



Department  
of Agriculture

STATE OF HAWAII

# **HAWAII BIOSECURITY PROGRAM**

**PLANT QUARANTINE BRANCH UPDATE**

**January 2013**

# BIOSECURITY UPDATES

## PRE-ENTRY



- Compliance Agreement
- Import Permit
- Pre-entry protocol
- Transporter and Importer Manifest Systems

## PORT-of-ENTRY



- Reinstatement of inspector positions
- Detector dog inspector positions
- Biosecurity facilities at HIA and Kona Airport
- Biosecurity facilities at Honolulu, Kawaihae, Hilo, and Kahului Harbors
- Transitional facility/Importer's Manifest

## POST-ENTRY



- Monitoring & Management programs help prevent movement and/or establishment of newly introduced species.
- Rapid Response (643-PEST)
- Treatment facility

## GROWTH OF AGRICULTURE



- Promote Hawaii's Agriculture
- Increase export
- Systems Approach to Pest Management Practices
- Import Replacement



# PQ Inspectors

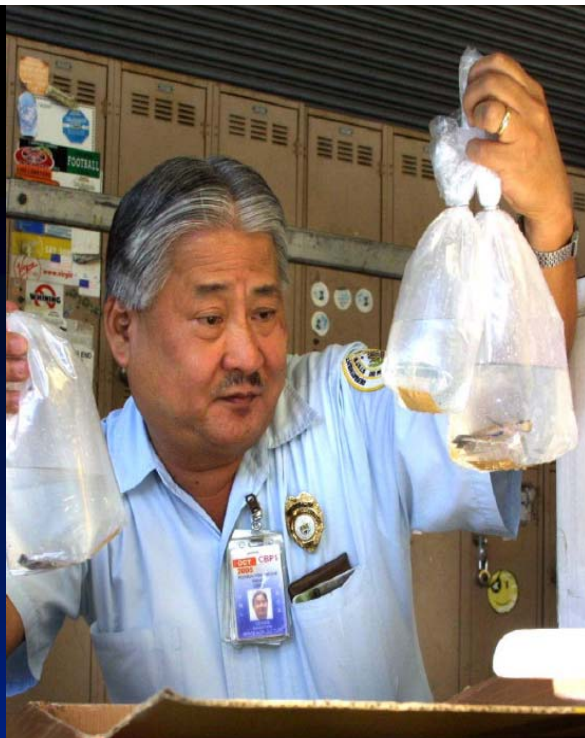
**Prior to layoffs in 2009, there were 95 plant quarantine inspectors statewide, covering all domestic maritime and air cargo inspections and handling import permits for regulated plants, animals and microorganisms. Currently, there are 55 agricultural inspectors statewide.**

The following table depicts the number of inspectors prior to the layoff and the current number statewide:

<b>PORT</b>	<b>2009 Staff (prior to layoffs)</b>	<b>Current Staff</b>	<b>Current Vacancies (incl. 10 positions announced)</b>
O'ahu	61	26	24 (10 to be filled)
Maui	17	13	4
Kaua'i	3	2	0
Kona	4	2	1
Hilo	10	7	3
<b>TOTAL</b>	<b>95</b>	<b>50</b>	<b>32 (10 to be filled)</b>

Governor Abercrombie approved the hiring of 10 agricultural inspectors in July 2011, restoring some positions that were eliminated in 2009.

We have submitted approval to fill the rest of the reinstated positions.



# Plant Quarantine Inspector Qualifications

## ABILITY TO IDENTIFY SPECIES TO DETERMINE ENTRY STATUS

Over 150 **prohibited** animals, i.e snakes, eels, bats, fishes, birds, etc

1800 **restricted** animals

1800 **conditionally approved** fish

600 genera and some 9,000–10,000 or more species of grasses, some **noxious**

880 genera and nearly 22,000 species, 100,000 hybrids of orchids requires **quarantine**

# PQ Duties

Inspecting cargo to find the pests and determining which ones must be destroyed and which ones can be released.





# Pest Interceptions



	<b>No. Inspected</b>	<b>Treated</b>	<b>Destroyed</b>	<b>Insects</b>	<b>NKO Insects</b>	<b>Diseases</b>	<b>NKO Diseases</b>
2010	9,011,818	4,698	16,948	2,483	584	1,065	601
2011	9,106,144	2,899	15,302	1,667	354	912	613
2012	8,712,725	5,634	18,599	2,040	316	1,111	671

# BIOSECURITY

**The Biosecurity program changes Plant Quarantine from a one dimensional focus to four basic program segments with multiple layers. In the past, we focused 90% of our resources on port-of-entry inspection. Now, our program segments incorporate:**

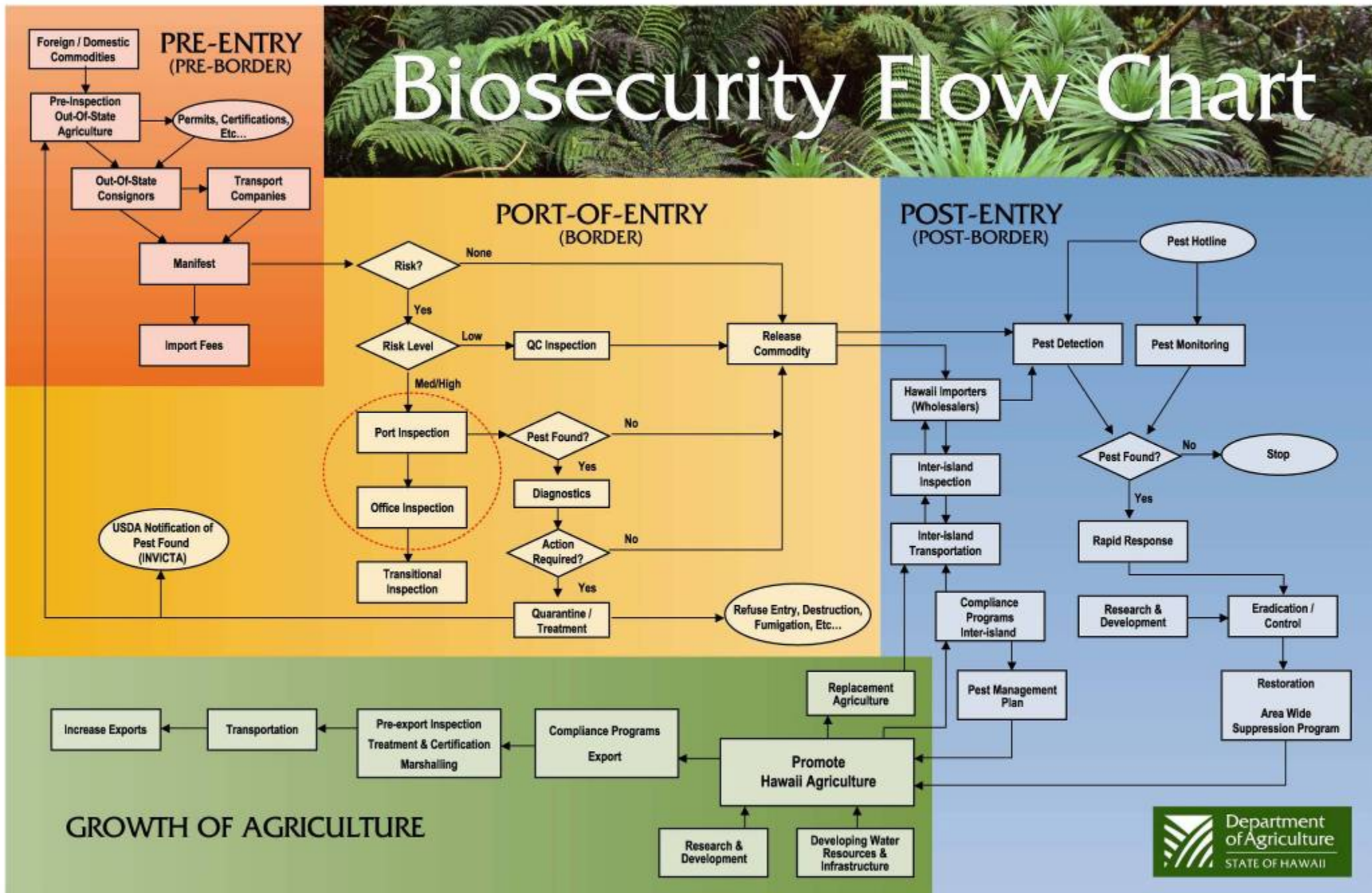
**Pre-entry inspection/treatments at the source (farm)**

**Port-of-entry inspection utilizing joint-inspection facilities**

**Post-entry detection, rapid response, control and eradication**

**Growth of agriculture to reduce the dependency on imports**

# Biosecurity Flow Chart







# Biosecurity Implementation

- **Applied research and technical improvements were incorporated into the program segments utilizing prototype methodology which increased the likelihood of successful incorporation. For example, projects are developed and tested at one port or in segments. After testing, it is developed for broader application.**
- **Biosecurity Inspection & Transitional Facilities**
- **Computer systems**
- **Pest Management**
- **Detection & Rapid Response**
- **Import Replacement**

# Kahului Airport ASAP Facility



**This inspection building has two fully-enclosed inspection bays and a larger screen-enclosed inspection area, lab space, safeguard and treatment areas and office space**

# Kahului Airport ASAP Facility



370 % increase in interceptions – shipment lots  
518% increase in interceptions – parcels



# Biosecurity Inspection Facilities

- Completed construction and successfully moved operations into the first dedicated plant quarantine inspection facility at Kahului Airport (2008)
- Initiated planning and preliminary design for a proposed “joint-use” inspection facility for Honolulu International Airport (2007-2008)
- Facilitated discussions with harbor users, agricultural importers and exporters, community, and County for the planning of harbor facilities at Kawaihae, Hilo and Kahului Harbor (2010)
- Secured funding for planning of agricultural inspection biosecurity facilities and related infrastructure at the Honolulu international airport, Kona international airport, Kawaihae harbor, Kamuela vacuum cooling plant, and Honolulu harbor (2012)



# Manifest System

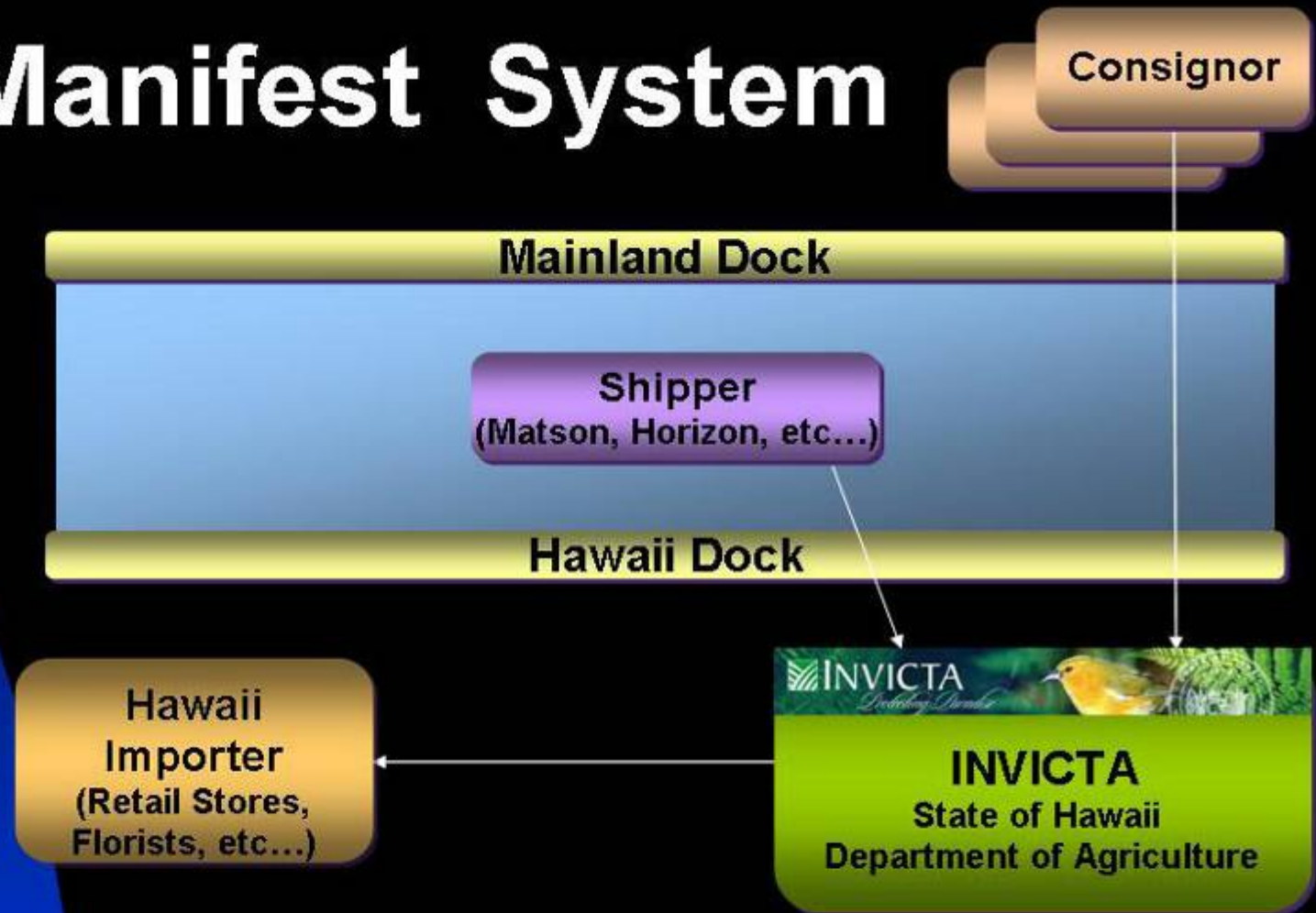
## DELIVERABLES

A more comprehensive view of port activity.

Improved workflow management with more efficient scheduling of resources.

Improved inspection of high-risk commodities.

Improved overall inspection quality and service.



Allows prioritization of inspection prior to importation enabling PQ to utilize staffing more effectively. Containers will be able to leave docks sooner alleviating congestion currently held for inspection.



# Computer & Manifest Systems

- Transitioned the branch from paper records to electronic documents for port inspection data and importation permits (2007)
- Incorporated prototype manifest system into inspection operations that provide more comprehensive view of the port activity, improved workflow management with increased scheduling of resources, improved inspection of high-risk commodities, and improved overall inspection quality and service to the distribution channel. (2010)
- Conducted commodity assessments to determine risk level of imported agricultural imports to improve interception rates and provide a “rapid release” on specific commodities. (2010)
- Obtained private funding to expand the transporter manifest system (2011)
- Obtained appropriation to expand the importer manifest system (2012)



# PEST MANAGEMENT PLAN

## Objectives:

- Create and enforce a uniform certification program throughout the state;
- Assist nurseries to meet the “certified nursery” standards; and
- Provide post-harvest treatments to ensure “pest-free” yet quality commodities for export.



# Pest Management Systems

- Determined Industry needs through stakeholder meetings (2008)
- Strengthened export nursery program by implementing Pest Management Plans (2009)
- Provided alternative certification program for non-BN states (2009)
- Secured funding to develop a Systems Approach to Pest Management Practices for Potted Foliage Plant Production to limit the spread of pests of significance within the State of Hawaii, to the Continental United States, and the Pacific. The systems approach combines field pest management practices and an inspection/postharvest treatment into a unified system to produce pest-free products (2011)
- Secured Phase II funding for the Systems Approach to Pest Management Practices for Potted Plant Production (2012)





# BTS & Military Inspections



Re-establishment of detector dog program

Resurrect military program



# Detection & Rapid Response

Resume Rapid Response  
Training for Brown Tree Snake

Resume Incident Command  
System Training for  
emergencies





# Import Replacement

Public outreach to provide support for the 'ohi'a rule

Provide locally grown substitutes

As part of the Biosecurity Program, support the import replacement of the highest-risk imported commodities



## Buy Local to Protect 'Ōhi'a

The Hawai'i Department of Agriculture needs your help to keep destructive 'ohi'a rust out of Hawai'i. 'Ōhi'a rust (*Puccinia psidii*), also known as guava rust, is a disease that can kill 'ohi'a trees and other plants in the myrtle family.

'Ōhi'a rust can enter Hawai'i by hitchhiking on imported plants and plant parts in the myrtle family. Agriculture inspectors have repeatedly intercepted 'ohi'a rust on common myrtle in imported flower bouquets, although any plant material in the myrtle family, including eucalyptus foliage and wax flowers, could also bring in the rust.

Like the flu virus, there are different strains of 'ohi'a rust. One strain of the rust has already arrived in Hawai'i and it quickly killed rose apple trees across the state. Any additional arrivals of this rust pose a very real threat to the survival of 'ohi'a trees, which comprise 80% of Hawai'i's native forest (nearly 1,000,000 acres).

Restricting the importation of myrtle family plants, produce, and cut flowers is vital to protecting 'ohi'a forests, and your help is needed!

### What can you do?

- Whenever possible, buy local cut flowers and foliage. Growers are working to provide local-grown alternatives to high-risk imports.
- Voice your support for protecting 'ohi'a during the rulemaking process. Public hearings will be held in each county.

Your understanding and kokua are greatly appreciated! For more information, visit [www.hear.org/species/puccinia\\_psidii/](http://www.hear.org/species/puccinia_psidii/)



'Ōhi'a rust appears as tiny bright yellow powdery spots on leaves or stems, deforming leaves and killing growing stems, which may eventually kill the infected plant.



A strain of 'ohi'a rust was first reported in Hawai'i in 2005. Rose apple was particularly susceptible and nearly all trees have died statewide. Arrows in this photo show large swaths of dead rose apple trees in Waie'e, Maui.

'Ōhi'a photo by CGAPS; all others by Patral and Kim Starr





# Import Replacement

**Objective:** To decrease the amount of imported commodities known to be high-risk for introducing destructive or “not known to occur in Hawaii” (NKO) invasive species into the State by growing these commodities in Hawaii.

About 40 commodities bring in 90%-95% of the invasive species. By growing more of these commodities in the State and creating facilities that can handle the increased local production, the State will effectively manage the significant risks created by importation of produce and plant products that have a high percentage of infestation, unknown pests, and shipments that require treatment or destruction.



# Import Replacement

The import replacement program involves:

- Developing varieties that can be grown in Hawaii
- Propagation and distribution to growers in Hawaii
- Promotion of Hawaii-grown products in local market segments
- Promotion of facilities that facilitate local production and distribution



# Next Steps

## Crop Protection and Pest Prevention

- Establishment of buffer zones between agricultural lands and conservation lands to reduce pest infestation/re-infestation between adjoining lands
- Regulatory needs designed to prevent the geographic expansion of damaging invasive species, including diagnostics, quarantine treatments, joint-inspection facilities; Asia-Pacific safeguarding systems
- Development of crop protection programs, including pest management (systems approach), area-wide suppression; post-harvest treatments, biocontrol