



Five-Year Report

AUGUST 2016 - AUGUST 2021

PŪPŪKAHI I HOLOMUA
"UNITE IN ORDER TO PROGRESS"

THE NUMBERS

In five years, we have:

Membership growth from nine farmers on Hawai'i Island to

108 farmers on
Hawai'i Island,
Maui,
& O'ahu

Over
625,000
total pounds of local
produce harvested

Sales
revenue growth
of
nearly **1,000%**

300,000
pounds of
'ulu produced

Gross margin increased from
0% to 33%

Distribution
across Hawai'i, Alaska,
and the Continental U.S.

325,000
pounds of co-crops
produced

5,400
'ulu trees planted

1,000
e-commerce home customers

28 feeding programs served
during and beyond COVID-19

200 acres under
agroforestry management

41 Grocery stores on six Hawaiian
islands carrying HUC products

HUC produces **2/3** of all 'ulu commercially
produced in Hawaii

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HUC'S FIVE-YEAR PATH

A COOPERATIVE JOURNEY

Founded in August of 2016 on Hawai'i Island by nine small, diversified farmers, Hawai'i 'Ulu Cooperative (HUC) envisions the revitalization of 'ulu for Hawai'i's food security and resilience. Over the past five years, the co-op has grown to over 100 member-owners across Hawai'i Island, Maui, and O'ahu, emerging as a leader in Hawai'i's burgeoning breadfruit industry and across the local food system.

Farming in Hawai'i is uniquely challenging in that most farms are small-scale and highly diversified, with 96% generating less than \$250,000 per year in gross income. By coming together as a farmer-owned cooperative, members centralize aggregation, processing, marketing, and distribution, which allows our farmers to focus on what they love: farming! As a member of the co-op, each farmer is also an owner with equal voting power. Through the cooperative structure, HUC provides a reliable and stable market for local growers to sell their produce while empowering them to be part of something much larger.

One of our aspirations is to cultivate the capacity of our growers to employ regenerative agroforestry practices that sequester carbon and generate ecosystem services while producing staple foods. In order to do this, the co-op has expanded its crop portfolio to reflect the diversified nature of our farmers' operations. With the introduction of "co-crops" in 2019, we have been able to increase our market share of Hawai'i-grown staples, furthering our engagement within Hawai'i's food system and contributing to local food security.

Hawai'i 'Ulu Cooperative's success over the last five years is directly linked to the cooperative model and its ability to balance local community ownership and long-term benefits with building a viable business. Creating an organization that builds on this intersection is the driver that pushes us to constantly learn how we can leverage our collective resources and strengths. We strive to develop a business model that is successful economically and that can also give back to the farmers, the community, the 'āina, and to strengthen Hawai'i's food system.

VISION

A thriving cooperative that sustains and uplifts producers, consumers, and society as a whole.

MISSION

To revitalize breadfruit as a viable crop and dietary staple by empowering farmers as changemakers in Hawai'i's food system.

VALUES DRIVEN

CORE VALUES

We are a values-driven business. As a member-owned, member-controlled co-op, we operate for the mutual benefit of our farmer-members and in accordance with the International Principles of Cooperation (ICA). In this tradition, HUC believes in the ethical values of honesty, openness, social responsibility, and caring for others. We have established the following core values:

Mālama 'āina, mālama kānaka - to care for the land using diversified agroforestry practices and to care for the community by prioritizing local food security and access.

'Ike maoli - to respect true knowledge, both from traditional cultures and modern scientists and practitioners who seek to apply new information and technologies to make the world a better place.

Ho'oulu - to revitalize appreciation for and consumption of breadfruit.

Alo a he alo - to approach all human relationships with openness and respect, working to resolve conflicts through honest discussion or ho'oponopono, whether they arise from within or outside of the cooperative.

CORE PILLARS

HUC roots its core values along three core pillars.

'Āina - enable economically viable, regenerative agroforestry practices that sequester carbon and reforest Hawai'i while producing food.

Farmers - unify farmers through a co-op model by providing services otherwise difficult for them to obtain.

Community - provide reliable access to shelf-stable, local, healthy, culturally appropriate, and sustainably grown food while educating consumers about indigenous, local crops.



IMPACT SUMMARY



CARE for 'ĀINA

Carbon Sequestration Protects our Oceans

200 acres of land under agroforestry

100% of manufacturing byproduct composted on local farms

Breadfruit trees can live and capture carbon for 100 years or more

CARE for FARMERS

Farmer Education and Technical Assistance

Increased Market Share of Hawai'i-Grown Staples

Local Farmer Ownership and Profit-Sharing

Stable Pay Price for 100+ Hawai'i-based Farmers

38% of every dollar generated from the sale of our manufactured products goes back to the farmer

Over \$500,000 paid out to local farmers

CARE for COMMUNITY

As part of our COVID-19 Relief & Response Campaign, we have distributed 60,000 pounds of food to communities in need

Revitalize Indigenous Crops and Knowledge

Youth and Consumer Education

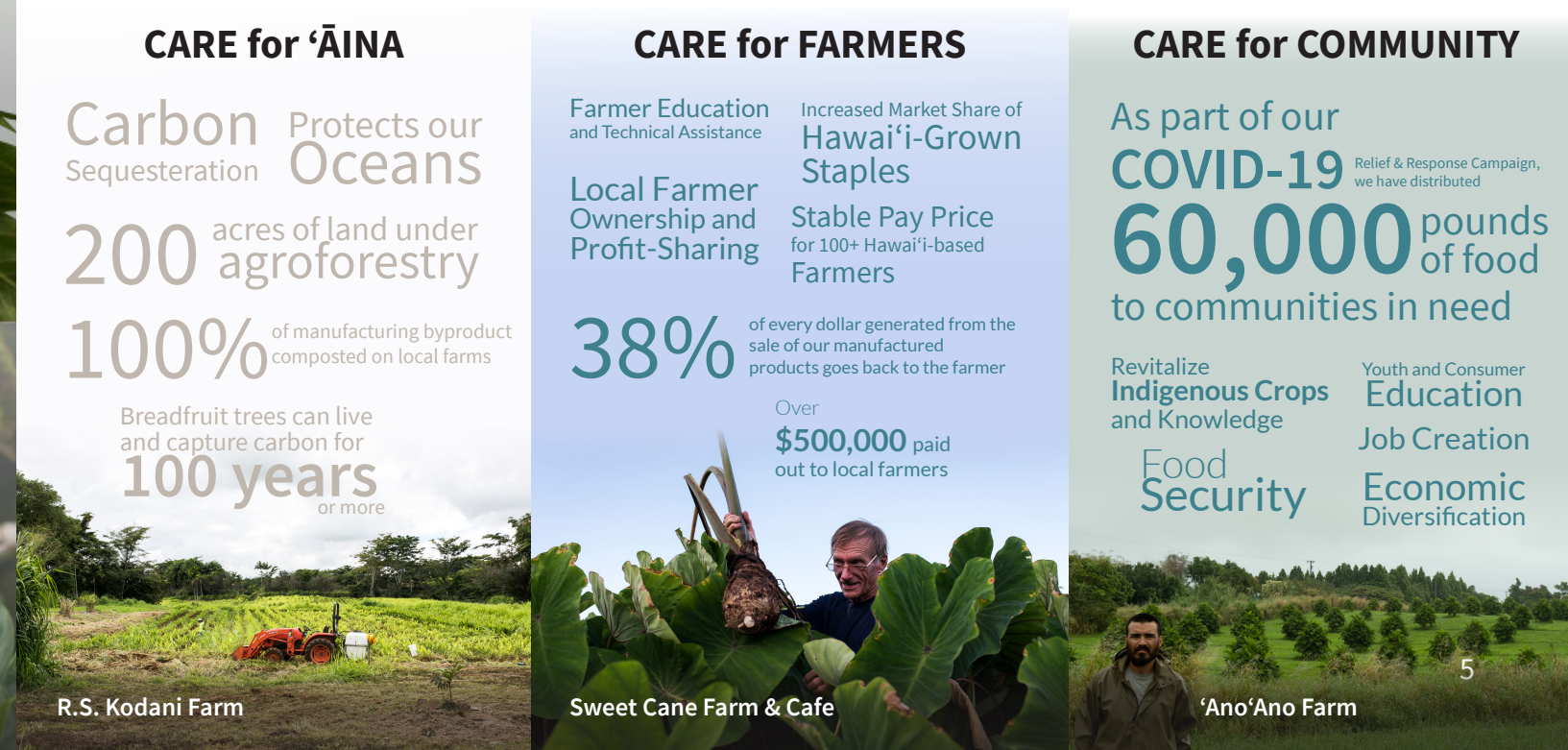
Food Security

Job Creation

Economic Diversification



Farmer-member **Debbie Ward** at her farm in Kea'au, Hawai'i Island



R.S. Kodani Farm

Sweet Cane Farm & Cafe

'Ano'Ano Farm

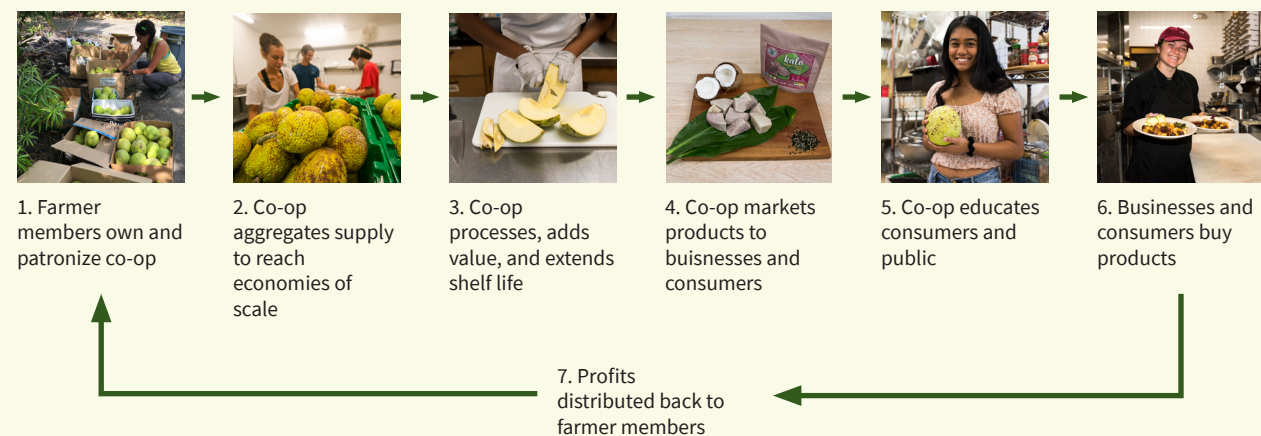
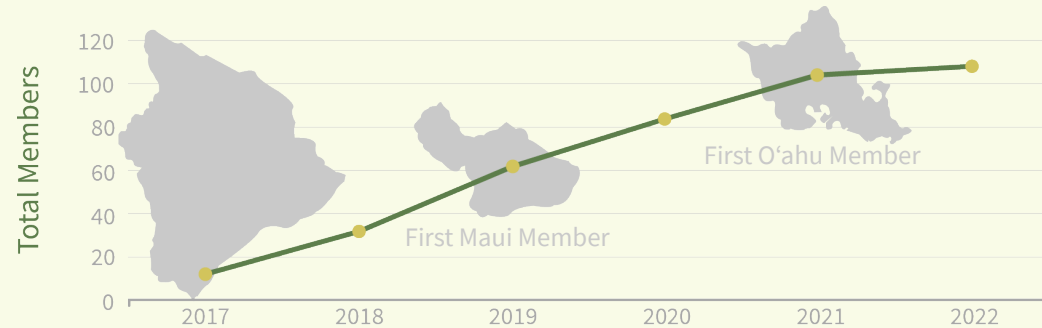
FARMER-OWNER MEMBERSHIP

The co-op was established by nine farmers on Hawai'i Island in August of 2016. Over the past five years, we have grown to include 108 farmers across three islands statewide, Hawai'i, O'ahu, and Maui. Our members are our owners and primary suppliers. By centering our member-farmers as the foundation of our business model, we centralize resources that would normally be difficult for small family farms to harness on their own. With minimal entry barriers to joining (all it takes is one tree!), the co-op model provides a formal structure for small-scale growers to work together, achieve economies of scale, and benefit from owning a larger stake in the food system value chain. By growing together as a cooperative, small-scale farms reduce the risks associated with entering the market. Through this model, we have been able to help grow and support our local farmers while continuing to increase Hawai'i's food security and self-sufficiency.

ORGANIZATIONAL STRUCTURE

Member-farmers deliver their produce to the co-op and are given a fair and stable market price for their 'ulu and other crops. The co-op then aggregates the harvest from many different farmers and processes the crops to add value and extend shelf life, enabling sale and distribution to an array of diverse customers including schools, hospitals, restaurants, grocers, and manufacturers locally as well as home consumers nationally. To increase demand and build consumer knowledge, the co-op provides educational workshops and cooking classes in partnership with chefs and organizations around the state. Profits from the sale of products are redistributed back to member-farmers according to patronage, or the relative contribution of fruit each makes to the whole. Every dollar returned to local farmers is estimated to recirculate throughout the local economy at least 12 times, contributing to community economic development, jobs creation and retention, and long-term resilience.

Cumulative Members By Fiscal Year



MEET THE TEAM

A vital part of our daily operation is HUC's team of 20 full- and part-time employees. Meet the team below:



Dana Shapiro,
General Manager
Hilo, Hawai'i Island



Holokai Brown,
Operations Manager
Miloli'i, Hawai'i Island



Anissa Lucero,
Digital Marketing
Captain Cook, Hawai'i



Tamara Butterbaugh,
Sales Manager
Waimānalo, O'ahu



Leilani Aveiro,
Production Supervisor
Kailua-Kona, Hawai'i



Anna Ezzy
Executive Assistant
Hilo, Hawai'i Island



Honalo processing crew *Top row (l-r):* Tui Taetuga, Maja Thomsen, Ariel Navas, Chelssie Pabre-Torres
Bottom row (l-r): Brenden Mickleson, Eli Ednie, Xavier Chung *Not pictured:* Pauline Iopa, Stephanie Taetuga, Emmalyn Gaspar, Chelsey Faavesi

BOARD OF DIRECTORS

- Kyle Datta** President
- Andrew Trump** Vice President
- Tom Menezes** Director
- Marcus Woo** Director
- Lani Eubank** Secretary
- Werner Thie** Treasurer
- Duane Lammers**
- Dan Mahalak**

ADVISORS

- Dr. Kū Kahakalau** Kū-A-Kanaka
- Dr. Noa Lincoln** University of Hawai'i
- Dr. Diane Ragone** The Breadfruit Institute
- Amanda Corby Noguchi** Under My Umbrella / Chef Hui

FACILITIES

Initially, we processed our 'ulu at the kitchen of Sweet Cane Café, one of our founding farmer-members. As we grew, we found it necessary to search out larger commercial facilities. Currently, the co-op has two production facilities. Our flagship facility is located in the moku of Kona at the Honalo Marshaling Yard. Established by the State of Hawai'i Department of Agriculture in the early 1990s, the co-op secured a 25-year lease in 2018 and built out a 300 sq. ft. commercial kitchen for processing. In 2019, the state legislature appropriated \$1.25 million for infrastructure improvements to the facility, which are currently in process and projected to increase the facility's handling capacity by a factor of 10: from about 200,000 pounds to 2 million pounds.

Our second facility is located at the 'Alae Postharvest Facility in the moku of Hilo and is owned by Kamehameha Schools. Currently, this facility is used to aggregate all of our eastside farmers' produce, mostly 'ulu, kalo (taro), and pala'ai (squash or pumpkin), representing a majority of our overall intake volume. The co-op also oversees the facility's commercial kitchen usage of several of its members who process local agricultural products including cacao, sugar cane, vanilla, and pasture-raised pork. Within the next few years, HUC plans to relocate and scale its 'ulu flour production at 'Alae.



Eli Ednie shredding 'ulu for flour



Xavier Chung processing Baker's Ripe 'Ulu



Leilani Aveiro intaking fruit



Jade Torres packaging finished product

PRODUCT EXPANSION

The past five years have seen an expansion of our product portfolio to include "co-crops" that our farmers grow alongside 'ulu. In addition to offering a more diverse crop line, we have developed ready-to-eat and further value-added products for the community.

Until Spring 2020, the overwhelming majority of our market was composed of local foodservice operators; however, COVID-19 had a massive initial impact on co-op sales, exposing the fragility and risk of relying on any single customer type. As a result, since mid-2020, we have intentionally worked towards diversifying our market base. Bolstering our e-commerce website and

marketing campaigns has expanded our reach to home consumers and Hawai'i grocery stores. While engaging in consumer-driven product development, we have also diversified our marketable products beyond minimally processed staples in bulk packaging to include branded frozen retail packs, subscription sampler boxes, chef-curated boxes, and value-added goods. Online sales currently account for 10-11% of gross sales.

Initial Wholesale Products 2016



First Value-Added Products 2016-2017



'Ulu Flour 2018



'Ulu Retail Pack 2020



Curated Boxes 2020



Co-crop Retail Packs 2021



Chef-Curated Boxes & Cooking Demos 2021



VOLUME GROWTH

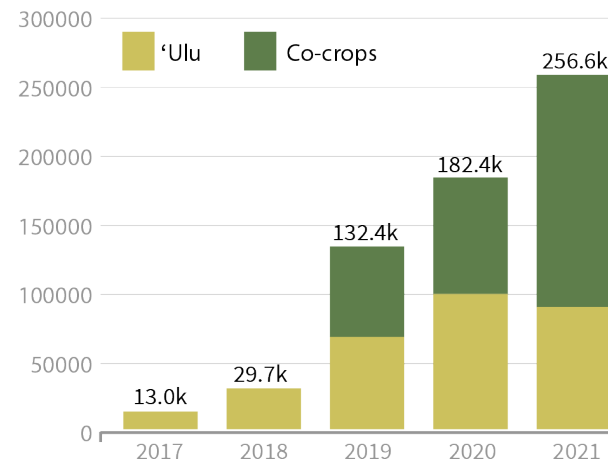
BUILDING A REGENERATIVE & PROFITABLE LOCAL FOOD CHAIN

We empower Hawai'i's small-scale farmers with an ownership stake in the local food value chain. By working together through a cooperative structure, our farmers are helping to revitalize 'ulu as a viable crop and dietary staple – collectively transforming Hawai'i's food system to be more resilient, inclusive, and healthy.

As a climate-resilient tree crop that can be grown competitively in Hawai'i, 'ulu is the backbone of the co-op's operations. However, crop diversification is vital to meet our business development goals – especially during these early years of 'ulu industry development when most trees are still too young to bear fruit. To help support our farmers' regenerative agroforestry practices, ultimately increasing their farm income and sustainability, we have added a mix of co-crops to our operation.

To date, in addition to our primary co-crops pictured below, we have aggregated, processed, and marketed cassava, banana, papaya, pineapple, mango, soursop, 'ōlena (turmeric), 'ōhia 'ai (mountain apple), and many other local crops.

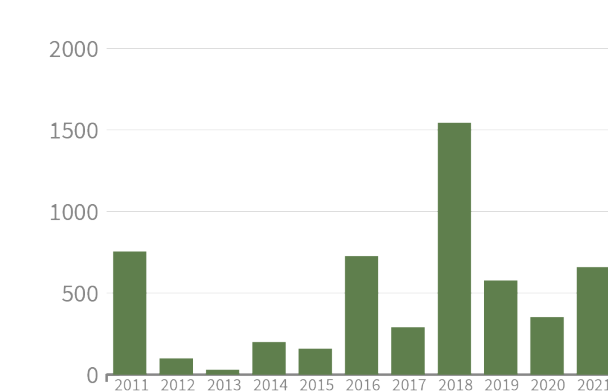
HUC Production Volumes By Year



FORECAST

Our future financial outlook is exciting and promising. At the time of publication, approximately three-quarters of our 5,400 planted trees were not yet producing fruit. As trees planted from 2017-2019 begin to reach maturity over the next few years, we project our 'ulu production to triple from current volumes. Projections indicate that we can expect to break even by 2024, when our total production reaches about 440,000 pounds of raw produce, 300,000 of which is expected to be 'ulu. By 2028, total crop volumes are projected to reach 1.1 million pounds and, by 2030, we are forecast to produce 1 million pounds of 'ulu! As trees mature and co-op membership grows, we expect to continue to have a promising future outlook.

Total 'Ulu Trees Planted by Year

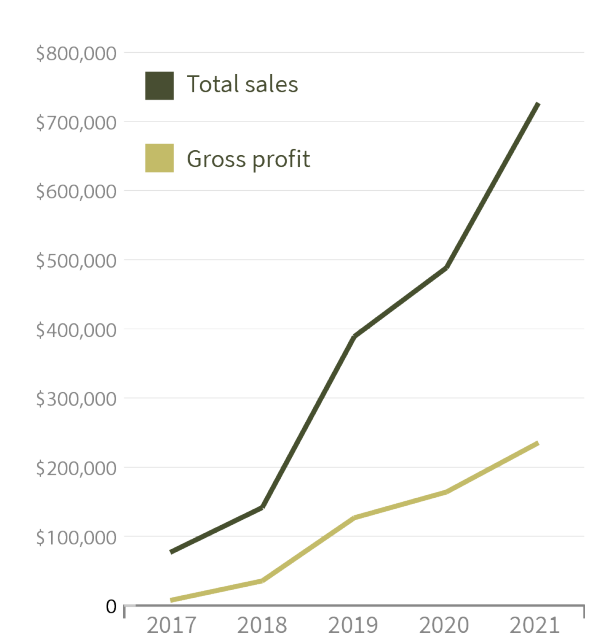


FINANCIAL SUMMARY

Over the past five years, the co-op has experienced fast-paced growth and success attributed to the cooperative business model and persistent marketing and education efforts. By significantly elevating 'ulu's market position in a short course of time, while also offering convenient and accessible 'ulu and other staple products, the co-op's gross sales have increased nearly 1,000%, from \$76,694.40 in FY2017 to \$726,815.24 in FY2021. Our gross margin has grown from 0% to 33% over the past five years, which is notable, considering that our manufacturing operations are still largely manual and low-tech.

Ongoing infrastructure and equipment upgrades combined with the continued ingenuity and tireless work of our processing staff have helped to increase our margins over this period. Ultimately, bringing the purchase price down for community end-users and making our products more competitive in the marketplace will rely on further mechanization and increased scale.

Gross Sales vs Gross Profits over 5 years

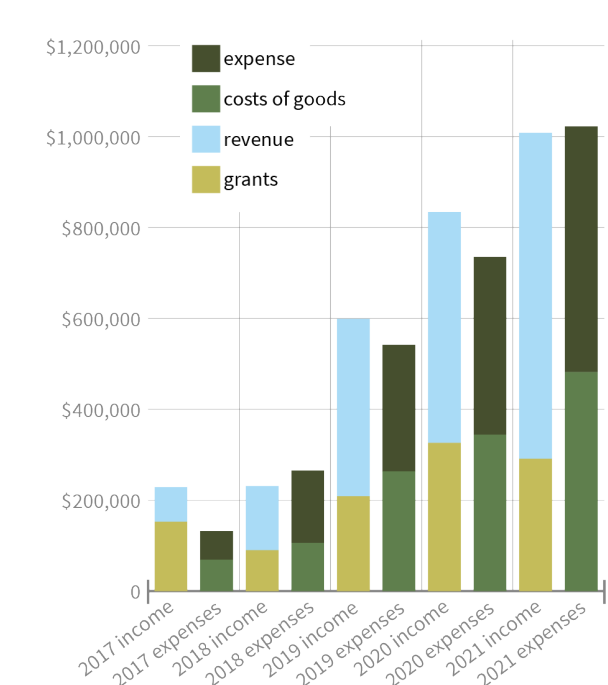


FUNDRAISING

In order to capitalize our cooperative business' start-up operations and growth to date, we have raised a total of \$3.3 million in grants funds and \$200,000 in low-interest community loans. In the first half of 2021, we embarked on a new kind of fundraising campaign in partnership with social impact investors in the local community. At the time of publication, we raised an additional \$788,000 via non-member preferred stock, community debt, and Program Related Investments (PRIs).

These funds will be invested in strategically scaling the co-op's operations in order to reach our goals, specifically through: 1) boosting team capacity via strategic hires, 2) capital upgrades, and 3) sales, marketing, and education to build both supply and demand. Interested prospective investors may contact the co-op General Manager for more information about investing.

Income vs Expense over 5 Years



OUTREACH & EDUCATION

A recent study from the University of Hawai'i found that 85% of consumers in Hawai'i eat 'ulu less than three times per year. Knowledge about nutrition, recipes, and culture increased the frequency of consumption.

A vital part of our work over the past five years has included educating the public, especially youth, about the many wonderful things about 'ulu and increasing their opportunities to taste and enjoy the superfood.

HAWAI'I SCHOOLS & 'ULU EDUCATION TOOLKIT

Since 2018, the co-op has worked with educational institutions across the state, including the Hawai'i Department of Education (HIDOE), to introduce 'ulu and other indigenous crops to our keiki. From 2018 to 2020, we supplied 'ulu to all 256 public schools statewide, as one of the primary suppliers to the HIDOE's 'Aina Pono farm to school program.

To further support this relationship, HUC partnered with Hawai'i Public Health Institute's Hawai'i Farm to School Hui and STEMS² at the University of Hawai'i at Mānoa's College of Education to lead the development of the P-20 'Ulu Education Toolkit. Initiated through a USDA Farm to School grant, the toolkit is a compilation of diverse resources from an array of community partners about 'ulu and aligned to curriculum standards. It was piloted by 20 kumu on six islands in the 2019-2020 school year and launched as an interactive online database on the STEMS² website in April 2020; the Toolkit is meant to support educators, students, and families in incorporating lessons about 'ulu into the classroom, school garden, and formal or informal learning environments: <https://coe.hawaii.edu/stems2/ulu-education-toolkit-guide/>

By working directly with educators, community organizations, schools, families, and students, we are investing in the long-term sustainability of Hawai'i. Today's keiki will be tomorrow's consumers, farmers, and leaders.



Kealakehe HS Culinary Arts teacher Karen Sheff and students

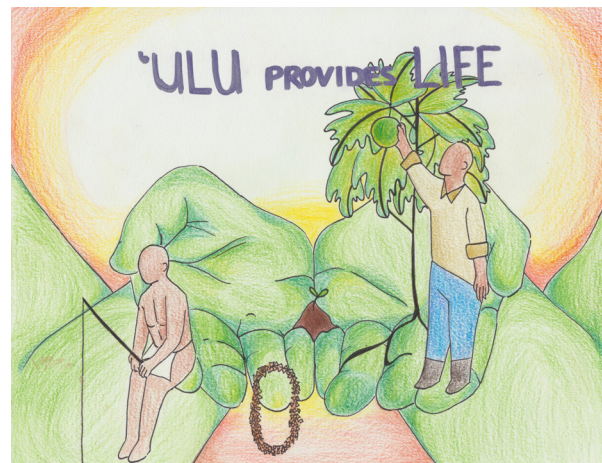


Kealakehe HS students enjoying 'ulu recipes

REV'OLUTION 2020 STUDENT ART CONTEST

To further engage our keiki during COVID-19, we held a virtual student art contest in spring 2020, with participants ranging from Pre-K to 12th grade. Students were asked to create art in response to the theme 'Ulu's Place in Hawai'i: Past, Present, and Future. Our grand-prize winner was 11th grader Angelyssa M. of Mililani High School. Our online shop features the I♥'Ulu Postcard Set, a collection of 12 artworks from the contest with proceeds going towards supporting 'ulu education for Hawai'i's youth.

Right: Grand Prize Winner Angelyssa M, illustration colored pencil, 2020



'Ulu Ambassadors Mark Noguchi and Kealoha Domingo

In 2020, we collaborated with Chef Hui to launch the 'Ulu Ambassador program, which works to build an influential network of chefs, nutritionists, and other food-loving community supporters who endorse 'ulu and other staple crops important to Hawaiian culture and the future of Hawai'i's food system. Through this program, we aim to increase public awareness and appreciation of 'ulu by spotlighting the innovative Hawai'i chefs leading 'ulu's culinary renaissance.

As the co-op's portfolio has grown, 'Ulu Ambassadors Chef Kealoha Domingo, Chef Dan Robayo, and others have hosted cooking classes for our chef-curated food boxes, introducing 'ulu to a broader audience along with the tools needed to create unforgettable meals and experiences.

Today, we have a diverse group of 15 ambassadors ranging from Hawai'i celebrity chefs to high school students just beginning their culinary careers and even one hospital championing the use of 'ulu and other indigenous staples on their menu! These ambassadors have increased the exposure and accessibility of 'ulu across the community, and their development of close to 100 innovative and delicious recipes that use 'ulu, kalo, 'uala (sweet potato), and pala'ai have helped to make eatbreadfruit.com one of the premier access points to 'ulu and other canoe crop recipes.

'ULU RECIPE CONTESTS

A fun access point to 'ulu has been through our 'Ulu Recipe Contests, held virtually in September 2020 and April 2021. 'Ulu Ambassador chefs, alongside our farmer-members, judged recipe submissions according to appearance, creativity, clarity, and replicability. These events help to engage the community, increase visibility, and highlight the versatility of 'ulu.

To date, winning recipes pictured below have included Handmade Farm to Table 'Ulu Pierogis, Kimo's Politically UNcorrect Carne Asada 'Ulu Fries, and 100% 'Ulu Breadfruit Flour Angel Food Cake.



William DeBoe, Hawai'i Island



Justine Ma, Hawai'i Island



Erin Foley, O'ahu

WHAT'S NEXT?

OPPORTUNITIES

Looking ahead to the next five years, we see incredible opportunities for growth. We are in an exciting period in the revitalization of 'ulu and other Hawai'i-grown staples. The market is burgeoning and public awareness around Hawai'i's food system is gaining traction and passion amongst consumers.

This is also an exciting time in the expansion of our industry. As a business at the forefront, we can leverage our collective structure by maintaining a leadership role both locally and internationally in the breadfruit sector. Continued development of our brand through diverse product offerings, customer expansion, and engaged marketing will reinforce our place as a sector leader.

CHALLENGES

FARM LEVEL

On the farm level, our farmer-members – like many small, diversified farmers in Hawai'i – face constant challenges associated with theft, diseases, and introduced pests. Moreover, 'ulu trees take about five years to mature and bear fruit, and most farms face a cashflow challenge unless they diversify to include faster-yielding crops. Balancing diversification and efficiency is not an easy feat, while scaling production, requires access to capital and farmworker labor, both of which are difficult for many beginning and/or small farmers to obtain. Shortages in agricultural labor may also impact how completely a farm can harvest all its 'ulu in season. Transportation and logistical hurdles in moving supply from the farm to production facilities may be impacted by rising costs and the vulnerability of 'ulu due to its low shelf life. These challenges affect inter-island transport as well as potential export opportunities. Another challenge our farmers face is prioritizing 'ulu as a marketable and profitable crop alongside all the other on-farm needs they face.

To do this, we plan to continue working on scaling at both the farm and co-op level and to better leverage our collective buying capacity to negotiate price reductions for our growers (e.g., for fertilizer and harvesting supplies). We also plan to expand our farmer support services by hiring a full-time member coordinator and continuing to work closely with researchers and extension agents to address farmer needs. At the co-op level, we plan to further develop our expertise in the minimal processing of Hawai'i-grown staples. This critical capacity is still largely lacking across the islands and must be developed to support food security, a strong and diversified local economy, job creation, and long-term sustainability.

CO-OP LEVEL

As a co-op, we are challenged in how best to support our farmer-members. Developing means to help them combat theft, diseases, and pests may require greater political advocacy as well as direct financial investment. Additionally, establishing statewide logistical operations for manufacturing and transportation is becoming increasingly important to support our multi-island membership base. At the facility level, making strategic infrastructure upgrades to bring down the cost of production is necessary to become more competitive in the market, yet challenges related to capitalization, human capital, and scale will need to be overcome. Overall, much of the co-op's future success will depend on recruiting, hiring, and retaining talent that will bring innovative expertise and engagement to the co-op. Finally, continuing to increase consumer demand until 'ulu becomes a commonly eaten staple food again remains an ongoing part of the co-op's work necessary to achieve its mission.

MAHALO NUI LOA

to our Farmers, Partners, and COMMUNITY over the past five years!



Farmers gather for a pruning workshop at the farm of Kohala member Lani Eubank

