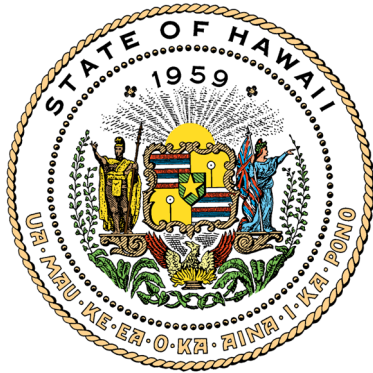


Hawai'i Department of Agriculture

Annual Report

FY2023-2024





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FY2023-2024

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Chairperson's Message



Aloha!

In a bold move to revitalize agriculture in Hawai'i, the Hawai'i Department of Agriculture (HDOA) is planting the seeds of change — but change rooted in priorities identified by the islands' agriculture community. The department is aiming to cultivate economic growth, safeguard agricultural investments, and harvest a sustainable future for Hawai'i's diverse agricultural landscape.

Throughout 2024, the Department of Agriculture partnered with the County of Hawai'i and other stakeholders to gather insights from the agriculture industry and asked producers to identify the top issues that impacted their economic viability. Out of the 29 total areas identified, here are the concerns that were most mentioned:

Invasive Species and Pest Management
Equipment Costs
Workforce Housing Availability
Access to Land
Water Infrastructure
Soil Quality

Agricultural Theft
Energy Costs
Access to New Markets
Access to Quality/Affordable Animal Feed
Food Safety Compliance
Access to Seed or Propagation Materials

Also emerging from this collaborative effort was an ambitious call-to-action - "Go B.I.G. for Agriculture" — urging consumers, manufacturers, retailers and policy makers to Buy, Invest, and Grow Hawai'i's

Buy Local Products: Increase the demand for local agricultural products to reduce the state's reliance on imports, enhance market presence, and stimulate economic activity. The idea is to encourage consumers and state entities to prioritize locally sourced products, creating a self-sustaining market that not only benefits local farmers but also strengthens Hawai'i's overall food security and economy.

Invest in Agriculture's Development: This emphasizes investment in infrastructure, financial mechanisms, and capacity-building to address barriers like rising land and water costs, labor shortages, workforce housing and biosecurity challenges. The Department seeks to secure resources for developing sustainable systems, boosting economic returns for both the state and agricultural producers.

Grow Agriculture's Scale and Economic Impact: Enhance the capacity, efficiency, and scale of agricultural operations to meet consumer demand and generate a solid return on investments. By focusing on strategic growth, this aims to enable profitability and long-term sustainability within the sector.

The "Go B.I.G. for Agriculture" initiative is part of a broader strategy to create a resilient agricultural system that honors Hawai'i's cultural heritage. The HDOA has adopted a two-pronged approach: short-term actions for immediate challenges and a long-term vision to address complex issues in 2025 and beyond. This approach aims to propel the industry forward, with a particular focus on building economic resilience, enhancing local food production, and supporting the sustainability of Hawai'i's agricultural sector.

Let's all "Go B.I.G. for Agriculture" to help realize the vision of a self-sustaining and prosperous future for agriculture in Hawai'i.

A handwritten signature in black ink that reads "Sharon Hurd".

Sharon Hurd
Chairperson, Hawai'i Board of Agriculture

Agricultural Development Division



Matthew Loke, PhD
Administrator

The Agricultural Development Division (ADD) promotes the economic sustainability of commercial agriculture in Hawai'i by sponsoring joint marketing programs for agricultural products with high revenue growth potentials, facilitating the development and expansion of marketing opportunities for targeted agricultural and processed goods, and providing timely, accurate and useful statistics. ADD is comprised of two branches – the Market Development Branch (MDB) and the Market Analysis and News Branch (MANB).

The following highlights key achievements made by the ADD during Fiscal Year 2024 (FY24):

- ◆ Provided subject matter expertise, technical assistance, procurement services, representation, and administrative support to the Office of the Chairperson.
 - ◇ **Lahaina Wildfires' Impact on Agriculture:** Collaborated with the Chairperson, USDA-NASS, USDA-FSA, and the Maui Department of Agriculture to design and review survey questions aimed at assessing wildfire damage to agriculture. In January 2024, USDA-NASS published the report *"Damages from Wildfires on Hawaii Agricultural Producers Estimated at \$23.1 Million."*
 - ◇ **Resilient Food Systems Infrastructure (RFSI) Program:** Successfully fulfilled all requirements of the cooperative agreement with USDA-AMS for the 2023-2027 RFSI Program (CFDA No. 10.190). This \$3.3 million grant involved issuing a Request For Application (RFA), shortlisting sub-awardees for submission to USDA-AMS, and completing compliance with the National Environmental Protection Act (NEPA) and the National Historic Preservation Act (HPA) by May 2024. This program is notably complex, being the first in AMS grant procurement history to offer construction and equipment awards.
 - ◇ **Emergency Management Program:** Updated HDOA's Emergency Operations Plan to clarify the department's roles and responsibilities as assigned by the Hawai'i Emergency Management Agency (HI-EMA). The revision also enhanced functional protocols for supporting affected jurisdictions during state emergency operations. Additionally, staff participated in multiple joint training exercises and conducted outreach to the department's core management team.
- ◆ Engaged in several key procurement contracts and initiatives aimed at organizing, supporting, and promoting the recovery and expansion of Hawai'i's agricultural industry in the aftermath of the COVID-19 pandemic.
 - ◇ Successfully closed out outstanding contracts from prior years, including the 2021 Grow Hawai'i Agriculture (GHA) Program.
 - ◇ Issued procurement contracts as required by state programs, such as the Food Hub Pilot Program (FHPP), the Farmer Apprentice Mentoring Program (FAMP), and the 2022 HDOA Innovation Grant Program.

Agricultural Development Division (continued)

- ◆ **Farm and Ranch Stress Assistance Network (FRSAN) Program:** Successfully administered the FRSAN Project, concluding in 2024 with over \$500,000 in funding from USDA-NIFA (CFDA No. 10.525). This grant aimed to establish, expand, and sustain programs providing professional agricultural behavioral counseling and referrals for additional assistance to local agricultural producers affected by the coronavirus pandemic.

Market Development Branch

**Brendan Akamu
Manager**

The Market Development Branch facilitates the development of the agricultural industry through the expansion of new and existing markets. The team develops and identifies opportunities for Hawai'i's agricultural industry through the strategic use of promotions, grants, community outreach, tradeshows, and educational missions locally, domestically (US Mainland) and internationally.

Promoting export growth of agricultural commodities from the state, the Hawai'i Department of Agriculture leverages its "Made in Hawai'i with Aloha," and "Seal of Quality" branding programs. These programs provide consumers with assurance that the premium products are genuine, authentically Hawai'i-grown, or Hawai'i-made and are guaranteed and certified by the State of Hawai'i.

The HDOA's Market Development Branch also managed four very successful grant programs

Major Activities and Programs:

- ◆ **Micro Grants for Food Security Program (MGFSP)** are designed for small-scale gardening, herding and livestock operations to increase the quantity and quality of locally grown food in food-insecure communities. Grants are awarded to individuals of up to \$5,000 per household and \$10,000 for organizations. The branch received 1,771 individual and 30 organization applications. Grant awards notices are expected in early 2025. The total amount available is \$3,576,470.



The Alaka'i O Kaua'i Charter School students in their Aloha Garden. The micro grant supported their education and appreciation of agriculture.



The Kaholoala Family used their micro grant for their kalo lo'i in Waimea Valley on Hawai'i Island.

Market Development Branch (continued)

- ◆ **Specialty Crops Block Grant Program (SCFSP)** supports projects that provide the highest measurable benefits or return-on-investment to the specialty crop industry segment in Hawai'i. Projects must enhance the competitiveness of Hawai'i-grown specialty crops, in either the domestic or foreign markets. Preference is given to projects that measurably increase the production and/or consumption of specialty crops, and/or foster the development of fledging crops and organic operations. Twenty-six organizations qualified and nine were recommended for the award totaling \$534,283.
- ◆ **Food Hub** - Pursuant to Section 16 of Article III of the State Constitution, SB2218 SD1 HDI CD2, entitled "RELATING TO A FOOD HUB PILOT PROGRAM" became law as ACT 313, Session Laws of Hawai'i 2022, on July 13, 2022, for a period of five years and was assigned to the HDOA. This program established food hubs, which are centrally located facilities having a business management structure that facilitates aggregation, storage, processing, distribution, and marketing of locally produced food products. By actively coordinating these activities along the value chain, food hubs may provide wider access to institutional and retail markets for small- to mid-sized producers and increase consumer access to fresh healthy food, including those consumers in underserved areas and food deserts.

The HDOA was appropriated \$1,500,000 for the establishment of a five-year program. An RFP was created and posted for applicants on March 27, 2023, and closed on May 3, 2023. A total of 27 proposals were submitted totaling \$6,218,019.26 of which six proposals were accepted totaling \$1,350,000. Contracts were issued September 2023.

- ◆ **Grants-In-Aid (GIA)** The legislature makes appropriations for grants in accordance with Chapter 42F of the Hawai'i Revised Statutes (HRS). There are two types of grants: Operating and Capital Improvement Project (CIP) grants. Generally, operating grants are for a nonprofit's operational, or program expenses and CIP grants are for construction projects. Funds are available on a reimbursement basis and payments are contingent upon fulfillment of the terms and conditions of the grant agreement. The legislature decides who is awarded a grant, the type of grant, the award amount, what the funds can be used for, and which state department will administer said award. HDOA does not participate in the application process as the House Finance Committee and the Senate Ways and Means Committee does the process. The HDOA was assigned 11 operating awardees for a total of \$2,085,000. All 11 awardees received the total funds in FY24 Quarters 2 – 4.



- ◆ **Seal of Quality** - Launched in May 2006, the Hawai'i Seals of Quality represent the cream of the crop of Hawai'i's agricultural producers. It was established to protect the integrity and value of the marketing cachet for Hawai'i branded farms and value-added products. Products with this seal are genuine, Hawai'i-grown, or Hawai'i-made premium products, a guarantee that is enforced by the State of Hawai'i. The program currently has 73 members of which 61 were renewals and 12 were new to the program.

Market Development Branch (continued)

- ◆ **Made in Hawai'i with Aloha branding program** - is managed by the HDOA and is promoted jointly by HDOA, Hawai'i Department of Business, Economic Development and Tourism (DBEDT), and the Chamber of Commerce of Hawai'i (CoC). The MIHA branding program was established to protect the integrity and value of authentic Hawai'i branded products and to identify those products made in Hawai'i from products made elsewhere yet called made in Hawai'i. Products labeled with the MIHA logo comply with the provisions of Hawai'i Revised Statutes (HRS) §486-119 Hawai'i-made products; Hawai'i-processed products. The program currently has 124 members of which 109 were renewals and 15 were new to the program.



Local Market (Hawai'i) Promotions and Activities

- ◆ **Hawai'i Coffee Association** – HDOA was a sponsor through our Sponsorship-Product Promotion (SPP) budget and participated at the 29th Annual Conference and trade show. HDOA was part of the program agenda with a panel presentation and discussion which included five divisions: Agricultural Development, Plant Industry, Pesticides, Quality Assurance, and Measurement Standards. There were 72 coffee and associated coffee attendees from Hawai'i and the mainland.
- ◆ **Hawai'i Cattlemen's Council** – is the statewide umbrella organization comprised of the four county level Cattlemen's associations. More than 150 member ranchers represent over 60,000 head of beef cows which represent 75% of all the cows in the state. HDOA was a sponsor through our SPP budget and participated at the annual convention with an informational booth and presented to the association attendees "Ecosystem Approaches to Range Management."
- ◆ **Hawai'i Farm Bureau** – serves as Hawai'i's voice of agriculture protects, advocates, and advances the social, economic, and educational interests of a diverse agricultural community. It consists of 2,000 members from 11 counties throughout the state of Hawai'i. HDOA was a sponsor through our SPP budget and participated at the annual Convention with an informational booth and presented an update on the HDOA to the association's 195 attendees.
- ◆ **Hawai'i Tropical Fruit Growers Conference** – is dedicated to the Hawai'i-grown tropical fruit community through promotion, research, education, and collaboration. The primary purpose is to promote the interests of any, and all aspects of tropical fruit in the state of Hawai'i. HDOA was a sponsor through our SPP budget and participated at the annual Convention with an informational booth to the 275 attendees at its annual conference and trade show.

Other smaller in-state events included:

- | | |
|---|--|
| ◆ Hawai'i AgriFood Summit | ◆ Maui Ag Resource Fair following the wildfires |
| ◆ Hawai'i Chamber of Commerce Annual Convention | ◆ Agricultural Awareness Day – Urban Garden |
| ◆ Mana Up Showcase | ◆ Kaua'i Outreach – Malama Kaua'i |
| ◆ Waimānalo Community townhall | ◆ Kona Coffee Farmers Association Conference |
| ◆ Nānākuli Community townhall | ◆ Wahiāwa Value-Added Product Development Center Showcase – Cohort 3 |
| ◆ Ag Day at the Hawai'i State Capitol | ◆ Hawai'i Macadamia Nut Association Conference |
| ◆ Maui Ag Fest | ◆ Hawai'i on the Hill – Chamber of Commerce Hawai'i |
| ◆ Small Business Resource Fair | |

Market Development Branch (continued)

Mainland (Continental U.S.) and International Promotions and Activities

- ◆ **National Restaurant Association (NRA)**—supports the thriving restaurant and foodservice community, providing America with nourishment, opportunity, to enhance quality of life for all. This organization has combined their annual trade show with the National Association of States Departments of Agriculture (NASDA) who speaks on behalf of a unified voice for all 50 states and four territories, NASDA is a nonpartisan association working to influence policy that is beneficial for all regions, people, and environments. HDOA participated in their annual trade show, “A Take of the States,” taking four Hawai’i companies to promote their business at an estimated revenue increase in sales of about \$420,000.
- ◆ **FOODEX Japan**—is traditionally the largest food industry trade show in Asia and is a showcase for both domestic and international food manufacturers to showcase their products to a wide range of global buyers to the event. The 2024 event attendance visitor levels reached 75,625. The event drew an increased number of international buyers from North America, Europe, and the Middle East. HDOA accompanied 27 companies in cooperation with DBEDT. This was the second year of the cooperation between DBEDT and HDOA for the Hawai’i Pavilion at FoodEx Japan. Through their combined efforts the Hawai’i Pavilion was able to expand its size to 15 booths to support more Hawai’i companies at the event. A combination of Hawai’i manufacturers and Japan agents representing Hawai’i manufacturers participated in this year’s event with a total of 27 Hawai’i companies being represented.
- ◆ **Gulf Food Show**—The largest annual Food and Beverage Show in the world – promoted as “where real growth happens through genuine connections, insights, stories and talent, amplifying the global food and beverage ecosystem.” HDOA participated with two coffee companies demonstrating coffee techniques and offering tastings, one Hawaiian sea salt seasoning company and one papaya and sweet potato company. The five-day event increased revenues for all by \$287,000.
- ◆ **Fine Food Australia**—is the leading trade event for the food industry. The event welcomed hundreds of food industry professionals from Australasia and beyond. Fine Food Australia is the nation’s only established tradeshow dedicated to all thing’s food – from foodservice to hospitality, and catering equipment, to retail and bakery. HDOA participated in the USA pavilion in conjunction with USDA FAS. Sixty-three solid business solicitations for products: cookies, biscuits, candy, coffee, gams & jelly were received.



Noh Foods of Hawai’i at the NRA



MDB Economic Development Specialist Yukashi Smith at FOODEX Japan

Market Development Branch (continued)



◆ **Global Produce & Floral Show** – is the presentation of the International Fresh Produce Association (IFIA) – A trade association that grows prosperity for all companies in the global fresh produce and floral supply chain. HDOA participated in the trade show taking two Hawai'i companies representing coffee and macadamia nuts. The three-day event had 7,000+ visitors to our Hawai'i booth and generated \$225,000 in new sales.

MDB Manager Brendan Akamu at the 2024 Global & Floral Show in Atlanta, Georgia

Association Activities and Meetings

- ◆ **Western United States Agricultural Trade Association (WUSATA)** - The mission of WUSATA - to conduct trade events/missions and activities for companies that target domestic and international markets. These include Export Readiness Training (ERT), financial support, workshops and business development services that are geared to increasing exports internationally. HDOA had up to 14 Hawai'i companies in missions that included virtual and in person.
 - ◇ Match Funds seminar
 - ◇ Fall out-reach planning
 - ◇ Canada virtual
 - ◇ Taiwan out-bound mission
 - ◇ Taiwan inbound mission to Honolulu
 - ◇ Korea out-bound mission
 - ◇ Trade Show – Winter Fancy Food



*MBD staff at the Hawai'i Coffee Association Conference
From left: Ashlynn Kaniho, Karen Sur, Yukashi Smith*

Market News and Analysis Branch

Matthew Loke, PhD
Acting Manager

The Market Analysis and News Branch (MANB) is responsible for two primary functions. First, it conducts research to support the department and industry stakeholders, by analyzing trends, commodities availability and valuation, survey methodologies, labor and resource inputs, and other agricultural factors that benefit from market insights. Second, MANB promotes collaboration among agricultural producers, wholesalers, distributors, shippers, food-hubs, local and federal agencies, and other relevant stakeholders. This collaboration generates valuable information resources to enhance decision-making for industry participants, particularly agricultural producers.

A summary of activities and achievements for the fiscal year are highlighted below:

- ◆ Despite staffing challenges, MANB successfully maintained its core functions of collecting, filtering, aggregating, analyzing, and presenting agricultural data.
- ◆ Continued outreach efforts to engage farmers, especially newer and immigrant farmers, were prioritized to identify data survey opportunities, and better understand the emerging challenges they face.
- ◆ Collaborated with the University of Hawai'i Extension Service to produce an educational YouTube video on farmland irrigation, now available to local farmers. Additional collaborative initiatives are expected in the future.
- ◆ Sustained key agricultural commodity measurements through USDA-NASS survey contracts, while also expanding efforts to evaluate and prepare statistical reports on selected non-program crops, including foundational work on Hawai'i's canoe crops.
- ◆ Completed two industry-focused reports titled [*"The Netherlands: A Model of Success in Agriculture?"*](#) and [*"New Zealand's Agricultural Transformation: Embracing a Free-Market Approach and Assessing Outcomes,"*](#) which serve as important resources for understanding global agricultural strategies. Both reports are available at: <https://hdoa.hawaii.gov/add/market-analysis-news-branch/>
- ◆ Provided non-confidential data, study briefs, specialized research, and references in response to requests from the public, agricultural industry, non-government organizations (NGOs), universities, and government agencies.
- ◆ Recruited a lead economist to oversee core functions and activities, with a focus on emerging issues of interest such as agricultural theft, intra-state shipping, and trend analysis related to production, sales and markets.

A sampling list of popular statistical reports released in FY24 includes the following:

- ◆ [Profile of Hawai'i Farms and Production Value, 2017 and 2022](#)
- ◆ [Farm Labor Statistics, State of Hawai'i, First-Half, 2024](#)
- ◆ [Cattle and Calves Statistics, 2023](#)
- ◆ [Coffee Statistics, 2023-2024](#)
- ◆ [Fresh Basil Statistics, State of Hawai'i 2023](#)
- ◆ [Statistics on Bananas, State of Hawai'i, 2023](#)
- ◆ [Statistics on Floriculture, State of Hawai'i, 2023](#)

Market News and Analysis Branch (continued)

National Agricultural Statistics Service reports funded by HDOA:

- ◆ [Hawai'i Seed Crops 2022/23](#) (Released 07/26/23)
- ◆ [Hawai'i Seed Crops 2023/24](#) (Released 06/25/2024)
- ◆ [Damage from wildfires and high winds on Hawai'i ag producers estimated at \\$23.1 million](#) (Released 01/26/2024)

Other programs:

- ◆ Seeds of Wellness (UH - College of Tropical Agriculture and Human Resilience) - <http://manoa.hawaii.edu/sow-well/>
- ◆ USDA Farm and Ranch Stress Assistance Network - <https://portal.nifa.usda.gov/web/crisprojectpages/1027082-farm-and-ranch-stress-assistance-network-frsan--hawaii-state-plan-to-nifa-fy-2021.html>

Agricultural Loan Division



Dean Matsukawa
Administrator

The Agricultural Loan Division operates the Agricultural Loan Program and Aquaculture Loan Program. The program's primary objective is to promote the development of the state's economy by stimulating, facilitating, and granting loans to qualified farmers, ranchers, aquaculturists and food manufacturers.

The program works with private lenders through participation loans and loan guaranties to increase the amount of funding available to agriculture and aquaculture industries. The program may provide direct financial assistance to those that are unable to obtain financing from conventional sources. The program operates two revolving loan funds which provides capital to fund agricultural and aquaculture loans. The division also serves as a safety net for agriculture and aquaculture industries by providing assistance during times of emergency.

Demand for loans were reduced significantly for FY24 as Hawai'i's agriculture industry struggled due to a variety of factors including lost markets due to the downturn in tourism as a result of the Lahaina wildfire, high inflation raising input costs and higher interest rates making borrowing difficult. The loans approved during the fiscal year assisted a variety of operations including nursery, coffee and ranching. Loans funded operational costs, replaced short term financing with long term fixed financing and installed fencing to reduce axis deer damage.

The division, due to lower demand for loans increased its focus on collection efforts and assisting struggling farm operations with appropriate repayment plans, providing training opportunities for staff and increasing outreach efforts to inform agriculture producers about the program.



Kula Country Farms Store on Maui.



Anoano Farm

Agricultural Loan Division (continued)

For the upcoming legislative session, the division intends to propose major revisions to the program to better meet the current needs of industry. In an effort to revitalize and make it easier to access the program, the following will be proposed increasing loan limits, reducing the number of required credit denials and lowering and fixing of the program's interest rates. The program will also continue to increase its outreach effort to raise awareness of the program.

Major activities and accomplishments of the program for FY24 were as follows:

- ◆ Approved four loans for \$974,000 including 1 emergency loan for axis deer damage during FY24. The loans helped farmers retain or increase acreage by 7,147 acres. The division's loans also helped to preserve or increase employment for 16 farm employees and laborers.
- ◆ The division's loan portfolio as of June 30, 2024 was valued at \$21.8 million with 137 loans booked. The loan breakdown by county is as follows:
 - ◇ Hawai'i County \$10.2 million
 - ◇ O'ahu County \$5.7 million
 - ◇ Maui County \$3.5 million
 - ◇ Kaua'i County \$2.4 million
- ◆ Collected \$2.847 million in FY24. Of the amount collected \$800,470 was in interest and \$2.047 million was in principal.
- ◆ One loan officer completed the two-year Agricultural Lending Institute course and one loan officer completed the first year of training.
- ◆ Staff attended grant training provided by the Federal Funds Summit.
- ◆ Outreach efforts included the Molokai Community Resource Fair, Kona Coffee Symposium and presentation to the Go Farm program.

Agricultural Resource Management Division



Brian Kau
Administrator and Chief Engineer

The Agricultural Resource Management Division (ARMD) works to ensure that the State of Hawai'i has dedicated reliable sources of agricultural water, farmland, infrastructure for farming, and agricultural-related processing facilities. The division provides administrative oversight over most of the State-owned agricultural lands in production, processing facilities, and several irrigation systems statewide. By maintaining and operating abandoned plantation irrigation systems, the division supports and encourages the development and expansion of diversified agriculture on former mono-crop plantation fields.

Activities for FY2024 included the following:

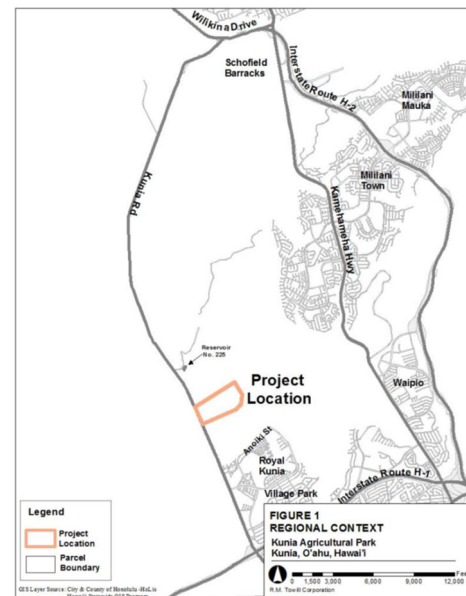
Capital Improvements

◆ Royal Kunia Agricultural Park Project

The program continues to pursue the development of the 150-acre Royal Kunia Agricultural Park in Central O'ahu. This future agricultural park will provide an opportunity for farmers to lease agricultural land from the state at a reasonable rate, allowing farmers to cultivate crops and support the agricultural industry. These lands were transferred to the department for this designated use.

In its current design, the agricultural park will include 24 farm lots of prime agricultural land. Each lot will be five-to seven-and-a-half acres in size and will include access to agricultural water for crop irrigation. The park will also include a drainage lot and dedicated area set aside for future farm dwellings. The development of associated farm dwellings creates a future agricultural park model to support agricultural growth and development.

In FY2024, construction began on an irrigation pipeline and pumping system to provide irrigation water to the agricultural park. The department is prioritizing the development of farm lots for agricultural use. This effort is anticipated to cost \$25M and includes mass grading, as well as the construction of access roads and utilities throughout the agricultural park.



Agricultural Resource Management Division (continued)

State Irrigation System Reservoir Safety Improvements – Waimānalo Crest Improvements

The Waimānalo Reservoir is operated and maintained by the department as a vital component of the Waimānalo Irrigation System. With a capacity of 60 million gallons, this reservoir stores irrigation water that is transmitted to farmers in the Waimānalo area.

Over the years, approximately 1,000 feet along the perimeter of the reservoir’s crest experienced various levels of erosion. To mitigate the problem before conditions worsened, the department took proactive measures to address the situation. In FY2024, the department completed a construction project to stabilize the eroded areas. The work involved excavation of material to a depth of five feet, installation of new geotextile fabric to prevent soil loss, compaction of new fill material, and restoration of the dumped rock covering. The project also replaced the chain link fence and gates around the entire perimeter of the reservoir, leveled and recompacted the reservoir crest/access road, and re-graded an area to address water ponding issues. These improvements will increase the structural stability of the reservoir for years to come.



Moloka’i Irrigation System Coupling Replacement Project

Irrigation water provided to the Moloka’i Irrigation System agricultural users begin its journey many miles away from the farms. Water is first collected in Waikolu Valley, on the island’s north side. It then travels through a five-mile-long tunnel, followed by a four-mile-long transmission pipeline to reach a 1.4-billion-gallon reservoir. From the reservoir, the water is provided to the users through 25 miles of distribution pipelines.

The transmission pipeline, which carries the water from the tunnel to the reservoir, was built in the 1960s. The pipe segments are joined together with couplings, which have experienced severe corrosion over the years and are in need of repair.

In 2023, a construction contract for \$787,000 was awarded to replace the first phase of couplings using Coronavirus State Fiscal Recovery Funds (CSFRF). The scope of the contract also included vegetation removal at the reservoir banks and gate replacement at various DOA facilities. Fifteen couplings were replaced in this project, however, a minimum of twenty-four additional couplings are slated for replacement in future projects. These improvements are beneficial to the ongoing functionality of the Moloka’i Irrigation System.

Agricultural Resource Management Division (continued)

Moloka'i Irrigation System Coupling Replacement Project



Moloka'i Irrigation System improvement project construction

Non-Agricultural Parks

Kahuku Farmers Association (Kahuku Farms) – Non-Agricultural Park

Kahuku Farmers Association, which started as a family run business, has been a lessee with the Department of Agriculture since 1998. The company primarily grows and distributes wholesale fruits and vegetables such as papaya, apple banana, and eggplant on approximately 200 acres. As a business practice, they also offer farm tours to educate the community-on the benefits of growing local and learning about the importance of sustainable farming.



Agricultural Resource Management Division (continued)

Keiki O Ka 'Āina Farms, Inc. – Non-Agricultural Park

Keiki O Ka 'Āina Farms, Inc. (KOKA) leases two acres of agricultural land in Waimānalo. KOKA grows banana, citrus fruit, kalo (and by-products), and 'ulu (breadfruit) on the property. With its parent company Keiki O Ka 'Āina Family Learning Centers, the agricultural products are sold for retail consumption or included in value-added products. The products are sold to roughly 2,500 O'ahu families who represent a constituency of participants of KOKA's ongoing cultural and family programs.



SL Kuwahara Partners, LLC– Non-Agricultural Park

SL Kuwahara Partners, LLC, is owned and operated by lessee Sandra Kuwahara. The two-and-a-half-acre property is situated in Panae'wa, which is approximately six miles from downtown Hilo. Sandra is well-known and respected within the commercial farming community on the Big Island. SL Kuwahara Partners LLC acquired the lease from the Department of Agriculture in 2019 and has recently acquired a second similarly sized lease to support her rapidly growing business. SL Kuwahara Partners, LLC propagates and grows large scale native and non-native ground covers, shrubs, and trees, which are sold to local landscaping businesses.



Agricultural Resource Management Division (continued)

Agricultural Parks

Hawai'i Lawn and Landscape, Inc. – Keahole Ag Park

Hawai'i Lawn and Landscape, Inc., is a family-owned business owned and operated by lessee Caz DiMarco. At approximately five acres, parcel is located in the Keahole Agricultural Park where Mr. DiMarco utilizes



every inch of the property to cultivate high quality, premium landscaping plants, ranging from lush palm varieties to an assortment of beautiful flowers.

Mr. DiMarco demonstrates a deep understanding and respect for the 'āina and strives for excellence in his business practices. All plant materials are used to support his landscaping business and are sold to local landscaping companies on Hawai'i Island.



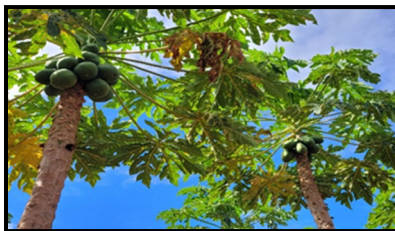
Michael and Patricia Sauer – Pāhoā Ag Park



Michael and Patricia Sauer acquired their six-acre parcel lease in the Pāhoā Agricultural Park in 2014. Their knowledge, dedication, and hard work have proven to be effective in creating and managing their successful and thriving farming operation.

They currently cultivate a variety of food and plant crops such as, cacao, avocados, dragon fruit, and palms. Their crops are sold locally, which supports Hawai'i Island's agricultural needs.

Grant Schule, Kumu Farms, LLC – Moloka'i Ag Park



Grant Schule, owner and operator of Kumu Farms, LLC, started a small family farming business on the island of Moloka'i in 1981, growing specialty produce such as culinary herbs and peppers for the local market. In 2003 the farm expanded to the Moloka'i Agricultural Park and currently farms well over 100 acres. Kumu

Farms has been very successful, primarily producing the popular Sunrise Papaya. The farm also cultivates bananas, eggplant, lettuce, bell peppers, and other fresh produce. Kumu Farms sells their produce and value-added products to retail locations on Moloka'i and across Hawai'i, including Foodland, Whole Foods and Down To Earth stores, and to the U.S. mainland.

Agricultural Resource Management Division (continued)

Irrigation Systems

The ARMD operates and maintains five irrigation systems to provide agricultural water to farmers in Kahuku, Waimānalo, Molokaʻi, Waimea, and Honokaʻa-Paʻauilo. During the past years, each of the Irrigation Systems experienced low rainfall and major construction projects which affected irrigation water storage capabilities. The system knowledge and operational experience of the irrigation system workers and engineers prevented water service interruptions and the implementation of conservation measures.

The following are samples of users our Irrigation Systems.

A&K Nursery-Waimānalo Irrigation System

At 90 years old, Kazuto Yamada can still be found walking amongst the sweet-smelling shrubs of tuberose, white ginger, and Ilima on his 15-acre state-leased farm in Waimānalo, something he has been doing for over 40 years.

A second-generation farmer who grew up in Kula on the island of Maui, Mr. Yamada recalls farming as a young boy on his family farm where they grew cabbage. Moving to Oʻahu in the 1960ʻs, Mr. Yamada attended the University of Hawaiʻi and majored in chemistry. It was there where he met his future wife, Ayako Sumida. She would be the impetus that would drive A&K Nursery and the industry by providing lei at places like the Honolulu International Airport and Waikiki Hotels.



According to the Department of Business, Economic Development & Tourism’s 2023 Annual Visitor Research Report, Oʻahu saw over 5.6 million arrivals by air. With the hundreds of graduates each year and the innumerable celebratory occasions, keeping up with the demand for fresh flower lei is challenging. “This is why I am grateful for the reliable water service from the (Waimānalo) irrigation system,” said Mr. Yamada.

Mr. Yamada hopes to pass on the farm and business to his son, David. When asked what advice would he give to a new farmer, he turned and carefully plucks ilima flowers and with a gallant voice replied, “This took a lot of time and care, farming requires a lot of capital, planning and hard work, but it’s worth it, look at these” as he stares at the delicate ilima flowers now in his hands. A&K Nursery employs area residents. The public can purchase lei directly at the farm.



Agricultural Resource Management Division (continued)

Kawamata Farms LLC, Waimea Irrigation System



Kawamata Farms began its story in 1952 when Naoji Kawamata, fisherman and part-time farmer, moved from O‘ahu to the Big Island of Hawai‘i. Naoji, along with his wife and children, began farming crops of vegetables and flowers on 17 acres in Waimea. Roses became the main crop through the 1990’s but the farm has since transitioned to tomatoes.

Today, you will find Naoji’s son, Raymond Kawamata, alongside his daughter, Leilyn, managing Kawamata Farms as second and third generation farmers. This multi-generational farm is located in the Lalamilo Farm lots in Waimea.



Raymond credits his love of agriculture for perpetuating his father’s dream. When asked why the direction of the farm changed from ornamental roses to produce, Raymond had a simple answer, “Sustainability. Food is one thing we all need.” While Kawamata Farms has experimented with other crops, Raymond says “For right now, tomatoes are keeping us very busy.” Raymond said currently the tomatoes span six and a half acres of hothouses and are harvested daily.

When asked how the HDOA’s irrigation system contributes to Kawamata Farms, he responded “Reliable water. I appreciate reliable and consistent service as well as the exceptional water rates.”

You can find Kawamata tomatoes in stores throughout the State of Hawai‘i.

Coffees of Hawai‘i, Moloka‘i Irrigation System

The history of coffee on Moloka‘i dates back to the 1800s, when German merchant, Rudolph Wilhelm Meyer was the first to grow coffee commercially, along with sugar, in Kualapu‘u, Moloka‘i. Through the years, the cultivation and popularity of coffee developed and grew. Coffees of Hawai‘i currently includes a coffee farm, mill, and roasting facility in Kualapu‘u, which is situated 850-feet above sea level, on the upper slopes of central Moloka‘i.



Starting with the field layout and windbreak plantings, Coffees of Hawai‘i is in the forefront of applied research and coffee development in Hawai‘i and abroad. They currently have over 100 acres under cultivation with over 150,000 producing coffee plants. Most aspects of their operation are modernized, which allows them to keep production costs to a minimum and allows for more effective labor utilization. Although Coffees of Hawai‘i have modernized their operations, they continue to prioritize traditional and environmentally friendly practices. These practices include composting, green manure, earthworms, and also processing with full fermentation and complete sun drying. All milling waste is composted and inoculated with earthworms which in turn is used later as fertilizer for their fields.

Today, Coffees of Hawai‘i continues to expand its product line and produces more than a dozen brands of specialty coffee with Hawai‘i origins. They grow, harvest, sun dry, roast, package, and engage in wholesale distribution and retail coffee sales in Hawai‘i and abroad.

Agricultural Resource Management Division (continued)

Capital Improvement Projects for FY2024

- ◆ Kaua'i - Ongoing:
 - ◇ East Kaua'i Irrigation System Facilities Assessment Study – Planning
 - ◇ Kainahola Stream Cleaning - Construction
- ◆ O'ahu - Completed:
 - ◇ State Irrigation System Reservoir Safety Improvements Waimānalo Reservoir Crest Improvements - Design
 - ◇ State Irrigation System Reservoir Safety Improvements Tai Lee Reservoir Improvements - Design
 - ◇ Waimānalo Irrigation System Base Yard Improvements - Design
 - ◇ Kahuku Irrigation System Pumping Station Improvements - Design
 - ◇ Kalaeloa Harvesting Facility - Design
- ◆ O'ahu - Ongoing:
 - ◇ Waimānalo Irrigation System Maunawili Valley Improvements, Phase II - Design
 - ◇ State Irrigation System Reservoir Safety Improvements Waimanalo Reservoir Crest Improvements - Construction
 - ◇ State Irrigation System Reservoir Safety Improvements Tai Lee Reservoir Improvements - Construction
 - ◇ Hawai'i Water Management Project, Waiahole Reservoirs 155 and 225 Improvements - Design
 - ◇ Waimānalo Irrigation System Baseyard Improvements - Construction
 - ◇ Kahuku Irrigation System Pumping Station Improvements - Construction
 - ◇ Wahiawā Reservoir Due Diligence Report – Planning
 - ◇ Kalaeloa Harvesting Facility - Construction
- ◆ Moloka'i -Completed:
 - ◇ Moloka'i Irrigation System Waikolu Valley Improvements - Design
- ◆ Moloka'i - Ongoing:
 - ◇ Kualapuu Reservoir Vegetation Removal - Construction
 - ◇ Farrington Booster Pumping Station Repairs and Maintenance - Construction
 - ◇ Coupling Replacement on 30" Irrigation Pipeline from West Portal to Kualapuu Reservoir - Construction
 - ◇ Statewide Meter Replacement and Miscellaneous Improvements, Moloka'i Irrigation System - Construction
 - ◇ Moloka'i Irrigation System Waikolu Valley Improvements - Construction
 - ◇ Moloka'i Irrigation System Miscellaneous Pumps Valves, and Gates Repair, Replacement and Maintenance – Construction

Agricultural Resource Management Division (continued)

Capitol Improvement Projects for FY2024 (continued)

- ◆ Island of Hawai`i - Completed
 - ◇ Honalo Marshalling Yard Improvements - Design
 - ◇ Lower Hāmākua Ditch-Waipio Valley Improvements - Design
- ◆ Island of Hawai`i - Ongoing
 - ◇ Honalo Marshalling Yard Improvements - Construction
 - ◇ Lower Hāmākua Ditch-Waipio Valley Improvements - Construction
 - ◇ State Irrigation System Reservoir Safety Improvements Pu`u Kapu Reservoir Improvements - Construction
 - ◇ State Irrigation System Reservoir Safety Improvements Pu`u Pulehu Reservoir Spillway Improvements - Design
 - ◇ Waimea Irrigation System Drainage Improvements - Design
 - ◇ Kamuela Vacuum Cooling Plant Demolition of Inactive Vacuum Cooling Warehouse - Construction

Animal Industry Division



Isaac Maeda, DVM
State Veterinarian and Administrator

The Animal Industry Division protects Hawai‘i’s livestock, poultry, aquaculture industries, and animal and public health by preventing disease introductions and detecting and controlling economically important diseases and pests within the state. The division conducts: animal disease surveillance, epidemiology and control; inspection of all animals and birds entering the state; aquaculture shrimp disease-free certification; livestock brand registration; voluntary livestock disease certification, animal disease traceability programs; laboratory diagnostic services; and dog and cat import regulation and quarantine to reduce the risk of rabies introduction.

Animal and public health and environmental programs aimed at preventing the introduction of foreign, emerging, zoonotic, and economically detrimental animal diseases and pests into the state continue to be important functions of the division. Examples such as the Highly Pathogenic Avian Influenza (HPAI) virus, African Swine Fever virus, and Asian longhorned tick are just a few examples of disease agents of high concern that are not in the state.

Hawai‘i’s statuses for State-Federal Cooperative Disease Control Programs during FY24:

- ◆ Brucellosis Free, cattle and swine
- ◆ Pseudorabies Free, Stage V
- ◆ Bovine Tuberculosis (bTB), Accredited Free*
(*refer to bTB in the Animal Disease Control Branch (ADCB) section)

A memorandum of understanding (MOU), between the HDOA, and the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services (USDA APHIS VS), on the requirements and responsibilities for maintaining Hawai‘i’s Accredited Free State status regarding the risk of bovine tuberculosis (bTB), was executed on November 17, 2022, with a minor revision on January 20, 2023. The MOU and HDOA responsibilities detailed in the MOU, are subject to annual review and renewal. The latest revision was signed in November 2024. The State of Hawai‘i continues to maintain a “Bovine Tuberculosis Accredited Free State Status.”

Although an FY25 topic, a detection of Highly Pathogenic Avian Influenza H5N1 (HPAI), that occurred in November 2024 is included here for awareness. The infection occurred in a backyard flock of poultry and waterfowl at a duck rescue operation. All birds relating to this detection were depopulated and the site was cleaned by HDOA ADCB and USDA staff. The infection is likely from migratory birds because the virus strain has been circulating in wild birds in the Pacific flyway. An asymptomatic hybrid duck was also found positive for HPAI. At the time of this report, no other infections have been detected. The division works closely with USDA APHIS and collaborates with the Hawai‘i Department of Health (HDOH), U.S. Fish & Wildlife Service (USFWS), U.S. Geological Survey (USGS), UH College of Tropical Agriculture and Human Resilience (CTAHR), and communicates with the Department of Land and Natural Resources (DLNR) for this outbreak.

Animal Industry Division (continued)

Hawai'i is also recognized as free of bluetongue virus and anaplasmosis and surveillance programs for these diseases are ongoing to ensure that the disease-free status is documented and maintained. Continuing voluntary disease control program activities include scrapie in sheep and goats and Johne's disease in cattle. Stringent import requirements remain in place for birds entering Hawai'i in an effort to reduce the risk of West Nile virus introduction.

The division received cooperative agreement funds from the USDA APHIS for \$132,605.00 during FY24. The agreements supported specific activities in diseases of avian, cattle, One Health, sheep, goat, Cervid, equine, swine health, and Animal Disease traceability. The division has a project in progress to replace a broken incinerator with funds awarded in a grant from the National Animal Disease Preparedness and Response Program in FY23 to upgrade disposal incineration equipment. The equipment will be used in response to emerging and foreign animal diseases that threaten Hawai'i's animal agriculture.

Rabies Quarantine Branch

The Rabies Quarantine Branch managed a greater number (approximately 21,802) of dogs and cats entering Hawai'i during FY24 compared with prior years (e.g., approximately 12,200 in 2012). This represents an increase of 15% from the previous year and 116% from FY10's 10,075 entries. The entries in FY24 were almost five times the 4,771 animals that entered Hawai'i prior to the start of the 5-day-or-less program in FY03. In addition, 262 animals transited through the state (an approximate 3.6% increase from FY23).

The following are approximate rabies quarantine statistics for cats and dogs arriving between July 1, 2023, and June 30, 2024 (FY24):

PROGRAM	NUMBER	PERCENT
120-day quarantine	486	2.1
5-Day-or-Less Early Arrival	513	2.3
5-Day-or-Less	4,638	20.3
5-Day-or-Less Total*	5,151*	22.6
Airport Releases	17,165	75.3
Total:	22,801	100
Transiting through Hawai'i	262	

*Includes dogs and cats arriving early

The rabies quarantine program implemented the 5-Day-or-Less program in 2003 which focuses on pre-entry vaccination, serology, identification, and health certification to reduce the risk of disease introduction rather than quarantine confinement.

Animal Industry Division, Rabies Quarantine Branch (continued)

Under the 5-Day-or-Less program, pets may be released at Daniel K. Inouye International Airport (HNL) in Honolulu if they complete the pre-arrival requirements that include (but not limited to):

1. Positive pet identification with an electronic microchip.
2. A minimum of two rabies vaccinations in the animal's lifetime, administered no less than 30 days apart. The current (or last) vaccine must not be administered no less than 30 days before the pet's arrival in the state, and not expired.
3. FAVN rabies serological testing to measure vaccination response with sufficient levels (≥ 0.5 IU/ml) of rabies antibodies.
4. A 30-day waiting period after a passing FAVN rabies test before entry into the state; and a 30-day pre-arrival waiting period between the time the lab receives the blood sample and the earliest date the pet may enter the state (the pre-arrival waiting period is necessary due to the long and variable length of rabies incubation, where the virus may hide in an animal before clinical signs of the disease become apparent).
5. Certificate of Veterinary Inspection (CVI) or Health Certificate, executed no less than 14 days before arrival.
6. Pet owners must also submit required paperwork more than 10 days before the pet's arrival.
7. Inspection upon arrival.

In 2018, the minimum waiting period of 30 days after: the last of two required rabies vaccination; and a passing the FAVN blood test (numbers 3 and 4 above), before arrival were reduced from periods of 90 days after the last rabies vaccination and 120 days after the passing blood test. These changes substantially reduced the preparation time to enter Hawai'i for animals that were not previously vaccinated for rabies or had not had rabies serological testing. These changes do not significantly increase the risk of disease entry.

The high and increasing number of direct release qualified dogs and cats at the HNL, is a continual challenge for the veterinary, inspection, clerical, accounting, and animal care staff by substantially increasing workload.

Staff access computerized databases (Animal Information System or AIS), to manage, monitor, and verify information relevant to qualification. Considerable time is spent reviewing documents, pre-qualifying pets, processing payments, receiving and inspecting pets, and addressing the needs, questions, and concerns of the general public. The clerical, veterinary, and inspection personnel spend an extensive amount of time emailing and speaking with pet owners on the phone and in person explaining the program requirements. It is still estimated that nearly half of all submitted essential documents require follow-up contact with veterinarians or pet owners.

To improve application convenience for customers and in response to improve workflow efficiency, the program solicited, and awarded, a service contract to upgrade the existing AIS that started in FY24. An important component of this multiyear project is the upgrade of the Hawaii Pet Owner Portal or HIPOP. This upgrade will allow pet owners to submit applications and pay online, digitizing the current paper hard copy documents processes. AIS contains approximately 239,000 dog and cat accounts and over 80,000 owner accounts.

Animal Industry Division, Rabies Quarantine Branch (continued)

Approximately 17,164 dogs and cats were released at the airport in FY24, that amount is 37.5% higher than the 12,484 animals released at the airport in FY23. However, this number does not reflect the workload for the total number of pet documents processed, because the database adds an estimated 23,000+ files each year for the 5-Day-or-Less program. The ADCB staff including the port veterinarian and livestock inspectors provide essential support to the program by assisting rabies quarantine veterinary assistants with inspecting and processing dogs and cats released at the Airport Animal Quarantine Holding Facility (AAQHF), seven (7) days a week. The AAQHF is under the jurisdiction of and operated by the ADCB.

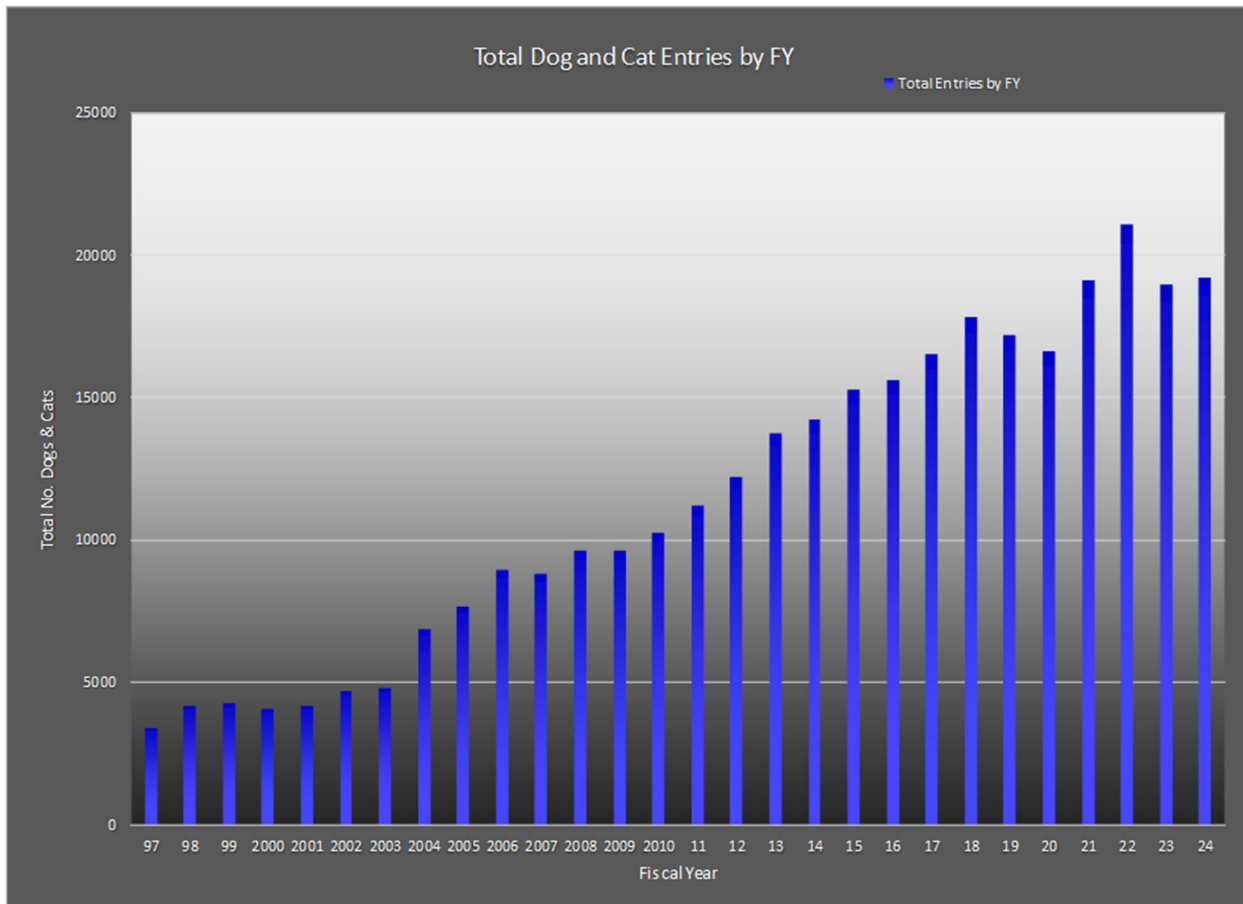
Midway through FY10, staffing challenges resulted from the elimination of two (2) ADCB inspectors due to a statewide reduction in force. Inspection hours at the AAQHF had to be reduced from 8 a.m. to 8 p.m., to 8 a.m. to 5 p.m., to address the staff reduction. Furthermore, filling position vacancies division wide has not been a rapid process adding additional challenges to operations.

The 5-Day-or-Less program continues to be very successful, but it is labor intensive in documentation and verification as well as receiving, inspecting, caring for, and releasing dogs and cats. The AAQHF estimates nearly 10% of arriving pet owners do not submit the required pre-arrival documents beforehand resulting in additional screening and verification of these cases by the inspection staff at the airport facility. Pet charter flights also have created severe congestion and processing issues because over 35 animals on a single flight may be delivered at one time, to the AAQHF. The AAQHF is not designed nor staffed to easily manage acute, high-volume, influx of animals. These high-volume flights, along with increased numbers of animals routinely arriving in the state in general, increase challenges faced by staff. This AIS HIPOP improvement project mentioned previously should help to address routine arrivals but not pet charter flights as they are not routine and irregular in schedule. Extensive renovation of the facility is needed to process these acute peak arrival patterns.

The department routinely updates its website, including an informational brochure that is dedicated to Hawai'i's rabies quarantine program and contains all of the information and forms relating to quarantine and the importation of dogs and cats. Pet owners may access pre-arrival FAVN rabies serological test results and associated 5-Day-or-Less dates at this DOA website. Checklists for the 5-Day-or-Less program are available at the site to assist pet owners of both resident pets and non-resident dogs and cats with preparations to qualify for this reduced quarantine option.

Animal Industry Division, Rabies Quarantine Branch (continued)

The following graph represents the dramatic rise in the number of dogs and cats entering Hawai'i since the 5-Day-or-Less program was implemented at the end of FY03.



Approximately 96% of arriving dogs and cats qualified for the 5-Day-or-Less program in FY24.

Furthermore, of the approximately 21,802 pets that qualified for the 5-Day-or-Less program, 17,164 pets (more than 75.3%), qualified for direct release upon arrival at the HNL or neighboring island in comparison to only 2.1% (486), of the arriving animals were quarantined for 120 days.

Animals may qualify for quarantine periods between zero (airport release), to 120 days under the early arrival provision of the 5-Day-or-Less program. There were about 513 dogs and cats that were in the early arrival category in FY24 that spent an average of 22 days in quarantine.

In addition to HNL, the department has a system that allows dogs and cats to enter Hawai'i directly at Kona International Airport at Keahole, Kahului Airport on Maui, and Līhu'e Airport on Kaua'i. Quarantine-approved veterinary facilities serve as private contractors to inspect animals upon arrival at these airports because the rabies quarantine program does not have personnel on islands other than O'ahu. A pet owner must apply for a Neighbor Island Inspection Permit (NIIP), to fly with their dog or cat directly to one of these airports from the continental U.S.

Animal Industry Division, Rabies Quarantine Branch (continued)

The following are current requirements to obtain an NIIP:

1. Every dog or cat must meet all requirements listed on the “Checklist for the 5-Day-or-Less Program,” except that all required documents must be submitted earlier (30 days or more before the intended date of arrival).
2. Owners must make reservations for inspection with an approved contractor. Contractors will then send a confirmation to the AQS that they have agreed to perform the inspection and re-release procedure on the dog or cat. Owners are responsible for the additional fees to the contractor for this service.
 - ◇ Completed Dog & Cat Import Form, AQS 279
 - ◇ Original rabies vaccine certificates for the two (2) most recent vaccinations
 - ◇ Payment of \$165.00 in cashier’s check or money order made out to the Department of Agriculture
 - ◇ Flight information
 - ◇ A letter from the owner requesting Direct Airport Release at either “Kona,” “Kahului,” or “Līhu‘e”
3. A Kona, Kahului, or Līhu‘e NIIP will be emailed to the owner once the AQS has:
4. Received the above required documents, information, and payment (see #2 above);
 - ◇ Received the above required documents, information, and payment (see #2 above);
 - ◇ Confirmed the pet meets all of the requirements for the 5-Day-or-Less program and neighbor island inspection and release; and
 - ◇ Received confirmation from the approved contractor that they will meet the pet.
5. The pet specific NIIP must accompany the dog or cat on the aircraft and be submitted to the inspector upon arrival in Hawai‘i.

Another phase of the AIS improvement project mentioned previously is planned to have the NIIP application simplified to a digital online process that will also allow pet owners to arrange for an inspection with an approved veterinary contractor online. The goal of the NIIP component of the AIS project is to simplify and decrease the time for accomplishing one through four above, through digitization.

In addition to rabies exclusion, the quarantine program continues to monitor dogs and cats carefully for ticks exotic to Hawai‘i. Animals were discovered carrying Rhipicephalus sanguineus ticks upon entry examination in FY24. Rhipicephalus sanguineus, the brown dog tick, is the only tick established in Hawai‘i and associated with dogs. However, three cases involved dogs with either Amblyomma americanum, the lone star tick, or Dermacentor variabilis, the American dog tick. Both of these ticks are not established in Hawai‘i and are a concern because they can transmit various diseases to humans and other animals, such as those that cause Lyme disease, ehrlichiosis, rickettsiosis, Rocky Mountain spotted fever, tularemia, and theileriosis. In addition, ticks including D. variabilis can cause tick paralysis in animals and people.

Animal Disease Control Branch

Travis Heskett, DVM
Acting Branch Manager

The Animal Disease Control Branch (ADCB) prevents, investigates, conducts surveillance, controls, and eradicates animal diseases that may have serious economic impacts on the state and nation's livestock and poultry, and aquaculture industries, some of which impact public health. The branch inspects animals entering the state and ensures compliance with division rules and laws pertaining to the mitigation, control, and eradication of animal diseases.

Avian Influenza (AI)

Highly Pathogenic Avian Influenza (HPAI), continues to circulate in wild birds and poultry throughout the world and continental U.S. Although an FY25 topic, a detection of HPAI H5N1 that occurred in November 2024 is included here for awareness. The infection occurred in a backyard flock of, non-World Organization of Animal Health (non-WOAH), which is considered poultry not for commercial food production or breeding purposes, waterfowl at a duck rescue operation. All birds relating to this detection were depopulated and the site was cleaned by HDOA ADCB and USDA staff. The infection is likely from migratory birds because the virus strain isolated has been circulating in wild birds in the Pacific flyway. An asymptomatic hybrid duck was also found positive for HPAI. At the time of this report, no other infections have been detected. The division works closely with USDA APHIS and collaborates with HDOH, USFWS, USGS, UH CTAHR, and communicates with DLNR for this outbreak.



West Nile Virus (WNV)

An embargo on the movement of poultry and other birds, except chicken hatching eggs and chicken day-old chicks through the U.S. Postal Service (USPS) remains in place. In addition, all poultry and other birds including all hatching eggs and all day-old chicks require a "Poultry and Bird Import Permit" for entry into the state. Those species of poultry and birds capable of producing high WNV levels are required to undergo a seven-day pre-arrival quarantine before qualifying for an entry permit. The geographic location of the flock of origin for poultry and bird imports is evaluated for proximity to HPAI detections before import permits are issued. Poultry and other birds arriving in the state not meeting entry requirements are refused entry. In FY23, 69 shipments of poultry or other birds were refused entry or returned by carriers or by the USPS to their origins for failing to meet entry requirements. WNV arrived in the continental U.S. in 1999 and now affects all states except Hawai'i and Alaska.

Animal Industry Division—Animal Disease Control Branch (continued)

Bovine Tuberculosis (bTB)

Bovine Tuberculosis free status maintained.

bTB a chronic, debilitating disease of cattle, bison, goats, cervids, and other animals that can also cause a serious disease in humans, is caused by the bacteria Mycobacterium bovis. State and federal veterinarians test cattle herds annually and manage hunter assisted surveillance of wildlife on the East end of Moloka'i where bTB had been a recurrent problem until 1997. To prevent the potential spread of bTB from eastern Moloka'i, all cattle east of Kamalō were required to obtain a permit and have an annual negative bTB test to move.

Prior to 2021, the last bTB infected cattle herd, located on eastern Moloka'i, was depopulated when a single cow was identified with bTB in 1997 and no new cases of bTB in cattle were found at that time.

In June 2021, a small cattle herd was identified as infected with bTB on the island of Moloka'i. The ADCB, in collaboration with USDA APHIS VS, conducted a disease investigation examining and testing trace herds associated with the index herd. Infected herds were subsequently depopulated. During that time two hunter-collected axis deer were also found infected with bTB. No other bTB infections have been found since 2021.

In response to the bTB detections on Moloka'i, Quarantine Order 158 was placed on the entire island restricting movement of ungulates by permit only. A memorandum of understanding (MOU) between the HDOA and the USDA APHIS VS, on the requirements and responsibilities for maintaining Hawai'i's Accredited Free State status regarding the risk of bTB was executed on November 17, 2022, with a minor revision on January 20, 2023. The latest revision was signed in November 2024. The MOU and bTB activities by HDOA and USDA APHIS VS are necessary for the State of Hawai'i to maintain a "Bovine Tuberculosis Accredited Free State Status." The MOU, and HDOA and USDA APHIS VS responsibilities detailed in the MOU, are subject to annual review and renewal.

The branch works with hunters, the DLNR, and USDA Wildlife Services (USDA WS) to source wildlife samples for bTB analysis. As reported previously, only two infected wildlife (axis deer) have been identified since 2021. USDA WS also began a two-year project on Moloka'i (in FY24) to evaluate wildlife population density and movements, and wildlife interactions with livestock. It is hoped that the study will help determine what strategies can be employed to mitigate exposure to livestock.

Bovine Brucellosis

Bovine Brucellosis class free status maintained

Hawai'i has been officially classified as free of bovine brucellosis since 1983. Bovine brucellosis is an infectious disease of cattle, bison, and elk caused by the bacteria Brucella abortus. Brucellosis can also infect humans. During the fiscal year, 41 cattle were tested for brucellosis. No suspects or reactors were found. However, occasional spillover of Brucella suis from infected feral swine and Yersinia enterocolitica will cause cross-reactivity on cattle surveillance testing resulting in herd epidemiological investigations that may include herd testing. These investigations found that in areas where B. suis is endemic in feral swine, a single or few heads may become transiently infected, but no cattle-to-cattle spread has been seen and no herd reproductive abnormalities have been found.

Animal Industry Division—Animal Disease Control Branch (continued)

Swine Brucellosis & Pseudorabies (PRV)

Hawai'i maintains free statuses for Swine Brucellosis and Pseudorabies

Brucellosis

Hawai'i retained its free status for swine brucellosis during FY24. Brucellosis in swine is caused by the bacteria Brucella suis. Infected swine experience reproductive problems including abortion and infertility. Brucella suis can cause serious infections in humans. No domestic swine herd was found infected in FY24. As a result, Hawai'i maintains its Brucella suis free status.

Feral swine in Kona, Hāmākua (Hawai'i Island), Kahakuloa (Maui), Ft. Shafter westward through Waianae, the North Shore, and Windward (O'ahu) are known to be infected with swine brucellosis. Exposure of domestic swine to infected feral swine and the practice of maintaining transitional herds of mixed feral and domestic swine have been the source of all domestic swine brucellosis infections in the past.

In addition to annual testing of all sows and boars over six months of age at slaughter, 25% of the herds in the state are randomly selected for testing to determine their brucellosis status. Surveillance for FY23 included 682 domestic swine and 57 feral swine samples. One domestic swine herd was infected, and 14 percent of the feral swine tested were reactors to swine brucellosis.

Pseudorabies

Hawai'i maintains a free status for pseudorabies in swine. Pseudorabies (PRV), a viral infection of swine, causes respiratory disease and reproductive failure. Pseudorabies infection of other species (such as dogs) is typically fatal, but humans are not susceptible.

Pseudorabies surveillance testing of 363 domestic swine samples during FY23 found no infected domestic swine. One transitional herd was determined to be infected. Feral swine on the islands of Hawai'i, Maui, and O'ahu are known to be PRV-infected. Forty-three (26/60) percent of the feral swine tested in FY23 tested positive for PRV. Infected feral swine are a constant threat to domestic swine herds. A statewide quarantine order prohibits the commingling of feral and domestic swine as well as the inter-island movement of feral swine.

Transmissible Spongiform Encephalopathies Scrapies

Hawai'i continues to be recognized as consistent with the USDA Voluntary Scrapie Certification Program Standards.

Scrapie is a transmissible, insidious, neuro-degenerative disease affecting the central nervous system of sheep and goats. Scrapie has not been diagnosed in goat or sheep flocks in Hawai'i.

Hawai'i received USDA cooperative agreements continued in FY07 to provide sheep and goat flock owners with education information, enroll flocks in the status program, conduct surveillance testing on cull and diagnostic animals, and provide for some genotype testing. A quarantine order is in place to require change of ownership identification requirements for certain classes of sheep and goats for Hawai'i to remain consistent in the National Scrapie program.

Animal Industry Division—Animal Disease Control Branch (continued)

Bovine Spongiform Encephalopathy (BSE)

During FY23 BSE sampling continued on cattle exhibiting neurological signs, unknown cause of death, and those unable to rise continued. There were no positive test results.

Importation/Exportation of Livestock, Poultry, and Other Animals

An embargo on the movement of poultry and other birds into Hawaii through the USPS implemented in September 2002 remains in place. The embargo remains in place to prevent the entry of WNV, AI, and other avian diseases from entering the state with infected birds.

Inspected and approved for entry into the state: 592 head of livestock; 8,885 poultry and other birds; 530,739 day-old chicks and hatching eggs; and 5,949 other animals. Over 19,300 dogs and cats were also received at the AAQHF at HNL.

The branch staff conducted 149 compliance investigations, 11 citations were issued, 332 written warnings, and four animals and 65 post-office shipments were refused entry.

Veterinary Laboratory

Travis Heskett, DVM, D.A.C.V.P., *Lab Director*

Raquel Wong, DVM., *Veterinary Medical Officer*

The Veterinary Laboratory provides essential services to assist department veterinarians in identifying and controlling diseases affecting livestock and poultry. The Veterinary Laboratory provides a diverse range of diagnostic services. Professional staff are trained in different disciplines such as pathology, histology, serology, parasitology, and bacteriology. If specialized services are required, laboratory staff members handle and package specimens in accordance with specific shipping regulations to ensure the safe and secure transport of specimens.

In FY24, the number of tests performed was similar to previous years. The laboratory tests swine serum for brucellosis, pseudorabies, and porcine reproductive and respiratory syndrome (PRRS). Serum samples are also forwarded to NVSL-FADDL for classical swine fever surveillance. The veterinary laboratory performs necropsies (which include histology and often parasitology) to investigate unusual morbidity and mortality events. Tissue samples were collected in 21 instances to rule out African Swine Fever and Classical Swine Fever.

Rabbit Hemorrhagic Disease Virus was detected on a single Hawai'i farm in 2022. In FY24, samples from a rabbit that was necropsied were forwarded for molecular testing to rule out the continued presence of this disease (RHDV was not detected). Diagnostic investigations into poultry deaths included the collection of samples for avian influenza surveillance, and avian influenza was not detected in the state in FY24.

Avian Influenza (AI)

Highly pathogenic Avian Influenza (HPAI) continues to circulate in wild birds and poultry throughout the world and continental US. Although an FY25 topic, the detection of Highly Pathogenic Avian Influenza H5N1 (HPAI) that occurred in November 2024 is included here for awareness. The infection occurred in a backyard flock of, non-WOAH poultry, waterfowl at a duck rescue. The division is very active in sending avian samples for testing to the state NAHLN lab and NVSL for confirmation.

Animal Industry Division - Veterinary Laboratory (continued)

Aquaculture Development Program

Todd Low

Program Manager

The Aquaculture Development Program (ADP) provides essential support services to encourage further growth and diversification of the aquaculture industry. ADP is a planning, development, and problem-solving organization whose goals are to assist in the start-up of production and service businesses and to contribute to their success. Specific activities include planning and policy formulation, new business development, permit facilitation, marketing assistance, disease diagnosis and prevention assistance, and co-funding of statewide technical extension.

The mission of ADP is to prepare and implement state aquaculture plans and policies for the expansion of aquatic farming, and research and technology transfer business; coordinate statewide development activities; and directly assist both public and private sector interests in achieving their aquaculture-related goals, in order to create jobs and diversify the economies of all islands.

Major activities for FY24 were:

- ◆ Estimated wholesale product value for the industry was \$89.6M for calendar 2022 according to department statisticians, which represents a 12% increase from 2021. Algae continues to constitute high value and amount to 50% of the total value of the industry.
- ◆ Continued the joint implementation of the amended Chapter 190D, HRS, Ocean and Submerged Lands Leasing law with the DLNR. Keahole Point Fish produced 900 tons of Hawaiian Kanpachi (*Seriola rivoliana*) – 38% of their current allowable yearly production. Ocean Era Farm continues to develop their proposal for an integrated multi-trophic aquaculture operation to be located off Ewa Beach on O‘ahu. The project would integrate nenu (*Kyphosus sandwicensis*), moi (*Polydactylus sexfilis*), with seaweed in a submersible array.
- ◆ Integrated the concept of Restorative Aquaculture into ADP planning and tactics. Restorative aquaculture occurs when commercial or subsistence aquaculture provides direct ecological benefits to the environment, with the potential to generate net-positive environmental outcomes. Macroalgae and bivalves improve water quality and sequester carbon and will be the targets for increased production.
- ◆ Continued to provide an internationally recognized Shrimp Surveillance and Certification Program to the growing shrimp broodstock industry. The aquaculture veterinarian provides third-party diagnostic sample collection with chain-of-custody documentation for all Hawai‘i broodstock operations including the Oceanic Institution/US Marine Shrimp Farming Program stocks based on O‘ahu. At present, there are four shrimp broodstock export farms under the surveillance program and all are disease-free.
- ◆ Assisted farmers with import permits and export health documentation for aquatic species on O‘ahu, Kaua‘i, Maui, Moloka‘i, and Hawai‘i Island. The aquaculture veterinarian is continuing to provide chain-of-custody sampling for a voluntary screening of imported koi stocks while in quarantine before being transferred to grow-out systems destined for export. This effort is contributing to the now significant numbers of koi being exported to the mainland and the future expanding market into the EU. The Disease Prevention Program assists in cooperation with federal oversight in developing new aquaculture drugs for food fish species.

Animal Industry Division - Aquaculture Development Program (continued)

- ◆ Promoted the local consumption of aquaculture products by participating in the Agriculture Awareness Day at the State Capitol. Worked with various internet, television, radio, and print media to provide background information, place stories, and promote the industry. Maintained an email distribution list to distribute time-sensitive information to local producers.
- ◆ Provided technical reviews of research and development proposals to the Center for Tropical and Subtropical Aquaculture. Provided reviews of Aquatic Species Importation permits for the department's Plant Quarantine Branch.
- ◆ Provided limited extension services to farmers and start-up operations. Provided inspection services for the cooperative aquaculture facilities permit to the DLNR. The aquaculture veterinarian provided critical diagnostic services to farmers for disease outbreak problems.

Plant Industry Division



Greg Takeshima
Acting Administrator

The Division of Plant Industry consists of three branches, the Pesticides Branch, Plant Quarantine Branch, and Plant Pest Control Branch. Together, the branches work to protect Hawai'i's agricultural industries by preventing the entry and establishment of detrimental insects, weeds and other pests and by assuring the safe and efficient use of pesticides in Hawai'i.

Plant Pest Control Branch

Darcy Oishi
Acting Branch Manager

The primary function of the Plant Pest Control Branch is to reduce population densities of plant pests that cause significant damage to agriculture and the environment to manageable levels. With Hawai'i's year-round mild climate and wide selection of available host plants, new immigrant plant pests (insects, mites, weeds, plant diseases, etc.) quickly become established. The overall objective of the Plant Pest Control Branch is to minimize the effect of these invasive plant pests in Hawai'i. This is accomplished through pests being detected, identified, delimited, contained, eradicated and/or controlled through biological, chemical, or mechanical means. The Branch consists of the Biological Control Section and the Chemical/Mechanical Section and includes the Hawai'i State Apiary Program and the Hawai'i Ant Lab.

Projects and Accomplishments of the Plant Pest Control Branch included the following during FY24:

Biological Control Section

The Biological Control (Biocontrol) Section of the Plant Pest Control Branch (PPC), Hawai'i Department of Agriculture (HDOA) protects Hawai'i's agricultural enterprises and natural resources using biological control methods of insects, weeds, and diseases that are currently established, or which may enter the State and cause economic or environmental losses. The Biocontrol Section is committed to finding natural enemies to control plant pests. This section comprises the following units: Plant Pathology, Taxonomy/Exploratory, Insectary, and Apiary.

Plant Pest Control Branch (continued)

Taxonomy Unit

The Taxonomy Unit gathers and develops information for and provides information to interested parties on the occurrence, distribution, host plant association, and economic importance of insects within the State. The PPC insect taxonomist serves as the authoritative specialist and advisor in taxonomic entomology involving insect identifications, emphasizing insects of agricultural importance, their parasites, and their predators. Unfortunately, the insect taxonomist left the program in March 2024 and identifications have been assumed by the acting manager and the exploratory entomologist. We are working on filling the vacant position through either internal or external recruitment.

New Pest Detections of Insects and Other Arthropods

◆ ***Uredo uviferae* (Ono, 2020 (Pucciniales: Pucciniaceae), A rust of Seagrape
New state record**

In August 2024, Hawai'i Department of Agriculture, Plant Pest Control Branch (HDOA-PPC) collected a sample of the suspected rust fungus on Seagrape in Waimānalo, Hawai'i. Upon a site visit, a single *Ficus microcarpa* (Chinese banyan) tree was found to be heavily infested with psyllids. Immediate surveys in the surrounding areas found additional infested trees. Specimens were identified as *Uredo uviferae* and digital images confirmed by Dr. Stephen W. Bullington (National Identification Services, Domestic Diagnostic Coordinator, USDA) on August 16, 2024.

◆ ***Uromyces oaxacanus* (Dietel & Holway, 1901), and *Uromyces jatrophae* (Dietel & Holway, 1901)
(Pucciniales: Pucciniaceae), A rust of Barbados nut
New state record confirmed**

Leaves of Barbados nut were collected as part of a pre-departure inspection by Plant Protection and Quarantine Program in Honolulu, Hawai'i. Confirmation of the two rusts were received on June 27th, 2024 by Dr. Stephen W. Bullington (National Identification Services, Domestic Diagnostic Coordinator, USDA).

New Island Records

Kaua'i

- ◆ *Oryctes rhinoceros* (Linnaeus, 1758) (Coleoptera: Scarabaeidae), cococnut rhinoceros beetle
- ◆ *Stephanitis typica* (Distant, 1903) (Hemiptera: Tingidae), a banana lacewing bug
- ◆ *Myrmarachne nigella* Simon, 1901 (Araneae: Salticidae), an ant mimic spider

O'ahu

- ◆ *Duplachionaspis divergens* (Green, 1899), a scale insect found on Bermuda grass

Pest Risk Assessment

Plant Pest Control Staff performed 6 pest risk assessments in response to USDA requests for Port Policy changes. Staff recommendations based upon assessments were accepted by PPQ.

Plant Pest Control Branch (continued)

Insectary Unit

The Biocontrol Section, Insectary Unit receives, evaluates, and propagates beneficial organisms for use in the biological control of agricultural and forest pests in the State. The unit receives and screens in the Insect Containment Facility all incoming shipments of insects, and related organisms; determines, segregates, and eliminates undesirable introductions; conducts and evaluates host specificity tests; studies the life habits and host preference of beneficial organisms; and develops suitable techniques for mass rearing.

The primary purpose of this position is to assess, evaluate, and release biological control agents for the potential control of invasive arthropods and plant species that are agricultural or forest pests in Hawai'i; assess the extent of new pest infestations detected in Hawai'i; maintain facilities and equipment; and conduct outreach and educational activities as needed.

Erythrina Gall Wasp Project

Eurytoma erythrinae Gates & Delvare (Hymenoptera: Eurytomidae) was first released in November 2008 to control the invasive erythrina gall wasp (EGW), *Quadrastichus erythrinae* Kim, (Hymenoptera: Eulophidae), which invaded the Hawaiian Islands in April 2005 and decimated hundreds of *Erythrina* trees, including our endemic wiliwili. *Eurytoma erythrinae* is an ectoparasitoid that attacks EGW by feeding on several of the immatures in galls to complete its development. Six months after the first release, *E. erythrinae* established successfully in the pest habitat and wiliwili trees began to recover.

Although *Eurytoma erythrinae* was successful in saving the *Erythrina* trees, damage by EGW on flowers, seed pods, and seedlings of the endemic wiliwili trees persists. Galls formed by EGW on flowers and seedlings are usually small and scattered but the *E. erythrinae* parasitoid fares well only on large galls. Furthermore, the formation of seed takes approximately three months, and all flower stages are susceptible up to mature seed formation. Seedlings are likewise vulnerable and easily succumb to EGW damage. Hence, the future survival of *E. sandwicensis* remains threatened.

Evaluation of a second biocontrol agent, *Aprostocetus nitens* Prinsloo & Kelly 2009, was completed and the Hawai'i Department of Agriculture has submitted an application for its release to aid *E.erythrinae* in combatting EGW [see Appendix B].

In anticipation of the approved release of *A. nitens*, HDOA-PPC did a recent field assessment on the production of wiliwili seeds and how young wiliwili trees are surviving in the field. This study was unfortunately only carried out on the Island of O'ahu because of the restrictions of the COVID-19 pandemic. The results of this study showed that EGW damage on wiliwili stands close to urban areas is more severe compared to isolated stands. For example, at Koko Crater Botanical Garden, our assessment revealed that only 6% of flowers developed into mature seeds and young tree mortality was 30% compared to Makua Keeau, a forest reserve area on the Waianae side which had an 85% mature seed development and 0% tree mortality. This study reinforces the need for a second biocontrol agent for the continued reproduction and preservation of wiliwili in the wild.

In January 2023, HDOA-PPC published the Final Environmental Assessment (FEA) and Finding of No Significant Impact (FONSI) for the proposed statewide field release of *Aprostocetus nitens* Prinsloo & Kelly (Hymenoptera: Eulophidae: Tetrastichinae) for biological control of the erythrina gall wasp, *Quadrastichus erythrinae* Kim (Hymenoptera: Eulophidae) with the Environmental Review Program. An application to place *A. nitens* on the HDOA List of Restricted Animals (Part A) and to allow the import and field release from the HDOA-PPC Insect Containment Facility (ICF) was submitted to the HDOA Plant Quarantine Branch (PQB) and awaits approval by the Board of Agriculture. The FEA has also been submitted to the USDA Plant Protection and Quarantine for consideration in the Federal permitting process.

Plant Pest Control Branch (continued)

Macadamia Felted Coccid Project

Macadamia felted coccid (MFC), *Acanthococcus ironsidei* (Williams, 1973), is a scale insect in the family Eriococcidae, the felted scales, and is a very invasive pest of macadamia trees in Hawai'i. MFC infests macadamia trees by sucking sap from stems, branches, foliage, and nuts with its syringe-like mouthparts thus, resulting in the formation of yellow spots on the leaves, stunted growth of young tissues, and losses in nut production. Heavy to severe pest infestation may result in the dieback of fruit-bearing trees or the death of young ones.

The macadamia felted coccid was first detected on macadamia trees in South Kona on the Big Island in 2005. It has since spread to other parts of the island and is impacting commercial as well as small-scale macadamia growers. Horticultural oils have been used for control of MFC, but thorough spray coverage of trees is seldom achieved. Moreover, although natural enemies have been found present on Big Island farms, their impact is not sufficient to bring the pest numbers down to low levels. MFC remains a perennial threat to macadamia farmers and the macadamia nut industry in Hawai'i.

A potential biocontrol agent of MFC was collected by HDOA in Australia in 2013 and is currently held in the HDOA-PPC Insect Containment Facility. *Metaphycus macadamiae* is a tiny, microscopic wasp that parasitizes MFC by inserting one egg into an adult scale where it hatches into a larva, develops within, and matures into an adult, killing the host MFC in the process. This parasitoid completes development within the host in two to three weeks depending on the rearing temperature. Twelve economically important and endemic Hawaiian species of insects have already been evaluated against *M. macadamiae*. Thus far, HDOA-PPC anticipates this biocontrol agent is host-specific to MFC and there will be no significant impact on the environment upon field release in Hawai'i.

Maintenance of the *Metaphycus macadamiae* colony is ongoing in the Insect Containment Facility and includes propagating macadamia seedlings (see Hawai'i Island District report), keeping host plants clean from other pests, exposing macadamia seedlings to macadamia felted coccids when they are about 12 inches in height, and finally, exposing MFC-infested macadamia seedlings to the biocontrol agent, *M. macadamiae*.

This year, HDOA-PPC staff conducted a recent statewide survey of macadamia farms to determine the most current distribution of MFC on Kaua'i, O'ahu, Maui, and Hawai'i Islands. Partner agencies from Pūlama Lāna'i and UH assisted in surveys on Lāna'i and Moloka'i. The Hawaii Macadamia Nut Association kindly worked with us to send out surveys to member farmers on Hawai'i Island to determine the current status of infestation. Results found that MFC is still limited in distribution to Hawai'i Island. It is imperative that this biocontrol agent is available for farmers to use as a tool to manage the very invasive macadamia felted coccid and to prevent this pest from spreading to other islands.

A Draft Environmental Assessment for the proposed statewide field release of *Metaphycus macadamiae* Polaszek & Noyes (Hymenoptera: Encyrtidae) for Biological Control of Macadamia Felted Coccid, *Acanthococcus ironsidei* (Williams) (Hemiptera: Eriococcidae), in Hawai'i, has been submitted for publication upon completion and analysis of final risk assessment tests and a finding of no significant impact was declared. Applications have been pursued by the Branch through the Plant Quarantine Branch and USDA for release. The permits are still pending.

Plant Pest Control Branch (continued)

Nettle Caterpillar Project

Darna pallivitta (Lepidoptera: Limacodidae), stinging nettle caterpillar (SNC), is a voracious foliage-feeding, stinging, invasive caterpillar first found on Hawai'i Island in September 2001. This invasive pest fed on high-value crops, including, ornamental foliage, pasture grasses, and indigenous flora. Moreover, and equally as important, is if one encounters the larva. Its nasty and painful sting could result in an allergic skin reaction. This invasive pest created a new issue that nurserymen had to deal with because of overhead expenses incurred from a shortage of farm help due to fear of getting stung by SNC and the urgent medical care that may go with it.

The stinging nettle caterpillar spread to the islands of Maui, O'ahu, and Kaua'i soon after its discovery on the Big Island. Initial efforts to contain the pest with chemical pesticides and other preventative measures proved not only ineffective but costly. Hence, HDOA-PPC began to search for a natural enemy to research as a potential biocontrol agent.

Aroplectrus dimerus Linnaeus is a hymenopteran parasitoid (Family Eulophidae) collected from Taiwan during exploration in 2004 and attacks the larva of SNC in all instars of development. Risk assessment evaluation of twenty-five species in 13 families of Lepidoptera showed that the parasitoid is highly specific to SNC and would not pose a threat to non-target organisms in Hawai'i. *A. dimerus* was approved for liberation in Hawai'i by state and federal regulatory agencies in 2010.

In May 2010, HDOA-PPC began statewide field releases of *Aroplectrus dimerus*.

The effectiveness of *A. dimerus* as a larval biocontrol agent translated to a steady decline in moth abundance over time, bottoming out to its lowest pest density within three years after its liberation. Moth catches tallied in nearly 200 pheromone-baited traps deployed on the islands of O'ahu, Hawai'i, Maui, and Kaua'i were at the lowest since the invasion of SNC. Persistent parasitization of SNC larvae by *A. dimerus* had effectively suppressed the pest larvae from completing development into mature moths, thus, negating pest build-up to epidemic proportions.

The introduction of this highly specific natural enemy in Hawai'i has continued to mitigate the damage inflicted by the stinging nettle caterpillar on high-value plants. In addition, people have been relieved of burning stings and skin allergies. Similar assessment as well was echoed by community residents and plant growers in their statements, like, "We do not get stung anymore," "we hardly see the stinging caterpillar," "thankful for the job the wasp has done," "understand and appreciate more the value of biological control," among others.

A few months after the release of *Aroplectrus dimerus*, a hyperparasitoid (a parasitoid attacking the beneficial biocontrol agent parasitoid) emerged in a holding jar of field-collected SNC caterpillars that were parasitized by the recently released agent *A. dimerus*. The SNC larvae were collected from a Waimānalo, O'ahu nursery where a large population of SNC larvae had ravaged potted areca palm plants. Parasitized SNC were examined in the lab and revealed that some pupae of the biocontrol agent *A. dimerus* appeared darkened. Dark colored hyperparasitoids emerged from the *A. dimerus* pupae shortly after. This tiny hyperparasitoid was determined to be *Pediobius imbreus* Walker (Hymenoptera: Eulophidae), a generalist parasitoid wasp that has been established in Hawai'i for over a century. First collected in 1917, *P. imbreus* was reared as a hyperparasitoid from the cocoon of the braconid wasp *Bracon* (=Microbracon) *omiodivorus*, which is a common primary parasitoid of caterpillars. Another documented host record is the Ichneumonid wasp *Cremastus* (=Trathala) sp. collected in 1949.

Plant Pest Control Branch (continued)

Hawai'i Island District

***Acalolepta aesthetica*, “Queensland longhorn beetle” (QLB)**

In recent years, QLB has spread exponentially throughout the upper/lower Puna areas and Hilo and Hāmākua areas. To understand the biology and life cycle of this invasive pest, the Entomologist reared and researched colonies of QLB in the lab throughout each nine-month lifecycle. Larvae and adults were exposed to bolts of wood from host trees and allowed to feed and oviposit eggs for rearing purposes. Maintenance of QLB colonies involves bi-weekly harvesting of adequate host material and washing and cleaning cages. Additional larvae and adults were distributed to USDA-ARS for lifecycle research, biocontrol efficacy tests, and other research and development experiments.

Apiary Unit

The HDOA's Apiary Program (located in Hilo, Hawai'i Island) is dedicated to protecting the beekeeping industries in Hawai'i by implementing science-based regulations, conducting regular monitoring, preventing the spread of invasive honey bee pests, offering interactive educational opportunities, and maintaining open communication with beekeepers across the state. The program was established in 2011, and although honey bees are not native to Hawai'i, they have been present for over 150 years, providing exceptional honey and playing a crucial role in pollinating many plants that support local agriculture. The beekeeping industries in Hawai'i include queen bee rearing for domestic and international export, honey production, and producing an array of value-added products from the hive.

The HDOA Apiary Program activities throughout the state

- ◆ Monitor traps near state ports of entry to prevent the arrival of invasive pests and diseases of honey bees. Our goal is to maintain biosecurity and environmental safety
- ◆ Conduct quarterly inspections of all honey bee queen breeder operations in Hawai'i to ensure queen bees for export are in good health and apparently free of pests and diseases. This is done to maintain the health and well-being of our bee populations
- ◆ Offer technical assistance to beekeepers to support them in maintaining the health and vitality of their colonies
- ◆ Assist residents who need help removing honey bee swarms and hive relocation in Hawai'i
- ◆ Vigilantly monitor any suspicious or illegal activities related to bringing honey bees, queen bees, or used equipment into Hawai'i. Illegal importation of honey bees, queen bees, or used bee equipment into Hawai'i can result in a class C felony and penalties of up to \$200,000 [150A-14(C)]

Plant Pest Control Branch (continued)

Apiary Program Activities and Highlights for FY24

◆ Maintaining queen breeding inspections:

- ◇ Eight honey bee queen breeders received honey bee inspections every quarter (eight breeders on Hawai'i Island)
 - * 20-25 hives assessed per inspection
 - * A total of about 35 inspections
 - * About 750 hives have been inspected
 - * Processed 109 export certificates to queen breeders. These export certificates allow the breeder to export queen bees from Hawai'i to Canada
 - * Three breeders ship to Canada and the U.S. mainland
 - * Six breeders ship to the U.S. mainland only

Queen Breeders & Export Certification	
Queen Breeding Companies	7
Hawai'i Island Queen Breeders	7
Domestic Annual # Inspections	28
Canadian Annual # Inspections	9
# Breeders Shipping to Both Canada & U.S. Mainland	3
# Breeders Shipping to U.S. Mainland Only	5
Annual # of Export Certificates to Canada	86
Annual # Hives Examined	645
Annual # Apiaries Visited	87
Failed Inspections	0

◆ Hawai'i continues to remain free of the following detrimental honey bee pests:

- * Africanized honey bees (*Apis mellifera scutellata*)
 - * Asian honey bees (*Apis cerana*)
 - * *Varroa jobcobsoni*, *Acarapis woodi*, and *Tropilaelaps clareae* (parasitic mites)
 - * Apimyiasis
 - * Nosema
- ◆ In 2024, there were no detections of the following:
- * Stonebrood disease
 - * American foulbrood disease
- ◆ Small hive beetle is consistently present through every inspection, with every hive
- * Wax moths are only observed in weak hives but not in high enough populations to be considered a major pest

Plant Pest Control Branch (continued)

Honey Bee Hive Health	
European Foulbrood Positive Hives	0
American Foulbrood Positive Hives	0
Stonebrood Positive Hives	0
Visible Nosema Symptoms	0
# Inspections with Varroa Mite Count over 1%	2

◆ **Maintaining biosecurity at maritime ports:**

- * Checked honey bee swarm traps at all Hawai'i Island ports of entry (Hilo Harbor, Hilo Airport, Kona Airport, and Kawaihae Harbor)
- * Checked swarm traps every two weeks for Africanized honey bee (AHB) swarms
- * Processed all HDOA swarm traps that caught honey bee swarms and processed Invasive Species Committees' (ISC) swarm traps (pictures and data sent over)
- * Swarms from traps were tested for brood diseases and varroa mite levels, and samples were sent to UH Mānoa for Asian and Africanized honey bee genetic analysis (*Apis cerana* and *Apis mellifera scutellata*)
- * Educated and worked with port workers on what to look for concerning honey bee pests, swarms, and invasive hornets/wasps
- * Performed swarm trap training for Kaua'i Invasive Species Committee, Maui Invasive Species Committee, O'ahu Invasive Species Committee, USDA, and Hawai'i Invasive Species Council (HISC) staff
- * Kaua'i staff maintained 12 swarm traps on island which caught a single swarm. No varroa mite was found in the trap

Biosecurity	Hilo Maritime	Kawaihae Maritime	Hilo AOA	Kona AOA	Total
# of Traps Maintained Near Ports of Entry	4	6	18	8	36
# of Times Traps Were Checked Annually	27	27	27	27	108
Annual # of Swarms Processed	4	4	3	1	12
Total Annual # of Traps Checked					144

◆ **Current Projects:**

- ◇ Working on an Early Detection Rapid Response Plan of Action and educational material for AHB
- ◇ Working with the ISC groups and training their employees in hopes they can effectively maintain AHB swarm traps throughout the state (except for Hawai'i island)
- ◇ Participating in monthly meetings with the AHB working group
- ◇ Tracking the evolving *Vespa mandarina* (northern giant hornet) and *Vespa velutina* (yellow-legged hornet) situation in the U.S. mainland
 - * Experimenting and formulating the best types of traps and lures to place at maritime ports for invasive hornets, and honey bees

Plant Pest Control Branch (continued)

◆ Current Projects: (continued)

- ◇ Participating in the national survey for hornets in our local area
 - * This involves setting up sentinel traps in key locations to understand our current wasp/ hornet population and also to potentially catch hornet species not yet reported in Hawai'i
- ◇ Continuing to work with the USDA Baton Rouge honey bee lab on assorted honey bee issues
- ◇ Created educational flyers for the public concerning honey bee pests, diseases, environmental concerns affecting honey bees, basic beekeeping tips, honey bee behavior, and State of Hawai'i regulations
- ◇ Created and updated standard operating procedures for the Apiary Program
 - * Biosecurity
 - * Interisland honey bee regulations
 - * Queen breeder certificates
 - * Canadian certification
 - * Pest level tolerance

◆ Public & community outreach:

- ◇ Responding to calls from the public concerning honey bee nuisances
 - * Swarm removal calls in residential and public places
 - * Educate citizens on bee behavior and biology
- ◇ Working with the Hawai'i County Council and beekeepers (hobbyist and commercial alike) to finalize a new ordinance for honeybees in the County of Hawai'i
 - * Assisting educationally and professionally to help guide the ordinance to benefit honey bees, beekeepers, and the general public in a way that continues to promote agriculture while protecting the health of all and maintaining proper biosecurity measures in mind

◆ Other:

- ◇ Maintaining HDOA Apiary and fine-tuning beekeeping skills to better help the beekeepers and understand the changing environment and conditions under which queen breeders go through as well, to better assist them

Plant Pest Control Branch (continued)

Chemical/Mechanical (CM) Control Section

Little Fire Ant, *Wasmannia auropunctata*.

The Little Fire Ant (LFA) is established and widespread on Hawai'i Island. Populations on Maui, O'ahu, and Kaua'i can be quite large and extensive, but staff of the CM section continue to provide assistance in control programs. Kaua'i and Maui CM staff continue to work with their respective Island Invasive Species Committee, the Hawai'i Ant Lab (HAL) and their respective Counties. Kaua'i CM personnel assisted Hawai'i Ant Lab and Kaua'i Invasive Species Committee members in monitoring and treating for LFA at infested properties. Kaua'i CM staff also responded to pest calls from Island residents who reported being stung by red ants. Little fire ants have been detected on O'ahu, and several new infested sites have been found on Kaua'i. On Hawai'i Island, CM staff provide technical support for other agencies as well as surge support for other islands.

Populations are expanding on O'ahu and Kaua'i, and shrinking in Maui. PPC does not feel eradication is possible without significant, long-term funding of response programs and a quantum shift in the types of control techniques available for use.

Coqui Frog, *Eleutherodactylus coqui*.

Like LFA, coqui frog is established on Hawai'i Island. Coqui efforts are focused on the islands of Kaua'i and Maui with responses to reports based on male vocalizations being prioritized. High pressure sprayers are available from the HDOA to community groups, plant nurseries, and private individuals at no charge on these islands. CM staff on Hawai'i, O'ahu, and Kaua'i received phone reports as well as live and expired specimens of greenhouse frogs which were mistaken for coqui frogs. There were no control projects in place for greenhouse frogs by the CM Section.

Coconut Rhinoceros Beetle, *Oryctes rhinoceros*.

The Coconut Rhinoceros Beetle (CRB), whose larvae feed on decaying organic matter and adults attack and feed on palms and other plants when infestations are high had been contained to O'ahu by the Coconut Rhinoceros Beetle Response Project administered by the University of Hawai'i since 2013. However, beginning in late 2023, the beetle has managed to establish on the islands of Kaua'i, Maui, and Hawai'i.

The first detection off of O'ahu was made on Kaua'i at two locations in traps deployed as part of the DLNR Port Monitoring Program in May 2023. Subsequent detections were made on Kaua'i and now there are at least seven sites where beetles were caught in traps and three locations where larvae were recovered. A pilot project was launched in response to detections of coconut rhinoceros beetle on the island of Kaua'i. Infestations turned out to be more widespread than anticipated, however, the Department saw an opportunity to use techniques developed by the University of Hawai'i's Coconut Rhinoceros Beetle Response. As a result, drones application of crown treatments have become a vital tool for managing CRB populations.



HDOA staff check the mulch piles at the Honolulu Zoo for CRB

Plant Pest Control Branch (continued)

Coconut Rhinoceros Beetle, *Oryctes rhinoceros*. (continued)

Following the Maui detection of a dead beetle in compost in September 2023, the Branch launched a statewide assessment of packaged compost including trace forward and trace backward infestations to discern the relative risk of compost coming in through various mechanisms to Kaua'i, Maui and Hawai'i Counties and the risk posed to these counties for the potential introduction of CRB through this pathway.

Following the detection of multiple beetles in Waikoloa first larvae in stumps within Waikoloa Village followed by detection of beetles in traps, HDOA in collaboration with the University of Hawai'i, launched investigations to find active breeding sites and to initiate preventative treatments. HDOA has found a potential breeding site on island at the West Hawai'i Sanitary Landfill.

Seed Inspection:

Routine surveys of agricultural and vegetable seed vendors were conducted around the State to ensure that seed packages sold to consumers were properly labeled or expired.

Under an agreement with the USDA - Animal and Plant Health Inspection Service, the CM staff examines seed lots entering the U.S. from foreign ports. This year, USDA did not request any examination of seeds. Consistent with a general trend, no germination tests were performed on vegetable and agricultural seed lots to ensure compliance with the labeling requirements of the Hawai'i Administrative Rules 4-67 Seed Rules. There were 58 Seed Importer's Licenses issued by the Branch to seed vendors and distributors who sell and/or package seeds for sale in Hawai'i. A total of \$1,375 was collected from fees associated with these licenses.



PPC Noxious Weed Specialist, James "Aut" Fleming, checks a palm tree for CRB in Kīhei, Maui

Plant Quarantine Branch

Jonathan Ho **Branch Manager**

The primary purpose of the Plant Quarantine Branch (PQB) is to implement the State's Biosecurity Program, pursuant to Hawaii Revised Statutes (HRS), §150A-52, which indicates the primary objectives are to:

- ◆ Establish a multi-dimensional system to prevent the entry into the state and interisland movement of pests and prohibited or restricted organisms without a permit; and
- ◆ Respond effectively to eradicate, control, reduce, and suppress incipient pest populations and established pests and seize and dispose of prohibited or restricted organisms without a permit.

This is accomplished through regulatory enforcement via inspections, permitting, nursery certification, compliance agreements, rapid response, education/outreach, and other related activities across the State. The regulations are primarily within HRS 150A – the “Hawai'i Plant Quarantine Law” and Hawai'i Administrative Rules Chapters 4-70 – Plant Import Rules, 4-71 – Non-Domestic Animal Import Rules, 4-71A – Microorganism Import Rules, 4-72 – Plant Intrastate Rules, and 4-73 – Plant Export Rules.

Inspections

PQB has offices statewide, primarily located at or near the ports of entry (airports/seaports), with 85 inspectors/aides/technicians responsible for day-to-day operational activities. Regulated commodities include the following: propagative plant material; cut-flower or foliage; fresh produce; other agricultural products in the natural or raw state; forage such as moss, hay, straw or dry-grass; unmanufactured logs, timber, or plant-product, unprocessed or in the raw state; soil; microorganisms; non-domestic animals such as live birds, reptiles, nematodes, insects in any stage of development; and associated containers/vehicles used to transport regulated commodities.

Import inspections of regulated commodities are primarily conducted at the ports of entry with inspectors inspecting imported goods at airports, seaports, importer/freight forwarder facilities, express mail and cargo carriers such as FedEx/UPS/DHX/Aloha Air Cargo/Pacific Air Cargo, and the U.S. Postal Service. Highly perishable commodities arriving via surface vessel are inspected at importer's facilities. In FY24, 9,046,021 lots of regulated commodities were inspected, with 3,129 lots requiring treatment, destruction, confiscation, or shipment out of state.

Permit Processing and Issuance

The PQB issues permits to import and/or to possess restricted plants, non-domestic animals, microorganisms, and soil into the state. Microbial product registrations are also issued for the importation of microbial products into the state. Under certain circumstances, permits for intrastate movement are also issued. Permits can be issued for single shipments or unlimited shipments within one year from date of issuance. This system balances the needs for the private individual and the commercial business against the need for regulation of regulated commodities and associated fees.

In FY24, PQB issued 816 permits for the importation of restricted plants, non-domestic animals, microorganisms, and soil. Two hundred fifty-two Letters of Authorization for the importation of Non-restricted Microorganisms were issued. Three hundred thirty-four microbial product registrations were issued. Seventy-eight intrastate permits were issued.

Plant Quarantine Branch (continued)

Snake Handling Program/Brown Tree Snake Interdiction

PQB places a high priority on preventing the introduction of any snake species into the state. As Hawai'i has no native snake species, should one become established, it could lead to a similar situation to Guam, where the introduction of a single species, the brown tree snake, (BTS), *Boiga irregularis*, significantly altered the ecosystem on a landscape scale and affected people's way of life due to risks to infrastructure.

To mitigate this risk, the PQB created a Snake Handling Program, which is held annually, and trains five to eight staff at a time. There is a portion done in Honolulu using classwork and snakes already in our possession, with the final one-week training done in Guam. Guam was selected for this program as it provides the staff with the safest opportunity to deal with wild snakes with minimal risks of personal injury as the BTS are only mildly venomous and there are no known cases of a person dying or becoming seriously ill as a result of being bitten. Searching for and handling a wild snake is the closest representation to what could actually happen in Hawai'i during a rapid response event. The training is done in conjunction with USGS, but encompasses Hawai'i specific issues, such as determining if a snake is venomous or not, before capturing, whereas in Guam, only BTS are found, so this issue does not arise.

Since the inception of the program, HDOA has trained approximately 70% of its staff statewide. A typical training session involves three trainers and two to three trainees per trainer. Trainers are on Guam before the trainees to set up facilities, capture snakes for initial use, and ensure that search areas are safe. This program ensures that the PQB has the capacity to deploy staff statewide for any credible report of a snake. The most recent training occurred from September 23-27, 2024, certifying another five inspectors (3-O'ahu, 1-Maui, 1-Kona).

PQB also applies for a federal grant through the U.S. Department of the Interior for BTS interdiction activities and was awarded \$375,000 on July 30, 2024 for continuation of these activities. The PQB has applied for and received this same grant each calendar year since 2020. This grant provides funding for inspections of aircraft or ships from Guam or other areas where BTS is known to be established; equipment, care, and supplies for three trained detector dog teams; and trapping/surveillance activities at Joint Base Pearl Harbor Hickam three times per week. In FY 2024, 97.9% (1,451 of 1,482) flights were inspected and cleared. It should be noted that these flights can arrive 24 hours a day, 365 days of the year, often with very little notice to dispatch an inspector.

Pest Referrals / Rapid Response

The PQB responds to all credible reports of actionable pests or prohibited animals across the state. In FY24, there were 293 reports received statewide for a variety of organisms including Coqui frogs, snakes, skunks, iguanas, opossums, and bearded dragons.

Some notable responses:

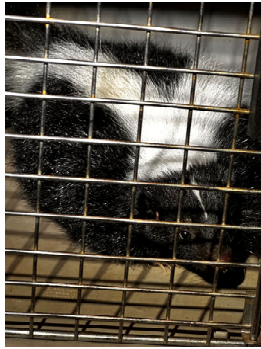
- ◆ In October 2024, a skunk was captured at Honolulu Harbor after initially being seen by stevedores. PQB inspectors had deployed traps for several days prior to the capture. The animal was captured after being seen by U.S. Immigration Office security personnel, who notified PQB inspectors who were able to capture the animal. The skunk was tested for rabies and found to be negative.

Plant Quarantine Branch (continued)

Pest Referrals / Rapid Response

Some notable responses (continued):

- ◆ In January 2024, a gopher snake was captured in a shipping container on Molokaʻi. Maui County Police on Molokaʻi euthanized the animal. PQB inspectors from Maui arrived approximately at noon of the same day and checked the rest of the container. No other snakes were found.
- ◆ In August 2023, a raccoon was captured in the Kalaeloa area. Trapping and monitoring activities were a multi-week joint effort, with the HDOA, PQB, the Naval Facilities Engineering systems Command, and the U.S. Department of Agriculture, Wildlife Services. The raccoon was tested for rabies and found to be negative.
- ◆ In July 2023, a live juvenile boa constrictor was captured aboard a cargo ship in Honolulu Harbor. Notification to the HDOA, PQB was through the U.S. Customs and Border Protection agency. No other snakes were found.



Skunk caught at Honolulu Harbor



Boa caught at Honolulu Harbor



Raccoon trapped at Kalaeloa

PQB staff conducted 171 coqui responses on Oʻahu and captured 1,158 coqui in FY '24. PQB continues to work with partners (DLNR, OISC, community) for a population in Waimānalo.

In calendar year 2024, PQB conducted 88 Little Fire Ant (LFA), *Wasmannia auropunctata*, surveys across Oʻahu. 17,618 samples were taken, with 818 being positive for LFA at 18 sites. PQB is also confirmed a site at Honolulu Harbor for a new species of ant, *Trichomyrmex sp. nr. mayeri*, which was referred to the PQB by the Hawaiʻi Ant Lab. Treatments are ongoing in the area.

From December 2023 to current, PQB conducted 13 surveys for Coconut Rhinoceros Beetle (CRB), *Oryctes rhinoceros*, on Oʻahu. The most recent surveys are in preparation for contracts to remove dead coconut trees and to remove green waste on public lands using funds appropriated by Act 231. A limited number of CRB treatments have been conducted. Two treatments were conducted at the Wailua Municipal Golf Course on Kauaʻi in conjunction with the HDOA Plant Pest Control Branch (PPC) and the CRB Response Program. Three treatments have been conducted on Oʻahu municipal courses (2- West Loch, 1 – Ewas Villages). The start of treatments was delayed because there were issues with acquiring the necessary equipment for application and obtaining training on the proper use of injectable systemic pesticides. Improper application is not only potentially dangerous to staff but can also result in death of the tree if treated incorrectly.

Plant Quarantine Branch (continued)

Activities Requiring Hawai'i Board of Agriculture Approval

The PQB processed eight submissions that required Hawai'i Board of Agriculture (Board) actions which included initiation of rulemaking or issuance of permits for importation.

Some notable requests processed were for future list placement and introduction of the wasp, *Aprostocetus nitens*, for biocontrol of *Quadrastichus erythrinae* (Erythrina gall wasp) by the Plant Pest Control Branch; and the processing of a petition by a private individual Tiffany Nerveza-Clark, to change the list placement of hybrid cats from the List of Prohibited Animals to the List of Conditionally Approved Animals.

Rulemaking

PQB implemented Interim Rule 23-1 to prevent the further spread of CRB and related CRB host materials from O'ahu to other areas in the state. PQB also implemented Interim Rule 24-1 to prevent the spread of LFA throughout O'ahu from LFA quarantined areas on O'ahu.

Finalized proposed changes to Hawai'i Administrative Rules Chapter 4-72, Plant and Non-Domestic Animal Quarantine, Plant Intrastate Rules, to among other things:

- ◆ Implement PQB Interim Rule 23-1, regarding quarantine restrictions on the CRB and CRB host materials;
- ◆ Implement fees for inspections and the processing and issuance of permits;
- ◆ Establish authority to prohibit the movement of infested materials within the state;
- ◆ Include penalties for non-compliance; and
- ◆ Make other changes for clarity or simplification and other non-substantive changes correcting grammar, punctuation, or typeface.

The public hearing for Chapter 4-72, HAR was conducted on January 30, 2024 and brought back before the Board in October 22, 2024, for final approval with minor changes, to which the Board approved. The changes were then presented to the Small Business Regulatory Review Board, which recommend approval. The PQB is finalizing the rules for submittal to the Governor's office for his review and approval.

Investigations

The penalties for violating HRS 150A are criminal. The department maintains an MOU with the Hawai'i Department of the Attorney General (HDAG) to investigate violations. PQB inspectors conduct inspections (administrative searches) at ports of entry statewide to ensure that shipments of regulated commodities are compliant with statutes, administrative rules, permit conditions, and other regulations prior to entering the state. PQB inspectors may take administrative action on shipments of regulated commodities that are non-compliant, e.g., refuse entry into the state, require treatment or destruction, etc. The PQB maintains a policy to warn violators in writing for first-time violations. This policy has seen great success with only a single repeat violator for FY24. The repeat violator had simultaneously violated multiple federal regulations, some of which were felonies. The alleged state violations were misdemeanors, so the PQB turned over its evidence to federal investigators and that case is still ongoing. For FY24, there were a total of 81 investigations, with the majority for the importation of regulated commodities without a valid permit prior to importation.

Plant Quarantine Branch (continued)

Education/Outreach Activities

With limited manpower and financial resources focused on preventing the entry and spread of pests into and within the State, the PQB puts a strong emphasis on public education/outreach events to empower everyone to be the PQB's eyes and ears in their communities. Education and outreach events are varied and tailored to audiences as needed, however a major focus is on the general public and with stakeholders. In FY24, PBQ conducted 68 education/outreach events, with 22,116 interactions held at those events.

Christmas Tree Compliance Program

PQB continues to work collaboratively with Oregon Department of Agriculture (ODA) and the Washington State Department of Agriculture (WSDA) to maintain implementation of best management practices (BMPs) and inspection protocols with Oregon Christmas tree shippers to ensure that the shipments are free of pests.

The BMPs continue to be successful, with figure 1 below showing the non-compliance rate for shipments found to be infested with pests at time of inspection with an average 97% compliance rate over the last five calendar years. The trend appears to be continuing for this year's shipments.

Figure 1. Overall Imported Christmas tree pest statistics

Calendar Year	Total	Non-compliant	Passed	Compliance %
2019	168	4	164	98%
2020	154	12	142	92%
2021	148	3	145	98%
2022	146	2	144	99%
2023	120	0	120	100%



Certified Nurseries

The PQB continues to maintain an annual compliance agreement with the California Department of Food and Agriculture's Department of Food and Agriculture via its Master Permit QC 650, which enables nurseries who meet the agreements' facility, inspection, and pest-free status, to ship qualified nursery stock to the U.S. mainland without additional inspections/certifications. The QC 650 Master Permit QC 650 was renewed on September 16, 2024, and is valid for another calendar year. There are currently 113 certified nurseries statewide.

Pesticides Branch

Greg Takeshima
Branch Manager

The Pesticides Branch has been provided primacy through the United States Environmental Protection Agency (U.S. EPA) to act as the State Lead Agency to implement the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended. The Pesticides Branch enforces, consults, educates, and regulates the use of pesticides to allow stakeholder industries to legally apply pesticides while ensuring those pesticides will not cause any unreasonable adverse effects to humans and the environment.

The Pesticides Branch continues to provide the state with regulatory oversight through two main objectives, enforcement and education. The branch has filled eight positions in fiscal year 2024; five permanent and three emergency hires. Vacancy rate for the branch currently stands at 23%.

In Fiscal Years 2023 and 2024, the Pesticides Branch contracted and completed the first statewide commercial pesticides disposal program in 15 years. The program provided disposal events to commercial pesticides companies on the islands of Hawai'i, Kaua'i, Lāna'i, Maui, Moloka'i, and O'ahu. The program collected 39,184 pounds of cancelled, suspended, unwanted, and unused pesticides statewide, reducing potential contaminants and sources of pollution.

The Pesticides Branch advocated for the passing of Act 220 of the thirty-second legislative session which updates seats on the Advisory Committee on Pesticides. Two legacy seats remained on the Advisory Committee on Pesticides, representing pineapple, and sugar industries, respectively. Those seats remained vacant due to the agricultural shift away from sugar and pineapple production. The seats were replaced by the coffee industry and diversified agriculture.

Due to the increasing pressure by invasive species and their effects on Hawai'i's environment and agriculture, the Pesticides Branch submitted a quarantine Emergency Exemption to the U.S. EPA for the use of an insecticide on palms and coconuts against coconut rhinoceros beetle (CRB, *Oryctes rhinoceros*). The submission was approved and allows the use of an insecticide on ornamental palms and coconuts via drone or ground applications.

The branch continues to prioritize hiring to fill vacancies and creation of twelve new positions via Act 231 of the thirty-second legislative session. The branch will request all new positions created by Act 231 be fully budgeted in the next legislative session to ensure biosecurity remains a priority. The Branch will also request funding for a continued pesticides disposal program, continued drift monitoring project, and new vehicles.

Quality Assurance Division



Leonard Obaldo, PhD
Administrator

The Quality Assurance Division consists of two branches, the Commodities Branch and the Measurement Standards Branch, and two major programs, the Hawai'i Produce Safety Program and the Hemp Program. The branch programs are designed to support the division's mission of ensuring food safety and quality in agricultural products, measurement accuracy and fairness in the marketplace. The division serves both the consumer and producer of agricultural products by providing inspection and certification services and enforcing laws and rules.

Hawai'i Produce Safety Program

The HDOA, under a grant from U.S. Food and Drug Administration (FDA), has established a Hawai'i Produce Safety Program that advances efforts for a nationally integrated food safety system by encouraging the safe production of fresh fruits and vegetables and promoting understanding and compliance with the requirements of FDA's Rule: Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption ("Produce Safety Rule or PSR"). The Hawai'i Produce Safety Program ("program") has employed and maintained two key personnel with the main focus to assess state's produce crops and inventory, establish a farm inspection protocol, and develop and provide education, outreach and technical assistance to farms regarding the PSR. Basically, the program is designed to help grow Hawai'i's produce industry by aiding produce farms to meet FDA FSMA food safety requirements, access markets, and promote public health.

The program's jurisdiction consists of a subset of the approximately 6,569 total farms located in Hawai'i according to USDA's 2022 Agricultural Census. The program continues to develop a farm inventory database to identify and verify all sizes of farms growing, harvesting, packing or holding covered commodities that are subject to PSR inspection and would need educational assistance to comply with the federal rule. To date, the program has identified and verified 153 farms that are covered by the PSR, consisting of 92 very small farms with produce sales up to \$250,000, 20 small farms with produce sales up to \$500,000, and 41 large farms with produce sales over \$500,000. Overall, the program has verified in total 1,877 farms, including the previously mentioned 153 covered farms, 197 farms with only rarely consumed raw produce, two farms with only produce under enforcement discretion, 84 farms with only produce that is commercial processing exempt, 213 qualified exempt farms, 505 farms not covered based on produce sales <\$25,000, 262 active farms that no longer grow produce, and 461 farms that previously grew produce that are now closed. While the 2022 Agricultural Census is still being analyzed by USDA, general trends compared to the 2017 Agricultural Census include a roughly 10% decrease in the number of operating farms in Hawai'i, along with our own program's observations that many farms are moving from being covered by the rule to being qualified exempt or having <\$25,000 produce sales due to shrinking operations, more regional focused sales, and aging farmers. FDA has indicated that USDA Agricultural Census numbers are only an estimate and many states across the nation have inventory numbers that do not align with their state's respective USDA Agricultural Census.

Quality Assurance Division (continued)

The program has also developed the capability and expertise to provide produce safety educational and outreach services to farmers such as: (1) Produce Safety Alliance (PSA) Grower Training which is required under PSR Section 112.22(c) for farmers growing covered commodities. (2) On-Farm Readiness Reviews (OFRR) which is a free, voluntary, confidential, non-regulatory educational farm visit to provide an assessment of the farm's readiness for PSR inspection. The program has conducted more than 25 OFRR statewide. (3) Produce safety technical assistance including the use of translated educational materials and brochures intended for Limited English Proficiency (LEP) farmers and rural audiences. The program has administered 40 PSA Grower trainings independently and through collaboration with partners such as the University of Hawai'i College of Tropical Agriculture and Human Resilience (UH-CTAHR) and the Oregon Department of Agriculture, Produce Safety Program. A cumulative total of more than 736 participants were trained in the PSA Grower training course - majority farmers, some employees of government and non-government organizations. In FY24, planning for a Chinese-Mandarin language PSA Growers Training was started for a predicted FY25 execution in collaboration with UH-CTAHR and KBay Consulting for language translation and interpretation services.

Overall, the program's mission is to continue supporting the implementation of FDA's PSR in Hawai'i to help more farmers meet food safety requirements, access better markets, and promote public health.

Other Produce Safety Related Activities

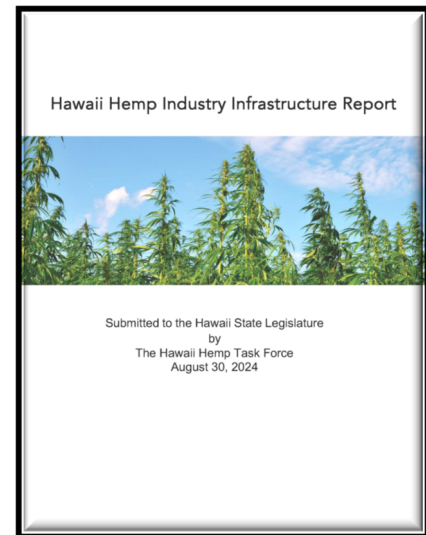
Administered the implementation of Act 212 SLH 2023 which appropriated the sum of \$1,000,000 for fiscal year 2023-2024 for HDOA to establish and implement a GroupGAP food safety training and certification program. The HDOA GroupGAP training and certification program consists of three components:

1. HDOA serves as GroupGAP program administrator and to continue its current role in providing audit certification on behalf of USDA. HDOA has a cooperative agreement with USDA that allows HDOA, pursuant to licensing by USDA, to provide GroupGAP external food safety audits for Hawai'i farmers statewide, on a fee-for-service basis.
2. UH-CTAHR works with HDOA to develop GroupGAP food safety training capability for its extension agents to provide statewide training to all Hawai'i farmers including training support (if needed) by industry GroupGAP programs. A two-year contract in the amount of \$200,000 between HDOA and the UH-CTAHR was executed on May 7, 2024 with effective date of July 1, 2024 to establish a GroupGAP training capability for UH-CTAHR extension agents.
3. A non-profit organization with a GroupGAP program was selected and contracted by the state to expand their operations by annually recruiting and training at least 60 small- to medium-sized farmers who prefer to proceed with a GroupGAP audit certification. North Shore Economic Vitality Partnership (NSEVP), which has an ongoing GroupGAP training program, was selected through a competitive RFP procurement process. A four-year contract in the amount of \$700,000 between HDOA and [NSEVP](#) was executed on June 4, 2024, with effective date of July 22, 2024.

Quality Assurance Division (continued)

Hemp Program

Act 228, SLH 2016 established the Industrial Hemp Pilot Program under HDOA for the cultivation and distribution of industrial hemp. Under this program, applications are reviewed, and applicants are licensed and monitored to ensure that they meet program objectives, and that the industrial hemp does not exceed the levels of delta-9 tetrahydrocannabinol allowed by federal law. Act 14 SLH 2020 ended this pilot program on October 31, 2020, and assigned HDOA new regulatory duties regarding hemp: monitoring the import, export, and in state transport of live hemp seed, hemp flower, and leafy materials, and providing inspection and enforcement of the buffer zone requirements of the act. Under Act 14, the commercial hemp production in Hawai'i is managed under the U.S. Domestic Hemp Production Program. This means hemp growers in Hawai'i are licensed by the United States Department of Agriculture (USDA).



On July 12, 2023, Act 263, SLH 2023 amended the hemp laws by allowing hemp production outside of a state agricultural district, and reduced the hemp growing buffer zones from 500 feet to 300 feet of pre-existing real property comprising a playground, childcare facility, or school; and, from 300 feet to 100 feet of any pre-existing house, dwelling unit, or residential structure. Also, Act 263 restricted the \$10,000 penalty for violations only to hemp growers without a USDA hemp grower license. Other violations such as non-compliance to hemp growing buffer zones and non-compliance to hemp transport and testing requirements are no longer subjected to the \$10,000 penalty.

In addition, Act 263 created the Hawai'i Hemp Task Force to be convened jointly by HDOA and Hawai'i Department of Health (DOH) and appropriated \$50,000 for HDOA to hire a hemp consultant to assist the task force in identifying the infrastructure needs of hemp farmers and the hemp industry, considering the unique needs and geographic spread of Hawai'i's licensed farmers and various hemp sector needs. In December 2023, HDOA contacted Hawai'i hemp farmers association representatives to seek for hemp task force volunteers. Due to challenges in getting volunteer commitment, it took some time to officially organize and convene the task force. The resulting hemp task force consisted of 18 members from Hawai'i hemp farmers association and Hawai'i hemp industry. Twelve members are volunteers with active USDA hemp license representing their respective island, and six volunteers serving as representatives for various sectors such as biofuel, building, general fiber, cannabinoid, and grain/food. The first meeting of the hemp task force was convened on May 17, 2024 to develop an outline of farmer and industry needs and strategies and actions that can inform public policy concerning the development of a hemp industry in the state. Twelve meetings including six marathon meetings in August were organized by HDOA and DOH before the Task Force was dissolved on August 30, 2024.

A hemp consultant (Bio Bamboo, Inc.) was selected on February 9, 2024 and their report was submitted to the hemp task force on August 15, 2024. The consultant report was not adopted in its entirety by the task force due to its large-scale industrial focus particularly with large processing equipment such as decorticator. However, several elements of the consultant report particularly recommendations on small industrial scale and cannabinoid sector were included as part of the Hawai'i hemp task force final report. The Hawai'i hemp task force final report consisting of findings and recommendations and proposed legislations is posted at HDOA and DOH websites. HDOA will submit the task force final report to the legislature no later than 20 days prior to the convening of the regular session of 2025.

Quality Assurance Division (continued)

Commodities Branch

Keith Otsuka
Acting Manager

The mission of the Commodities Branch is to “Set the Standards” and provide assurance that standardized, high quality, safe, and authentic Hawai‘i agricultural products can be showcased in Hawai‘i as well as throughout the world market through a fair and just agricultural business climate.

The Commodities Branch enhances the economic stability of Hawai‘i’s agricultural industries by maintaining grade standards for locally produced fruits and vegetables, nuts, coffee, flowers and foliage, processed foods and other agricultural products. The branch provides unbiased, professional, and timely service-for-fee grade, condition, and origin certification and food safety audits, to add value and desirability to agricultural products. Under federal-state cooperative agreements, the branch provides federal certification for fresh and processed fruits and vegetables, eggs, seafood, and meat, which may not otherwise be available to local clients, as well as state certification for quality of green coffee, and origin of certain products.

The branch provides just and unbiased enforcement to assure safety and fair business dealings in agricultural products, to protect the agricultural community as well as the general public.

The branch administers laws and rules pertaining to fresh fruit, vegetable, coffee, egg labeling and advertising; minimum export quality; licensing of dealers in agricultural products; certificate of ownership/movement requirements on the movement of agricultural commodities to help deter agricultural theft.

Listed below is a brief overview of the major programs within the branch, and developments that have impacted the branch’s activities including highlights for FY24:

- ◆ The branch’s Milk Control program has historically regulated and maintained the stability of the dairy industry in the Honolulu and Hawai‘i milk sheds by licensing producers and distributors of milk, establishing milk production quotas, setting minimum class 1 price paid to dairy producers, and conducting retail milk surveys and inspections. This special funded program should be entirely self-funded through licensing fees assessed to milk producers and processors. However, with only one milk producer, and one processor remaining in the state program, it is no longer self-sustaining. The Commodities Branch is no longer able to hire and sustain a milk specialist to fully implement the Milk Control Program and is working towards reassessing Hawai‘i Revised Statutes and Hawai‘i Administrative Rules to address foreseeable changes within Hawai‘i’s milk industry. Despite lack of expertise from a milk control program specialist, the branch managed to issue 18 licenses to producers, producer-distributors, and distributors of milk, and calculated 24 monthly milk payrolls for processors to pay their producers including licensing fees paid to the milk program.
- ◆ Shell Egg Program: Under a cooperative agreement with USDA, branch staff provide federal shell egg grading and certification to the egg industry. With the addition of a second USDA Shell Egg Plant coming online in 2022, there has been a dramatic increase in demand for shell egg inspection services. The branch is working toward meeting the increased workload, in the face of retirements and resignations, and is actively recruiting and training new staff to meet the demand for this and for all the services we provide. The branch performed weekly online grading and issued a total of 404 shell egg certificates. Also conducted 48 surveillance visits for compliance with Egg Product Inspection Act.

Quality Assurance Division – Commodities Branch (continued)

Commodities Branch Highlights (continued)

◆ **Fresh Fruit and Vegetable Program**

Under a cooperative agreement with USDA, branch staff sample and grade produce for quality and condition. A major part of the work being conducted are mandatory 8e import inspections, for commodities such as New Zealand onions and kiwifruit, which are being imported directly into Hawai'i from foreign countries. Inspections are also conducted on request by producers and handlers of produce, to assist with claims to recover costs to local buyers of defective imported produce. The branch fulfilled all requests from industry with a total of 40 fresh fruit and vegetable inspections for grade and condition.



A candling light being used by one of our licensed USDA Shell Egg graders, to determine the internal quality of eggs being certified.

◆ **Food Safety Auditing Program**

Under a cooperative agreement with USDA, branch staff conduct Good Agricultural Practices (GAP) and Good Handling Practices (GHP) food safety audits at farms, distributors, and packing warehouse facilities throughout the state. Currently, the branch has only one licensed auditor performing GAP, Harmonized GAP, and Harmonized GAP+ audits statewide. The branch is in the process of training and licensing a second auditor. Trainees must meet all USDA training requirements and evaluated as a lead auditor at least twice by a representative of the USDA before being licensed. The branch fulfilled all audit requests from produce industry with a total of 53 food safety audits.

◆ **Processed Foods Program**

Under a cooperative agreement with USDA, branch staff conduct inspection on processed food products such as honey, frozen pineapple chunks/juice, noni juice, roasted coffee, and roasted macadamia nuts. Under a cooperative agreement with US Department of Commerce (USDC), Commodities Branch staff provide seafood (fish & shellfish) inspection and auditing services including HACCP protocol. Conducted seafood sensory training for staff with the USDC NOAA, on differentiating wholesome versus unwholesome seafood products. The branch received and issued only one export certificate in FY24 which is similar to previous years.

◆ **Country of Origin Labeling (COOL):**

Under a cooperative agreement with USDA, the branch conducted COOL audits/reviews at 13 retail establishments on fresh fruits and vegetables, meat, fish, and shellfish products. The number of audits/reviews requested and assigned by USDA this year are the same as FY23.

Quality Assurance Division – Commodities Branch (continued)



◆ **Coffee Certification Program:**

Commodities Branch staff provide voluntary fee-for-service coffee grading and certification services for our local coffee industry, and staff has provided timely service to all requests for product certification. Working with Hawai'i Coffee Association and various members of Hawai'i's coffee industry on changing Hawaii Administrative Rules regarding grading standards and classification of green coffee to improve the overall green coffee quality. The branch fulfilled all industry requests for grading services resulting to 359 coffee green bean certificates issued.

Left: Coffee Specialist Randall DeAguiar performing coffee certification in Kona, pulling defects from a grading sample of unroasted green coffee beans.

◆ **Seed Certification Program:**

Commodities Branch staff provide voluntary fee-for-service inspection and seed certification services, which maintain varietal purity based on company established traits. The branch fulfilled all requests from seed corn companies with a total of 3,536 field and ear inspections from 712 acres of land planted with seed corn. Also issued 509 certificates of seed corn bulk transfer to U.S. mainland.

◆ **Transgenic Papaya Monitoring**

Commodities Branch staff provide voluntary fee-for-service inspection and non-transgenic papaya testing utilizing "Identity Preservation Protocol" program for tighter control of non-transgenic papayas that are exported to Japan. The branch fulfilled all requests from industry and issued a total of 798 letter reports for Identity Preservation of non-transgenic papayas.

◆ **Dealer Licensing**

Commodities Branch staff maintain a licensing program called the Dealers in Farm Produce License, which is required for anyone who handles or sells any Hawai'i-grown agricultural product obtained or purchased directly from a Hawai'i farmer or grower for the purpose of resale. The license is designed to be able to assist Hawai'i growers in case of non-payment from those purchasing product directly from them. The program currently maintained 848 active licenses in FY24, based on staggered renewal throughout the year including new and defunct licenses.

◆ **Reassessing the Commodities Branch manpower capability to address the continuation of federal cooperative agreements to perform regulatory functions efficiently and effectively such as inspections of fresh fruits and vegetables and shell eggs, GAP audits on behalf of the USDA, and seafood inspections for the USDC NOAA.**

Measurement Standards Branch

Richard Cohen
Manager

The Measurement Standards Branch (MSB) works to protect consumers, businesses, and manufacturers from unfair trade practices, based on a measurement process subject to a standard of quality. The goal is to minimize losses and inaccuracies due to incorrect or fraudulent commercial measuring equipment, processes, or substandard products that would cause losses to both consumers and merchants.

The Standards and Technical Services Section of the branch assures us that state measurement equipment standards conform to the highest national standards. It performs metrological calibration of the enforcement standards used by the branch and the field standards used by certified registered service agencies in testing, repairing, and calibrating commercial devices. The calibrated standards are used in all inspections and calibration corrections.

The Standards and Trade Practices Enforcement Section has the responsibility of assuring the consumer and commercial businesses that they have equitable transactions involving measuring instruments, labeling, content of packaged commodities, and pricing are accurate and fair to all parties.

Listed below is a brief overview of the major activities, accomplishments and developments that have impacted the branch's activities including highlights for FY24:

- ◆ The State Metrologist, Michael Tang, received advanced training and certification from the National Institute of Standards and Technology (NIST) and hosted the Western Regional Assurance Program annual training meeting here in Hawai'i at the Quality Assurance Division in 2024. The lab, and our Metrologist's excellent calibration and certification processes were highlights of the meeting.
- ◆ The state's metrology laboratory has received re-certification by the National Institute of Standards and Technology for an echelon one lab which is highest of standards for inspection, calibration, and certification of which there are only seven others in the United States. As custodians of the state-level measurement standards, the laboratory serves as the basis for ensuring equity in the marketplace and as reference standard for calibration services for the state and various industry members.
- ◆ The metrology laboratory inspected and calibrated a total of 1,661 mass test standards, of which 1,039 were for commercial service companies and 622 mass enforcement standards for inspectors of the MSB. The metrology laboratory inspected and calibrated 43 volumetric test standards, ten volumetric glass enforcement standards, and 33 volumetric stainless steel field standards for service agencies and MSB inspectors conducting business statewide.
- ◆ The branch received and analyzed 87 labels for compliance with state and federal regulations, 2,124 gas and diesel meters at 167 retail fueling stations were inspected by MSB inspectors and licensed registered service agents, 3,746 various types of scales used for commercial sales were examined and approved for use statewide.
- ◆ MSB issued 1,327 taxi meters permits after being examined by certified service agencies and branch inspectors which resulted in fees of more than \$28,000.

Quality Assurance Division - Measurement Standards Branch (continued)

- ◆ 21,042 commercial measuring device licenses were issued by the branch to more than 3,000 businesses for use in fair commercial trade practices within the state, resulting in generating revenues of \$555,666 for the state's general fund.
- ◆ The branch licensed annually 321 measure masters which produced \$32,100 in revenue and 76 registered service agents that produced \$7,600, measure masters perform work overseen by MSB.
- ◆ Recruitment continues for two additional inspectors on O'ahu and one inspector on Maui. There is one inspector in Hilo on the Island of Hawai'i, who also handles inspections in Kona where possible. There are future changes in the coffee labeling law that would warrant adding an inspector in Kailua-Kona in the future.
- ◆ The branch investigated 39 combined complaints of fuel quantity, quality, and pricing discrepancies from labeling and net weight packaging errors. The branch continually educates consumers and merchants on fair trade practices and correct policies and procedures.
- ◆ Overcharging on consumer goods in various retail stores was also investigated. Price verification inspections resulted in 98% average accuracy.
- ◆ Oversaw the completion of the economic impact study on the coffee industry, requested by the State Legislature from Act 222 SLH 2022, the study was delivered to the legislature in January 2024 and subsequent changes to the coffee law HRS 486-120.6 have taken effect in July 2024, with additional changes to the percentage of geographic blended coffee allowed to increase to 51% on July 1, 2027.
- ◆ With the disbursement of budgeted funds for FY25 and the future installation of new computer software upgrade programs that will meet with the state Office of Enterprise Technology Services on system security requirements and help properly manage all registered measuring devices, device licensing, and inspections of devices for improved efficiency and accuracy.
- ◆ The MSB has answered numerous questions and evaluated potential issues with labels and other issues for businesses and the public to understand and comply to HRS law changes for Hawaiian coffee and macadamia nuts.



MS inspector Sione Feleunga discharging fuel to an in-ground storage tank after inspecting the gas pump meter

The MSB annually reviews current rules and laws and will be adopting procedures and standards established nationally by the National Council on Weights and Measures and NIST for new measuring devices introduced to the marketplace from new technologies. As well as new state laws, policies and procedures that have been adopted for better and more accurate conformance of commercial measurement devices, packaging, labeling, and pricing.