

DAVID Y. IGE
Governor

JOSH GREEN
Lt. Governor



DEPT. COMM. NO. 287
PHYLLIS SHIMABUKURO-GEISER
Chairperson, Board of Agriculture

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DEPARTMENT OF AGRICULTURE
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December 29, 2020

The Honorable Ronald D. Kouchi,
President and Members of the Senate
Thirty-first State Legislature
State Capitol, Room 409
Honolulu, Hawaii 96813

The Honorable Scott K. Saiki, Speaker
and Members of the House of
Representatives
Thirty-first State Legislature
State Capitol, Room 431
Honolulu, Hawaii 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 <https://hdoa.hawaii.gov/meetings-reports/legislative-reports/>.

Sincerely,

A handwritten signature in cursive script, reading "Phyllis Shimabukuro-Geiser".

Phyllis Shimabukuro-Geiser
Chairperson, Hawaii Board of Agriculture
Hawaii Department of Agriculture

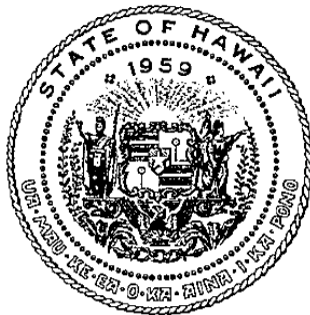
Enclosures



**REPORT TO THE THIRTY-FIRST LEGISLATURE
2021 REGULAR SESSION
STATE OF HAWAII**

ANNUAL REPORT ON THE AGRICULTURAL DEVELOPMENT AND FOOD SECURITY SPECIAL FUND

IN RESPONSE TO ACT 73, SESSION LAWS OF HAWAII 2010



Prepared by:

**THE STATE OF HAWAII
DEPARTMENT OF AGRICULTURE**

DECEMBER 2020

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- 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.

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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 SLH 2010. 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 SLH 2010 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 of the Hawaii Revised Statutes (HRS) describes the Agricultural Development and Food Security Special Fund and the responsibilities of the Hawaii Department of Agriculture (HDOA):

§141-10 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 2019-2020

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.

This year the agricultural sector, much like the economy at large, has been presented with unique challenges resulting from the economic impacts of the coronavirus pandemic. In Hawaii, the necessary public health measures taken to protect residents continue to disrupt normal market channels for agricultural products. In the early days of the pandemic the Department took decisive action to provide direct monetary support to farmers, instituting the COVID-19 Emergency Farmer Relief Program. The program provided \$2000 payments to agricultural producers, helping them to sustain agricultural operations as the markets adjust. Additionally, non-profit organizations, commodity groups, and agricultural associations with 501(c)(3) status were eligible for awards up to \$10,000 to purchase local

food supplies, hog feed, or to facilitate food distribution. To date, the relief programs has awarded \$450,495 through 197 grants. Funds contributed by Ulupono Initiative provided an additional \$20,000 in grants.

The coronavirus pandemic has additionally occasioned a decline in sales from the restaurant and food service industry, which has caused a reduction in demand for certain local agricultural products, including locally raised livestock. Livestock processing operations are subject to downstream effects of reduced demand, as processing expenses go up as throughput becomes less consistent. To both preserve local specialty markets and ensure that producers can bring their products to market in this era, the Department has used funds to support small animal harvesting on Oahu, and for research into reproductive efficiency in local cattle. In the long-term, these actions aim to stabilize and grow the market for local livestock.

Despite the challenges presented by the pandemic, the Department continues to work toward the goal of doubling local food production by 2030 and reducing the importation of food into the State. HDOA is collaborating with the University of Hawaii (UH) on projects aimed at these goals. A 2016 analysis of air freight and cargo shipping manifests indicated that potatoes were the number one fresh commodity import to Hawaii by weight. In order to increase local production of potatoes and replace this highly imported product, HDOA contracted to conduct farmer training workshops on potato production in all counties. Interested farmers were given potato germplasm necessary to begin production. HDOA hopes to see an increase in local production of potatoes as a result of the program. Additionally, a large farm in the state announced that they would begin commercial potato production in early 2020.

Other prime candidates for import replacement include organic vegetables. Organic vegetables enjoyed a 141% increase in sales value from 2012-2017 in the State. However, organic vegetables unfortunately carry an increased risk of pest introduction. Thus, growing locally not only increases production and reduces imports, but also contributes to the State's biosecurity. HDOA is funding a UH project to develop recommendations to optimize quality, growth, and yield associated with different organic soil amendment applications under organic systems and to identify vegetable varieties well-suited to certified organic production in the State.

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 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, including erecting a barrier on the Whitmore land and contracting security personnel. In addition, ADC purchased a replacement motor for the Bott Well pump, adding critical irrigation infrastructure necessary to facilitate production on the property.

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

Consumer demand for organic products has grown substantially in the United States over recent years. Higher pest pressure and lower soil nitrogen availability are common issues for organic agriculture, and little research has been conducted with the aim of optimizing organic agriculture applications in tropical climates. As such, HDOA has partnered with University of Hawaii (UH) College of Tropical Agriculture and Human Resources (CTAHR) to evaluate the effects of organic amendments to determine crop growth, yield, and quality under different applications. In addition, the project will develop recommendations and curriculum for organic garden programs at schools and public institutions and disseminate the results of the project via on-farm trials and extension efforts.

The beef industry in the State was estimated to be over \$64 million in farm-gate value in 2014. Early embryo mortality in cattle is one of the major factors affecting fertility and the economic outcomes of farms in the State. To address this, the Department is funding a study conducted by the UH CTAHR to study and improve reproductive efficiency in cattle. UH CTAHR has worked to compile baseline rates of endometrial RNA transcription in cyclic, pregnant and non-pregnant cows during the period just before a crucial event early in bovine pregnancy that affects reproductive outcomes in cattle, identified numerous biological pathways and genes that are up- and down-regulated during the period in question, and has established baseline relative rates of gene transcription between pregnant, nonpregnant and cyclic cows. They will proceed with collecting samples from local cows that are infertile/sub-fertile for comparison against the baseline they've established via their work over the past year. In the long-term, and with subsequent studies that build upon this one, this may assist the revitalization of the cattle industry in the State.

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

Inspector positions are key in protecting our local agricultural community and also provide 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 tasked 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. While the COVID-19 pandemic has forestalled some traditional marketing opportunities, the Agricultural Development Division has initiated projects aimed at increasing demand for Hawaii agricultural products both here and internationally.

The Seal of Quality (SOQ) program is a branding program to promote genuine, Hawaii-Grown, Hawaii-Made, premium agricultural products, and to help consumers identify these products with a SOQ logo affixed to the qualified agricultural products. HDOA used funds to air "Seal of Quality Saturdays" segments on Hawaii News Now (HNN) to promote participants' products, with HNN talent promoting the product (instead of a company representative) due to the COVID-19 pandemic. The SOQ promo spots have been aired about 300 times with over 2,500,000 impressions. The segments have also attracted new applicants to the program resulting in an 80% increase in program enrollment compared to last year. Notable new enrollees include Mahi Pono and Waialua Estate Chocolate.

FoodEx Japan is the largest food trade show in Asia. HDOA has in past years used this opportunity to promote sales of local agricultural products for export to overseas markets, resulting in impressive sales figures for local agricultural businesses. HDOA was planning to participate in the FOODEX event this year, but unfortunately the event was postponed due to the coronavirus pandemic. The event has been rescheduled to March of 2021, and the Department will attend and promote local agricultural products for consumption in Asian markets.

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.

Act 151 SLH 2019 required HDOA to develop a strategic plan to double local food production. Key to that effort are surveys and mapping to determine baseline agricultural metrics in Hawaii. To that end, HDOA has contracted with the University of Hawaii Hilo to conduct an update to the 2015 Agricultural Land Use Baseline project for the islands of Hawaii and Oahu, and plans to finish the update of Kauai Island's maps by March of 2021. In addition, HDOA has used funds to contract with USDA-NASS to conduct surveys on aquaculture and vegetable production in the State. The aquaculture survey has shown that aquaculture sales reached a record high of \$83.2 million in 2019, up 9% from the previous survey in 2017. The vegetable survey is ongoing, and HDOA expects to get a report by 9/30/2021.

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 will face decline in the State. In order to help prevent this unwanted outcome, the Department has partnered with UH CTAHR to create opportunities for new farmers to gain the needed education and experience to begin a successful career in agriculture, including funding for the GoFarm Hawaii Program. HDOA contributed funds to establish a new beginning farmer training site in Alae, Hawaii on a 5-acre plot of land owned by Kamehameha Schools, and to operate farmer training courses at 5 additional locations on Oahu, Maui, Kauai and Hawaii islands. The goal of these efforts is to reverse the trend of our aging agricultural workforce and revitalize the industry to ensure continued success into the future.

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 the Seal of Quality Program. An export market facilitates local producers' ability 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 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 continue to be used for hiring commodities inspectors, 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 conducted several projects in FY 2019-2020 aimed at increasing demand for Hawaii agricultural products both in Hawaii and globally. The Department will continue to partner with federal and state agencies, community organizations, trade organizations, and nonprofits to ensure Hawaii's agricultural sector continues to expand.

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 Hawaii agricultural sector has faced significant recent challenges. The past year has been characterized by the severe and ongoing economic impacts of the coronavirus pandemic, which followed closely on the heels of the devastating flooding, hurricane, and lava flow disasters. These events have caused lasting negative impacts statewide, including large-scale disruption of normal markets for agricultural products and the reduction of state revenues. However, opportunity can accompany upheaval, and farming is a profession of resiliency. For example, while demand from restaurants has declined, local farmers have seen increased demand for direct sales through community-supported agriculture operations and through federal programs, such as the USDA Farmers to Families Food Box program. HDOA will continue to search for opportunities to support the farmers and ranchers of Hawaii through this difficult time and will seek out additional sources of revenue to support agriculture from the federal government and from the private sector. HDOA will work diligently to assist local farmers in recovering from the recent natural disasters and the pandemic as they continue to work towards success, as they have even in the toughest times past.

SECTION IV

Expenditures from the Agricultural Development and Food Security Special Fund

**AGRICULTURAL DEVELOPMENT AND FOOD
SECURITY SPECIAL FUND**

	Actual	Projected			
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
BEGINNING FUND BALANCE	5,583,160	6,245,687	6,268,687	6,117,687	6,066,687
REVENUES					
1. Environmental Response, Energy, and Food Security Tax	3,746,025	3,600,000	3,700,000	3,800,000	3,800,000
2. Investment Pool Interest	88,984	50,000	50,000	50,000	50,000
3. Other	-	-	-	-	-
TOTAL REVENUES	3,835,009	3,650,000	3,750,000	3,850,000	3,850,000

	Actual	Projected			
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
AGR 122 PLANT PEST AND DISEASE CONTROL					
Pest Control/Biosecurity Projects	176,479	293,000	293,000	293,000	293,000
Program Support (Deputy AG)	124,992	125,000	125,000	125,000	125,000
COVID-19 Emergency Farmer Relief Grants	231,476	-	-	-	-
AGR 141 AGRICULTURAL RESOURCE MANAGEMENT					
Irrigation Personnel and Program Operations	901,231	962,000	962,000	962,000	962,000
AGR 151 QUALITY AND PRICE ASSURANCE					
Commodities Inspectors/Food Safety Coordinator	67,072	95,000	137,000	137,000	137,000
AGR 161 AGRIBUSINESS DEVELOPMENT					
Irrigation/Land Projects	383,056	500,000	500,000	500,000	500,000
AGR 171 AGRICULTURAL DEVELOPMENT					
Market Development Projects	254,557	400,000	400,000	400,000	400,000
AGR 192 GENERAL ADMINISTRATION FOR AGRICULTURE					
Planner/Neighbor Island Support/General Administration	233,018	420,000	420,000	420,000	420,000
Farm to State Program	-	-	100,000	100,000	100,000
Research/ Studies	490,659	607,000	607,000	607,000	607,000
COVID-19 Emergency Farmer Relief Grants	219,000	-	-	-	-
AGR 812 MEASUREMENT STANDARDS					
Measurement Standards Inspectors/Branch Mgr	90,942	225,000	357,000	357,000	357,000
TOTAL EXPENDITURES	3,172,482	3,627,000	3,901,000	3,901,000	3,901,000
BALANCE	6,245,687	6,268,687	6,117,687	6,066,687	6,015,687