifica-tion	Pest ID #	Action Taken	Issue Date	Status
180 665	FL Miami Air CBP	Wood pallet	14 Kg	Joe Jones 123 High St Metropolis	<u> x </u>	NO	Lacks ISPM 15 Mark	N/A	Re-exported	03/24/2010	CLOSED



INTERCEPTIONS AT U.S. PORTS OF ENTRY JANUARY 1, 2005-MAY 15, 2010

	CARIBBEAN ISLANDS	CENTRAL/SOUTH AMERICA	GREATER CARIBBEAN
BAGGAGE	8,574	7,228	15,802
CARGO	7,662	79,092	86,754
HOLDS	174	1,422	1,596
MAIL	15	73	88
MISCELLANEOUS	116	172	288
QUARTERS	8	33	41
STORES	109	361	470
UNKNOWN	6	13	19
TOTALS	16,664	88,394	105,058

CARIBBEAN ISLANDS	MORE ISLANDS	CENTRAL & SOUTH AMERICA
Anguilla	Jamaica	Suriname
Antigua and Barbuda	Martinique	Guyana
Aruba	Montserrat	French Guiana
Bahamas	Netherlands Antilles	Belize
Barbados	Curacao	Costa Rica
Bermuda	Bonaire	El Salvador
British Virgin Islands	Sint Maarten	Guatemala
Cayman Islands	Saba	Honduras
Cuba	Sint Eustatius	Nicaragua
Dominica	St. Kitts and Nevis	Panama
Dominican Republic	St. Lucia	Venezuela
Grenada	St. Vincent & the Grenadines	Colombia
Guadeloupe	Trinidad and Tobago	
Saint Martin	Turks and Caicos Islands	
Haiti		

INTERCEPTION TRENDS

- From the Caribbean Islands, baggage pathway has the most interceptions
- From Central/South America, cargo pathway has more interceptions
- Many Central/South America cargo pests are from cut flowers/greenery
- Numerous hitchhikers in cargo holds (& some in cargo as well)
- Some surprises....

INTERCEPTIONS OF CONCERN FROM THE CARIBBEAN ISLANDS

- Fruit Flies
 - 1076 *Anastrepha* in baggage (most in mangoes)
 - 7 Medflies and one *Bactrocera sp* from Caribbean islands!! ***Are they transit passengers? Is there a problem?***
- Thrips
- Leaf Miners
- Hitchhikers
- Lepidoptera
- Hemiptera
- Mollusks



Anastrepha sp. (Tephritidae)	Mammea americana	Baggage	1
Anastrepha sp. (Tephritidae)	Mammea sp.	Baggage	1
Anastrepha sp. (Tephritidae)	Mangifera indica	Baggage	710
Anastrepha sp. (Tephritidae)	Mangifera indica	Baggage	2
Anastrepha sp. (Tephritidae)	Mangifera sp.	Baggage	20
		1,076 TOTAL	
Bactrocera sp. (Tephritidae)	Carica sp.	Baggage	1
Ceratitis capitata (Tephritidae)	At Large	Baggage	1
Ceratitis capitata (Tephritidae)	Mangifera indica	Baggage	2
Ceratitis capitata (Tephritidae)	Mangifera sp.	Baggage	1
Ceratitis capitata (Tephritidae)	Pimenta dioica	Baggage	1
Ceratitis capitata (Tephritidae)	Prunus sp.	Baggage	1
Ceratitis sp. (Tephritidae)	Psidium guajava	Baggage	1
		7 TOTAL	

Plant Protection and Quarantine

Thripidae, species of	Capsicum annum	Permit Cargo	3
Thripidae, species of	Capsicum sp.	Permit Cargo	57
Thripidae, species of	Momordica charantia	Permit Cargo	48
Thripidae, species of	Momordica sp.	Permit Cargo	18
Frankliniella sp. (Thripidae)	Capsicum sp.	Permit Cargo	117
Frankliniella sp. (Thripidae)	Cucurbita sp.	Permit Cargo	12
Frankliniella sp. (Thripidae)	Vigna sp	Permit Cargo	115
Thrips palmi Karny (Thripidae)	Capsicum sp.	Permit Cargo	73
Thrips palmi Karny (Thripidae)	Coccinia grandis	Permit Cargo	28
Thrips palmi Karny (Thripidae)	Cucumis sativus	Permit Cargo	2
Thrips palmi Karny (Thripidae)	Cucurbita sp.	Permit Cargo	15
Thrips palmi Karny (Thripidae)	Luffa sp.	Permit Cargo	76
Thrips palmi Karny (Thripidae)	Momordica charantia	Permit Cargo	354
Thrips palmi Karny (Thripidae)	Momordica sp.	Permit Cargo	151
Thrips palmi Karny (Thripidae)	Solanum melongena	Permit Cargo	130
Thrips palmi Karny (Thripidae)	Solanum sp.	Permit Cargo	18
Thrips sp. (Thripidae)	Capsicum sp.	Permit Cargo	48
Thrips sp. (Thripidae)	Coccinia grandis	Permit Cargo	23

1,849 TOTAL

Agromyzidae, species of	Allium ampeloprasum	Baggage	4
Agromyzidae, species of	Allium cepa	Baggage	60
Agromyzidae, species of	Allium fistulosum	Baggage	27
Agromyzidae, species of	Allium schoenoprasum	Baggage	29
Agromyzidae, species of	Allium sp.	Baggage	245
Agromyzidae, species of	Annona sp.	Baggage	1
Agromyzidae, species of	Cajanus cajan	Baggage	73
Agromyzidae, species of	Capsicum pubescens	Baggage	1

490 TOTAL

Gryllidae, species of	Aircraft	Holds	2
Gryllus sp. (Gryllidae)	Aircraft	Holds	12
Gryllus sp. (Gryllidae)	At Large	Holds	4
Lepidoptera, species of	Aircraft	Holds	5
Melolonthinae, sp (Scarabaeidae)	Aircraft	Holds	3
Melolonthinae, sp (Scarabaeidae)	At Large	Holds	3
			16
Neoconocephalus sp. (Tettigoniidae)	Aircraft	Holds	
Noctuidae, species of	Aircraft	Holds	17
Noctuidae, species of	At Large	Holds	4
Phyllophaga sp. (Scarabaeidae)	Aircraft	Holds	16
Tomarus sp. (Scarabaeidae)	Aircraft	Holds	3
Tomarus sp. (Scarabaeidae)	At Large	Holds	4

TOTALS HOLDS 174

Diaphania sp.,indica complex (Crambidae)	Luffa sp.	Permit Cargo	125
Diaphania sp., indica complex (Crambidae)	Momordica balsamina	Permit Cargo	1
Diaphania sp., indica complex (Crambidae)	Momordica charantia	Permit Cargo	179
Diaphania sp., indica complex (Crambidae)	Momordica sp.	Permit Cargo	50
Gelechiidae, species of	Saccharum officinarum	Permit Cargo	2
Gelechiidae, species of	Solanum melongena	Permit Cargo	14
Gelechiidae, species of	Solanum sp.	Permit Cargo	4
Geometridae, species of	Solidago sp.	Permit Cargo	3
Helicoverpa sp. (Noctuidae)	Capsicum sp.	Permit Cargo	9
Lepidoptera, species of	Amaranthus sp.	Permit Cargo	10
Lepidoptera, species of	Capsicum sp.	Permit Cargo	11
Lepidoptera, species of	Cucurbita sp.	Permit Cargo	16
Lepidoptera, species of	Luffa sp.	Permit Cargo	16
Lepidoptera, species of	Momordica charantia	Permit Cargo	6
Lepidoptera, species of	Momordica sp.	Permit Cargo	7
Maruca vitrata (Fabricius) (Crambidae)	Phaseolus sp.	Permit Cargo	4
Maruca vitrata (Fabricius) (Crambidae)	Vigna sp.	Permit Cargo	12
Noctuidiae	various	Permit Cargo	381

Heteroptera, species of	Cucurbita sp.	Permit Cargo	28
Heteroptera, species of	Luffa acutangula	Permit Cargo	32
Heteroptera, species of	Luffa acutangula	Permit Cargo	32
Heteroptera, species of	Luffa sp.	Permit Cargo	34
Heteroptera, species of	Melicoccus bijugatus	Permit Cargo	2
Heteroptera, species of	Mentha sp.	Permit Cargo	12
Heteroptera, species of	Momordica charantia	Permit Cargo	401
Miridae, species of	Capsicum sp.	Permit Cargo	12
Miridae, species of	Cucurbita sp.	Permit Cargo	74
Miridae, species of	Luffa acutangula	Permit Cargo	10
Miridae, species of	Luffa sp.	Permit Cargo	20
Miridae, species of	Solidago sp.	Permit Cargo	27
Miridae, species of	Thymus vulgaris	Permit Cargo	20



Achatina fulica Bowdich (Achatinidae)	Miscellaneous spp	Baggage	2
Sarasinula plebeia (Fischer) (Veronicellidae)	Capsicum sp.	Permit Cargo	1
Veronicella cubensis (Pfeiffer) (Veronicellidae)	Capsicum sp.	Permit Cargo	2
Veronicella sp. (Veronicellidae)	Citrus sp.	Baggage	1
Veronicella sp. (Veronicellidae)	Lilium sp.	Baggage	1
Veronicella sp. (Veronicellidae)	Musa sp.	Baggage	2
Veronicella sp. (Veronicellidae)	Ocimum basilicum	Baggage	1
Veronicella sloanii (Cuvier) (Veronicellidae)	Soil	Baggage	1
Veronicella sloanii (Cuvier) (Veronicellidae)	Amaranthus sp.	Permit Cargo	2
Veronicella sloanii (Cuvier) (Veronicellidae)	Lactuca sativa	Permit Cargo	1
Veronicella sp. (Veronicellidae)	Allium schoenoprasum	Permit Cargo	1
Veronicella sp. (Veronicellidae)	Colocasia esculenta	Permit Cargo	1
Veronicella sp. (Veronicellidae)	Cucurbits	Permit Cargo	3
Veronicella sp. (Veronicellidae)	Eryngium foetidum	Permit Cargo	1
Veronicella sp. (Veronicellidae)	Thymus vulgaris	Permit Cargo	1
Veronicellidae, species of	Abelmoschus esculentus	Permit Cargo	1
Veronicellidae, species of	Aloe vera	Permit Cargo	1
Veronicellidae, species of	Anthurium sp.	Permit Cargo	1
Veronicellidae, species of	Xanthosoma sp.	Permit Cargo	1

IS INTERCEPTION DATA ENOUGH?

- **The most sophisticated pest information system is useless if the information does not lead to action!**
- **Port interception records are useful for exploring pest risk; however, it is erroneous to assume that a low number of interceptions is equivalent to low risk.**
- **Both safeguarding against and responding to pest introductions depends strongly on current pest information, so surveys are also very important.**

CONTROL METHODS?

- **Trace back notifications to the field**
- **Farmer awareness**
- **Packing house awareness**
- **Phytosanitary export inspections**
- **NPPO surveys for new/exotic pests**
- **Public awareness for passengers**
- **Other methods?** *(Hint...Audience participation here....)*

COMMUNICATE WITH FARMERS

- **NPPO trace back from notifications to specific fields & growers**
- **Identify crops with more frequent pest problems**
- **Extension service site visits to farms to ID pests**
- **Training for farmers about more common pests**
- **Control measure recommendations**
 - **Crop/pest specific**
 - **Cultural methods**
 - **Pesticides**
 - **Biocontrol?**
 - **Post harvest handling**

COMMUNICATE WITH PACKERS

- **Do not pack directly in the fields**
- **Screen in buildings, especially if packing at night in tropics**
- **Keep the area around the packing house weed and pest-free, with grass short**
- **Keep boxes protected prior to packing**

COMMUNICATE WITH PACKERS cont.

- **Post harvest handling, sorting/ prep for packing**
- **Watch for produce with damage-- may be hiding pests**
- **Self closing or double doors?**
- **A shame if the farmer raises a clean crop, then hitchhikers at the packers lead to rejections**

PHYTOSANITARY EXPORT INSPECTIONS

- **Trained Inspectorate**
 - Pests of Concern
 - Inspection Techniques
 - Proper equipment, knife, vials, etc
- **Good Phytosanitary Inspection Conditions**
 - Good lighting
 - Permanent tables
 - Out of the wind
 - Out of the way of mechanical devices
 - Take a representative sample of the shipment for inspection

NPPO SURVEILLANCE & TRAPPING FOR NEW/EXOTIC & INDIGENOUS PESTS

- **A country must first know what pests are present to know what pests to keep out...**
- **First line of defense, catch pests early so can take action before they spread too far**
- **Measure pest density for known pests**
- **Identify new hosts**
- **Identify low prevalence/free areas**
- **Notify IPPC if find new pests**
- **Outreach to industry, schools, organizations, hobbyists, gardeners**
- **Public meetings to raise community awareness**

DO CARIBBEAN NPPOs NOTIFY RE:INTERCEPTIONS/NON-COMPLIANCE?

- **The United States has not received many notifications from the Caribbean (*Jan 2008-present=3*)**
- **Do you notify trading partners of interceptions?**
- **Many of the quarantine pests that arrive in the United States from Central or South America probably also arrive in the Caribbean Islands**
 - **Cut flowers?**
 - **Passengers?**
 - **Aircraft holds?**
 - **Mail?**

COMMENTS OR QUESTIONS?

- **Suggestions for improving communication within the GCR?**
- **Success stories of early notification or detections which led to eradication?**
- ***Audience Participation requested!!***

Thanks!!

Thank you for your time!

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