

Safe & Stable Kaua'i Farms Initiative



COOPERATIVE EXTENSION
UNIVERSITY OF HAWAII AT MANOA

COVID Farmer Response & Recovery July - December 2020



KŪPA'A KAUA'I
PULLING TOGETHER

This project was supported by County of Kaua'i CARES Act Funding & Kūpa'a Kaua'i

Safe & Stable Kaua'i Farms Initiative

COVID's impact on our local food system was vast - farmers were forced to pivot as markets shut down, the tourism industry froze, and their regular sales channels disappeared. Many farms struggled financially as they had to recreate and build new markets for their products.

The Safe & Stable Kaua'i Farms Initiative was launched in the summer of 2020 to utilize CARES Act funding to empower participating producers in building their capacity to produce and distribute food more safely, and expand to larger markets such as institutions, retail sales, and new direct-to-consumer channels that provide more stability than visitor-facing markets.

Over 55 farms applied in just a 2-week window, and 40 were selected to participate based on their production level and crops. It was the strongest interest in food safety programming that any of the partners had seen.

\$210,000

in Grants Awarded for
Farm Improvements

40

Farms Received
PSA Certificates

99

Food Safety
Workshop Attendees

Replicated on O'ahu

SSKFI was duplicated on O'ahu with assistance from Hawai'i Community Foundation and 'Ulupono Initiative. North Shore EVP and CTAHR utilized \$204,000 of City & County of Honolulu CARES Act funding to replicate portions of the Kaua'i project.

Twenty farms across O'ahu received technical training and investments of \$6,500 to improve their food safety, business and technology infrastructure.



Food Safety Training

FSMA Produce Safety Alliance (PSA) Grower Training was conducted virtually for all project participants. This is a one-time FDA-required training for all non-exempt farms growing fresh fruits and vegetables.

Advanced Food Safety Workshops on Infrastructure (requirements for bathrooms, hand washing, water quality, etc.), Farm Record Keeping, and Employee Training were conducted virtually in both Thai and English. The annual EPA-required Worker Protection Standards (WPS) training was also provided.

Participants received materials after each workshop to implement the practices, including mobile hand wash station kits, farm record templates and binders, first aid kits, pesticide safety posting materials, and more.

46 Farms Attended **5** Food Safety Workshops
93% of respondents agreed or strongly agreed that they are committed to implementing produce safety practices



Food Safety Knowledge Passes Onto Next Generation of Farmers

During the program, Kuamo'o Farms lost their farm lease and established a partnership to manage Waimea High School's school farm. Josh Mori is excited about the opportunity to pass on what he's learned to the students at the school.

"This partnership is really exciting," he says. "We're hoping to give the students the best opportunity to become farmers and to pursue agricultural and entrepreneurial careers."

Water Testing & Quality Improvements

Food Safety Modernization Act (FSMA) standards allow for a level of generic E. coli (avg. \leq up to 126 cfu/100ml) to be present in irrigation water, however water used in any post harvest tasks (including cleaning, handwashing, and washing produce) must have no detectable E. coli. Produce (and tools, surfaces, hands, etc) washed in water with E. coli may potentially contaminate and make someone ill.

37.5% of farms had either municipal water sources or a source that met drinking water standards

62.5% of farms' water source is ditch water or well water - 4 opportunities for water sample collection and analysis were offered

28% of farms sampled have on-farm access to a municipal source of water although they may also use untreated surface water for irrigation

55% of farms met FSMA Requirements for post-harvest water quality at the start of the program

5 of the sampled farms had elevated levels of E.coli in their Irrigation Water, to the point that they would not meet FSMA requirements for quality of production water, based on data collected during sampling period.



Water Testing & Quality Improvements

Only 22 farms in the program can meet FSMA requirements for post-harvest water quality because they have access to a municipal source of water or water that meets drinking water standards for use in their post-harvest tasks. Water used in any post-harvest tasks (washing hands, washing produce, cleaning surfaces and tools that contact produce) must show no detectable E. coli.

Many of the farms in the program have no access to clean water for post-harvest activities on the farm.

Sampling data from 18 farms showed that the water quality exceeds the FSMA requirement of 0 detectable E. coli. For these farms, we recommended the use of a sanitizer injection system to destroy the pathogens in the water and improve water quality, and the use of mobile handwashing stations filled with potable water. Alternatively, the farm may take their produce to another site with a microbially-clean water source to perform post-harvest activities.

100% of participating farms have now received the tools needed to meet FSMA post-harvest water quality requirements



"I am a person who is really concerned about health and our produce is cleaner; not only for our own family, but also for our customers."

*Preeda Panyamee
of Taworn Farm*

Food Safety & Infrastructure Improvement Grants

Participating farms each received \$5,250 in grant funding for food safety enhancements, business needs, and technology upgrades utilizing feedback from on-site food safety evaluations as a guide.

A variety of projects were completed, as diverse as the farms who participated - wash station build outs, pest mitigation strategies, cold storage improvements, business insurance upgrades, websites for online sales, and more.

Farms were also provided with custom designed banners for their farmers market booths and farm stands to help with branding and marketing, while becoming compliant with FSMA requirements.

\$210,000

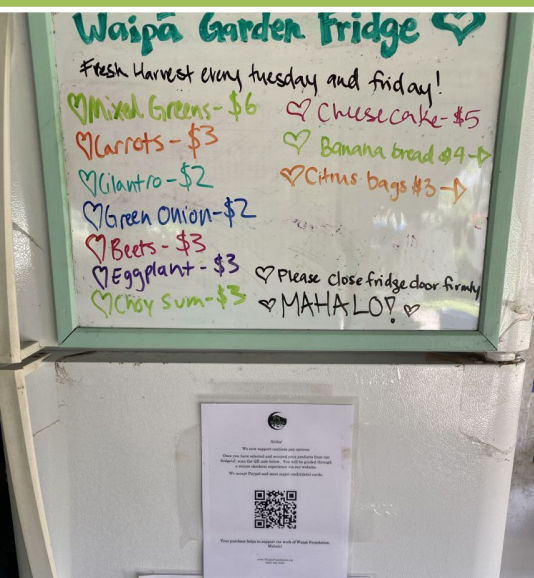
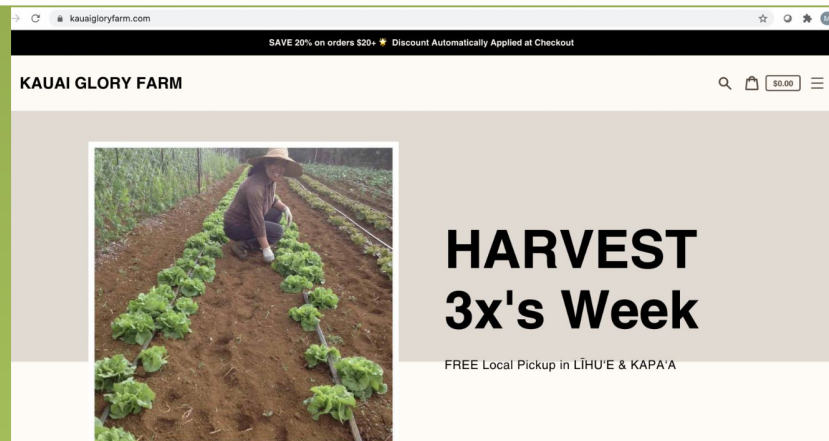
in funding awarded
to 40 farms

33.5%

in grant funding was spent at
locally-owned stores and service providers

Kauai Glory Farm Goes Online

The Huangs farm 5 acres of diverse fruits and vegetables in Lihue, with Hannah's welcoming smile being a favorite sight at Kaua'i farmers markets. Kauai Glory was able to improve their food handling and storage practices. They also launched a new online website to help them pivot their sales from relying on markets to increasing their direct-to-consumer capabilities.



Waipā Upgrades to Contactless System

Waipā Foundation's walk-up poi garage offers customers the ability to drop their payments in a box for poi, cheesecake, and a variety of produce grown on-site. However, when customers wanted to pay with a card, a staff member had to come out to process them. Not only was this inconvenient, but concerning with COVID-19's presence.

Their new QR code and online payment system now allows customers to pay quickly and efficiently without any contact.

"This whole project has helped us learn better practices and implement them with regards to food safety. This knowledge has impacted our farm by helping us to better understand many aspects of food safety that we weren't aware of."



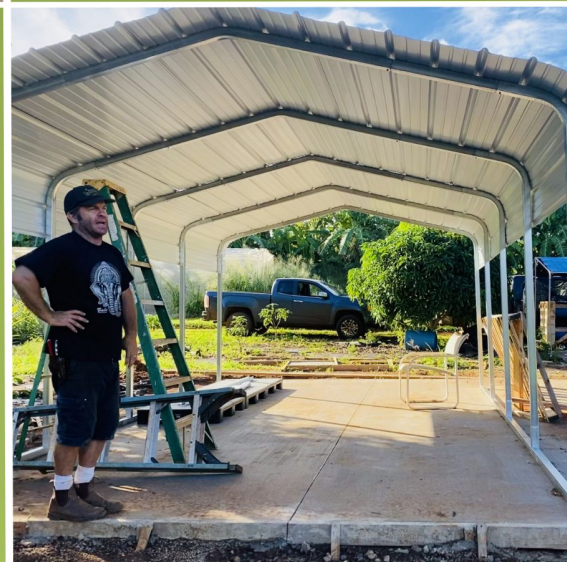
"We always washed dirt from any produce, but with sanitized water now, we will feel really confident about how nice and clean our fruits and veggies are at the markets."



"Because of Covid-19, our business finances are in a precarious situation. Without your help we would not have been able to afford to repair."



"...helped us have a cleaner facility which is protected from rodents, birds and wasps."



"Created more opportunity to provide food to our community."



"These projects were things we were already wanting to do, but SSKFI allowed us to complete them sooner. We needed a wash station and we were planning to do this eventually but trying to understand the water and making sure it's clean was a challenge."



Laulima: Farmers Work Together in Raising Roofs

"Each farm only has a few people working, so we helped each other build. We worked together to build each project in turn: we completed my family's wash station and then moved on to the next and the next."

- Jiraporn Yothachai of Wirat Farm



There is a close-knit community of Thai farmers on the east side of Kaua'i growing fruits and vegetables for the fresh market.

When the 12 Thai farms in the program had the opportunity to leverage grant funds for building improved produce packing houses and wash stations, they found a way to help each other complete their ambitious projects within the short timeline of the program by pooling their labor for classic barn raisings.

This way each farm was able to spend more of their funds on materials and less on labor. This example of laulima illustrates how much more we can achieve when many hands are cooperating to work together.



"Some of us have a lot of construction experience and skills, but the lumber is still heavy. Even our neighbors with less building experience can lend their hands and help to get the work done."

- Sakda Thaksin of Alohalani Farm



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Into the Future

Although 70% of participating farms had obtained new markets or customers during the course of the project, only 62.5% of them felt their sales or markets had stabilized. It is clear that food safety and business challenges are ongoing issues in Kaua'i agriculture as elsewhere.

Public investment in this program saw results and improvements in these areas, in less than six months, that haven't been attained in the previous few years of efforts combined. We believe that the grant incentive, on-the-ground community-based outreach, and language translation services were key components to this impact and success. This program is an incredible example of a public-private partnership that empowered the community to work together towards their own unique and customized solutions.

Yet, there is still much work to be done. Farms need incentives and investments to increase their food safety knowledge, compliance and operations. FSMA (and Hawai'i State Law) require the use of microbially-clean water for post harvest tasks. Systems-wide water quality improvements are sorely needed. Projects such as increasing farmer access to clean water by providing shared post-harvest facilities or treatment of agricultural surface water that supplies diversified farms would increase the number of farmers meeting compliance criteria for water quality and decrease the risk of foodborne illness.

Partners in this project are working towards some of these goals as a next step. Mālama Kaua'i is launching a food hub and post-harvest handling facility for farmers in Moloa'a, North Shore EVP is inviting Kaua'i producers to their Group GAP cohort for food safety certification, and UH CTAHR Cooperative Extension continues to provide technical assistance on a full range of production and marketing issues to farmers across the island and state. North Shore EVP is also engaged with Kamehameha Schools to broaden access to regular water testing across the state. We hope the opportunity presents itself to replicate this program again and thank everyone who supported and participated.



*Mahalo to the County of Kaua'i CARES Act
Funding & Kūpa'a Kaua'i*