

DAVID Y. IGE  
Governor

JOSH GREEN  
Lt. Governor



PHYLLIS SHIMABUKURO-GEISER  
Chairperson, Board of Agriculture

**DEPT. COMM. NO. 187**  
MORRIS M. ATTA  
Deputy to the Chairperson

State of Hawaii  
DEPARTMENT OF AGRICULTURE  
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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 Department of Agriculture Annual Report as required by Act 100, SLH 1999. 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,

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

Phyllis Shimabukuro-Geiser, Chairperson  
Board of Agriculture

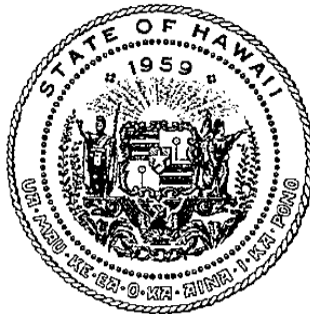
Enclosures



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

**DEPARTMENT OF AGRICULTURE ANNUAL REPORT**

**PURSUANT TO ACT 100, SLH 1999**



**PREPARED BY:**

**THE STATE OF HAWAII  
DEPARTMENT OF AGRICULTURE**

**DECEMBER 2019**

**ACT 100, SLH 1999  
Department Overview  
Fiscal Year 2020**

**Mission Statement**

To further expand the role of Hawaii's agricultural industry to benefit the well-being of our island society by diversifying the economy, protecting resources important for agricultural production, and gaining greater self-sufficiency in food production.

**Department Goals**

To conserve and develop essential agricultural resources and infrastructure; to gain access to and develop local, domestic, and international markets for Hawaii's agricultural products; to conserve and protect suitable agricultural lands and water; to promote Hawaii's food self-sufficiency; to raise awareness of the importance of agriculture to the State's economy, environment, and as a profession; to implement programs to safeguard Hawaii's farmers, consumers, and natural resources; to prevent the introduction and establishment of plants, animals and diseases that are detrimental to Hawaii's agriculture and environment.

**Significant Measures of Effectiveness**

- Total Farm Value of agriculture in Hawaii (In thousands of dollars).

<u>FY 2018</u>	<u>FY 2019</u>
592,000	606,000

**Major Functions**

- Carries out programs to conserve, develop, and utilize the agricultural resources and infrastructure of the State and facilitates the transition of former plantation agricultural production assets to diversified farming.
- Enforces laws, and formulates and enforces rules and regulations to manage these resources.
- Promotes agriculture and provides opportunities to access new markets.
- Reviews, develops, and implements agricultural goals and objectives to expand and diversify Hawaii's agriculture.
- Prevents the introduction of plant pests and diseases, provides certification services to facilitate the export of certain plant materials, and controls and eradicates insects and noxious weeds and controls the distribution and usage of pesticides.
- Administers the aquaculture development, state animal health, and agricultural and aquacultural loan programs.

- Maintains official State primary measurement standards; ensures accuracy of commercial measuring devices.
- Establishes and enforces grade standards for agricultural commodities producers in the State in cooperation with the industry, and administers the State's Milk Control Act.
- Collects and disseminates statistical data on agricultural production and markets, and supports funding for research on various agricultural commodities.

### **Division Action Plans**

Division/Branch: Administrative Services Office

- Purpose: To enhance the effectiveness and efficiency of the department by providing staff support services, other administrative services, and responding to the needs of the public.
- Goal 1: Maintain a percentage of position vacancies to authorized position count equal to or less than the average of all State departments combined, to enable the department to fully achieve the missions of all programs.
- Objective: Implement effective recruitment and retention strategies to lower the position vacancy rate. Completion date: 2022
1. Streamline internal recruitment workflows to maximize effectiveness.
  2. Work closely with DHRD to schedule job announcements and issuance of certified lists of eligibles.
  3. Work closely with DHRD to ensure minimum qualification requirements are still relevant.
  4. Attend targeted job fairs and hiring events to highlight careers and job opportunities with HDOA.
  5. Collaborate with UHM CTAHR to create pathways for students and alumni (internships and career opportunities).
  6. Better advertise HDOA careers and job postings using social media and via relevant trade associations and organizations.
  7. Improve on-boarding activities to create smooth transition to HDOA employment.
  8. Provide opportunities for advancement and professional development to improve employee retention.

- Goal 2: To minimize energy, fuel and water consumption and implement resource-efficient operations and management measures.
- Objective: Implement the department's Energy Action Plan, subject to the availability of funding. Completion date: Ongoing.
1. Initiate lighting, window tinting, retro-commissioning, alternative energy, and other energy efficiency CIP projects.
  2. Work with employees to practice energy and water conservation measures, and monitor usage/savings.
- Goal 3: To provide a safe and healthy working environment for employees by ensuring that the department's facilities are in compliance with local, state and federal requirements.
- Objective: To address the repair and maintenance and capital improvement needs of the department's facilities. Completion date: Ongoing.
1. Continue to address various routine repair and maintenance issues to ensure that departmental facilities support efficient day-to-day operations.
  2. Initiate various capital improvement projects with assistance of the DAGS Public Works and Central Services Divisions.
  3. Prepare budget requests for additional capital improvement work as additional work is identified.
- Objective: To provide a safe working environment for department employees by complying with Occupational Safety and Health Administration (OSHA) requirements. Completion date: Ongoing.
1. Establish a safety committee comprised of employees from various divisions.
  2. Develop a department-wide safety plan.
  3. Install signage to properly mark exit routes, hazardous materials and locations of fire extinguishers.
  4. Initiate necessary repair and maintenance work or capital improvement projects to correct facility deficiencies.
  5. Install burglar alarm systems in facilities where necessary, based on risk assessment, and as funding allows. Create alarm procedures to deal with intrusion alerts.

Goal 4: To provide reasonable and meaningful access to limited English proficient individuals or organizations accessing, participating or benefiting from services, programs and activities by the department.

Objective: To meet the requirements of Act 290, SLH 2006, codified into Part II of Chapter 371, HRS, and Presidential Order 13166. Completion date: Ongoing.

1. Continually update the listing of departmental employees who are skilled in a non-English language and are willing to volunteer to provide interpreter services.
2. Compile and disseminate listing of interpreters/translators and their costs for program personnel to use in providing services to their LEP customers.

Goal 5: Improve procedures and processes for maximum efficiency.

Objective: To streamline processes to maintain essential staff support services provided to the department programs. Completion date: Ongoing

1. Review fiscal processes, revise processes and procedures as needed to increase efficiencies and reduce redundancy.
2. Review all administrative services functions including copy/fax machine operations, telecom coordination, janitorial and grounds keeping contract administration, vehicle fuel and repair invoice processing, etc., to increase efficiencies.

Division/Branch: Agribusiness Development Corporation

Purpose: To facilitate and coordinate the development and expansion of Hawaii's agricultural industry and increase Hawaii's local food production.

Goal 1: Transition former plantation land and water systems for diversified agriculture.

Objective 1: Generally, continue to increase the State's inventory of good agricultural land (while preventing development of those lands for commercial, residential or non-productive agricultural residences) by purchasing former agricultural lands from large private agricultural land owners.

Action Plan:

1. Perform due diligence on available lands.

2. Negotiate terms of purchase, including ensuring clear title, fair price, availability of irrigation water, legal accessibility, etc.
3. Clear hazardous trees and invasive vegetation from the acquired lands.

Process for measuring performance:

This objective is measured empirically and is reported annually to the Legislature in ADC's section of the HDOA Variance Report.

Objective 2: Generally, continue to develop newly acquired lands that have been out of production and put into active farming.

Action Plan:

1. Develop plans and designs for irrigation systems where needed.
2. Clear hazardous trees and invasive vegetation from the acquired lands.
3. Continue to solicit experienced farmers for tenancy dispositions, issue RPs, licenses or leases to begin active farming and income-generation and work with these new tenants to condition and prepare the soil for cultivation

Process for measuring performance:

This objective is measured empirically and reported in the Variance Report, and by completion of a development project.

Objective 3: Develop Galbraith Agricultural Lands for diversified agricultural use.

Action Plan:

1. Now that the irrigation lines have been installed and metered, and small farmers occupy some of the land, continue to improve the approximately 300 acres by educating small farmers in good agricultural practices and EPA requirements for pesticide and other chemical applications, educating them about compliance with the Food Safety Modernization Act, and issuing long term land licenses for farms ranging in size from 5 to 80 acres.
2. Continue to work with design professionals, contractors, and the City and County of Honolulu on ground water, Lake Wilson water, and recycled irrigation water systems and maintain fallow agricultural lands.
4. Maintain and have secured a backup pump for the restored Bott well pump and develop and construct storage for irrigation water for the Galbraith small farm lots.

5. Hire a project manager to oversee the Galbraith farm lots

Process for measuring performance:

This objective is measured empirically and reported in the Variance Report, and by completion of development project.

Objective 4: Operate and maintain the Waiahole Water System (WWS) and improve its operational efficiency.

Action Plan:

1. Continue to provide accurate and reliable monthly flow data and usage information to the Commission on Water Resource Management (CWRM) in accordance to the ground water use permit; provide project updates to the CWRM upon request.
2. Work with the Commission on Water Resource Management by continuing to monitor ditch flow and pinpoint potential areas of excessive system loss; perform necessary repairs or implement corrective actions.
3. Patch and repair broken ditch lining in selected sections of the water system.
4. Operate, maintain, or perform minor repairs on Reservoir 155 and Reservoir 225 in accordance with dam safety standards.
5. Continue to work with the Agricultural Resource Management Division of the Hawaii Department of Agriculture (HDOA) and the U.S. Army Corp. of Engineers on a project to line reservoir 155 and correct related dam safety issues. Funding was available for only Reservoir 155.
6. Manage aquatic weed growth in the open ditches, expanding the use of non-chemical methods by blocking complete sunlight from shining into the ditches.
7. Utilize the real-time data collected from the newly-installed Supervisory Control and Data Acquisition (SCADA) system at various points along the ditch system to improve operation efficiency.
8. Plan, design, and construct additional reservoirs to increase the system's holding capacity.
9. Plan, design, and construct a back-up well to ensure the system can continue delivering water in the event the ditch system is inoperable.
10. Continue to work with the Kunia Water Cooperative to foster



responsible use of the WWS infrastructure and water.

11. Maintain the transmission tunnel, intakes and access to the system on the windward side.

Process for measuring performance:

This objective is measured empirically and reported in the Variance Report, and by completion of development project.

Objective 5: Manage, operate and maintain the Kekaha and Kalepa, Kauai agricultural lands and infrastructure set aside to ADC for diversified agricultural activities.

Action Plan:

1. Manage permits, licenses, leases, land and infrastructure (irrigation ditches, hydroelectric power plants, power lines, transmission poles, drainage ditches and ravines, and roads), in conjunction with the tenants and the Kekaha Agriculture Association in Kekaha, and the Kalepa Coalition in Kalepa.
2. Evaluate and issue additional land licenses and sub-licenses to qualified applicants on available lands as appropriate, focusing on food crops.
3. Plan, design and construct modifications to stream diversions, install more flow meters, and conduct due diligence to repower 100-year old hydroelectric power plants in response to legal proceedings before the State Commission on Water Resource Management instituted against the ADC by EarthJustice on instream flow standards in Waimea.
4. Identify and implement best management practices, water quality monitoring, and drainage systems developed in agreement with the DOH in response to legal proceedings instituted in the US District Court against the ADC by EarthJustice on alleged water quality standard violations in Kekaha.
5. Defend legal proceedings instituted before the USDA, Secretary of Agriculture, against the ADC by EarthJustice under Title VI of the Civil Rights Act of 1964 for alleged discrimination against Hawaiians based upon pesticide use in the Kekaha community.
6. Procure services for and oversee the drainage of water from Mana plain through the pump stations and drainage canals in conjunction with the Pacific Missile Range Facility (PMRF).
7. Continue to work with the HDOA on implementing the breach of the Kitano reservoir, recently permitted by the Land Board in

September of 2018, and to work with Dam Safety and CWRM in turning over rehabilitation and management of the Mana Reservoir to the Kauai Island Utility Cooperative for its pumped storage/store and release energy project, and the restructuring of the Upper A'ohoaka reservoir in Kalepa.

8. Coordinate with the KAA, the Navy, and the Kauai county civil defense office on flood mitigation efforts during severe weather conditions in Kekaha.

Process for measuring performance:

This objective is measured empirically and reported in the Variance Report, and by completion of development project.

Objective 6: Support the preservation of agricultural land through participation with county, state and federal funding programs.

Action Plan:

1. U.S.D.A. – N.R.C.S. Farm and Ranchland Protection Program: Continue to conduct annual inspection of the agricultural conservation easement on the Hawaii Agriculture Research Center property in Kunia, Oahu.
2. Continue to administer conservation easements placed upon newly acquired ADC lands (in exchange for contribution to, and therefore reduction in, the State's purchase monies) to ensure that the use of the ADC lands referenced in Goal 1, Objective 1 is limited to agricultural uses, in perpetuity

Process for measuring performance:

This objective is measured empirically and reported in the Variance Report.

Goal 2: Develop facilities and provide support as necessary for successful diversified agriculture.

Objective: Restore abandoned processing or warehouse facilities for use by diversified agriculture.

Action Plan:

1. Develop a master plan for the newly-acquired ADC lands referenced in Goal 1, Objective 1-adjacent to Whitmore Village, while continuing to manage existing leases of buildings and office for existing tenants, to be followed by construction plans and specifications, followed up public input, then by actual construction.

2. Plan and design an accelerator program in conjunction with local community colleges to the newly-acquired warehouse building located at 1001 California Avenue, while managing two (2) existing leases for interim use of the building. Evaluate and strategize possible long-term use(s) of the building by agribusinesses.

Process for measuring performance:

This objective is measured empirically and reported in the Variance Report

Goal 3: On a broader vein, provide solutions to certain bottleneck issues facing the agriculture industry.

Objective 1: Develop and implement cost-effective pollution prevention technology for Hawaii's livestock and other small family farm operations.

Action Plan:

1. Hog Farming: Assist with cost sharing to implement a recent USDA-approved Inoculated Dry Litter System for managing waste which eliminates the slurry, pests- and odor traditionally resulting from hog farming operations.

Objective 2: Enhance papaya industry by introducing new varieties of papaya.

Action Plan:

1. Re-assess impact of recent lava flows from Kilauea volcano, and continue cooperative funding with USDA Agricultural Research Center to research and develop a more competitive, sweet freckle-free papaya. Feasibility Papaya trails are on-going in Hilo

Objective 3: Convert food waste to biofuel, animal feed and/or plant fertilizer.

Action Plan:

1. Construct a new facility to house the patented equipment for the "zero waste" project on ADC's newly acquired land in W.H. Shipman Business park in Keaau, Hawaii island, develop and implement the zero-waste facility which will use papaya waste products into biofuels, and upscale the operation from its pilot phase to a commercial operation. Additional funding is required for construction.

Process for measuring performance:

These objectives should be measured as progress or completion. Funding contingencies will toll the performance.

Goal 4: Explore the expansion of, and State involvement in, the aquaculture industry in conjunction with the HDOA.

Objective 1: Develop aquaculture activity on the North Shore, Waialeale, Oahu.

Action Plan:

1. Cease negotiations due to the community's concerns and objections about using the property for commercial purposes.

Objective 2: Develop an aquaculture livestock feed mill that will convert fish waste into fish food.

Action Plan:

1. Negotiate with HDOA to receive a portion of existing improvements in Kalaeloa, Oahu and continue research and investigation into processes and equipment that can convert fish waste into fish food.

Process for measuring performance:

This objective is measured empirically and reported in the Variance Report, and by completion of development project.

Division/Branch: Agricultural Development Division

Purpose: The Agricultural Development Division promotes the economic viability of commercial agriculture in Hawaii by sponsoring joint-marketing programs for agricultural products with high-revenue growth potential, facilitating the development and expansion of marketing opportunities for targeted agricultural and processed products, and providing timely, accurate and useful statistics.

Agricultural Development Division/Market Development Branch

Goal 1: Seek alternate non-state funds (federal and private grants) to offset state general funds for HDOA agricultural marketing, data collection and economic development efforts.

Objective: Coordinate the search, proposal development, submission and administration of federal and private funding opportunities with assistance from external partners.

1. Continue to train staff to administer grants awarded and to be familiar with the state procurement system and administrative rules.
2. Continue to engage in networking activities to seek grant funding sources and partners.

Goal 2: Provide equitable, efficient, effective and accountable administration of contracted programs, including the Sponsorship and Product Promotion (SPP), Specialty Crop Block Grant Program (SCBGP), Federal-State Marketing Improvement Program (FSMIP) and the State Trade and Export Program (STEP).

Objective: Maintain a systematic and fair procedure to provide notice, selection, disbursement and monitoring of various grant programs, as funding allows.

1. Maintain a work plan for each program with project duration, identified tasks, and timeline to illustrate the process.
2. Maintain a database system to monitor the various grant programs to ensure that reporting and invoicing requirements are submitted in a timely manner.
3. Maintain two trained staff members to administer the contracted programs. Both members will serve as liaisons to the AG's Office, the State Procurement Office, and the Department's Fiscal Office.

Objective: Administer grant programs according to the terms and conditions and guidelines specific to the program.

1. Keep current on changes to federal grant programs, for example, updates to the Uniform Administrative Requirements for Federal Grants as published in 2 CFR 200.
2. Keep current on changes to State Procurement Rules, for example, changes to the Hawaii Revised Statutes and Hawaii Administrative Rules for state funded programs.
3. Attend training programs to stay current on federal and state regulations for the grant programs that support the operations of the division that are offered by public and private organizations.

Objective: Provide relevant reports, analyses and other pertinent information upon request to document progress and proper execution of the various programs.

1. Prepare summarized progress reports upon request to support grantor, legislative and departmental inquiries.
2. Submit final reports due upon completion of the programs' established requirements.
3. Engage sub awardees in the reporting process with regular communications regarding preferred format for progress and final reports.

## Market Development Branch

Goal 1: Utilize state, federal and allotted funds from the Agriculture Development and Food Security Program to increase food security and food self-sufficiency for Hawaii.

Objective: To support the objectives of the Market Expansion portion of the Agriculture Development and Food Security Program that includes 1) Stabilize Existing Markets; 2) Develop New Export Markets; 3) Farm to School; 4) Increase Local Share of the Market; 5) Import Replacement; and 6) Export Certification.

### 1. Stabilize Existing Markets

- a. Engage with commodity organizations/associations to stay current and conduct outreach.
- b. Offer programs and activities to help organizations/associations meet the goals they deem important to their members.
- c. Work with other public and private agencies to determine metrics to gauge market conditions.
- d. Administer projects awarded to, but not limited to, animal proteins, avocado, apiary, awa, basil, beef, breadfruit, cacao, coffee, floriculture, forestry, macadamia nuts, papaya, taro, tea, tropical fruits and vegetables for both conventional, organic and innovative farming methods.

### 2. Develop New Export Markets

- a. Plan trade activities for Australia, ASEAN, Canada, China/Hong Kong, Japan, Korea, Taiwan and domestic markets for Hawaii companies to seek opportunities for Hawaii products in markets that have air routes to/from the state; activities will be conducted based on potential for participation and will be impacted by trade tariffs implemented.
- b. Serve as Project Managers for WUSATA Legacy Trade Shows to become familiar with signature regional agriculture events to seek opportunities for Hawaii companies and products.
- c. Monitor progress of deregulation of papayas into China as well as avocados to Japan and other Hawaii-grown fresh products.
- d. Develop activities for markets that align with new nonstop air service with the intent to introduce products for export.
- e. Manage Hawaii booths at one trade show in Japan to continue to increase exports to Hawaii's top agricultural export market.
- f. Promote the new and improved Hawaii Agriculture & Food Products website that launched August 2017 that connects Hawaii companies and products to buyers worldwide.

3. Farm to School
  - a. Support the Farm to State Program efforts to promote agriculture education including, but not limited to the Hawaii FFA and 4-H programs.
  - b. Develop creative activities to support food security and food self-sufficiency at the private and public schools, hospitals and prisons in the state.
4. Increase local share of the Market
  - a. Promote “Buy Local, It Matters” campaign with action to “EAT LOCAL” through television, radio and social media promotions.
  - b. Collaborate with industry and public and private stakeholders to support the development of a facility that adds value to agricultural products that includes production, processing and sales with the intent of introducing a new revenue source for local producers.
5. Import Replacement
  - a. Create programs and activities targeting consumers to increase consumption of locally grown and produced foods and for farmers to increase production of food crops and for ranchers to increase numbers and processing of livestock to meet local demand.
  - b. Work with CTAHR and other agriculture organizations to promote commodities that can be grown in the tropic zone – and provide the tools to move to commercial production.
  - c. Support the distribution of germplasm to the farmers, ranchers and producers to minimize the risk of trialing a new crop; this is intended to increase food production in the state.
6. Export Certification
  - a. Conduct training/informational sessions on Kosher and Halal Certification in preparation for visitors whose faith and traditions require special food preparations.
  - b. Conduct training/informational sessions with USDA, Department of Commerce and State agencies presenting guidelines and taking part in Q & A with Hawaii agricultural producers.
  - c. Conduct outreach to farmers and producers to learn what crops can be exported with postharvest treatment and assist with the development of the protocols, including, but not limited to floriculture and tropical fruit commodities.

Goal 2: Promote, develop and expand market opportunities for Hawaii agricultural and value-added producers in local, domestic and international markets with targeted sales of \$1.5 million in fiscal year

2020 by aligning the Branch's activities with the needs of the various components of the state agricultural industry.

Objective: Identify potential markets for local agricultural products.

1. Conduct market research using the following channels to classify potential markets.
  - a. Hawaii agricultural statistics.
  - b. Trade Publications (print/online).
  - c. Internet - to monitor local, national and international trends.
  - d. Local associations – initiate and maintain close contact with local trade groups to understand where the local markets are moving.
  - e. Trade Shows –attend trade shows to assess their potential for Hawaii company attendance and to conduct market research.
  - f. Monitor additional airline service into the state to assess new routes for potential as a new market for Hawaii agricultural products.
  - g. Use social media as a reference tool, mining for feedback, comments to uncover trends and gauge public opinion regarding agriculture.
2. Summarize and prioritize potential markets and products by developing a rating system that accounts for local production, expansion barriers, and growth potential.
3. Recommend two to four agricultural markets for priority joint marketing initiatives.
4. Update and monitor list on an annual basis.

Objective: Identify agricultural industries (or groups) with high revenue growth potential.

1. Initiate and maintain contact with industry associations, informal groups and industry leaders.
2. Assess each group's organizational life cycle phase (birth/growth/ maturity/decline/renewal).
3. Summarize and prioritize potential agricultural industries by developing a rating system that accounts for an appropriate action for each life cycle phase and recommend branch action.
4. Integrate target market priority list from previous objective to match possible markets to agricultural industries with potential.
5. Recommend two to four agricultural industries (or groups) for action and gauge success based on progression to next phase of life cycle.



6. Seek new agricultural products with export potential created by the post-treatment option of irradiation that was operational in 2014 and collaborate on promotional activities in targeted markets.

Objective: Based on market intelligence, market research and industry feedback, conduct sales generating activities in selected target or niche markets with the highest demand for selected agricultural products and value-added processed products in local, domestic and international markets.

1. Coordinate or participate with producers in at least two local trade shows, consumer fairs, sales promotions with retailers or other events. These may include the Lodging, Hospitality, and Food Service Expo, the Made in Hawaii Festival, and the County Farm Fairs, Hawaii Coffee Association Conference, Kau Coffee Fest, the Hawaii Tropical Fruit Growers Association Annual Meeting and the Landscape Industry Council of Hawaii, among others.
2. Coordinate or participate with producers in at least two Mainland trade shows and retail store promotions. These may include the Produce Marketing Association Fresh Summit; the National Restaurant Association American Food Show, and the Natural Products Expo West. Provide option to facilitate freight consolidation to lower trade show material freight costs and improve logistic control.
3. Coordinate or participate with producers in at least four foreign trade activities (including trade missions and reverse trade missions) to and from selected markets. Participation in the trade show and market activities are expected to be impacted by the trade tariffs implemented in the summer of 2018 and in 2019 and 2020 and may not occur. Provide possible options to facilitate freight consolidation to lower trade show material freight costs and improve logistics control or assist with in-country costs.
4. Promote and update the Hawaii Agriculture & Food Products website at local, domestic and international activities to connect Hawaii vendors and products to buyers worldwide.
5. When possible, recruit bi-lingual, tri-lingual staff to facilitate marketing Hawaii agricultural products to global consumers.

Objective: Offer a Sponsorship and Product Promotion request for proposal (SPP) process to attract a larger pool of applicants and to ensure greater effectiveness, transparency and accountability.

1. Consider proposals from targeted agriculture trade associations with clear goals, feasible objectives, well-defined deliverables and measurable performances – focusing on those companies in the mature life cycle phase.
2. Meet with potential participants to keep them updated on program changes and to conduct outreach activities on an ongoing basis. The outreach target for fiscal year 2020 is 10 trade associations or community groups.
3. Request that proposals include “Buy Local, It Matters” campaign and “EAT LOCAL” message to support Goal 1 to move Hawaii toward food security and food self-sufficiency.

Goal 3: Facilitate development and expansion of marketing opportunities for select agricultural and processed products as a “tie-in” with the tourism industry.

Objective: Review current status of laws governing ag-tourism and facilitate the industry as a complementary activity to farming.

1. Maintain partnership in ag-tourism and encourage the continuing participation of Hawaii’s culinary chefs as liaisons between the agricultural and tourism industries via our website, media initiatives and ag-related special events including festivals, fairs, trade shows and conferences.
2. Support growth of the statewide ag-tourism association (HATA) which continues to develop standards and legal framework for business operations. Topics for clarification will include zoning, public safety, signage, impact of Title VI and ADA access.

Goal 4: Maintain marketing campaigns that educate the public about local agriculture producers and products and promote high-quality producers.

Objective: Maintain the Seals of Quality program to protect Hawaii’s brand cachet in local, domestic and international markets.

1. Maintain the functional marketing plan with defined marketing activities to promote awareness and increase sales of program products in local, domestic and international markets.
2. Maintain coordination with the Quality Assurance Division (QAD) to provide initial quality checks for potential participants and ongoing quality control of existing program members.
3. Recruit and maintain at least 70 participants statewide by June 30, 2020.

4. Maintain ongoing collaborations with the Quality Assurance Division (QAD), other government agencies (the HTA, DBEDT and the Governor's tourism liaison), and other non-government entities in developing and executing joint marketing activities for the Seals of Quality products in established tourism markets.
5. Check with Deputy Attorney General on actions to request ownership of the SOQ logo currently owned by the Hawaii Tourism Authority, who no longer uses a similar logo.

Objective: Support the Manufacturing Sector by identifying products that are manufactured, assembled, fabricated, or produced within the State and that have had at least fifty-one per cent of its wholesale value added by manufacture, assembly, fabrication, or production within the State via the "Made in Hawaii with Aloha" (MIHA) logo.

1. Administer the Limited License Agreement where the Licensee agrees to use the MIHA logo on products that comply with HRS 486-119.
2. Seek collaboration with agencies whose members would benefit from the program such as the Hawaii Food Manufacturers Association, Chamber of Commerce and DBEDT, among others.
3. Create activities to promote the MIHA logo.

Objective: Maintain select marketing programs with partners to emphasize the concept of buying local agricultural products.

1. Continue partnership effort on public education of Hawaii consumers as to what is produced in Hawaii and the importance of buying locally grown and locally produced products, which not only support our local farmers, but also supports businesses within our state.
2. Maintain participation in the buy local marketing campaign by Hawaii farmers.
3. Extend participation in the buy local concept with partners to local retailers to utilize point-of-purchase displays to educate consumers about buying local.
4. Increase purchase of promotional collaterals for wider distribution at schools, community events, supermarkets, to increase awareness of the "Buy Local, It Matters" call-to-action campaign.

5. Continue to support activities and groups where students are engaged in agriculture with the intent to continue in the industry. These groups could include the Hawaii FFA, 4H Program, School Garden Network, and others.
6. Continue to evaluate current marketing strategies, explore new marketing opportunities and develop performance measures.

## Market Analysis & News Branch

Goal 1: Provide timely, accurate and useful statistics of Hawaii's agriculture to support production, marketing, policy, and planning and research functions.

Objective: Reestablish basis functions of the Market Analysis & News Branch. Retool the Hawaii Agricultural Statistics and Market Analysis and News Branches that have been reduced in staff since 2009. Provide agricultural statistics reports and other pertinent data to support relevant agricultural activities in the state.

1. Fill vacant positions and train staff to facilitate organizing, gathering, processing, estimating and publishing of Hawaii-specific agricultural statistics.
2. Determine the type, scope, format and priority of reports and studies that are program fundamentals.
3. Determine tools, equipment and other assets needed to fulfill core program requirements.
4. Seek funding to continue surveys that are not part of the NASS national program. These include, but are not limited to aquaculture, vegetables & melons, tropical fruits, eggs and horticulture.

Objective: Provide commodity market reports, basic agricultural statistics reports and other pertinent data to support relevant agricultural activities in the state.

1. Establish feasible sampling frames of select crops and/or livestock in Hawaii.
2. Draft, pretest, and field relevant survey instruments of established crops and/or livestock.
3. Draft and publish findings of survey results in statistical reports or related outlook study reports in a timely manner.
4. Maintain relevancy and defensibility of generally accepted procedures in providing official estimates on agricultural statistics.
5. Capture and evaluate data from alternate sources to verify or support survey results.

Division/Branch: Agricultural Loan Division

**Purpose:** The objective of the State Agricultural Loan Division is to foster economic development in the state by stimulating, facilitating, and granting loans to farmers and aquaculturists.

**Goal 1:** To increase the overall number of loans and dollar amount loaned over time and to provide assistance to the farming and aquaculture communities.

**Objectives:** Approve 25-30 loans annually with a dollar amount of \$5,000,000 or as much as is available in State funds. The Division has limited funding and is experiencing strong demand for loans with higher loan amounts being requested. The Division will continue to focus on making loans and increasing servicing and collection efforts.

1. Work with staff to ensure that loan applications are completed on a timely basis.
2. Monitor existing loan funds to ensure available funding for loans.
3. Close loans and disburse loan funds on a timely basis.

**Objective:** To expand and preserve the agricultural and aquacultural industries. The target includes the creation or preservation of 100 agricultural/aquacultural jobs, expand or preserve 250 acres of agricultural lands annually and generate \$3,000,000 in annual farm income from new borrowers. The Division's focus will be to expand the agriculture industry to increase exports or reduce imports thereby helping the State's economy and increasing food self-sufficiency. Although the Division has creation or retention of jobs, agricultural acreage and annual income as targets these will not be factors in determining which loans will be funded or submitted for approval.

1. Retain/create agricultural jobs through direct loans or loans made in cooperation with commercial lenders.
2. Preserve or expand use of agricultural lands through direct loans or loans made in cooperation with other lenders.
3. Increase farm income through direct loans or loans made in cooperation with other lenders.
4. Conduct field visits to verify growth in acreage or increase in number of farm employees after the loan was disbursed.
5. Tabulate and monitor acreage and employment data collected from borrowers.

Goal 2: To operate the agricultural loan program in a self-sufficient manner and maintain a quality loan portfolio with a reasonable level of delinquencies while supporting the agriculture and aquaculture industries.

Objective: Step up collection efforts on delinquent accounts and increase monitoring of current accounts. Collection efforts are important to ensure funding for future loans and to pay for the Division's operations. The Division will continue monitoring current accounts and work with delinquent borrowers to ensure timely repayment of their loans. The program is a lender of last resort and collection efforts need to be balanced with the need to assist the industry.

1. Keep delinquencies under 20% of the total loan volume.
2. Continue to monitor available fund balances, delinquent accounts and the overall health of the portfolio and status of the agriculture and aquaculture industries.
3. Ensure adequate monitoring of the Division's accounts, a target of 750 servicing contacts with borrowers will be maintained.
4. Continue to focus on development of individual repayment plans for delinquent borrowers to establish regular loan payments. Loan officers will closely monitor delinquent accounts and conduct periodic reviews of the borrower's performance and financial condition.
5. Refer severely delinquent accounts to the Board of Agriculture on a timely basis and forward to the Office of the Attorney General for assistance in collections.

Division/Branch: Agricultural Resource Management Division

Purpose: To develop and manage the State's agricultural resources by ensuring affordable and reliable irrigation water and infrastructure, productive farmland, and efficient and cost-effective processing, livestock slaughter and agricultural research facilities.

Goal 1: Continue transfer and review of Non-Agricultural Park leases from DLNR to DOA. Advocate for the transfer of lands as expeditiously as possible.

Objective: Have ARMD actively take over and manage the first round of unconditional leases from DLNR Land Division.

1. Work with DLNR, Land Division to complete Governor's Executive Orders for the first round of unconditionally accepted parcels. Objective is approximately 95% complete. Remaining parcels have complex issues that need resolution prior to transfer.

2. Continue to work with Land Division to bring conditional leases into compliance or cancel the lease for breach and transfer to DOA for disposition.

Objective: Continue transition of second list parcels of Non-Agricultural Park leases from DLNR to DOA and continue research for additional lands.

1. Have BLNR and BOA approve remaining second list parcels for Non- Agricultural Park program. BOA has approved all second list parcels that are unconditional and conditional. BOA will put emphasis on expediting transfer of those unconditional parcels and conditional parcels with issues that may be easily resolved. Awaiting BLNR approval and E.O.s.
2. Work with DLNR, Land Division to complete Governor's Executive Orders for the second round of approved parcels.

Objective: Begin transition of third list parcels of Non-Agricultural Park leases from DLNR to DOA.

1. Meet with DLNR Land Division to review third list parcels to exclude from transfer. Monthly status meetings are being held with DLNR staff.
2. Complete inspection of final third list parcels.
3. HDOA to finalize third list for BOA approval and submit to DLNR.
4. Work with DLNR, Land Division to begin Governor's Executive Orders for the third round of approved parcels.

Goal 2: Continue the implementation of Capital Improvement Projects that improve the efficiencies of the irrigation systems.

Objective: Increase overall efficiencies in the irrigation systems to ensure the maximum amount of water collected is available for distribution.

1. Secure adequate funding to continue the construction of the proposed improvements to the irrigation systems.
2. Review day to day operations to identify opportunities to refocus maintenance activities to take advantage of system improvements.
3. Connect with farmers to identify "joint" projects that allow the farmers to develop a sense of "joint ownership" for the systems.

Goal 3: Begin construction of the Royal Kunia Agricultural Park

Objective: Obtain phase I construction funding for Kunia Agricultural Park.

1. Complete easement negotiations for offsite utilities to the Royal Kunia Ag Park.
2. Complete design and complete discussions with adjacent developer to set timeline to provide necessary offsite utilities.
3. Complete design, open construction bids, and begin construction for phase I.

Division/Branch: Animal Industry

Division/Branch: Animal Industry/Animal Disease Control and Veterinary Laboratory

Purpose: To protect livestock, poultry and public health by preventing the entry of animal diseases into the State, and diagnosing, monitoring, controlling and eradicating livestock and poultry diseases of economic and public health concern.

Goal 1: Safeguard against the entry of Foreign Animal Diseases (FADs)

Objective: Strengthen measures in place to mitigate and detect the occurrence of FADs in Hawaii.

1. Continue application for and utilization of USDA funds to train veterinary medical officers as foreign animal disease diagnosticians.
2. Continue to provide enforcement activities to assist USDA with ensuring garbage feeding swine operations statewide are compliant with laws and rules in place to prevent the introduction of FADs.
3. Continue to obtain poultry and other birds to collect samples for avian influenza virus testing.
4. Rapidly investigate disease outbreaks in animals to rule-out foreign animal diseases.

Goal 2: Update plans to control and contain bovine tuberculosis (BTB) on Molokai.

Objective: Contain bovine tuberculosis in feral swine to the East End of Molokai.

1. Utilize USDA funding to conduct wildlife surveillance on the East End of Molokai to reevaluate the bovine TB status in feral swine, axis deer and mongoose. Bovine tuberculosis has been endemic in the feral swine population at least through 2010 and



as a result continues to threaten to spill over and infect cattle herds in that area.

2. Continue annual testing of all cattle and goat herds on the East End of Molokai.
3. Continue the enforcement of Quarantine Order 87-A which prohibits the movement of feral swine and axis deer west of Kamalo, Molokai to prevent the spread of bovine tuberculosis from the East End of Molokai to other areas of Molokai and the State.
4. Participate with USDA, Veterinary Services and Wildlife Services with development of an oral vaccine to control BTB in feral swine.

Goal 3: Align list of notifiable diseases into those of high consequence that may impact movement and disease response in Hawaii

Objective: Strategically examine the methods of response to animal diseases of high consequence to ensure alignment with response methodologies from the United States Dept. of Agriculture (USDA).

1. Examine, and edit when applicable, animal disease preparedness plans to align with current response plans provided by the USDA.
2. Engage Hawaii's veterinary professional community to maintain vigilance in monitoring for occurrence of reportable diseases in animals.

Goal 4: Amend animal disease control administrative rules to strengthen disease control prevention and control measures.

Objective: Update and strengthen animal disease control Administrative Rules.

1. Revise Trichomoniasis rules to prevent the introduction and spread, control outbreaks and eradicate infections from cattle herds.
2. Revise Scrapie rules to prevent its introduction, conduct surveillance and to maintain the State's consistent status in the National Scrapie program.
3. Strengthen garbage feeding regulations to strengthen the State's ability to prevent the introduction of FADs.

Goal 5: Continue development of animal disease traceability processes used during an animal disease outbreak to reduce the magnitude of associated adverse economic impacts.

- Objective: Utilize Federal cooperative agreement funds to enhance intrastate animal disease traceability by encouraging premises registration and mitigating bottlenecks in animal disease investigations.
1. Seek funding from the USDA-Veterinary Services for equipment to facilitate animal disease investigations in CY 2019.
  2. Continue animal disease traceability activities through CY 2019.
  3. Update technical equipment that support electronic identification in production animal species such as cattle, hogs, and small ruminants in CY 2019.
- Goal 6: Improve laboratory support for animal disease surveillance and control programs to mitigate potential negative economic impacts on animal industry and public health.
- Objective: Develop a new Veterinary Laboratory and services
1. Complete re-design for existing lab facility improvements in FY 2020 (in process).
  2. Secure funding to initiate construction FY 2021.
  3. Procure equipment and software for LIMS.
  4. Implement molecular diagnostics.
- Objective: Ensure timely laboratory testing in support of the Division and livestock, poultry and aquaculture industries.
1. Cross-train laboratory personnel to ensure that timely and high-quality laboratory diagnostic support is maintained.
  2. Implement new methodology and equipment for disease testing and diagnosis.
  3. Apply for Federal cooperative agreement funds, if applicable, to support laboratory activities in CY 2019 (completed) and FY 2020.
  4. Conduct surveillance testing for high impact disease agents that affect domestic animals by performing pathology examinations and collecting appropriate samples for laboratory testing.
- Goal 7: Continue pseudorabies and swine brucellosis surveillance and control measures agreed upon with USDA.
- Objective: Control the spread of pseudorabies and swine brucellosis from infected feral swine to domestic swine herds.
1. Test 25% of domestic swine herds in the State annually.

2. In a four-year period, all domestic herds will be tested.
3. Herds designated as high risk because of previous exposure or potential exposure to feral swine will be tested annually.
4. Continue testing of all sows and boars over 6 months of age at slaughter.

Goal 8: Enlarge and improve the Airport Animal Quarantine Holding Facility at HNL.

1. Secure funds for design and initial construction (FY 2019).
2. Complete concept of design FY 2019 (completed)
3. Begin and complete project design phase FY 2020.
4. Secure additional funding if necessary, from designs FY 2020.
5. Start construction late FY 2020 - early FY 2021.

Division/Branch: Animal Industries / Aquaculture and Livestock Support Services

Purpose: To develop sustainable and profitable commercial aquaculture and livestock industries by encouraging a diversity of products, improving management practices and technologies, assisting with procurement of production related infrastructure and resources, and providing direct assistance with regulations, disease prevention, marketing and new business development.

Overall Industry Goal: Boost farm incomes for all livestock, which includes aquaculture, operations in Hawaii by:

- increasing the total number of livestock on large and small farms;
- improving the efficiency of livestock operations;
- developing new marketing locally and abroad;
- facilitating new production systems.

#### Industry Advocacy and Development

Goal 1: At the government level, increase the visibility of the aquaculture and livestock industries and their role in reaching Hawaii's sustainability goals.

- Objectives:
1. Act as the lead coordinator for statewide aquaculture and livestock program activities for County, State and Federal entities.
  2. Work closely with State and County lawmakers to develop and adopt pro-aquaculture and pro-livestock legislation.

Goal 2: Increase local and export awareness and demand for aquaculture and livestock products.

- Objectives:
1. Develop and implement an industry marketing program with a goal to educate consumers regarding aquaculture and livestock as sustainable food solutions. Web marketing will be developed with print channels utilized as the budget permits.
  2. Work with selected industry segments to develop generic promotional materials (e.g., photography and brochures).
  3. Establish an economic foundation for the livestock industry through the development of institutional food programs.
  4. Work with industry associations, university, local processors, the culinary industry, and the Market Development Branch to develop new products and local markets for those products including (high quality grass finished beef, fresh local pork, locally unique added value products and locally influenced high quality ready to cook meals for local and potential export markets).

Goal 3: Develop and implement aquaculture and livestock plans and policies by providing review and input into aquaculture governance propositions and representing the State at the Federal and international levels.

- Objectives:
1. Facilitate expansion of Federal/State sponsored offshore aquaculture development on species, systems, environmental impacts and economic benefits and potential leases as the Federal Offshore Aquaculture Policy is developed.
  2. Collaborate with national aquaculture organizations, such as the National Association of State Aquaculture Coordinators (NASAC) and the National Aquaculture Society (NAA), to provide feedback on developing aquaculture policies.
  3. Represent the Hawaii aquaculture industry at aquaculture conferences such as Aquaculture America.
  4. Represent the Hawaii livestock industries at national livestock development organizations such as the National Institute for Animal Agriculture (NIAA)

Goal 4: Develop resources and infrastructure to support local aquaculture and livestock production

- Objectives
1. Work with other departments and divisions to secure resources including leaseholds, water, processing facilities, etc. required to maintain and promote the local production of aquaculture and livestock.
  2. Work with Federal agencies and other divisions to secure CIP funds for the development and redevelopment of infrastructure critical to the

survival and expansion of the aquaculture and livestock industries.

3. Work with other divisions to amend rules to allow the aquaculture and livestock industries to obtain leases, water and other resources at rates which these industries can bear. Assist in developing financing options that would allow the industries to develop and operate competitively and in a long-term sustainable manner.

Goal 5: Coordinate applied research to provide tools or resources for the aquaculture and livestock industries to improve production and productivity.

Objectives 1. Undertake research for alternative sources of feed ingredients for aquaculture use.

Division/Branch: Animal Industry, Rabies Quarantine Branch

Purpose: To protect animal and public health by reducing the likelihood that rabies virus will be introduced into the State and monitoring animal entries for alien pests that may carry human or animal diseases.

Goal 1: Improve, make easier and simplify the customer registration process while improving efficiency of program to register pet owners and collect fees.

Objective: Provide web-based capability for owners to register, pay fees and check pet qualification by 2019 (in progress).

1. Select vendor to design enhancements for interface by mid-2016 if funds available (completed).
2. Purchase hardware by mid-2018 if funds available (completed).
3. Vendor to install and validate enhancement by late CY 2018 (completed).
4. Identify additional system enhancements to improve customer experience and increase efficiency by late CY 2019 (in process).
5. Solicit services, select vendor to identify, design, build, install and test enhancements early CY 2019 (completed).
6. Vendor to install enhancements by end CY 2019 – 2020.

Goal 2: Improve Existing Facility.

Objective: Repair some of the existing kennel structures.

1. Request construction CIP in FY 20 budget.
2. Select Vendor early FY 2020 and begin renovations as funds permit

Objective: Upgrade sewage pretreatment plant per Department of Health Clean Water Branch Notice of Violation and Order.

1. Validate flow through existing system 2018 (completed).
2. Request CIP funding for condition assessment, upgrades, design and construction 2017 (analysis completed).
3. Request CIP funding for upgrades design and construction 2019 ( DAGS project)
4. Commence upgrades as funds allow CY 2020-21 (in progress, DAGS project).

Goal 3: Plan and move existing Animal Quarantine Station (AQS) facility to accommodate planned Oahu Community Corrections Center Relocation to AQS Property.

Objective: Plan, design and build new AQS to accommodate program activities.

1. Request CIP funding for design and construction 2020
2. Commence project as funds allow FY 2021-22

Goal 4: Continually apply new information on rabies virus and public policy to analyze the quarantine program and respond to needs of users and the general public.

Objective: Review rules and regulations on an ongoing basis to be consistent with new rabies scientific research findings and other anticipated initiatives.

1. Amend Rules with respect to program modifications 2018 (completed).
2. Evaluate effects of 2018 HAR amendments through 2019 and propose further amendments, if warranted in FY 2020.

Division/Branch: Plant Industry Division

**Purpose:** To protect Hawaii's agricultural industries, environment, and general public by preventing the introduction and establishment of harmful insects, mites, diseases, illegal non-domestic animals, and other pests; to conduct effective plant pest control activities; to enhance agricultural productivity and agribusiness development by facilitating export shipments of agricultural and horticultural materials and products; to ensure the effective, efficient, and safe use of pesticides and to minimize their possible adverse effects to humans and the environment while considering the benefits of their use.

**Goal 1:** To protect Hawaii's agricultural industries, natural resources, and the public from the entry and establishment of harmful insects, diseases, illegal non-domestic animals, and other injurious pests.

**Objective:** To reduce the entry of invasive species by conducting pre-entry and at entry inspections and other prevention activities at various ports-of-entry and eradication efforts, post-entry, where possible.

1. Stabilize the existing level of funding for Plant Quarantine Branch (PQB) inspectors and programs and aggressively seek additional federal funding support to address these needs. The Branch has been consistently awarded US Department of the Interior grants to support the Hawaii Detector Dog Program (HDDP) and Brown Tree Snake (BTS) Interdiction program. Completion Date: Ongoing.
2. Establish Biosecurity Inspection Facilities at airports and sea ports statewide for the inspection of agricultural products and other regulated commodities by appropriate Quarantine Programs (State Quarantine, United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ), and Homeland Security, Customs and Border Protection). Completion date: Ongoing. 6 transitional facilities established in 2018.
3. Increase the resources necessary to effectively mitigate increased pest pressure from global trade by collaborating with federal and state agencies and encouraging public-private partnerships. Ongoing examples include the Rapid Ohia Death (ROD) Working Group, quarterly training with USDA National Detector Dog Training Center staff for Canine Handlers for BTS and other regulated plant materials, and active participation in the Hawaii Invasive Species Counsel and Coordinating Group on Alien Pest Species. Worked with Amazon to restrict the sale of North Carolina Christmas Trees

that are not under compliance, such as those in Oregon and Washington State. Completion date: On-going.

4. Expand the existing nursery certification program by developing a compliance program for interisland movement of nursery stock and by entering into new compliance agreements with other states and/or countries to reduce risk of pest movement between islands, states and foreign countries on nursery stock. Renewal of Master Permit QC 650 that maintains the exemption of orchid plants from root sampling and no changes from the prior permit. Continued implementation of a Nursery Stock Certificate program that allows participants to self-certify shipments moving inter-island as well as to select U.S. mainland destinations. Additional on-going examples include the joint development and continued collaboration with the Oregon Department of Agriculture and the Washington Department of Agriculture to utilize and maintain best management practices with Christmas tree growers and shippers, and the development and implementation of the compliance program for ROD to allow the shipping of potted plants in soil as a planting media. Completion Date: On-going.
5. Expand the electronic transporter manifest system and electronic importer manifest system in order to more efficiently schedule inspections and be able to prioritize and inspect high- and moderate- risk commodities. Create a web-based data entry system to facilitate the standardization of data and information that is submitted electronically. Pacific Point Inc. has developed the new database. PQB is working with select importers to ensure web-based electronic manifest system is compatible with user needs. PQB is also working with ETS to train staff for implementation statewide. Completion date: 2019.

Goal 2: To conduct effective plant pest control programs as a post-entry initiative.

Objective: To contain, control and/or eradicate plant pests that enter the state by using chemical and mechanical means and/or biocontrol strategies to mitigate risks to agriculture and the natural resources of the state.

1. Prevent distribution of noxious weed seeds by examining seed shipments originating from foreign and domestic seed sources for exotic seeds, such as fireweed Cogon and Jubata grasses. Completion date: On-going.
2. Conduct statewide pest detection and monitoring to delineate infestations of regulated pests for control or eradication. Determine statewide distribution of noxious weeds (e.g.,



fireweed and fountain grass), plant diseases (e.g., coffee rust, Fusarium wilt, brown root rot), insect pests (e.g., little fire ant) and coqui frogs. Utilize GIS technology to map results for use in planning and communication with decision makers such as USDA APHIS Cooperative Agricultural Pest Survey program (CAPS) and other surveys conducted by Plant Pest Control staff for plant pests. The PQB responds to pest hotline calls and conducts pest detection and monitoring of all pests within certified nurseries statewide. Completion date: On-going.

3. Increase invasive species monitoring, detection and diagnostic activities to detect, identify, delineate, and eradicate incipient infestations of invasive alien species, such as the red imported fire ant, Africanized honey bee, coconut rhinoceros beetle, Brown Tree Snake and many other serious pests not yet found in Hawaii. Seek extension of present federal funding support and new funding to increase personnel, equipment, and supplies necessary to implement this action. PQB has received federal funding to monitor and detect BTS utilizing the HDDP, spotlighting of fence lines, and snake traps. Completion date: On-going.
4. Seek federal funding such as CAPS and private sector funding to supplement operating funds to conduct foreign explorations to search for and introduce potential biocontrol agents of targeted weeds and plant pests, such as fountain grass, coffee berry borer, fire weed. Completion date: On-going.
5. Act 163, SLH 2017 – HB1325 CD1, the Clift Tsuji Act provided funds, in part, to develop, implement, and coordinate post-entry measures to eradicate, control, reduce and suppress pests and, as appropriate, eradicate or seize and dispose of prohibited or restricted organisms without a permit that have entered the State; and for the improvement of productivity of inspection capacity within the plant quarantine branch. Taxonomic training is needed in the fields of arthropods and mollusks for staff entomologists to increase inspection capabilities and methods. Staff participated in taxonomical workshops in malacology and Hymenoptera (wasps and bees). Inspection capacity increased for certified nursery inspections of plants shipped intra-state. Microscopes with features that allow staff to detect and identify arthropods and other pest species that have potential to cause harm to crops, native plants and animals, and humans were purchased. Completion date: June 30, 2019.
6. Participate in an Insect Diagnostic Identification Network for Hawaii and the American Pacific among the land grant universities and departments of agriculture in Hawaii, Guam, American Samoa, Commonwealth of the Northern Mariana Islands (CNMI), and Federated States of Micronesia (FSM).

Funding will be sought from Research, Education and Extension Service (UH-CREES). USDA via the University of Hawaii, Cooperative, PIDDIRS – Pacific Island Distance Diagnostics and Recommendation System. Completion Date: On-going.

7. Currently modifying the duties of the apiary staff with the focus on biosecurity by transferring research and outreach roles to the College of Tropical Agriculture and Human Resources apiary extension specialist which is appropriate with the Land Grant College mission. Support to Hawaii's queen bee rearing industry through inspection and certification remains in place. Completion Date: On-going.
8. Upgrade biocontrol facilities and/or investigate the potential for building new modernized facilities to increase the biocontrol program's capabilities to respond to new emerging and established pests. Budget requests for planning and design appropriations were submitted and approved by the Legislature. Initiated assessments of existing facilities in other states and countries, establishing collaborative relationships with their program managers and investigating options for improving the Department's biocontrol facilities. Completion date: On-going.
9. The Coffee Berry Borer (CBB) Pesticides Subsidy Program was established during the 2014 Legislative Session Act 105 (HB 1514) to assist Hawaii coffee farmers with the cost of pesticides containing *Beauveria bassiana* for CBB control. The program launched in 2016 for reimbursements to coffee farmers who purchased *Beauveria bassiana* during July 1, 2016 through June 30, 2018. The 2017 Legislative Session, Act 065 (HB 186) extended the program until June 30, 2021. For Fiscal Year 2019, a total of \$151,315 was reimbursed to 172 farmers from July 1, 2018 – June 30, 2019.
10. Providing Special Local Needs labels for controlling alien pest invasive species as needed. Completion date: Ongoing.

Goal 3: To enhance agricultural productivity and agribusiness development by facilitating export shipments of agricultural and horticultural materials and products.

Objective: To provide opportunities for Hawaii's fresh fruits and vegetables and nursery products to reach new markets.

1. Support the establishment of new markets for Hawaii grown fresh agricultural products, including, initiatives to have post-

harvest quarantine treatment facilities in Hawaii available for use by all growers wishing to move products to export markets currently restricted as a result of state and/or federal quarantine prohibitions; and collaborate with federal agencies to expedite the export of new products. The ban on exporting avocados from Hawaii to the continental US by the USDA-APHIS was lifted in 2013. Local growers are transitioning to the Sharwil, the only variety allowed for export to certain states. In 2016, 1,000 avocados were shipped from Hawaii to Minnesota. Implementation of a new administrative rule to restrict the introduction of Myrtaceae into the State. Working with local florists and industry growers to meet current needs. Completion Date: Ongoing.

Goal 4: To minimize pesticide's possible adverse effects on humans and the environment.

Objective: To prevent injury from pesticides by further reducing the number of highly toxic exposures requiring immediate medical care by 50% by the end of FY 2019.

1. Evaluate the effectiveness of pesticide poisoning prevention activities to reduce pesticide illnesses among children under 6 years old.

Dr. Al Bronstein with the Hawaii Department of Health (DOH) has revived the "Pesticide Poisoning Prevention Services for Households" program. The Hawaii Department of Agriculture (HDOA) and DOH are collaborating on this program. Several training exercises have been developed for medical, emergency, and regulatory staff. Targeted completion date: 2018 for tabletop exercises with multiple agency involvement: HDOA, HDOH, Hawaii Department of Education, Fire Department, Emergency Medical Technicians, and other first responders. Training exercises have been conducted by first responders. The Pesticide Branch remains engaged with the Hawaii State Emergency Response Commission.

Tabletop Exercises to be conducted when funds become available. Completion Date: On-going.

2. Conduct at least thirty (30) fumigation use inspections annually to assure the use of fumigants by commercial pest control operators in Hawaii meet all health and safety requirements and directions for use mandated by the U.S. Environmental Protection Agency (EPA).

Increasing emphasis has been placed on responding to pesticide odor/drift complaint investigations, agriculture use

inspections and Market Place Surveillance (MSI) inspections. The Pesticides Branch is focusing on conducting fumigation inspections with fully staffed enforcement inspectors. Completion Date: On-going.

3. Conduct at least 40 inspections of agricultural employers to assure employer compliance with the EPA Worker Protection Standard (WPS). Emphasis has been placed on farms using restricted-use pesticides (RUPs), farms with a past enforcement action (either a warning notice or civil penalty), crops requiring worker entry soon after pesticides have been applied, such as cut flowers, pineapples, and seed corn. Included in the inspections are all uses of pesticides that have WPS requirements. While emphasis has been placed on RUPs the number of farms and nurseries, going forward, will include those using any pesticides with WPS requirements. Completion Date: On-going.

Due to changes in the WPS effective in 2017, more emphasis is being placed on conducting WPS Tier I inspections. All enforcement positions have been filled as of October 24, 2018. All neighbor island enforcement positions have been staffed.

Working with the West Oahu Soil and Water Conservation District (SWCD) to provide pesticides safety information, including the WPS requirements. Work with the District is expanding to the Windward Oahu and South Oahu Soil and Water Conservation Districts. The SWCD works with the farmers in their District to assure that they have current Conservation Plans. Those plans shall contain language that requires that agriculture employers in the District train the farmers and their workers in the requirements of WPS. Additionally, steps are being taken to bring the immigrant farmers into the agriculture industry fold. An approved Conservation Plan is absolutely required by the City and County of Honolulu before any soil is moved on a property. The County wants to be assured that if the farmers follow the West Oahu SWCD requirements for a Conservation Plan before ground is broken, then they will be consistent with the City and County requirements. Completion date: On-going.

4. Develop a pesticide case database to track compliance rate, repeat violators, and costs per enforcement action.

INFOR integrated database has been developed and is currently being deployed for enforcement and education efforts by the Pesticides Branch. The Good Neighbor Program (GNP) has grown to include monthly Restricted Pesticide Use by seed companies on the islands of Kauai, Oahu, and Maui. Reporting has been formatted into EXCEL spreadsheets,

submitted to HDOA Pesticides Branch by the 15<sup>th</sup> of the month after the spraying of Restricted Use Pesticides and put into a database maintained by the Pesticides Branch. RUP application data is posted on the HDOA website in the Pesticides Branch section for public perusal. Participants in the Good Neighbor Program are shifting to Act 45 RUP reporting requirements as of Jan 1, 2020. This is a universal requirement for all RUPs used by any certified applicators in the regulated community. Because of this some participants in the Good Neighbor Program have stopped reporting to the GNP. Completion date: 2020.

While the INFOR database was completed in 2017 there are still many tweaks that need to be administered to make it run properly. The main task that needs work is generation of the emails to pesticide registrants notifying them when it is time to renew their licenses. This will continue to be a focus of the Pesticides Branch. Work on the database is dynamic so despite the fact that the INFOR database was finished in 2017 there are still many facets of the database that require attention of a contractor who knows how to code the concerns raised by the Branch associated with the use of the INFOR database. Completion date: On-going.

5. Increase pesticide education outreach to applicators of pesticides to reduce the potential for pesticide misuse affecting human health and the environment.

As of July 1, 2019, all education staff positions have been filled. All Neighbor Island counties have education staff while Oahu has 2 staff plus a supervisor. Environmental Health Specialist (EHS) education/certification staff continue to conduct workshops and one-on-one consultations to such target groups including farmers, nurserymen, landscapers, pest control operators and state agencies (Department of Transportation; highways and harbor staff and Department of Education; head custodians and cafeteria managers, and County agencies; roadside spray crews and managers).

Workshop topics include pesticide safety, label comprehension, Worker Protection Standard (WPS) training and compliance, concepts of Integrated Pest Management (IPM) and the use of proper personal protection equipment. Completion date: On-going.

With the establishment of Act 45 outreach contains provisions for educating certified applicators with a requirement that all RUPs used be reported to the Pesticides Branch by the end of the reporting period. The first reporting period is January 1 through December 31, 2019. The RUP use report needs to be in the Pesticides Branch office by January 30, 2019. The Branch is working on a spreadsheet that can be used for

keeping track of their RUP requirements. Additionally, the Branch will provide a portal at the HDOA website that RUP certified applicators can report their RUP use data directly on the portal. Completion date: December 31, 2018.

Additional outreach to the regulated community and the community at large with respect to 100 foot buffer zones around schools where it is illegal to spray a RUP product within that buffer zone Monday through Friday, from 7:00 am to 4:30 pm. This provision of the new law was shared with the certified applicators in a letter that was created and sent to all certified applicators and is effective January 1, 2019. Staff is being hired to address the outreach required for certified applicators to be in compliance with the law. Completion date: Ongoing.

Objective: To manage pesticides use to minimize environmental effects and maintain important pesticides uses. To have no increase in the number of drinking water sources having a pesticide residue level in excess of 10% of a regulatory limit.

1. Fund research to enable informed decision-making on pesticides potential to leach into the water supply.

The Department is partnering with University of Hawaii Water Resources Research Center (WRRC) to conduct groundwater reviews for products new to the state of Hawaii and existing products that may pose potential groundwater leaching hazard. Groundwater reviews involve evaluation of groundwater data developed by the registrant and determining leachability in Hawaii-specific soils, utilizing GIS-based leaching model. Periodically, field studies are conducted, in collaboration with WRRC, to evaluate leachability of selected compounds as affected by soil and hydrologic conditions. Completion Date: On-going.

Objective: To enhance the pesticide regulatory program through effective program management and data collection.

1. To achieve a 90% compliance rate with pesticide distribution and use requirements.

All sales of Restricted Use Pesticides (RUPs) are reported to the Pesticides Branch on a monthly basis by pesticide dealers. Inspectors conduct various inspection types with applicators/distributors of pesticides to determine compliance with label directions or registration/licensing protocol. Completion date: On-going.

The establishment of a RUP reporting requirement is an important factor for ensuring the RUP use does not exceed label requirements and restrictions. Completion date: January 30, 2020.

2. To identify activity areas not achieving 90% compliance, identify reason for non-compliance and determine actions recommended to attain better compliance rates.

Areas identified for non-compliance include improper site of application, crop not on label, insufficient personal protective equipment worn, improper dilution rate of application, and off target drift. Inspections also identify other suspected violations with pesticide labels or violations of registration/licensing protocols. Enforcement actions include issuance of advisory citations, warning notices, and notice of violations resulting in civil penalties. Activities conducted to attain better compliance rates include, follow up inspection to previously issued enforcement action (compliance verification) and outreach by the education/certification staff to provide guidance or additional training to violators. Completion Date: On-going.

Outreach to pesticide users has increased because of the establishment and hiring of Environmental Health Specialists in Education on the islands of Maui and Kauai. These positions that are new to the Branch. Also, an increase in Pesticide Enforcement Specialists has occurred with an additional enforcement employee each on Hawaii Island, Kauai and Maui. Additionally, a long vacant Kona enforcement specialist position has been filled for over a year. Completion date: Done.

3. Maintain a data base of Restricted Use Pesticide (RUP) sales, to better inform the general public of RUP sold in the State of Hawaii.

Restricted Use Pesticide sales records are regularly submitted by RUP dealers to the Pesticides Branch for entry into a database. The Department is in the process of developing an updated system to house this data. This new database will have the capability to generate reports based on multiple parameters, such as date range, company, certified applicator, and product. Data accessible to the public will be limited to that which is releasable under Chapter 92F, Hawaii Revised Statutes.

The Act 45 requirement to report all annual RUP use will further enhance the ability of the State to determine where RUP pesticides are applied and how much RUP pesticides are

applied in a given area. The RUP use data compiled will further provide information that is accessible by the public either through a Uniform Information Practices Act or Freedom of Information Act request. Completion date: Starting January 1, 2019.

4. Annual reporting of all Restricted Use Pesticides used Statewide.

Act 45 was passed during the 2018 Legislature. This law requires that all RUPs used by all facets of the regulated community will be reported to the Department no later than January 30 following the reporting year. The first reporting year for this law will be 2019. RUP reports by certified applicator will be required to submit to the Pesticides Branch by January 30, 2020. All certified applicators in the State have been notified, in writing, of this requirement. RUP dealers have been notified of Act 45 requirements so that they understand what role that they have in this process, if any. Data that is collected will be compiled, by County, for Departmental use. Completion date: March 30, 2020.

5. Elimination of the use of all forms of Chlorpyrifos insecticide.

Act 45 requires the ultimate banning of any insecticides with chlorpyrifos as an active ingredient by December 31, 2022. All uses of the product until that time will be by permit only. The Branch has developed a permit process that is available on the Department's website. The Branch has also established that all products that contain chlorpyrifos as an active ingredient are now a State RUP and will require a RUP license to purchase and use. This will remove a pesticide from use that is perceived as causing environmental and human health issues by the public. Completion date: Done.

6. Pesticide Drift Monitoring Study

A pesticide drift monitoring study is in the planning stages. A contractor will be hired to determine the best path forward for conducting pesticide drift research on 3 islands. Completion Date: 2021.

Division/Branch: Quality Assurance Division

Purpose: To ensure food safety and quality in agricultural products, measurement accuracy and fairness in the marketplace.

Goal 1: Stabilize workforce and improve efficiency within the Division.



Objective: Restore positions lost due to attrition and fulfill legislative mandates.  
Anticipated completion date: On-going

1. Create and fill additional positions to restore Division personnel count.
2. Rewrite job descriptions to provide statewide coverage.
3. Develop training program for new inspectors

Goal 2: Improve focus on delivering quality assurance services.

Objective: Look after the interests of the consumers and businesses; assuring accuracy of measurement, packaging, labeling and pricing of commercial goods to prevent unfair practices. Completion date: On-going.

1. Provide technical assistance and traceability of measurement standards.
2. Conduct tests to determine accuracy of measuring devices and packaged goods; and compliance with labeling and pricing requirements.
3. Licensing of dealers and assure proof of ownership of agricultural commodities to deter agricultural theft.
4. Registration of measuring devices to ensure conformance with laws regulating measuring devices.
5. Conduct certification of agricultural commodities for genetic purity, quality, condition and origin.
5. Conduct audits to assure producers are following good agricultural and good handling practices.
6. Provide assistance for agricultural producers in meeting requirements of the U.S. Food and Drug Administration's Food Safety Modernization Act.