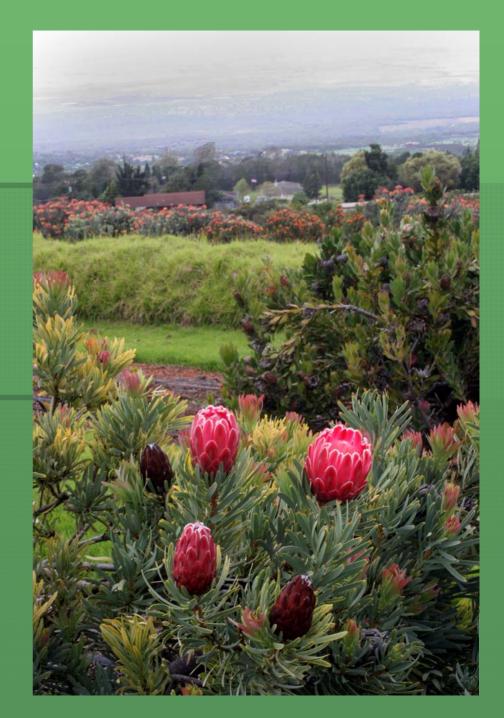


2012 BIOSECURITY OVERVIEW



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 measures to minimize pest risks prior to entry

Port-of-entry inspections to detect pests upon arrival

Post-entry measures to mitigate the establishment of invasive species

Growth-of-Agriculture to reduce dependency on imports



Protection of our watersheds and natural areas is paramount.

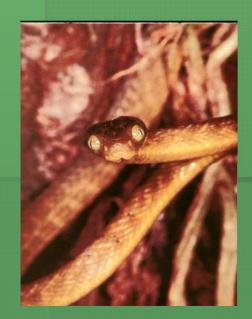
Protection of our farms and communities is critical.

Increased actions to prevent invasive species are vital to protect both.



Invasive Species

"The unchecked spread of invasive species is the single greatest threat to Hawaii's economy, natural environment, and the health and lifestyle of Hawaii's people. Invasive pests can cause millions of dollars in crop losses, the extinction of native species, the destruction of native forests, the spread of diseases, and the quarantine of exported agricultural crops."



Strown Tree Snake\$593 M - \$2.14B



Red Imported Fire Ant \$229 M



Loss of the Ohia Forest Immeasureable

Risk to Biodiversity – State Rankings

| RANK | PLANTS | MAMMALS | BIRDS | REPTILES | AMPHIBIANS | FISHES |
|------|------------|------------|------------|---------------|------------|------------|
| 1 | Hawaii | Hawaii | Hawaii | Hawaii | California | Arizona |
| 2 | California | Florida | Alaska | Massachusetts | Oregon | Hawaii |
| 3 | Utah | California | California | Florida | Nevada | Utah |
| 4 | Nevada | Alaska | Florida | Maine | Washington | Nevada |
| 5 | Arizona | Georgia | Washington | California | Arizona | California |



Ships alone bring in 500,000 sea containers carrying 25 million cartons into the State. Another 500,000 sea containers move between islands. Ships and airplanes bring in essential goods critical to our survival but they also bring in invasive species.













Ag Inspectors

Must be able to inspect cargo shipments efficiently for our economy to thrive and yet be able to prevent invasive species from entering the State.

Ag Inspectors must be able to identify by species:

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





Inspecting cargo to find the pests and determining which ones must be

destroyed and which ones can be released.







Ag 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 only 60 agricultural inspectors statewide.

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

| PORT | 2009 Staff (prior to layoffs) | Current Staff | Current Vacancies (incl. 10 positions announced) |
|--------|----------------------------------|---------------|---|
| 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 |
| TOTAL | 95 | 50 | 32 (10 to be filled) |

Governor Abercrombie approved the hiring of 10 agricultural inspectors in July 2011, restoring some positions that were eliminated in 2009. Nine positions are back clearing cargo with the tenth back soon.

We are submitting approval to fill the rest of the reinstated positions.



Ag Inspectors

The following Plant Quarantine data shows the number of interceptions at airports during the six-month period prior to the layoffs in 2009 and for the same period in 2010. The interception rate dropped by half statewide and by 762 percent on O'ahu. Our first priority is to fill all positions and reestablish the first line of defense against invasive species.

| AIRPORT | Interceptions July 2009 to December 2009 | Interceptions July 2010 to December 2010 |
|-----------|---|--|
| O'ahu | 663 | 87 |
| Maui | 722 | 639 |
| Kaua'i | 29 | 0 |
| Kona | 18 | 4 |
| Hilo | 25 | 0 |
| STATEWIDE | 1,457 | 730 |



Biosecurity Inspection Facilities



New inspection facilities will concentrate inspection activities in an enclosed, secured and temperature-controlled area.

This will make inspections more efficient by bringing the cargo to the inspection building rather than having inspectors go out to the individual cargo and shipping areas.

Inspection facilities would also be able to better contain any pest or pathogen that may hitchhike on agricultural material.

In addition, it will help increase food safety as cargo will not be exposed to daylight during inspection or while waiting for inspection.



Biosecurity Inspection Facilities

Last year, the enactment of HB 1568 helps to lay the groundwork for the construction of inspection facilities at Honolulu International Airport, Honolulu Harbor, Hilo Harbor and Kawaihae Harbor to improve inspections.

An inspection facility was built several years ago at Kahului Airport as a requirement of the Kahului Airport Expansion Project.





Maritime Produce Inspections

August 2009

| PORT | NO. SITES | NO. OF CONTAINERS |
|---------------|--------------|----------------------|
| KAUAI (2X) | 6 | 40 |
| MAUI (2X) | 9 | 79 |
| HILO (3X) | 5 | 33 |
| KONA (4X) | 6 | 60+ |
| OAHU (7X) | 44 | 724 |
| TOTAL | 70 | 936 |

CURRENTLY ON OAHU:

There are now 32 produce sites on Oahu.

Produce inspection is conducted 7 days a week with an average of about 15 sites per day.

The sites are assigned to a particular zone and each inspector may cover 2 to 4 sites throughout the day, which is dependent upon staff levels.

Manifest System

Consignor

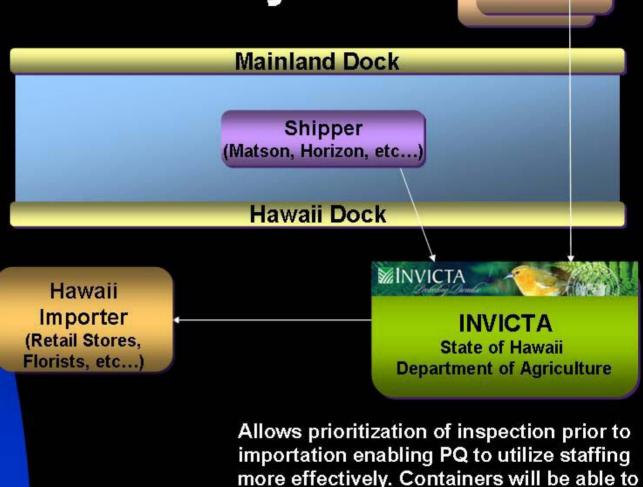
DELIVERABLES

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.



leave docks sooner alleviating congestion

currently held for inspection.

STRATEGIES



Buy Local to Protect 'Ōhi'a

The Hawai'i Department of Agriculture needs your help to keep destructive 'ōhi'a rust out of Hawai'i. 'Ōhi'a rust (*Puccinia psidii*), also known as guava rust, is a disease that can kill 'ōhi'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 'Ōhi'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 'ōhi'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 'ōhi'a trees, which comprise 80% of Hawaii's native forest (nearly 1,000,000 acres).

Restricting the importation of myrtle family plants, produce, and cut flowers is vital to protecting 'ōhi'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 'ōhi'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/



'Öhi'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 'öhi'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 Walhe'e, Maui

'Ohi'a photo by CGAPS; all others by Forest and Kim Starr

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



