

**REPORT TO THE TWENTY-EIGHTH LEGISLATURE
2016 REGULAR SESSION
STATE OF HAWAII**

**ANNUAL REPORT ON THE
BIOSECURITY PROGRAM**

ACT 236, SLH 2008

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HAWAII DEPARTMENT OF AGRICULTURE

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SECTION I

Background

A. Act 236, 2008 Session Laws of Hawaii

Act 236 of the 2008 Session Laws of Hawaii recognized that the unchecked spread of invasive species was a threat to Hawaii's economy, natural environment, and the health and lifestyle of Hawaii's people. Act 236 created a Biosecurity Program within the Department of Agriculture to support the Department's efforts in combatting invasive species. In particular, Act 236 recognized that the Department was undertaking a number of activities to fight invasive species by:

1. Administering pre-entry measures to minimize the risk of invasive pests entering the State;
2. Conducting port-of-entry inspections to detect and quarantine or destroy pests upon arrival; and
3. Administering post-entry measures to mitigate the establishment of pests in the State.

Additionally, Act 236 acknowledged the Department's efforts to reduce the State's dependency on imported agricultural products by increasing the capacity of Hawaii's agricultural industry that would in turn reduce the risk of importing agricultural commodities that could contain invasive pests.

The Biosecurity Program was created to support the Department's ongoing efforts to combat invasive pests. The Legislature also established the Pest Inspection, Quarantine, and Eradication (PIQE) fund to finance much of these activities.

B. Role of the Hawaii Department of Agriculture

Efforts to prevent the introduction of invasive species, control and mitigate existing invasive species, and where possible, to eradicate invasive species incursions, are covered by multiple divisions and branches within the Department of Agriculture. There are also multiple funding sources used to fund these activities including general funds, PIQE, barrel tax, and federal funds.

The Plant Industry Division is composed of the Plant Quarantine Branch, Plant Pest Control Branch, and the Pesticide Branch. All three branches play a role in biosecurity with HDOA and work closely together to accomplish the objectives. The Plant Quarantine Branch (PQ) is largely tasked with the inspections of agricultural commodities at ports of entry to prevent the spread and potential introduction of new or existing invasive species. This branch works closely with

its federal partners to insure Hawaii's ports of entry are being kept free of invasive species threats. The Plant Pest Control Branch focus is primarily on the detection, response, control, containment, and eradication of pests that have bypassed ports of entry. It is staff from this branch that are in the field actively working with farmers, homeowners, and businesses to help treat, prevent, and where possible, eradicate invasive species threats when they are discovered. The Pesticides Branch ensures that pesticide technologies are available for these efforts and are being properly used. Specific activities of the Plant Industry Division relating to biosecurity are as follows:

Prevention – activities to prevent the introduction of invasive species

- Inspection at port-of-entries.
- Origin certification programs for high risk commodities (compliance agreements between origin state, commodity handlers/shippers, and destination state) designed to minimize levels of pest risk

Diagnostics – ability to identify invasive species: Insects, Plant Pathogens, and Weed identification

Detection – surveillance for the existence and location of an invasive species that may be introduced

Rapid Response – Quick control measures to capture, reduce, or eliminate a single threat or an incipient population of invasive species before establishment

Monitoring – ongoing surveys to track the presence and status of introduced invasive species over time and to evaluate effectiveness of prevention, control and restoration activities. Surveys are conducted at high risk areas, including within the *airport and harbor environs, surrounding the port-of-entry, agricultural lands, and selected protected areas within the State.*

Biological Sampling – ongoing surveys to track the presence and status of existing species over time and to evaluate effectiveness of prevention, control and restoration activities.

Research and development – the development of scientific knowledge, methods, and technologies to prevent, detect, control and monitor invasive species and assist in implementing learned technologies to control invasive species effects on agricultural production.

Education outreach – actions taken to support public education programs

Partnerships & cooperative activities – cooperative efforts with stakeholders (agricultural industries); federal, state, county, and private partners; including domestic and international partnerships and agreements

Information management – activities to facilitate access to and exchange of information concerning invasive species. Includes storage and sharing of data and databases

Quality Control Programs – activities to measure levels of effectiveness, including on-going pest risk assessments to determine pest-risk pathways, evaluation of mitigation activities, and re-prioritization of inspection activities of invasive species.

Quarantine Treatment Facilities – “shared” government certified treatment facility(s) certified to conduct disinfestations treatments to recondition and/or destroy shipments infested with quarantine pests.

Permitting – issuing permits based on statutes, regulations, and prior board decisions to insure the introduction of restricted commodities are introduced in accordance with pest risk

Compliance and Enforcement – strengthening the enforcement program to compel compliance with quarantine laws and regulations

Export Programs – providing services to facilitate the export of agricultural goods to domestic and foreign markets

The Animal Industry Division approaches biosecurity as a process for risk management of high impact animal diseases. This is accomplished as a spectrum of activities that encompasses mitigation of invasive animal disease occurrence and right sizing response methods to support continuity of business and protect human health. Detection of high impact animal diseases will affect both local industries as well as global trade. The Rabies Control Branch and the Animal Disease Control branch share the same objective of minimizing the impact of animal disease occurrence however focus on different species. Pre-arrival requirements provide assurances that newly imported animals have been properly identified, complied with disease testing and have undergone pre-transport examination. Upon arrival, inspection occurs to verify animal identification, examine for clinical signs of illness and the presence of foreign parasites. In addition to monitoring newly importing animals, Animal Division staff performs routine surveillance of existing populations to detect emerging or re-emerging animal diseases that are subject to control or eradication. To determine the level of impact when irregularities are detected, the Veterinary Laboratory provides diagnostic support. Upon confirmation of the presence of invasive animal disease or parasites, response methods are initiated to contain disease spread, work towards eradication and minimize the impact on existing industries, human health and global trade.

Section II

Description of Projects and Activities Funded by the Pest Inspection, Quarantine, and Eradication Fund

Plant Quarantine Branch Database and e-Manifesting.

PQ maintains a database called INVICTA to record inspection, permitting, and pest reporting activities. The database is a critical and essential tool not only for information storage but is also used extensively to determine effectiveness of operations and for the analysis of risk for pathways and commodities. The analysis of the data is used by PQ to effectively enhance their inspection activities for the effective interception of pests. The database is dated, not up to current standards, and has limitations for the retrieval of information needed for modern analysis. The database is being maintained and updated as much as possible with Pest Inspection, Quarantine, and Eradication (PIQE) funds while PQ contracts out for a modern database. Discussions and development of a scope of work for the new database has been ongoing this fiscal year.

Previous risk assessments at ports have determined that commodities pose different risk levels for the entry of pests. INVICTA has been instrumental in these risk assessments but does not have the capabilities to allow for e-manifesting. The new database will incorporate an e-manifest module that will allow for importers to send an electronic manifest to HDOA before, typically 5-7 days, the commodities arrive. This will allow PQ to schedule their inspections based on the risk of the arriving commodities allow for more efficient use of limited manpower. A pilot project for the e-manifesting system was initiated this fiscal year to better design a module that can be incorporated into the new database.

Nursery Certification and Compliance Project.

PQ initiated a pilot project to assess the feasibility of establishing a nursery compliance program. Nurseries in this program will be able to ship their commodities interisland without inspection if they establish standard operating procedures in their nurseries that meet best management practices demonstrated to reduce risk or eliminate pest infestation.

Christmas Tree Inspection Project.

PQ worked collaboratively with Oregon Department of Agriculture (ODA) to develop best management practices and inspection protocols with Oregon Christmas tree shippers to ensure that the shipments are free of pests. PQ personnel travel to Oregon to work with ODA and the Christmas tree shippers at preharvest and harvest time to ensure that the protocols are understood and being followed. ODA personnel have come to Hawaii to work with HDOA to

inspect the trees as they arrive and to assess the results of the efforts. The results will be analyzed after this Christmas tree season.

Funding of Personnel.

The PIQE is a significant source of funding (\$3.2 million) for PQ staff positions. PIQE supports approximately half (44 of 99) of the PQ positions. These positions were originally general funded but lost during the RIF in 2009. The staff in these positions conduct the day-to-day inspection, permitting, and pest response activities and special projects funded by PIQE which meet the mandates of ACT 236 SLH 2008.

Funded Projects.

Invicta Database Maintenance: A one year maintenance contract (\$93,246) was procured to continue maintenance, upkeep, and software updates on the Invicta database to ensure that the database remains operational.

Development of New Ornamental Cultivars of Anthurium and Orchids Using Modern Tools: A supplemental contract (\$275,000) with USDA Pacific Basin Agriculture Research Center was initiated to continue the funding of this project. The project involves the use of molecular genetic techniques on anthuriums and orchids for bacterial, viral, and nematode resistance.

Best Management Practices for Little Fire Ant: A contract (\$95,000) was procured with the University of Hawaii to research and develop early detection techniques and best management practices for little fire ant on commodities being shipped interisland. Results for this research have been critical in PQ's nursery certification pilot project which uses the BMP's to reduce the risk of pest movement.

Hawaii Administrative Rule amendments.

PQ administers Hawaii Administrative Rules that directly apply to biosecurity. These rules are continually being reviewed and updated. This is a multi-tiered process which involves staff, subcommittee, Plants and Animals Committee and Board of Agriculture review followed by public hearings. The process was initiated for the following changes:

Chapter 4-70 Plant Import Rules. Addition of a subchapter on Myrtaceae to address the risk of the import of Ohia wilt. Addition of a Restricted Plant List and language updates to all current subchapters.

Chapter 4-71 Non-Domestic Animal Import Rules. Change list placement of various non-domestic animals including Nile tilapia for aquaculture, crickets for animal feed, and various species for Waikiki Aquarium, and import of wild animals for circuses and performing purposes.

Chapter 4-72 Plant Intrastate Rules. Addition of a subchapter on coconut rhinoceros beetle to regulate movement of this pest. Revise the subsection of movement of coffee to reduce risk for coffee berry borer and coffee rust import and interisland movement.

Chapter 4-73. Plant Export Rules. Change rules to allow for a nursery certification program which will include a tiered type certification based on best management practices and standard operating procedures.

Section III

Description of Proposed Projects and Activities to be funded by the PIQE Fund

Funded Projects.

Hawaii Ant Lab Core Funding. This statewide initiative will focus on the development and use of novel and proven technologies to prevent, detect, respond, and control little fire ant. The Hawaii Ant Lab at the University of Hawaii will receive \$190,000.

Early Detection and Prevention little fire ant on Oahu. This project will fund a trained research, survey and response team to provide monitoring of high-risk sites such as nurseries and landscape suppliers. The Hawaii Ant Lab at the University of Hawaii will receive \$100,000.

Plant Quarantine Branch Database and e-Manifesting.

This project will continue as described in Section II.

Nursery Certification and Compliance Project.

This project will continue as described in Section II.

Funding of Personnel.

Continuing as described in Section II with minimal change.

Hawaii Administrative Rule amendments.

The review and amendment process for Hawaii Administrative Rules is a dynamic process. The activities will continue as described in Section II.

Section IV

Six-Year Financial Plan

DEPARTMENT OF AGRICULTURE						
NAME OF FUND: Pest inspection, quarantine, and eradication fund						
STATUTORY ESTABLISHMENT: Ch. 150A-4.5, HRS						
APPROPRIATION SYMBOL: S-304						
	Actual	Projected				
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
BEGINNING FUND BALANCE	7,777,079	8,701,405	7,451,405	6,701,405	6,301,405	5,901,405
REVENUES						
1. Inspection, quarantine, and eradication service fee and charge	5,140,674	5,100,000	5,100,000	5,100,000	5,100,000	5,100,000
TOTAL REVENUES	5,140,674	5,100,000	5,100,000	5,100,000	5,100,000	5,100,000
EXPENDITURES						
AGR 122						
<i>Personnel</i>	-3,196,154	-3,500,000	-3,500,000	-3,500,000	-3,500,000	-3,500,000
<i>Other Current Expenses</i>						
<i>Equipment and Operating Costs</i>	-832,194	-2,000,000	-1,500,000	-1,500,000	-1,500,000	-1,500,000
<i>Contracts</i>	-188,000	-850,000	-850,000	-500,000	-500,000	-500,000
TOTAL EXPENDITURES	-4,216,348	-6,350,000	-5,850,000	-5,500,000	-5,500,000	-5,500,000
BALANCE	8,701,405	7,451,405	6,701,405	6,301,405	5,901,405	5,501,405