

**REPORT TO THE TWENTY-NINTH LEGISLATURE
2017 REGULAR SESSION
STATE OF HAWAII**

**ANNUAL REPORT ON THE
AGRICULTURAL DEVELOPMENT AND FOOD SECURITY SPECIAL FUND**

ACT 73, SLH 2010

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HAWAII DEPARTMENT OF AGRICULTURE

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SECTION I

Background

A. Act 73, 2010 Session Laws of Hawaii

In an effort to address Hawaii's over reliance on imported food and energy and the vulnerability that this creates in energy and food security, as well as negative impacts on biosecurity and our economy, the Hawaii State Legislature approved HB 2421, H.D. 2, S.D. 2, C.D. 1, which was enacted as Act 73, 2010 SLH. Act 73 provided for the creation of an energy and food security tax in the amount of \$1.05 which is to be levied "on each barrel or fractional part of a barrel of imported petroleum product sold by a distributor to a retailer or end user". Fifteen cents of the tax is to be deposited into a new Agriculture Development and Food Security special fund; fifteen cents is to be deposited into the new Energy Security special fund; ten cents is to be deposited into the new Energy Systems Development special fund; five cents is to be deposited into the existing Environmental Response revolving fund; and sixty cents is to be deposited into the general fund. In addition to the establishment of the new special funds, Act 73 also created the Hawaii Economic Development Task Force whose purpose is to "facilitate the accelerated adoption and completion of renewable-energy projects, energy-efficiency programs, agricultural infrastructure and development, and other measures to meet the purposes of this Act".

B. Agricultural Development and Food Security Special Fund

Part IV, Section 7 describes the Agricultural Development and Food Security Special Fund and the responsibilities of the Hawaii Department of Agriculture (HDOA).

"§141- Agricultural development and food security special fund; establishment. (a) there is established within the state treasury the agricultural development and food security special fund.

(b) The following moneys shall be deposited into the special fund:

(1) The portion of the environmental response, energy, and food security tax specified under section 243-3.5;

(2) Any appropriation by the legislature into the special fund;

(3) Any grant or donation made to the special fund; and

(4) Any interest earned on the balance of the special fund.

(c) Subject to legislative appropriation, moneys in the special fund may be expended for the following purposes:

(1) The awarding of grants to farmers for agricultural production or processing activity;

(2) The acquisition of real property for agricultural production or processing activity;

(3) The improvement of real property, irrigation systems, and transportation networks necessary to promote agricultural production or processing activity;

(4) The purchase of equipment necessary for agricultural production or processing activity;

(5) The conduct of research on and testing of agricultural products and markets;

(6) The funding of agricultural inspector positions within the department of agriculture;

(7) The promotion and marketing of agricultural products grown or raised in the state; and

(8) Any other activity intended to increase agricultural production or processing that may lead to reduced importation of food, fodder, or feed from outside the state.

C. Role of the Hawaii Department of Agriculture

(d) The department of agriculture shall submit a report to the legislature no later than twenty days prior to the convening of each regular session on the status and progress of existing programs and activities and the status of new programs and activities funded under the agricultural development and food security special fund. The report shall also include:

- (1) The spending plan of the agricultural development and food security special fund;
- (2) All expenditures of agricultural development and food security special fund moneys;
- (3) The targeted markets of the expenditures, including the reason for selecting those markets;
- (4) The persons to be served using the expenditures; and
- (5) The specific objectives of the expenditures, including measurable outcomes.

This report includes a description of the status and progress made in implementing Act 73 as of November 30, 2011 and a plan for new programs and activities proposed through the period ending June 30, 2016.

SECTION II

Description of Funded Projects and Activities in FY16

Section II contains descriptions of projects and activities. The suggestions are organized under the allowable uses found in HRS Chapter 141 establishing the agricultural development and food security special fund. They are not prioritized.

A. Awarding of funds to increase demand in the local, domestic and international markets and increase the production of locally grown foods statewide for consumption or as ingredients for value-added products.

EAT LOCAL promotions -- Year 4

Foodland Super Market, Limited and Oceanic Time Warner Cable were awarded funds to promote the "Buy Local, It Matters" call-to-action EAT LOCAL campaigns via retail and media activities.

Radio campaign with KZOO Radio AM1210 targets Japanese speaking audience in Hawaii and in Japan. Fifteen-minute spot every Monday with re-broadcast on Fridays for 52 weeks' spotlights for Hawaii agriculture via interviews with commodity associations, farmers, ranchers and HDOA staff.

Seal of Quality (SOQ) Promotion

The Bennet Group was awarded funds to promote the SOQ Program established by HRS 148-61 and regulated through HAR 135 through an integrated marketing campaign that includes newsletters, media events, in-store promotions, and marketing workshops.

As part of the promotion of the program, new SOQ members were provided rack cards to support their marketing efforts and existing members were provided reprints.

B. The improvement of real property, dams, reservoirs, irrigation systems, and transportation networks necessary to promote agricultural production or processing activity, including investigative studies to identify and assess necessary improvements to dams, reservoirs, irrigations systems, and transportation networks.

Water is the lifeblood of agriculture. Efficient and reliable irrigation systems transport this resource to where it can be effectively used best. These systems are called upon to provide billions of gallons of agricultural water every year. Many of these systems were originally constructed at the turn of the twentieth century by sugarcane plantations. The decline of the plantations has led to the rapid deterioration of the systems and in order for them to remain effective, they must be maintained daily. This is a time and labor intensive process that does not have automated alternatives. The funds from the Agricultural Development and Food Security Special Fund provide additional irrigation maintenance workers and operating funds while keeping water prices affordable for agricultural users.

The Department, through the Agribusiness Development Corporation (ADC), has purchased 1,200 acres of agricultural lands from the Galbraith Trust Estates. ADC is working diligently to prepare the lands for active agricultural use. Land preparation includes clearing of underbrush and liming the soil in preparation for agricultural use. Additionally, funds were used for pumps and piping to allow for access to water for those future farmers on the Galbraith lands. Irrigation infrastructure is vital to this important production land.

Through the County of Kauai, the Hawaii Department of Agriculture funded the operation and maintenance of the East Kauai Irrigation System, run through a local community coop. With funds to support a water system such as this, the East Kauai Water Users Coop can supply needed water resources to multiple farmers along the eastern coast of Kauai.

C. The conduct of research on and testing of agricultural products and markets.

Act 56 of the 2014 legislative session created a pilot program to investigate industrial hemp as a new agricultural crop for Hawaii. In partnership with the University of Hawaii, College of Tropical Agriculture and Human Resources, the Department is continuing its work on this initiative to test the viability of industrial hemp as a new agricultural product for Hawaii. The 2-year project continued through FY16.

The University of Hawaii has been conducting research on the Macadamia Felted Coccid (MFC) since its detection in Hawaii in 2005. This particular disease has been contained to the island of Hawaii. It is becoming a significant pest under certain environmental conditions on Hawaii Island leading to, in extreme cases, the death of trees. Existing management strategies have been ineffective or cost-prohibitive in these environments. The Department of Agriculture has partnered with University of Hawaii to research and identify an integrated pest management program for MFC; measure the impact of MFC on nut yield and nut quality; and quantify the effect of soil quality and other environmental factors on tree susceptibility to MFC.

Aquaponics is a growing industry in Hawaii that can potentially provide another source of protein and fresh commodities for our local markets and increase our food security. However, aquaponics is considered a hobby or backyard level operation. To be considered a sustainable segment of agriculture, the economic viability of commercial scale aquaponics needs to be demonstrated. Towards this goal, HDOA has provided funding for

research in to the viability of commercial grade aquaponics facilities in Hawaii and whether the market is able to sustain a profitable aquaponics industry. The project scope is 1 acre of aquaponics (fish/plants) under greenhouse where all inputs, throughput and output expenses and revenues will be tracked. The greenhouse will address biosecurity and food safety issues. The project is wrapping up its second year of the two year project which has shown that commercial aquaponics can be successful. According to the operator, the operation is now making a net profit. Future projects will focus on lowering both start-up and investment costs.

D. The funding of agricultural inspector positions within the department of agriculture.

Inspector positions are key in protecting our local agricultural community and also providing support to those who are trying to get their products to market. The lack of key support staff have meant that remaining staff have had to take on more responsibilities in addition to their own daily tasks. This means that inspectors and field staff are sometimes forced to do requisite paperwork that is taking them away from their other required duties. Hiring more inspectors and freeing up key staff by hiring needed support personnel is vital towards increasing agricultural production. Funds from the special fund have gone towards hiring commodities inspectors, key planners and support staff.

E. The promotion and marketing of agricultural products grown or raised in the State

Increasing access to markets both locally and abroad is vital for creating greater economic opportunities for our local farmers to sell their products and remain economically viable. The Agricultural Development Division has initiated a number of projects aimed at increasing demand for Hawaii agricultural products both here and internationally.

The Buy local, It Matters, EAT LOCAL campaign was promoted at the retail level every Tuesday for 52 weeks at all 32 Foodland Supermarkets statewide and promoted through media via Oceanic Time Warner Cable.

During the one-day per week retail campaign focus, sales of local products **increased** during the period 1/14/2015 through 1/12/2016:

- | | | | |
|-----------------------------|--------|------------|--------|
| • Grocery (including dairy) | 2.28% | • Bakery | 2.61% |
| • Produce | 2.95% | • Gourmet | 26.25% |
| • Meat | 3.22% | • R. Field | 21.94% |
| • Liquor | 25.38% | • Floral | 2.44% |

Over \$4,700,000 was spent by customers buying local on Tuesdays at Foodland, an outcome measured by double Maika'i points for purchases of "local" on Tuesdays. The retail campaign was supported by in-store sampling, website updates, email notices, social media, a mobile app, and print and radio advertising that resulted in more the 1,441,760 weekly impressions to EAT LOCAL.

The Buy Local, It Matters, EAT LOCAL media campaign was promoted in :30 second public service ads 41,000+ showings on Oceanic Time Warner Cable during telecasts of UH Sports, High School Sports, and during regular programming in the following counties and frequencies for the period August 2015 to June, 2016:

- | | | | |
|-----------------|---------------------------------|----------------|-------|
| • Hawaii County | 15,746 | • Kauai County | 8,648 |
| | <i>Hilo 7,850 // Kona 7,896</i> | | |
| • Maui County | 7,189 | • Oahu | 5,447 |
| • HSPZ | 4,003 | | |
| | <i>Additional statewide</i> | | |

F. Other activity intended to increase agricultural production or processing that may lead to reduced importation of food, fodder, or feed from outside the State.

Access to a certified slaughterhouse facility is often a limiting factor for our local livestock producers, particularly those situated in rural communities. However, the cost of building a certified slaughter facility can be cost prohibitive to any single rancher or livestock producer. HDOA is looking to mobile slaughterhouses as a potential low-cost solution to this problem. Mobile slaughterhouses have the added advantage of being able to move to the areas where a slaughter facility is needed and further increase the ability for livestock producers to move their product to market. HDOA has contracted with the Big Island Resource Conservation and Development to continue its work with the Big Island Meat Cooperative and support the efforts of a mobile slaughter unit for the livestock industry. The project received the mobile slaughter unit from the mainland and had an open house in late 2015. Through additional support, the mobile slaughterhouse is currently undergoing certification with the USDA and the project will continue to run with a 5-year plan to aid the local livestock industry.

The organic sector of agriculture is a burgeoning industry that has seen significant growth over the past few years. While still a small part of the overall picture of agriculture, the demand for organically grown agricultural commodities can mean that those farmers able to produce organically can command premium prices in the marketplace. As a result, the department plans to partner with the University of Hawaii to further promote the growth of the organics industry and continue to provide support for this industry.

The recent 2012 Agricultural Census highlighted the “graying” of our agricultural workforce as a problem facing agriculture nationwide. This issue is especially significant in Hawaii where we saw an increase in the average age of our farmers to above 63 years old. Without new, younger farmers willing to join the industry, agriculture is facing a difficult road. The Department is partnering with the University of Hawaii to fund an effort to increase opportunities for new farmers to gain the needed education and experience to begin a successful career in agriculture. The goal of this effort is to reverse the trend of our aging agricultural workforce and revitalize the industry to ensure continued success in to the future.

Training new agricultural leaders is an essential component to Hawaii’s food security goals. HDOA is tasked with promoting and protecting the agriculture industry in Hawaii and continues to find ways to increase the number of qualified new farmers. HDOA worked with the Agricultural Leadership Foundation of Hawaii (ALFH) to train new farmers to become our future agricultural leaders. ALFH offers specialized training and education

from renowned industry representatives to prepare for a career as effective leaders for agriculture in each perspective business, industry, and community.

The farm to school program is aimed at creating a program to increase nutrition education in schools, greater understanding and appreciation of local agriculture in students, and to increase the procurement of local agricultural commodities into schools and governmental agencies. A 2012 report to the Legislature examining the Federal 2008 Farm Bill Amendment to the Richard B. Russell National School Lunch Act found that 17.3% of school-age children are overweight. The report also found that farm to school initiatives can expose students to the agricultural industry in Hawaii and influence their eating habits. For farmers, a farm to school program can increase the amount of locally grown produce that is being procured by governmental agencies. As per Act 218 Session Laws of Hawaii 2015, HDOA has hired a new Farm to School Coordinator under the Office of the Chair to create a Farm to School Program within the Hawaii Department of Agriculture.

Due to the increase in pesticide regulations, limited number of weed management solutions, and the increase in labor cost, weed management is becoming a major challenge for many growers in Hawaii. These growers include those growing vegetable crops, wetland crops and livestock forage crops. HDOA partnered with the College of Tropical Agriculture and Human Resources (CTAHR) to create the High Technology Agriculture Program. This program identifies high technology equipment and evaluates its applicability for Hawaii's diverse agriculture systems. Weather systems are used to determine the most efficient irrigation techniques to increase yield in a sustained operation.

To combat the many challenges that local farmers face, whether they be low crop production due to weather or agricultural theft, the Hawaii Department of Agriculture has partnered with the Kohala Center to create a microloan program to help ease some of the smaller asks that agriculturalists struggle to find capital for due to the size of the request. This program is geared to provide low interest loans to farmers in need who may have trouble obtaining a loan due to the amount requested. This type of funding is instrumental to help farmers overcome setbacks that may come their way.

SECTION III

Proposed Projects and Activities for FY17

- A. The improvement of real property, dams, reservoirs, irrigation systems, and transportation networks necessary to promote agricultural production or processing activity, including investigative studies to identify and assess necessary improvements to dams, reservoirs, irrigations systems, and transportation networks.**

Water is the lifeblood of agriculture. Efficient and reliable irrigation systems transport this resource to where it can be effectively used best. These systems are called upon to provide billions of gallons of agricultural water every year. Many of these systems were originally constructed at the turn of the twentieth century by sugarcane plantations. The decline of the plantations has led to the rapid deterioration of the systems and in order for them to remain effective, they must be maintained daily. This is a time and labor intensive process that does not have automated alternatives. The funds from the Agricultural Development

and Food Security Special Fund will provide for additional irrigation maintenance workers and operating funds while keeping water prices affordable for agricultural users.

B. The conduct of research on and testing of agricultural products and markets.

Aquaponics is a growing industry in Hawaii that can potentially provide another source of protein and fresh commodities for our local markets and increase our food security. However, aquaponics is considered a hobby or backyard level operation. To be considered a sustainable segment of agriculture, the economic viability of commercial scale aquaponics needs to be demonstrated.

The 2016 Legislature identified categories for research on and testing of products. The Hawaii Department of Agriculture will work to obtain risk assessments to identify pest pathways into the State. Additionally, funds will be used to develop and research with commodity organizations the germplasm necessary to replace high risk flowers and produce. Finally, research will be done on Kauai to find a way to decrease the amount of Nene Goose crop degradation occurring to local Taro farmers in the Garden Isle.

C. The funding of agricultural inspector positions within the department of agriculture.

Inspector positions are vital in helping those in the agricultural community who are trying to get their products to market. Support staff allow inspectors to stay focus on their required duties. This means that inspectors and field staff are free from doing requisite paperwork that would take them away from their other required duties. Hiring more inspectors and freeing up key staff by hiring needed support personnel is vital in order to increase agricultural production. Funds from the special fund will go towards hiring commodities inspectors and key planners and support staff.

Inspectors are not only charged with overseeing agricultural commodities, but they are also tasked with ensuring that all scales of measurement statewide are calibrated correctly. The Measurement Standards Branch is charged with the express purpose of maintaining state measurement standards and governing the use and application of measurement standards, measuring devices, and equitable transactions. Without the accuracy of measurement devices, inefficiencies would occur that would potentially decrease the processing and production of agricultural commodities. The Measurement Standards Branch would use funds from the special fund to ensure they can carry out their mandated duties.

D. The promotion and marketing of agricultural products grown or raised in the State

Promotion and marketing of Hawaii agricultural products to local, domestic and international markets creates greater economic opportunities for local farmers to maintain their current market share and to increase sales to new markets. The Agricultural Development Division has a number of projects in 2016 aimed at increasing demand for Hawaii agricultural products both in Hawaii and globally.

The Buy local, It Matters, EAT LOCAL message will be promoted at the retail level and via a media campaign. The Seal of Quality Program (SOQ) that identifies genuine Hawaii-grown and Hawaii-made products will be promoted via a media campaign.

E. Other activity intended to increase agricultural production or processing that may lead to reduced importation of food, fodder, or feed from outside the State.

The organic sector of agriculture is a burgeoning industry that has seen significant growth over the past few years. While still a small part of the overall picture of agriculture, the demand for organically grown agricultural commodities can mean that those farmers able to produce organically can command premium prices in the marketplace. As a result, the department plans to partner with the University of Hawaii to further promote the growth of the organics industry and to provide support for this industry.

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One of the biggest obstacles the local livestock industry faces is a lack of local feed source. With the high costs of feed importation, the local livestock industry is subjected to high production costs. The Hawaii Department of Agriculture has partnered with Hawaii Pacific University to develop a commercial scale feed mill to provide a local feed source for Hawaii’s farmers and ranchers.

In recent years, Hawaii’s agricultural industry has suffered various setbacks due to inclement weather. Hurricane season has brought devastating weather in the form of high powered winds and flooding rains. As a result, many of our water sources have been compromised with debris, especially on Hawaii Island. The

Department of Agriculture has invested funds to provide river maintenance to the Waipio Valley stream, a critical water resource to many in the Waipio Valley, including affected farmers.

SECTION IV

Expenditures from the Agricultural Development and Food Security Special Fund

AGRICULTURAL DEVELOPMENT AND FOOD SECURITY SPECIAL FUND

	Actual	Projected			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
BEGINNING FUND BALANCE	5,664,874	6,402,124	5,378,224	4,807,671	4,737,118
REVENUES					
1. Environmental Response, Energy, and Food Security Tax	3,863,897	3,700,000	3,700,000	3,700,000	3,700,000
2. Investment Pool Interest	23,360	17,000	17,000	17,000	17,000
3. Other	25,000				
TOTAL REVENUES	3,912,257	3,717,000	3,717,000	3,717,000	3,717,000
EXPENDITURES					
AGR 122 PLANT PEST AND DISEASE CONTROL					
Pest Control/Biosecurity Projects		618,000	618,000	518,000	518,000
Macadamia Felted Coccid	250,000				
Facility Repairs	25,000				
Chemical and Mechanical Supplies and Equipment	17,000				
Training and Development	108,000				
AGR 141 AGRICULTURAL RESOURCE MANAGEMENT					
Irrigation Personnel and Program Operations	523,310	500,000	929,700	929,700	929,700
AGR 151 QUALITY AND PRICE ASSURANCE					
Commodities Inspectors/Food Safety Coordinator	150,134	90,900	181,853	181,853	181,853

AGR 161 AGRIBUSINESS DEVELOPMENT

Irrigation/Land Projects		500,000	500,000	300,000	300,000
Galbraith support	463,330				

AGR 171 AGRICULTURAL DEVELOPMENT

Market Development Projects		1,600,000	400,000	300,000	300,000
EAT LOCAL	199,650				
SOQ Ad campaign	50,000				
Ingredients Inbound Mission	38,115				

AGR 192 GENERAL ADMINISTRATION FOR AGRICULTURE

Planner/Neighbor Island Support	260,712	293,000	293,000	293,000	293,000
Farm to School Coordinator/Operations	75,000	150,000	150,000	150,000	150,000
Department Support (Deputy AG)	120,000	120,000	120,000	120,000	120,000
Hawaii Association of Conservation Districts	210,000	210,000	210,000	210,000	210,000
Research/Studies (Organics, Feed Development, Water Resources, etc)	563,863	434,000	434,000	334,000	334,000

AGR 812 MEASUREMENT STANDARDS

Measurement Standards Inspectors/Branch Mgr		- 225,000	451,000	451,000	451,000
Branch IT system Upgrades	120,893				

TOTAL EXPENDITURES	3,175,007	4,740,900	4,287,553	3,787,553	3,787,553
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BALANCE	6,402,124	5,378,224	4,807,671	4,737,118	4,666,565
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