

DAVID Y. IGE  
Governor

JOSH GREEN  
Lt. Governor



PHYLLIS SHIMABUKURO-GEISER  
Chairperson, Board of Agriculture

**DEPT. COMM. NO. 186**  
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Deputy to the Chairperson

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December 26, 2019

The Honorable Ronald D. Kouchi,  
President and Member of the Senate  
Thirtieth State Legislature  
State Capitol, Room 409  
Honolulu, HI 96813

The Honorable Scott K. Saiki,  
Speaker and Member of the House of  
Representatives  
Thirtieth State Legislature  
State Capitol, Room 431  
Honolulu, HI 96813

Dear President Kouchi, Speaker Saiki, and Members of the Legislature:

For your information and consideration, I am transmitting a copy of the Annual Report on the Agricultural Development and Food Security Special Fund as required by Act 73, SLH 2010. In accordance with Section 93-16, Hawaii Revised Statutes, I am also informing you that the report may be viewed electronically at <http://hdoa.hawaii.gov/>.

Sincerely,

Phyllis Shimabukuro-Geiser, Chairperson  
Board of Agriculture

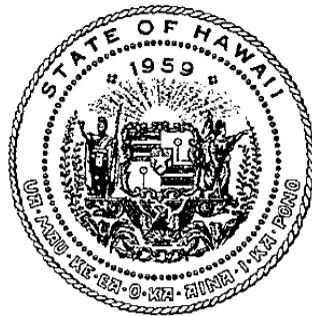
Enclosures



**REPORT TO THE THIRTIETH LEGISLATURE  
2020 REGULAR SESSION  
STATE OF HAWAII**

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

**ACT 73, SLH 2010**



**PREPARED BY:**

**THE STATE OF HAWAII  
DEPARTMENT OF AGRICULTURE**

**DECEMBER 2019**

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### III. Proposed Projects and Activities

- 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.
- B. The conduct of research on and testing of agricultural products and markets.
- C. The funding of agricultural inspector positions within the department of agriculture.
- D. The promotion and marketing of agricultural products grown or raised in the State
- 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.

### IV. Expenditures from the Agricultural Development and Food Security Special Fund

## 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 FY 2018-2019**

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.**

A key issue raised regarding economic development is a general community concern that many Waiahole farmers are not generating a sufficient level of revenue to be self-sustaining. Most of the farms are smaller with a mix of produce, fruits, and flowers – none is the size that could support or sustain a major branding effort unto itself. Therefore, the Department funded a branding strategy to support all the farmers in the Valley that will enhance their economic well-being as well as reinforce the community's commitment to agriculture.

There has been increasing consumer demand for locally raised food, including pasture raised beef. Few statistics are available, but this demand is reflected in increased retail shelf space, featured menu items and the popularity of local beef at farmer's markets. The Department entered into a contract with the Hawaii Cattlemen's Council to determine an initial framework for the quality standards to protect the integrity of Hawaii pasture-raised, grass-fed beef. A survey of the stakeholders within the industry will help provide a framework for future standards that the cattle industry in Hawaii may adopt. The survey would focus on the three major segments of the local beef industry: ranchers, processors and retailers. The retailer portion will provide the input needed to show the factors most important to consumers when purchasing local pasture-raised beef. The ranchers and processors portions will provide insight into the important production factors which could affect the quality of the beef produced and the needed improvements that would provide consistency of the product.

**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.

Hurricane Lane hit the islands in August 2018, flooding Hawaii Island and affecting many agricultural operations. Waipio Valley on Hawaii Island was subject to flooding as the region's river was inundated with flooding, affecting many agricultural producers in the area. Rock, sand, trees, and other debris filled river mouths and stream beds as Hurricane Lane brought high winds and heavy rain. Providing Waipio River Valley with emergency maintenance will directly benefit many farmers that are producing food crops near the river and will provide a valley safe from flooding. Without this emergency maintenance work, local Waipio farmers and residents will be subjected to flooding as the river needs clearing and maintenance

The Department of Agriculture worked with the County of Kauai in order to provide critical irrigation infrastructure needs for East Kauai and the Kilauea Agricultural Park. These projects provided the State with a great opportunity to develop necessary infrastructure to increase agricultural production for Hawaii.

The Department, through the Agribusiness Development Corporation (ADC), has purchased agricultural lands from the Galbraith Trust Estates. ADC continues to prepare these lands for active agricultural use with small farm irrigation system and on-site security measures. Irrigation infrastructure is vital to this important production land.

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

The Department funded a demonstration orchard through the Hamakua Harvest, Inc. The demonstration orchard encompasses a 3-acre diversified farming system, modeling the most economically and environmentally viable crops for the Hāmākua region. The project enhances the quality of life for farmers and the community as a whole, designed to teach and inspire local farmers about sustainable agricultural practices through small scale diversified farming systems and will have a diverse curriculum that will include hands-on workshops with agriculture experts from within and outside the community providing training and technical assistance.

The Department began a project with the University of Hawaii CTAHR to develop papaya seed in the aftermath of natural disaster devastation. The Hawaii papaya industry has been decimated from volcanic

activity and lava flows that began in May 2018 that covered papaya fields along with vog damage that destroyed an estimated 80% of the papaya production from Hawaii County. One survey conducted by CTAHR indicated that papaya crop losses were approximately \$3.9 million. Adding losses also due to land, building structures, inventory, and equipment, the total losses to papaya growers were \$6.5 million. This project is helping growers in their recovery efforts to obtain adequate numbers of seeds when they are ready to replant fields. Also, as part of the longer-term solution for lack of seeds, this project is providing education and training to papaya farmers on how to produce 'Rainbow' papaya seeds that may be done in the future.

#### **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 has 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 many projects aimed at increasing demand for Hawaii agricultural products both here and internationally.

HDOA supported the Senior Farmers' Market Nutrition Program (SFMNP), a program that benefits Hawaii's low-income seniors and the agricultural industry with fresh, local agricultural products. The SFMNP is important to the State as it provides seniors with fresh produce and farmers with an open market for their homegrown fresh fruits and vegetables.

FoodEx Japan 2019 is the largest food trade show in Asia. This year's FoodEx Japan event was held at the Makuhari Messe Exhibition Hall in Chiba, Japan from March 5 through March 8, 2019. This year's event drew 80,426 registered buyers which was a marked attendance increase when compared to the 2018 attendance of 72,428 registered buyers. The purpose of this project is to continue the increase in export sales of Hawaii agricultural products that are currently in the Japan market and to promote additional products that could include, but are not limited to, pineapples, papayas, dried fruit products, jams, jellies, macadamia nuts, honey, coffee and teas from the State of Hawaii. Project results have shown 3-month actual reported sales of \$1,510,000 and a 1-year projected sales of \$4,730,000 for 15 Hawaii companies.

#### **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.**

Agricultural production in Hawai'i is a high-risk and general low profit margin that faces substantial competition from mainland and international imported produce. Most farmers are in their 50-60s and the cost for new farmers to enter the profession is generally a challenge due to the excessive cost of land and

infrastructure. Further exacerbating the economic viability of farming is the Food Safety Modernization Act and assuring a safe food supply for consumers. By clearly identifying barriers, opportunities and needs through a directed needs assessment – the right tools, resources and programs can be identified and sourced to support the greater-Waimea area farmers’ business acumen, successful succession planning and transition for those beginning their farming careers, and address access to additional farm land, a food safety facility and a food hub.

Diversified agriculture and increased marketing/processing opportunities are important when discussing Hawaii’s agricultural future. The Department has provided funds to the University of Hawaii to develop ‘Ulu opportunities for the State. Breadfruit (*Artocarpus altilis*) or ‘ulu in Hawaiian, a member of the fig family, has been an important staple crop and component of traditional agroforestry systems in the Pacific for several millennia. Breadfruit has a high nutrient value, high cultural value in Polynesia, and high potential to play a critical role in sustainable agriculture and food security in Hawaii as one of the few traditional staples that grow as a tree. Furthermore, over the past 10 years considerable growth in knowledge and technology regarding breadfruit has occurred. Despite the many values associated with breadfruit, the development of commercial value from the crop has been limited. To support the potential for a sustainable breadfruit industry, and to support a cooperative organization that can absorb and benefit new farmers, the University of Hawaii established, with multiple partnerships, a facility that can serve as a core location for breadfruit processing and processing research.

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. This includes funding for the 4-H Livestock Program and the GoFarm Hawaii Program. The goal of these efforts is to reverse the trend of our aging agricultural workforce and revitalize the industry to ensure continued success in to the future.

Through a partnership with the HTDC, the Department of Agriculture supported the AGathon in 2019. This project's purpose was to spark innovation and advancement within the Hawaii agricultural industry through the creativity and talents in Hawaii’s growing startup, technology, and developer community. New applications and systems were developed to spark innovative technologies for the local agricultural industry.



**SECTION III**  
**Proposed Projects and Activities for FY 2019-2020**

**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.**

Increasing sales through export markets will continue through projects like FOODEX and IFIA. With an export market available, local producers will be able to increase sales and find new market demands.

The Department will look to increase crop development based on regions across the state to better inform farmers of best practices and techniques to utilize and maintain over time. With State demonstration projects, such as those done in Hamakua and Kohala, the Department will promote regional crop development and successful models that can be implemented by agriculturalists across Hawaii.

**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 many projects in FY 2019-2020 aimed at increasing demand for Hawaii agricultural products both in Hawaii and globally.

The Department will partner with the Office of Community Services in the Department of Labor and Industrial Relations to support the Senior Farmers' Market Nutrition Program. This program is important to both Hawaii's low-income seniors and the local farming community as it provides seniors with fresh local produce and farmers with an open market for their homegrown fresh fruits and vegetables.

#### **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.**

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 will work 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 an effective leader for agriculture in each perspective business, industry, and community. ALFH was also supported to put on the 2019 Hawaii Agricultural Conference where agricultural industry leaders, government officials, decision makers, teachers, skilled practitioners, stakeholders, and producers, etc., can gather for the exchange of information and effective coordination of efforts to efficiently increase agriculture in Hawaii.

Just in the past year, natural disasters have had lasting negative impacts statewide. Of notable concern, Hawaii Island has been subjected to heavy rainfall, high winds, and devastating lava, impacting the local community in drastic ways. The agricultural industry on Hawaii island has seen harsh realities in which many local farmers may decide to close shop for good. The difficult truth of farming in Hawaii is that many local producers struggle to make profits and at times break even. With a developed workforce, through educational resources and training, local farmers may be able to recover from such disasters and find ways to succeed even in the toughest of times. The Department will support efforts to develop educational, on-farm training to support local producers on the island of Hawaii.

**SECTION IV**

**Expenditures from the Agricultural Development and Food Security Special Fund**

**AGRICULTURAL DEVELOPMENT AND FOOD  
SECURITY SPECIAL FUND**

Actual	Projected			
FY 2019	FY 2020	FY 2021	FY 2022	FY 2023

**BEGINNING FUND  
BALANCE**

**4,295,902    5,603,160    5,696,160    5,615,160    5,534,160**

**REVENUES**

1. Environmental Response,  
Energy, and Food Security Tax    4,015,775    3,800,000    3,800,000    3,800,000    3,800,000

2. Investment Pool Interest    -    20,000    20,000    20,000    20,000

3.  
Other    25,000    -    -    -

**TOTAL  
REVENUES**

**4,040,775    3,820,000    3,820,000    3,820,000    3,820,000**

**EXPENDITURES**

**AGR 122 PLANT PEST AND  
DISEASE CONTROL**

Pest Control/Biosecurity Projects    382,818    418,000    418,000    418,000    418,000

**AGR 141 AGRICULTURAL  
RESOURCE MANAGEMENT**

Irrigation Personnel and Program  
Operations    706,935    962,000    962,000    962,000    962,000

**AGR 151 QUALITY AND PRICE  
ASSURANCE**

Commodities Inspectors/Food Safety Coordinator	10,176	95,000	137,000	137,000	137,000
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**AGR 161 AGRIBUSINESS DEVELOPMENT**

Irrigation/Land Projects	261,486	500,000	500,000	500,000	500,000
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**AGR 171 AGRICULTURAL DEVELOPMENT**

Market Development Projects	388,535	400,000	400,000	400,000	400,000
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**AGR 192 GENERAL ADMINISTRATION FOR AGRICULTURE**

Planner/Neighbor Island Support/General Administration	543,455	420,000	420,000	420,000	420,000
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Farm to State Program	-	100,000	100,000	100,000	100,000
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Department Support (Deputy AG)	-	120,000	120,000	120,000	120,000
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Research/ Studies	371,500	487,000	487,000	487,000	487,000
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**AGR 812 MEASUREMENT STANDARDS**

Measurement Standards Inspectors/Branch Mgr	68,612	225,000	357,000	357,000	357,000
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<b>TOTAL EXPENDITURES</b>	<b>2,733,517</b>	<b>3,727,000</b>	<b>3,901,000</b>	<b>3,901,000</b>	<b>3,901,000</b>
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<b>BALANCE</b>	<b>5,603,160</b>	<b>5,696,160</b>	<b>5,615,160</b>	<b>5,534,160</b>	<b>5,453,160</b>
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