

House District(s) 5

Senate District(s) 3

THE TWENTY-NINTH LEGISLATURE  
APPLICATION FOR GRANTS  
CHAPTER 42F, HAWAII REVISED STATUTES

Log No:

For Legislature's Use Only

Type of Grant Request:

GRANT REQUEST – OPERATING

GRANT REQUEST – CAPITAL

"Grant" means an award of state funds by the legislature, by an appropriation to a specified recipient, to support the activities of the recipient and permit the community to benefit from those activities.

"Recipient" means any organization or person receiving a grant.

STATE DEPARTMENT OR AGENCY RELATED TO THIS REQUEST (LEAVE BLANK IF UNKNOWN): \_\_\_\_\_

STATE PROGRAM LD. NO. (LEAVE BLANK IF UNKNOWN): \_\_\_\_\_

1. APPLICANT INFORMATION:

Legal Name of Requesting Organization or Individual:

Hawai'i 'Ulu Producers Cooperative

Dbas: N/A

Street Address:

79-1016 E Honalo Rd. Kailua-Kona, HI 96740

Mailing Address:

PO Box 1203 Captain Cook, HI 96704

2. CONTACT PERSON FOR MATTERS INVOLVING THIS APPLICATION:

Name DANA SHAPIRO

Title Manager

Phone # (808) 238-8869

Fax # N/A

E-mail info@eatbreadfruit.com

3. TYPE OF BUSINESS ENTITY:

- NON PROFIT CORPORATION INCORPORATED IN HAWAII
- FOR PROFIT CORPORATION INCORPORATED IN HAWAII
- LIMITED LIABILITY COMPANY
- SOLE PROPRIETORSHIP/INDIVIDUAL
- OTHER

Agricultural Producer Cooperative

6. DESCRIPTIVE TITLE OF APPLICANT'S REQUEST:

PROVIDING BREADFRUIT-BASED EDUCATIONAL SERVICES TO LOCAL PRODUCERS AND CONSUMERS IN ORDER TO ENHANCE HAWAII'S FOOD SECURITY, SUSTAINABILITY AND COMMUNITY RESILIENCE

4. FEDERAL TAX ID #: [REDACTED]

5. STATE TAX ID #: [REDACTED]

7. AMOUNT OF STATE FUNDS REQUESTED:

FISCAL YEAR 2019: \$94,750

8. STATUS OF SERVICE DESCRIBED IN THIS REQUEST:

- NEW SERVICE (PRESENTLY DOES NOT EXIST)
- EXISTING SERVICE (PRESENTLY IN OPERATION)

SPECIFY THE AMOUNT BY SOURCES OF FUNDS AVAILABLE AT THE TIME OF THIS REQUEST:

STATE \$ \_\_\_\_\_

FEDERAL \$ 73,282.41

COUNTY \$ \_\_\_\_\_

PRIVATE/OTHER \$25,000 (CASH MATCH COMMITTED)

TYPE NAME & TITLE OF AUTHORIZED REPRESENTATIVE:

[REDACTED]

DANA SHAPIRO, MANAGER  
NAME & TITLE

1/18/18  
DATE SIGNED

JAN 19 2018 JW 1:59 PM

## Application for Grants

Please check the box when item/section has been completed. If any item is not applicable to the request, the applicant should enter "not applicable".

### I. Background and Summary

This section shall clearly and concisely summarize and highlight the contents of the request in such a way as to provide the State Legislature with a broad understanding of the request. Please include the following:

1.  A brief description of the applicant's background;

Hawai'i 'Ulu Producers Cooperative (HUPC) is a farmer-owned and -operated business established in August 2016 with 9 pilot, breadfruit farmer-members around Hawai'i Island. In less than a year and a half, we have grown to over 30 members strong and counting. Our members' geographic and varietal diversity provides near year-round supply of breadfruit, or 'ulu – a traditional Polynesian staple that grows abundantly throughout the islands and contributed to Hawai'i's sustainability and self-sufficiency pre-European contact. While the prominence of breadfruit has declined over the last century, the crop is now experiencing revived interest from consumers, producers, researchers, community groups and policy makers for its potential to mitigate Hawai'i's food insecurity<sup>1</sup>, given 85% of our food supply is now imported.

HUPC was established to help overcome two of the primary, historical hurdles to commercial breadfruit industry development: high seasonality and extremely short shelf-life. We accomplish this by aggregating fruit from our farmers in the high season and manufacturing steamed-frozen cuts that can be stored for local distribution for over 12 months – ensuring a consistent, reliable, year-round supply of easy-to-use, minimally processed fruit. Our current customer base includes 3 public charter schools, 1 hospital, 34 restaurants, 5 distributors, 12 value added processors, 1 farmers market, 2 CSAs, and 18 grocery stores statewide. Despite these advancements, however, the crop remains underutilized due to a lack of consumer awareness about its benefits, culinary versatility, cultural significance and how to use and prepare it. At the same time, breadfruit farmers lack critical information to support the success and growth of their operations, including best practices for planting, variety selection, maintenance, harvest and post-harvest, as well as information about the cooperative business model and how working in partnership with other growers could advance their collective, long-term goals and viability. *As the leading breadfruit producer group in Hawai'i representing some 80% of statewide production, HUPC is in a unique position to deliver educational services to both producers and consumers about the utility of breadfruit as a pillar of Hawai'i's prosperity and resilience, both historically and into the future.*

2.  The goals and objectives related to the request;

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<sup>1</sup> Jones, A. M. P., Ragone, D., Bernotas, D. W., & Murch, S. J. (2011). Beyond the Bounty: Breadfruit (*Artocarpus altilis*) for food security and novel foods in the 21st Century. *Ethnobotany Research and Applications*, 9, 129-149.

HUPC is an agricultural producer cooperative committed to revitalizing 'ulu as a viable crop and dietary staple for Hawai'i. Through this GIA grant, we seek to *deliver breadfruit-based education to both producers and consumers in order to strengthen Hawaii's food security, sustainability and community resilience*. Our goals are to:

**A.** Support small-scale farmers, particularly young, new and socially disadvantaged producers including Native Hawaiians and Pacific Islanders, by providing technical assistance on breadfruit production, pruning, maintenance, harvest and post harvest, as well as education about the cooperative business model and how it can benefit their operation; and

**B.** Educate consumers and the public about how to use breadfruit, its history and cultural significance, nutritional profile, and public benefits in terms of food security, climate change resilience and long term sustainability, while increasing access to this nutritious and culturally appropriate food for Hawai'i's most underserved populations.

Goal A Objectives:

- Increase sustainable production practices and economic viability for 30 co-op member farmers.
- Reach 75 farmers and value-added producers (non-members and members) by conducting 3 workshops on breadfruit production from planting to post harvest and processing.
- Introduce 75 farmers to the co-op organizational structure to increase their understanding of this community-owned business model and how it can be used to advance their collective interests while enhancing individual operations' long-term viability.
- Educate 75 farmers on the most up-to-date science and agronomic information on breadfruit cultivation.
- Increase HUPC membership by 30% (adding at least 9 new members), especially among new farmers, young farmers and socially disadvantaged farmers including Native Hawaiians and Pacific Islanders.

Goal B Objectives:

- Educate at least 1,300 local consumers about the uses and benefits of 'ulu throughout Hawai'i Island and O'ahu at select targeted locations including grocery stores and hospitals.
- Conduct 6 talk story events about breadfruit in collaboration with partner community organizations reaching at least 300 consumers (~50 per event).
- Increase availability of value-added breadfruit products by 50% in local grocery stores, including at least 3 new O'ahu markets.
- Reach 5,000 people through online educational platforms including social media and HUPC's website.

3.  The public purpose and need to be served:

This project fulfills multiple state goals, objectives and strategies. It supports the State of Hawai'i Aloha+ Challenge commitment to double local food production by 2030 statewide<sup>2</sup>, and

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<sup>2</sup> <https://dashboard.hawaii.gov/en/stat/goals/5xhf-begg/vey8-efit/4dt7-wn38>

the Increased Food Security and Increased Food Self-sufficiency Strategy developed by the Office of Planning, which stipulates that investments in programs and projects which support greater food self-sufficiency will result in economic, social and environmental benefits<sup>3</sup>.

Additionally, the proposed project meets the following public needs stipulated in the Hawai'i State Planning Act Section HRS Chapter 226, which underlines State goals and objectives.

Food Security:

1. HRS 226-6 (8) Assure that the basic economic needs of Hawai'i's people are maintained in the event of disruptions in overseas transportation.
2. HRS 226-6 (10) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawai'i's small scale producers, manufacturers, and distributors.
3. HRS 226-7 (5) Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawai'i's economy.
4. HRS 226-7 (7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawai'i's food producers and consumers in the State, nation, and world.

Sustainability:

1. HRS 226-7 (2) Encourage agriculture by making the best use of natural resources.
2. HRS 226-7 (13) Promote economically competitive activities that increase Hawai'i's agricultural self-sufficiency, including the increased purchase and use of Hawai'i-grown food and food products by residents, businesses, and governmental bodies as defined under section 103D-104.
3. HRS 226-7 (17) Perpetuate, promote, and increase use of traditional Hawaiian farming systems, such as the use of loko i'a, māla, and irrigated lo'i, and growth of traditional Hawaiian crops, such as kalo, 'uala, and 'ulu.

Community Resilience:

1. HRS 226-7 (18) Increase and develop small-scale farms.
2. HRS 226-20 (7) Prioritize programs, services, interventions, and activities that address identified social determinants of health to improve native Hawaiian health and well-being consistent with the United States Congress' declaration of policy as codified in title 42 United States Code section 11702, and to reduce health disparities of disproportionately affected demographics, including native Hawaiians, other Pacific Islanders, and Filipinos.
3. HRS 226-21 (4) Promote educational programs which enhance understanding of Hawai'i's cultural heritage.
4.  Describe the target population to be served; and

**Hawai'i Island's small-scale farmers:** HUPC's current membership represents a diverse cross section of small-scale, diversified farmers on Hawai'i Island. We are geographically

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<sup>3</sup> DBEDT. (2012, October). Increased food security and food self-sufficiency strategy: a state strategic/functional plan prepared in accordance with HRS Chapter 226 Hawaii State Plan and the Hawaii comprehensive economic development strategy.

representative, with farmers in every district except South Kohala and Ka'u, including 50% women farmers and an additional 30% Native Hawaiian, Pacific Islander and Asian farmers. Moreover, nearly 30% of our membership is under 40 years old, whereas the average age of farmers in Hawai'i is 59. These demographics suggests that HUPC represents an "up and coming" model for agriculture in the State, with revived interest among farmers in growing traditional sustainable crops, and in working in partnership with others to build a more resilient and vibrant local food system. The non-member farmer population also targeted under this project includes small-scale, diversified producers with special focus on beginning farmers, young farmers and socially disadvantaged groups including Native Hawaiians and Pacific Islanders – who have a cultural connection to breadfruit and possess valuable traditional knowledge on its production practices and uses, and would therefore be valuable co-op members while benefiting from the economic and technical services that the co-op provides.

**Local consumers:** Our target consumers under this project include local residents on Hawai'i Island and O'ahu, particularly families with children and Native Hawaiian / Pacific Islander populations. This selection is based on having the greatest impact through our educational efforts to: 1) introduce the younger generation to breadfruit, and 2) improve the health and wellbeing of disadvantaged populations suffering disproportionately from diet-related diseases. According to the Trust for America's Health and the Wood Johnson Foundation, Hawai'i childhood obesity rates in 2015 ranked 25th in the U.S. for high school students at 12.9%, while the combined overweight and obesity rate exceeded 25% for children ages 10 to 17. Both diabetes and hypertension are major health factors plaguing children in Hawai'i<sup>4</sup>. Replacing processed, imported staple foods with fresh, traditional and healthy alternatives such as breadfruit could help an overwhelming percentage of Hawai'i's children suffering from these adverse health conditions. Moreover, while Hawaiians and Pacific Islanders represent 10.2% of Hawai'i's total population, they are disproportionately affected by common diet-related diseases such as obesity, diabetes, and cardiovascular disease<sup>5</sup>. Within the State, Native Hawaiians are 2.2 times more likely to be diagnosed with diabetes than caucasians<sup>6</sup>. According to the WHO, the replacement of traditional diets with imported and processed foods throughout the Pacific has contributed to a high prevalence of diet-related health problems<sup>7</sup>, and many international organizations, such as the FAO, recommend Pacific Islanders return to a traditional diet and local foods for their health<sup>8</sup>. One recent study even found that consumption of breadfruit can help mitigate type II diabetes and obesity<sup>9</sup>. For this group, educational programming will not focus on introducing a "new" food – since breadfruit is already a traditional staple, but on presenting new ways to access and prepare it, and education on breadfruit's many health and other benefits in order to encourage and facilitate greater consumption on a regular basis.

5.  Describe the geographic coverage.

<sup>4</sup> <https://stateofobesity.org/states/hi>

<sup>5</sup> [http://geriatrics.stanford.edu/ethnomed/hawaiian\\_pacific\\_islander](http://geriatrics.stanford.edu/ethnomed/hawaiian_pacific_islander)

<sup>6</sup> <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=78>

<sup>7</sup> <http://www.who.int/bulletin/volumes/88/7/10-010710/en/>

<sup>8</sup> <http://www.fao.org/docrep/015/an763e/an763e00.htm>

<sup>9</sup> Turi, C. E., Liu, Y., Ragone, D., & Murch, S. J. (2015). Breadfruit (*Artocarpus altilis* and hybrids): A traditional crop with the potential to prevent hunger and mitigate diabetes in Oceania. *Trends in Food Science & Technology*, 45(2), 264-272.

Project activities will primarily take place throughout Hawai'i Island, although certain Goal B objectives including educational demos will also take place at select O'ahu locations. As the largest population center in the State, HUPC currently receives overwhelming requests from O'ahu residents for breadfruit products and educational information. The proposed project will enable the co-op to introduce value-added breadfruit products in that marketplace and enhance O'ahu residents' access to and understanding of breadfruit, with concomitant benefits including improved health and nutrition and greater appreciation for traditional Hawaiian crops and culture.

## **II. Service Summary and Outcomes**

The Service Summary shall include a detailed discussion of the applicant's approach to the request. The applicant shall clearly and concisely specify the results, outcomes, and measures of effectiveness from this request. The applicant shall:

1.  Describe the scope of work, tasks and responsibilities;

The proposed project will vastly improve the quality of and access to breadfruit-based educational opportunities for both producers and consumers in Hawai'i – a two-pronged approach designed to leverage the growing interest in breadfruit among both groups and to better integrate supply and demand in order to sustain Hawai'i's burgeoning breadfruit industry. We seek to provide producers with training and technical assistance on sustainable production methods and education on the cooperative business model, while educating consumers and the public about how to use breadfruit and its myriad benefits in various formal and informal settings. This approach is in alignment with numerous State goals, including HRS 226-7(5) to: *Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawaii's economy*, and HRS 226-7(7) to: *“Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawaii's food producers and consumers in the State, nation, and world”*. Specific activities to be conducted include the following ten tasks:

### **Producer focused education**

Primary responsibility: Anissa Lucero, HUPC Assistant Manager and Producer Liaison

1. Conduct two visits each to 30 co-op members' farms to support their sustainable production practices and economic viability (60 visits in total). Visits are aligned with state goals defined in HRS 226-7 (2) to *“Encourage agriculture by making the best use of natural resources”*. This includes site-specific consultation on:
  - Farm food safety standards
  - Invasive species protocols including Little Fire Ant (LFA) prevention and remediation measures,
  - Chemical and biological inputs,
  - Crop nutrition requirements,
  - Reducing carbon footprint with local amendments,
  - Pruning and mulching techniques,
  - Companion planting / intercropping, and

- Harvesting and post-harvest best practices.
- 2. Conduct three “talk story” workshops on the east, west and north sides of Hawai'i Island, respectively; these regions are where breadfruit production is most prevalent and growing conditions most amenable. Workshops will target non-member farmers and be open to the general public. Topics will cover the basics on breadfruit production including best practices for tree propagation, variety selection, planting, maintenance, harvest, post-harvest and processing, as well as the co-op organizational structure and how it can benefit Hawai'i farmers today.
- 3. Consult with experts in the field including Dr. Noa Lincoln, professor of Indigenous Crops and Cropping Systems at UH Mānoa, to ensure agronomic information presented in workshops reflects the most up-to-date scientific findings. Utilize current CTAHR research to validate and augment production recommendations made to growers.
- 4. Recruit new members into the co-op targeting new farmers, young farmers and socially disadvantaged farmers, especially Native Hawaiians and Pacific Islanders through:
  - Development of a member prospectus with digital and print versions. Prospectus will clearly explain how the co-op business structure works and outline membership responsibilities, privileges, benefits, risks, and liabilities so farmers can make an educated decision about whether they want to join.
  - Farmer outreach in partnership with community organizations that already have constituencies composed of target audience, including The Kohala Center, Na Maka O Papahanaumokuakea, Hawai'i Farmers Union United local chapters, Kamehameha Schools and the Department of Hawaiian Homelands.

### **Consumer focused education**

Primary responsibility: Charlotte Leger, HUPC Consumer Outreach and Education Coordinator

- 5. Develop consumer oriented educational materials including recipe cards, fact sheets, ¼ page fliers, table tents, business cards, shelf talkers, rack cards, stickers, and brochures. These will be used to support educational objectives and activities outlined below, and be distributed to partner organizations so they can continue educating the public even after HUPC demos and workshops take place.
- 6. Conduct educational demos around Hawai'i Island and O'ahu at select stores and hospitals to include tastings of breadfruit and value-added products, information about HUPC's sustainable production practices, and the cultural significance and health benefits of 'ulu. Locations will be selected to focus on those serving a high rate of our target consumer groups, such as KTA Superstores and other local groceries as well as Hui Mālama Ola Nā 'Ōiwi and Na Maka O Papahanaumokuakea on Hawai'i Island, and both Kaiser Moanalua and Straub Medical Center on O'ahu, which serve many Native Hawaiian and Pacific Islander patients; both hospitals have sourced HUPC breadfruit for their cafeteria and/or patient menus, have farmers market venues on either weekly or monthly bases that would be conducive to the educational activities proposed, and are proponents of local agricultural products.
- 7. Conduct “talk story” style workshops in collaboration with partner organizations located in disbursed geographic regions, such as The Kohala Center, Hui Mālama Ola Nā 'Ōiwi, Na Maka O Papahanaumokuakea, Kohala Village HUB and Sweet Cane Café on Hawai'i Island, and the Waimanalo Food Co-op on O'ahu. Educational materials will be reviewed by Dr. Lincoln for accuracy of information presented; and a cultural

practitioner (TBD) will be invited to conduct a training with HUPC staff to enhance their knowledge of breadfruit's cultural, historical and spiritual significance before educating others. All workshops will begin with a viewing of *Roots of 'Ulu*, an acclaimed short documentary made by award winning filmmaker, John Antonelli, which documents the modern breadfruit revitalization movement in Hawai'i. Specific topics will be refined with each partner organization the month before the workshop and may include:

- Breadfruit history and cultural significance
  - Traditional production practices and uses
  - Contemporary production practices
  - Nutritional profile and culinary applications
  - Potential to mitigate food insecurity in Hawai'i and elsewhere
8. Expand online, breadfruit-based educational offerings by adding informational resources and key educational materials from talk story workshops above to HUPC's website, monthly e-newsletters and weekly posts on Facebook and Instagram. Cross promote through partner organizations' social media accounts to bolster audience viewership.
  9. Increase availability of value-added breadfruit products in local grocery stores by:
    - Building positive relationships with store buyers and distributors through outreach, promotion and education; includes providing free samples for stores/distributors to try out, regular in-store demos to build customer awareness, and training to educate store/distributor sales staff about the products so they can effectively relay that information to end-user consumers.
    - Working with partner distributors to solve distribution bottlenecks; HUPC currently works with 5 distributors throughout the State and seeks to work with additional ones as a result of this project in order to expand the reach of breadfruit into more stores and significantly improve access to more Hawai'i residents.

**Other – Infrastructure expansion**

*Primary responsibility: Dana Shapiro, M.Sc., Manager*

10. Expand HUPC's chill storage infrastructure through purchase of an additional walk-in freezer to allow for greater storage of minimally processed breadfruit; this is needed to ensure year-round availability of product for more community members, and supports the project objective of increasing availability of value-added breadfruit products by 50% in local grocery stores, including at least 3 new O'ahu markets.
2.  Provide a projected annual timeline for accomplishing the results or outcomes of the service;

Timeline	Results or outcomes accomplished
July 2018	<ul style="list-style-type: none"> <li>- Educational materials developed for consumers and the public, including recipe cards, fact sheets, ¼ page fliers, table tents, business cards, shelf talkers, rack cards, stickers and brochures</li> <li>- New freezer sourced and installed to maximize breadfruit storage capacity prior to start of high season in August</li> <li>- Develop evaluation forms to gauge program effectiveness throughout 1 year project duration</li> </ul>



	<ul style="list-style-type: none"> <li>- Staff training on breadfruit's cultural, historical and spiritual significance to ensure accuracy of information shared with consumers and the public during subsequent educational workshops and outreach events</li> </ul>
July - December 2018	<ul style="list-style-type: none"> <li>- 30 member farmers receive in person production consultation by knowledgeable co-op staff to support their farm viability and sustainability; report for each farmer completed by HUPC staff including site-specific recommendations</li> <li>- Co-op staff consult with Dr. Noa Lincoln at UH CTAHR monthly to ensure most up to date agronomic information is shared with growers and applied to their technical assistance and site specific production recommendations</li> </ul>
July 2018 - June 2019	<ul style="list-style-type: none"> <li>- Bi-weekly educational demos conducted at select grocery stores and hospitals / healthcare centers on Hawai'i Island and O'ahu; at least 50 consumers reached at each demo (min. 1,300 consumers total)</li> <li>- <del>Distribution bottlenecks with local partners</del> continuously addressed and, as a result, more stores/venues provide the local community with access to breadfruit</li> <li>- Educational materials shared with online viewership including through HUPC's website, monthly e-newsletters and weekly Facebook and Instagram posts</li> </ul>
August 2018	<ul style="list-style-type: none"> <li>- <del>Member prospectus developed to support new farmer outreach and recruitment, focusing on young, beginning and socially disadvantaged producers</del></li> <li>- Digital version of prospectus made available on HUPC website and print version available at subsequent producer-oriented events and at the co-op facility in Honalo, Hawai'i Island</li> <li>- Prospectus and producer outreach will support acquisition of 9 new farmer-members by end of project period (30% growth)</li> </ul>
September 2018	<ul style="list-style-type: none"> <li>- First producer-oriented workshop conducted on sustainable production practices and the co-op business model (west side of Hawai'i Island)</li> </ul>
October 2018 - June 2019	<ul style="list-style-type: none"> <li>- 6 consumer-oriented "talk story" workshops organized with partner organizations on Hawai'i Island and O'ahu</li> <li>- Approximately 1 workshop conducted every 6 weeks during this 9 month period</li> </ul>
January - June 2019	<ul style="list-style-type: none"> <li>- Second visit to each of 30 co-op members' farms completed, with site-specific recommendations provided to improve sustainability and viability of each operation</li> <li>- Co-op staff continue to consult with Dr. Noa Lincoln at UH</li> </ul>

	CTAHR monthly to ensure most up-to-date agronomic information is shared with growers and applied to their technical assistance and site specific production recommendations
February 2018	- Second producer-oriented workshop conducted on sustainable production practices and the co-op business model (east side of Hawai'i Island)
May 2018	- Third producer-oriented workshop conducted on sustainable production practices and the co-op business model (north side of Hawai'i Island)

3.  Describe its quality assurance and evaluation plans for the request. Specify how the applicant plans to monitor, evaluate, and improve their results; and

Project activities will be planned and executed by a team of qualified, passionate staff members providing adequate checks and balances to ensure quality of performance and ongoing, transparent evaluation and improvement. Activities will be monitored at the highest level by HUPC Manager, Dana Shapiro, M.Sc., throughout the length of the program. Staff members Anissa Lucero and Charlotte Leger will gather evaluation data for producer-oriented and consumer-oriented education, respectively, by surveying project collaborators and participants on a regular basis as makes sense for their involvement. For instance, written evaluation forms will be disbursed after each workshop participating producers (3 events) and consumers (6 events), while store buyers and sales staff will receive phone evaluations in conjunction with weekly product order check-ins to gauge customer receptiveness and sales trends over time; member farmers, meanwhile, will be asked to complete written evaluation forms after each co-op site visit, and new members upon entry to the co-op and 6 months later (if that falls within the project duration). Evaluation forms for each group and activity will be developed in the first month of the project as stated in timeline above (July 2018).

Anissa and Charlotte will provide Dana with detailed monthly reports throughout the project period summarizing activities conducted, progress made, outcomes, results, evaluation feedback, and areas and ideas for improvement. Dana will then compare monthly reports and actual successes and challenges to stated project plans, goals and objectives, and follow up with the team to implement improvements, as needed. Dana has substantial experience conducting qualitative and quantitative research and analysis (see CV attached), including evaluating grant activities for several USDA grants. Dana previously worked in social science research in an academic setting where her responsibilities included evaluation survey design, and she will work with Anissa and Charlotte to develop the evaluation forms to ensure they collect accurate, objective and comprehensive information from partners, participants and beneficiaries.

4.  List the measure(s) of effectiveness that will be reported to the State agency through which grant funds are appropriated (the expending agency). The measure(s) will provide a standard and objective way for the State to assess the program's achievement or accomplishment. Please note that if the level of appropriation differs from the amount

included in this application that the measure(s) of effectiveness will need to be updated and transmitted to the expending agency.

Specific measures of effectiveness that will enable HUPC to track the program's achievements throughout the grant funding period include:

Producer-oriented education

- **Educational program attendance:** Survey forms will be provided at every workshop to collect information from each participant to assess community impact based on overall number of attendees as well as specific number within the target producer groups of new farmers, young farmers, socially disadvantaged farmers, and Native Hawaiians and Pacific Islanders. *25-50 farmers with at least 50% qualifying under the target producer groups per event indicates program effectiveness.*
- **Educational program quality:** Survey forms will also collect quantitative measures (on a scale of 1-5) to gauge effectiveness of the workshop across multiple categories such as clarity of presentation, usefulness of information, engagement of presenter, and amount learned about production best practices and the cooperative organization model. Surveys will also ask participants to state qualitatively whether they plan to adopt or change behavior as a result of the information learned, such as planting more breadfruit trees, altering production practices, or joining the co-op. *An average score of 4 (80%) indicates program effectiveness (qualitative responses will be converted to a numerical scale).*
- **Production assistance assessment:** Member-farmers receiving in-person technical support from the co-op will be asked to complete a written evaluation survey after each visit. Survey forms will collect quantitative feedback (on a scale of 1-5) to measure quality and effectiveness in the varying assistance categories outlined above (i.e. on-farm inputs, pruning, harvesting, etc.). *An average score of 4 (80%) indicates program effectiveness.*
- **Production recommendations:** HUPC will make production recommendations to each farmer-member after the technical assistance visit, with technical support provided by Dr. Noa Lincoln in response to farmers' specific questions or concerns about their operation. Recommendations may relate to farm-specific sustainability practices or economic viability. *Adoption by each farmer-member of at least one recommendation indicates program effectiveness.*
- **Membership growth:** New member prospectus will be developed in month 1 of the proposed project and distributed at each producer workshop and made available online as a free downloadable PDF. *A 30% increase in membership by the end of the project period, with at least 60% recruitment from the target producer group of new farmers, young farmers, socially disadvantaged farmers, and Native Hawaiians and Pacific Islanders, indicates program effectiveness.*

Consumer-oriented education and access:

- **Educational program attendance:** Survey forms will be provided at every talk story workshop to collect information from each participant to assess community impact based on overall numbers of attendees as well as specific numbers for the target consumer populations of families with children and Native Hawaiians and Pacific Islanders. *25-50*

*attendees with at least 50% qualifying under the target consumer groups per event indicates program effectiveness.*

- **Educational program quality:** Survey forms will also collect quantitative measures (on a scale of 1-5) to gauge program quality and effectiveness in multiple categories such as clarity of presentation, usefulness of information, engagement of presenter, and amount learned about breadfruit's history, nutrition and culinary uses. Surveys will also ask participants to state qualitatively whether they plan to adopt or change behavior as a result of the information learned, such as eating more breadfruit, trying new recipes or buying more local / traditional agricultural products in general. *An average score of 4 (80%) indicates program effectiveness (qualitative responses will be converted to a numerical scale).*
- **Number of consumers reached:** A total of at least 26 demos will be conducted over the project period (~bi-weekly). Staff conducting demo will use a clicker to record number of consumers reached during event. *At least 50 consumers stopping by the demo booth for at least 2 minutes each to taste products and read literature provided or speak with the staff member indicates program effectiveness (minimum 1,300 total consumers reached during project period).*
- **Effectiveness of outreach efforts:** Educational materials developed for consumers and the public will be evaluated based on how many new e-newsletter sign-ups are received over the project period, how many more facebook "likes" or "followers" become engaged, and how many unique visitors view the website educational page (developed through the proposed project) – as all materials will have the website and social media links embedded. *Increased social media engagement of 5,000 people overall indicates program effectiveness in this category.*
- **Increased access to breadfruit:**
  - o Weekly check-ins will be conducted with each store buyer to assess market reach, sales trends, feedback and customer reception. Quantitative and qualitative responses will be recorded each week to build a % change database with baseline. *Overall increased sales of value-added breadfruit products by 50% during project period indicates program effectiveness.*
  - o Distributors serving local stores will be engaged throughout the project period to help identify and address distribution barriers limiting access to breadfruit by the local community. *Acquisition of at least 3 new distributor accounts and 3 new O'ahu markets indicates program effectiveness.*

### **III. Financial**

#### **Budget**

1.  The applicant shall submit a budget utilizing the enclosed budget forms as applicable, to detail the cost of the request.
  - a. Budget request by source of funds ([Link](#)) – attached
  - b. Personnel salaries and wages ([Link](#)) – attached
  - c. Equipment and motor vehicles ([Link](#)) – attached
  - d. Capital project details ([Link](#)) – N/A
  - e. Government contracts, grants, and grants in aid ([Link](#)) – attached

2.  The applicant shall provide its anticipated quarterly funding requests for the fiscal year 2019.

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Grant
\$52,312.50	\$13,312.50	\$15,812.50	\$13,312.50	\$94,750.00

3.  The applicant shall provide a listing of all other sources of funding that they are seeking for fiscal year 2019.

We have applied for the following federal USDA grants totaling \$180,525 for fiscal year 2019:

- Small Business Innovation Research (SBIR): \$85,217 sought
- Farm to School (FTS): \$95,308 sought

4.  The applicant shall provide a listing of all state and federal tax credits it has been granted within the prior three years. Additionally, the applicant shall provide a listing of all state and federal tax credits they have applied for or anticipate applying for pertaining to any capital project, if applicable.

Not applicable.

5.  The applicant shall provide a listing of all federal, state, and county government contracts, grants, and grants in aid it has been granted within the prior three years and will be receiving for fiscal year 2019 for program funding.

Within the prior three years we have received the following two federal USDA grants. Original grant funding amount (\$262,409 total) and amount remaining for FY19 (\$73,282.41 total) are specified below.

- Local Food Promotion Program (LFPP) grant: \$220,773 original allotment; \$64,955.21 remaining for FY 2019
- Specialty Crop Block Grant: \$41,636 original allotment; \$8,327.20 remaining for FY 2019

6.  The applicant shall provide the balance of its unrestricted current assets as of December 31, 2017.

HUPC's unrestricted current assets as of December 31, 2017 total **\$114,865.91**.

#### **IV. Experience and Capability**

1.  **Necessary Skills and Experience**

The applicant shall demonstrate that it has the necessary skills, abilities, knowledge of, and experience relating to the request. State your experience and appropriateness for providing the

service proposed in this application. The applicant shall also provide a listing of verifiable experience of related projects or contracts for the most recent three years that are pertinent to the request.

HUPC is uniquely suited to provide the proposed educational services and has the skills and direct experience needed to successfully carry them out. The organization's relevant abilities and capacity are summarized under each service goal below.

***Goal A. Support small-scale farmers, particularly young, new and socially disadvantaged producers including Native Hawaiians and Pacific Islanders, by providing technical assistance on breadfruit production, pruning, maintenance, harvest and post harvest, as well as education about the cooperative business model and how it can benefit their operation.***

HUPC represents the first breadfruit farmer co-op and the largest breadfruit producer group in the State by both fruit and tree volume and number of farmers. As an agricultural cooperative, HUPC's primary responsibility is to support and improve the sustainability and profitability of its farmer-members, who currently number 30 and counting throughout Hawai'i Island. Our fast paced growth indicates our success and ability to fulfill this responsibility, even given our young age. HUPC's work in this capacity is aligned with State goal HRS 226-6 (10) to: *Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawaii's small scale producers, manufacturers, and distributors.* All of the co-op members are small-scale, with annual sales under \$250,000. HUPC manager, Dana Shapiro, has a Masters of Science degree in rural and cooperative business development, and previously worked for The Kohala Center as cooperative business development specialist, providing education and technical assistance to existing and start-up co-ops around the State. This background and experience makes her particularly qualified to extend educational opportunities about the cooperative model, now based on real-world experience forming and developing HUPC, to other small-scale farmers in the community.

To date, HUPC has conducted at least one in-person site visit to each of our 30 member farms, provided on the ground consultation and technical support wherever possible, and helped connect growers to experts in the field when staff members lacked the information members' needed – such as how to treat certain diseases or identify “mystery” breadfruit tree varieties. We have also provided both members and nonmember producers with ongoing agricultural training opportunities including:

- Farm food safety and FSMA / GAP requirements for breadfruit with Dr. Luisa Castro, Hawai'i Department of Agriculture (April 2017)
- Breadfruit varieties with Dr. Diane Ragone, The Breadfruit Institute at the National Trioptical Botanical Garden (August 2017)

Moreover, we have previously collaborated with multiple partner organizations to provide breadfruit-related educational programs to the community, including with The Kohala Center and Na Maka O Papahanaumokuakea's Earth Day 2017 event, and island wide screenings of the Roots of 'Ulu documentary including at the Kohala Village HUB, Sweet Cane Café and Honoka'a People's Theatre. We have also been invited to present about breadfruit production

and the cooperative business model at the Hawai'i Farmers Union United (HFUU) and Korean Natural Farming Association local chapter meetings as well as by Mālama Kaua'i.

***Goal B. Educate consumers and the public about how to use breadfruit, its history and cultural significance, nutritional profile, and public benefits in terms of food security, climate change resilience and long term sustainability, while increasing access to this nutritious and culturally appropriate food for Hawai'i's most underserved populations.***

In conjunction with pioneering breadfruit products in the local marketplace and thereby increasing access to this nutritious local food, educating the public has been a core part of HUPC's work since our inception. Increasingly, consumer education will continue to be an integral part of our efforts toward building consumer demand and enhancing appreciation for this underutilized, traditional crop. To date, much of our specific consumer-oriented educational activities have targeted families and youth by developing farm to school programs in partnership with teachers, school foodservice directors and school garden coordinators at a half dozen schools around Hawai'i Island (Volcano School of Arts and Sciences, Hawai'i Academy of Art and Science, Kona Pacific Public Charter School, Honaunau Elementary School, Konawaena Elementary School, and Na Wai Ola). We have also conducted approximately 50 in-store educational demos, including at least one at every grocery store in which we offer breadfruit products. Further, we have partnered with the Blue Zones Project to incorporate breadfruit into their health and wellness events, offered hands-on training for professional chefs and home cooks, and hosted educational booths at farmers markets and local community agricultural festivals including Lā Ho'ihō'i Ea, Kona Historical Society Farm Fest, Ma'ona Community Garden, Hawi Farmers Market, Hāmakua Harvest Agricultural Festival (2016 and 2017), Kōkua Market Co-op member appreciation day, La'ie Breadfruit Festival, 'Aina Fest, Straub Medical Center farmers market, and others.

This substantial experience has taught our staff about the best ways to present breadfruit to diverse audiences, introducing the crop to both new and veteran eaters, and what sort of resources are most useful in formal as well as informal educational settings. Although breadfruit is currently experiencing revived interest, many consumers are still unaware of its breadth of uses and beneficial properties including an exceptionally high nutritional value and cultural significance. It has therefore been necessary for us to take every opportunity to educate the public at large about the history of breadfruit and its potential to contribute to Hawai'i's food security and sustainability. The consumer-oriented activities proposed under this grant will significantly augment these prior efforts and help expand the reach of our educational services for the public.

## 2. Facilities

The applicant shall provide a description of its facilities and demonstrate its adequacy in relation to the request. If facilities are not presently available, describe plans to secure facilities.

HUPC operates out of the Honalo Marshaling Yard in South Kona, which was originally established as the regional aggregation and processing facility for West Hawai'i farmers by the Hawai'i Department of Agriculture in the early 1990s. Since then, the facility was sub-leased to

the Hawai'i Food Basket, which used it as its West Hawai'i Food Bank until 2016. Since HUPC became the facility's primary user in summer 2017, the Honalo property has returned to its original purpose and function as marshaling yard for the region's produce – providing local farmers with access to the central infrastructure needed to collectively and more efficiently market their crops. The 2-acre property includes a 5,000 square foot warehouse in which HUPC built a 300 square foot commercial kitchen, now used to process the majority of our members' fruit. The kitchen received its State Department of Health Food Establishment Permit in July 2017. Within the facility, HUPC also operates three freezers to store processed fruit for year round distribution, two refrigerators to store fresh fruit before it is processed, a screened-in room where fresh fruit is ripened for value added products, a packing and shipping area, and the co-op's office headquarters. This facility and its amenities are fully adequate to support all of the services proposed in this request.

## **V. Personnel: Project Organization and Staffing**

### **1. Proposed Staffing, Staff Qualifications, Supervision and Training**

The applicant shall describe the proposed staffing pattern and proposed service capacity appropriate for the viability of the request. The applicant shall provide the qualifications and experience of personnel for the request and shall describe its ability to supervise, train and provide administrative direction relative to the request.

#### **Dana Shapiro, M.Sc. – HUPC Manager**

*Qualifications/experience:* Dana has managed HUPC since its formation and previously worked as a cooperative and rural business development consultant for numerous local agriculture projects in Hawai'i. Her background is in social science research, using both qualitative and quantitative evaluation methods to assess the success, sustainability and functionality of community-based projects. She has a B.Sc. in Natural Resource Management from Cornell University and a M.Sc. in Cooperative Business Development from Ben Gurion University in Israel.

*Roles and responsibilities:* Dana will direct the proposed project, working with community partners to ensure appropriate plans and timelines are in place, and conducting ongoing evaluation to assess whether project outcomes meet set goals. She will also be responsible for supervising the other staff members listed below, and for coordinating staff training on breadfruit's cultural, historical and spiritual significance as described in the proposal narrative. In addition, Dana will be responsible for sourcing and procuring the walk-in freezer, for conducting the O'ahu-based educational activities, and for providing administrative direction and reporting as related to this request.

#### **Anissa Lucero – HUPC Assistant Manager and Producer Liaison**

*Qualifications/experience:* Anissa has significant experience in commercial farming, marketing of farm products, and educational agritourism. She has worked in local agricultural enterprises in Hawai'i since 2010, and currently manages HUPC's aggregation and processing facility in Honalo.

*Roles and responsibilities:* Anissa will manage all producer-oriented education activities, will conduct the farmer-member site visits (60 total) and producer workshops (3 total) during the



project period, and will consult with Dr. Noa Lincoln monthly to ensure that the most up-to-date agronomic information is presented to member and nonmember farmers and incorporated into production recommendations. Anissa will also collect evaluation data on these activities, and be responsible for submitting monthly project progress reports to Dana for evaluation.

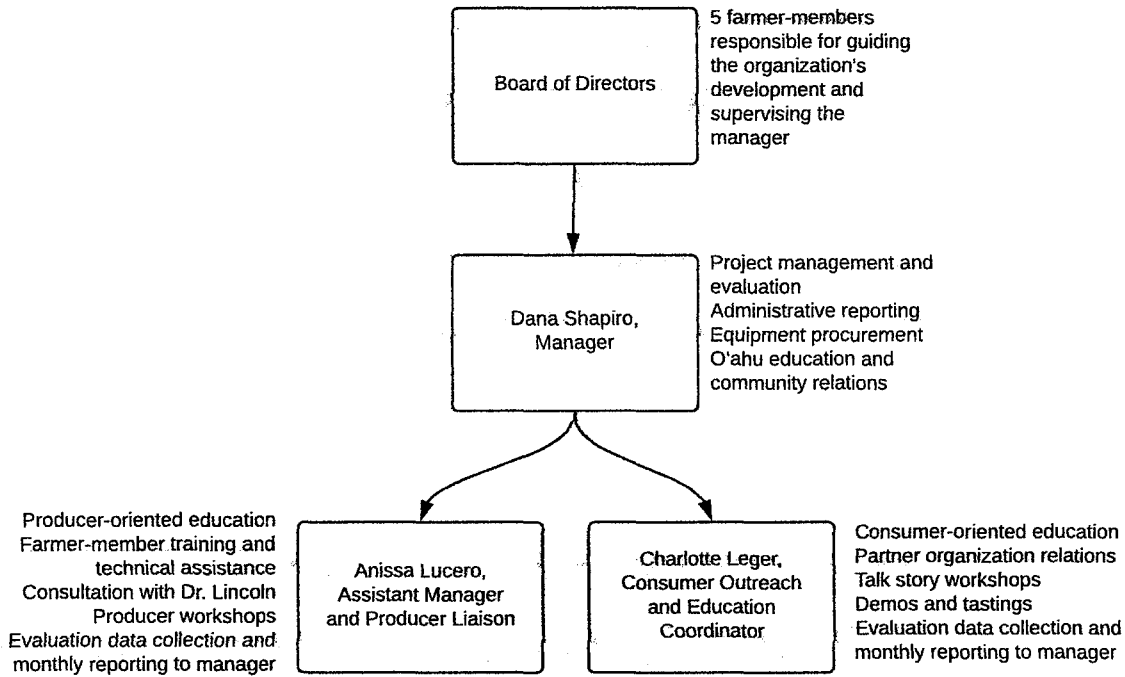
**Charlotte Leger – HUPC Consumer Outreach and Education Coordinator**

*Qualifications/experience:* Charlotte helped develop a market for value-added breadfruit products throughout the island of Hawai'i as a Kupu intern with HUPC from October to December 2017. Her background is in conservation and resource management, with a B.Sc. in Conservation Resource Studies From the University of California at Berkely, which brought her to work with different island communities in the Pacific – giving her a great respect and admiration for indigenous cultures and their traditional knowledge systems. She has been working in natural resource management, education, and outreach in Hawai'i for the past six years.

*Roles and Responsibilities:* Charlotte will manage all consumer-oriented education activities, including workshops, demos and events on Hawai'i Island and in partnership with other community groups. She will also work with hired marketing contractors (TBD) to develop the educational promotion materials outlined in this request. Finally, Charlotte will collect evaluation data on these activities, and be responsible for submitting monthly project progress reports to Dana for evaluation.

2.  **Organization Chart**

The applicant shall illustrate the position of each staff and line of responsibility/supervision. If the request is part of a large, multi-purpose organization, include an organization chart that illustrates the placement of this request.



3.  **Compensation**

The applicant shall provide the annual salaries paid by the applicant to the three highest paid officers, directors, or employees of the organization by position.

Dana Shapiro, M.Sc. Manager - \$50,000 salary, \$25/hr  
Anissa Lucero, Assistant Manager - \$40,000 salary, \$20/hr  
Charlotte Leger, Consumer Education Coordinator - \$35,000 salary, \$17.50/hr

**VI. Other**

1.  **Litigation**

The applicant shall disclose any pending litigation to which they are a party, including the disclosure of any outstanding judgement. If applicable, please explain.

Not applicable.

2.  **Licensure or Accreditation**

The applicant shall specify any special qualifications, including but not limited to licensure or accreditation that the applicant possesses relevant to this request.

Not applicable.

3.  **Private Educational Institutions**

The applicant shall specify whether the grant will be used to support or benefit a sectarian or non-sectarian private educational institution. Please see Article X, Section 1, of the State Constitution for the relevance of this question.

Not applicable.

4.  **Future Sustainability Plan**

The applicant shall provide a plan for sustaining after fiscal year 2018-19 the activity funded by the grant if the grant of this application is:

- (a) Received by the applicant for fiscal year 2018-19, but
- (b) Not received by the applicant thereafter.

If this application is funded for FY2018-19 but not thereafter, all project services will be sustained through HUPC's own revenues generated through product sales. As an agricultural producer cooperative, HUPC is obligated to provide benefits to its farmer-members, specifically through the aggregation, processing and marketing of their agricultural products. These services are intended to help advance members' profitability and sustainability, and comprise the purpose behind the co-op's existence. Making a continual investment in the education and ability of Hawai'i's breadfruit farmers to exercise good production practices that will sustain the industry over time and to understand the cooperative business model so they can be productive and supportive co-op members, is therefore a good business practice in its own right. Similarly, educating the public about breadfruit's many benefits and uses is necessary to grow the market, which, with the co-op's current projections showing production volumes increasing fourfold by 2020 based on current members' planted trees alone, will continue being essential to building demand and interest in the food crop among consumers. As a small startup organization, requested grant funds will help HUPC create the initial educational resources and programs targeting both producers and consumers, which will then be maintained by the co-op in future years through investing a portion of its own product revenues.

5.  **Certificate of Good Standing (If the Applicant is an Organization)**

If the applicant is an organization, the applicant shall submit one (1) copy of a certificate of good standing from the Director of Commerce and Consumer Affairs that is dated no earlier than December 1, 2017.

Attached.

6.  **Declaration Statement**

The applicant shall submit a declaration statement affirming its compliance with Section 42F-103, Hawaii Revised Statutes. ([Link](#))

Attached.

7.  **Public Purpose**

The applicant shall specify whether the grant will be used for a public purpose pursuant to Section 42F-102, Hawaii Revised Statutes. ([Link](#))

The requested grant will be used for the public purpose of providing breadfruit-related education to both producers and consumers in order to fulfill multiple state goals, objectives and strategies, including the State of Hawai'i Aloha+ Challenge commitment to double local food production by 2030 statewide<sup>10</sup>, and the Increased Food Security and Increased Food Self-sufficiency Strategy, which stipulates that investments in programs and projects that support greater food self-sufficiency will result in economic, social and environmental benefits<sup>11</sup>.

Additionally, the proposed project helps fulfill the following public needs stipulated in the Hawai'i State Planning Act Section HRS Chapter 226, which underlines State goals and objectives.

Food Security:

5. HRS 226-6 (8) Assure that the basic economic needs of Hawai'i's people are maintained in the event of disruptions in overseas transportation.
6. HRS 226-6 (10) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawai'i's small scale producers, manufacturers, and distributors.
7. HRS 226-7 (5) Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawai'i's economy.
8. HRS 226-7 (7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawai'i's food producers and consumers in the State, nation, and world.

Sustainability:

4. HRS 226-7 (2) Encourage agriculture by making the best use of natural resources.
5. HRS 226-7 (13) Promote economically competitive activities that increase Hawai'i's agricultural self-sufficiency, including the increased purchase and use of Hawai'i-grown food and food products by residents, businesses, and governmental bodies as defined under section 103D-104.
6. HRS 226-7 (17) Perpetuate, promote, and increase use of traditional Hawaiian farming systems, such as the use of loko i'a, māla, and irrigated lo'i, and growth of traditional Hawaiian crops, such as kalo, 'uala, and 'ulu.

Community Resilience:

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<sup>10</sup> <https://dashboard.hawaii.gov/en/stat/goals/5xhf-begg/vey8-efit/4dt7-wn38>

<sup>11</sup> Increased Food Security and Food Self-Sufficiency Strategy, State of Hawai'i Office of Planning, October 2012.

4. HRS 226-7 (18) Increase and develop small-scale farms.
5. HRS 226-20 (7) Prioritize programs, services, interventions, and activities that address identified social determinants of health to improve native Hawaiian health and well-being consistent with the United States Congress' declaration of policy as codified in title 42 United States Code section 11702, and to reduce health disparities of disproportionately affected demographics, including native Hawaiians, other Pacific Islanders, and Filipinos.
6. HRS 226-21 (4) Promote educational programs which enhance understanding of Hawai'i's cultural heritage.

# BUDGET REQUEST BY SOURCE OF FUNDS

Period: July 1, 2018 to June 30, 2019

Applicant: \_\_\_\_\_ Hawai'i 'Ulu Producers Cooperative

BUDGET CATEGORIES	Total State Funds Requested (a)	Total Federal Funds Requested (b)	Total County Funds Requested (c)	Total Private/Other Funds Requested (d)
<b>A. PERSONNEL COST</b>				
1. Salaries	40,000	63,056	0	0
2. Payroll Taxes & Assessments				
3. Fringe Benefits	10,000	14,417		
<b>TOTAL PERSONNEL COST</b>	<b>50,000</b>	<b>77,473</b>		
<b>B. OTHER CURRENT EXPENSES</b>				
1. Inter-Island travel	1,250	5,910		
2. Insurance				
3. Lease/Rental of Equipment				
4. Lease/Rental of Space				
5. Staff Training	1,500			
6. Supplies		24,500		
7. Telecommunication				
8. Utilities				
9. Educational materials design	5,000			
10. Educational materials production	5,000			
11. Educational demo supplies	2,000			
12. Website enhancement	5,000			
13. Consultants and independent contractors		50,971		
14. Indirect costs		1,671		
15				
16				
17				
18				
19				
20				
<b>TOTAL OTHER CURRENT EXPENSES</b>	<b>19,750</b>	<b>83,052</b>		
<b>C. EQUIPMENT PURCHASES</b>	<b>25,000</b>	<b>20,000</b>		
<b>D. MOTOR VEHICLE PURCHASES</b>				
<b>E. CAPITAL</b>				
<b>TOTAL (A+B+C+D+E)</b>	<b>94,750</b>	<b>180,525</b>		
<b>SOURCES OF FUNDING</b>		Budget Prepared By:		
(a) Total State Funds Requested	94,750	Dana Shapiro (808) 238-8869		
(b) Total Federal Funds Requested	180,525	Name (Please type or print), _____ Phone _____		
(c) Total County Funds Requested		1/18/18		
(d) Total Private/Other Funds Requested		Date		
<b>TOTAL BUDGET</b>	<b>275,275</b>	Dana Shapiro, Manager Name and Title (Please type or print) _____		

## BUDGET JUSTIFICATION - PERSONNEL SALARIES AND WAGES

Period: July 1, 2018 to June 30, 2019

Applicant: Hawai'i 'Ulu Producers Cooperative

POSITION TITLE	FULL TIME EQUIVALENT	ANNUAL SALARY A	% OF TIME ALLOCATED TO GRANT REQUEST B	TOTAL STATE FUNDS REQUESTED (A x B)
Dana Shapiro, M.Sc., Manager	1	\$50,000.00	20.00%	\$ 10,000.00
Anissa Lucero, Assistant Manager / Producer Liaison	1	\$40,000.00	40.00%	\$ 16,000.00
Charlotte Leger, B.Sc., Consumer Education Coordinator	1	\$35,000.00	40.00%	\$ 14,000.00
				\$ -
				\$ -
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				\$ -
<b>TOTAL:</b>				<b>40,000.00</b>

**JUSTIFICATION/COMMENTS:**

All salaries based on reasonable market comparisons: Dana Shapiro, M.Sc. at \$25/hr, Anissa Lucero at \$20/hr, Charlotte Leger at \$17.50/hr

## BUDGET JUSTIFICATION - EQUIPMENT AND MOTOR VEHICLES

Period: July 1, 2018 to June 30, 2019

Applicant: Hawai'i 'Ulu Producers Cooperative

DESCRIPTION EQUIPMENT	NO. OF ITEMS	COST PER ITEM	TOTAL COST	TOTAL BUDGETED
10'x9'6"x20' KOLPAK walk in freezer	1.00	\$25,000.00	\$ 25,000.00	25000
			\$ -	
			\$ -	
			\$ -	
			\$ -	
<b>TOTAL:</b>	1		\$ 25,000.00	25,000

JUSTIFICATION/COMMENTS:

DESCRIPTION OF MOTOR VEHICLE	NO. OF VEHICLES	COST PER VEHICLE	TOTAL COST	TOTAL BUDGETED
			\$ -	
			\$ -	
			\$ -	
			\$ -	
			\$ -	
<b>TOTAL:</b>				

JUSTIFICATION/COMMENTS:

Acquisition of walk-in freezer needed to enable increased storage of minimally processed breadfruit and ensure year-round availability for the community; holds approx 7,500lbs



**GOVERNMENT CONTRACTS, GRANTS, AND / OR GRANTS IN AID**

Applicant: \_\_\_\_\_

Hawai'i 'Ulu Producers Cooperative

Contracts Total:

262,409

	<b>CONTRACT DESCRIPTION</b>	<b>EFFECTIVE DATES</b>	<b>AGENCY</b>	<b>GOVERNMENT ENTITY</b> (U.S. / State / Haw / Hon / Kau / Mau)	<b>CONTRACT VALUE</b>
1	Local Food Promotion Program - <i>developing a breadfruit cooperative</i>	9/30/2016 to 9/29/2019	USDA, Agricultural Marketing Service	U.S.	220,773
2	Specialty Crop Block Grant - <i>to facilitate cooperation among Hawaii breadfruit producers to distribute, market and improve their production sustainability</i>	3/23/2017 to 3/22/2019	USDA, Agricultural Marketing Service	U.S.	41,636
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**DECLARATION STATEMENT OF  
APPLICANTS FOR GRANTS PURSUANT TO  
CHAPTER 42F, HAWAII REVISED STATUTES**

The undersigned authorized representative of the applicant certifies the following:

- 1) The applicant meets and will comply with all of the following standards for the award of grants pursuant to Section 42F-103, Hawaii Revised Statutes:
  - a) Is licensed or accredited, in accordance with federal, state, or county statutes, rules, or ordinances, to conduct the activities or provide the services for which a grant is awarded;
  - b) Complies with all applicable federal and state laws prohibiting discrimination against any person on the basis of race, color, national origin, religion, creed, sex, age, sexual orientation, or disability;
  - c) Agrees not to use state funds for entertainment or lobbying activities; and
  - d) Allows the state agency to which funds for the grant were appropriated for expenditure, legislative committees and their staff, and the auditor full access to their records, reports, files, and other related documents and information for purposes of monitoring, measuring the effectiveness, and ensuring the proper expenditure of the grant.
- 2) If the applicant is an organization, the applicant meets the following requirements pursuant to Section 42F-103, Hawaii Revised Statutes:
  - a) Is incorporated under the laws of the State; and
  - b) Has bylaws or policies that describe the manner in which the activities or services for which a grant is awarded shall be conducted or provided.
- 3) If the applicant is a non-profit organization, it meets the following requirements pursuant to Section 42F-103, Hawaii Revised Statutes:
  - a) Is determined and designated to be a non-profit organization by the Internal Revenue Service; and
  - b) Has a governing board whose members have no material conflict of interest and serve without compensation.

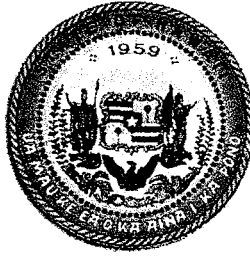
Pursuant to Section 42F-103, Hawaii Revised Statutes, for grants used for the acquisition of land, when the organization discontinues the activities or services on the land acquired for which the grant was awarded and disposes of the land in fee simple or by lease, the organization shall negotiate with the expending agency for a lump sum or installment repayment to the State of the amount of the grant used for the acquisition of the land.

Further, the undersigned authorized representative certifies that this statement is true and correct to the best of the applicant's knowledge.

Dana Shapiro, Hawai'i 'Ulu Producers Cooperative  
(Typed Name of Individual or Organization)

[REDACTED] 1/18/2018  
(S) (Date)

Dana Shapiro Manager  
(Typed Name) (Title)



**STATE OF HAWAII  
STATE PROCUREMENT OFFICE**

**CERTIFICATE OF VENDOR COMPLIANCE**

This document presents the compliance status of the vendor identified below on the issue date with respect to certificates required from the Hawaii Department of Taxation (DOTAX), the Internal Revenue Service, the Hawaii Department of Labor and Industrial Relations (DLIR), and the Hawaii Department of Commerce and Consumer Affairs

**Vendor Name:** HAWAII 'ULU PRODUCERS COOPERATIVE

**Issue Date:** 01/12/2018

**Status:** Compliant

Hawaii Tax#:

New Hawaii Tax#:

FEIN/SSN#:

UI#:

No record

DCCA FILE#:

269078

**Status of Compliance for this Vendor on Issue date:**

<b>Form</b>	<b>Department(s)</b>	<b>Status</b>
A-6	Hawaii Department of Taxation	Compliant
	Internal Revenue Service	Compliant
COGS	Hawaii Department of Commerce & Consumer Affairs	Compliant
LIR27	Hawaii Department of Labor & Industrial Relations	Compliant

**Status Legend:**

<b>Status</b>	<b>Description</b>
Exempt	The entity is exempt from this requirement
Compliant	The entity is compliant with this requirement or the entity is in agreement with agency and actively working towards compliance
Pending	The entity is compliant with DLIR requirement
Submitted	The entity has applied for the certificate but it is awaiting approval
Not Compliant	The entity is not in compliance with the requirement and should contact the issuing agency for more information

# DANA LINAT SHAPIRO, M.Sc.

[shapiro.dana@gmail.com](mailto:shapiro.dana@gmail.com)  
Phone 808-238-8869

3029 Lowrey Ave, Apt. 3111  
Honolulu, HI 96822

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## EDUCATION

**Ben Gurion University**, Albert Katz International School for Desert Studies, Israel, October 2010

Masters of Science in Rural Development; Cum laude, Thesis grade: 98

Title: *Localization or caviar? Exploring rural development strategies to cope with high transport costs*

Arava Institute for Environmental Studies, Kibbutz Ketura, Israel

**Fulbright Scholar**, 2007-08

**Cornell University**, Ithaca, New York, May 2006

B.Sc. in Natural Resources; Cum Laude with Distinction in Research

Honors thesis: *Food tourism and sustainable rural development: analyzing the role of social networks in multifunctional landscapes*

## WORK EXPERIENCE

**Manager**, Hawai'i 'Ulu Producers Cooperative, Hawai'i Island, July 2016-Present

Rural cooperative development specialist, The Kohala Center, Hawai'i State  
May-October 2015

Rural cooperative and business development consultant, Freelance, Hawai'i and Maui Islands  
June 2012-July 2016

Rural cooperative development researcher, Ben Gurion University, Israel  
November 2010-February 2016

Strategic planning, social marketing, and educational tourism, Volcano Island Honey Company Ahualoa, HI, March 2011-May 2012

Intern, Community and Rural Development Institute, Cornell University, Ithaca, NY  
June-August 2007

Research assistant, Dept of Development Sociology and Dept of Natural Resources, Cornell University, Ithaca, NY  
September 2016-May 2007

## PEER REVIEWED PUBLICATIONS

Shapiro, D., D. Pearlmutter and M. Schwartz. (2012). The emergence of rural transport strategies in response to rising fuel costs. *Energy Policy* 44, 92-100.

Shapiro, D., D. Pearlmutter and M. Schwartz. (2012). Rural development strategies to cope with high transport costs. *Horizons in Geography* 81-82, 20-38.

## OTHER RELEVANT PUBLICATIONS

Ragone, D., C.R. Elevelitch, D. Shapiro, and A. Dean. (2012). Ho'oulu ka 'Ulu Cookbook: Breadfruit tips, techniques, and Hawai'i's favorite home recipes. *Kamehameha Publishing*.

## GRANTS AND AWARDS

**Kibbutz Prize 2010**, Israel

Highest recognition awarded annually to scientific research that supports the advancement of kibbutz economic and social goals.

**Fulbright Scholar**, Israel, 2007-08

**JOSH GREEN, M.D.**  
**HAWAII STATE SENATOR**

January 18, 2018

Senator Donovan Dela Cruz  
Chair, Committee on Ways and Means  
State Capitol, Rm. 208  
Honolulu, HI 96813

RE: The Hawai'i 'Ulu Producers Cooperative Grant-in-Aid Application

Dear Chair Dela Cruz,

This letter is to express our firm support of the Hawai'i 'Ulu Producers Cooperative's (HUPC) Operating Grant-in-Aid proposal for the FY 2019.

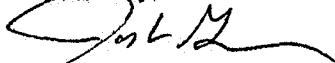
The Hawai'i 'Ulu Producers Cooperative is an agricultural producers cooperative in our district, supporting over 30 farmers and counting, whose mission is to develop a viable, local, and sustainable breadfruit industry to enhance our communities' wellbeing and health. Since its inception in August 2016, the HUPC has pioneered the breadfruit market on Hawai'i, supporting small-scale local producers, schools, and consumers island-wide.

The HUPC is applying for the Grant-in-Aid to leverage their experience in the breadfruit industry to educate the larger public about the health benefits, cultural uses and agricultural potential of 'ulu, while continuing to provide training, workshops and consulting opportunities for agricultural farmer-members and producers in Hawai'i. Their efforts allow supply and demand to be integrated, connecting farmers and consumers, revitalizing traditional crops, encouraging sustainable production practices in agriculture, and improving the health of our communities — especially for families and individuals most susceptible to diet-related diseases. Breadfruit is not only a delicious crop with potential for climate change mitigation, agricultural welfare and cultural renewal, but it is also an extremely nutritious alternative to many imported starches, contributing to the community's wellbeing as well as Hawai'i's food security. This is allowing the State to meet the goals outlined in the Aloha + Challenge to double local food production by 2030.

I fully support HUPC's work and encourage you to consider funding their Grant-in-Aid application.

Please contact me should you have any questions about our support for this project.

Sincerely,



Josh Green  
State Senate  
3<sup>rd</sup> District



January 18, 2018

Senate Committee on Ways and Means  
State Capitol, Rm. 208  
Honolulu, HI 96813

RE: The Hawai'i 'Ulu Producers Cooperative Operating GIA proposal for the FY 2019

Dear Senate Committee on Ways and Means,

On behalf of HUPC's 31 member-farmers, I write to you today to share the importance of HUPC's current and proposed educational services for Hawai'i's agricultural producers as well as for consumers and the public at large. Ano'ano Farms is one of HUPC's founding members with approximately 800 breadfruit trees in the ground, and I have had the honor of serving as board president since our inception.

Given the fledgling nature of Hawai'i's breadfruit industry, we farmers need substantial, ongoing training and technical assistance to effectively develop and maintain our orchards. However, little science-based agronomic information is currently available to help guide our decisions for variety selection, planting procedures, orchard design, fertilization, pest control, maintenance, pruning, harvest and post harvest. The co-op's provision of technical assistance for its members is therefore a critical service in fostering the industry's development and long term success. HUPC management has also cultivated relationships with experts in the field to help answer members' questions where co-op staff cannot, such Dr. Noa Lincoln and Dr. Alyssa Cho at the University of Hawai'i College of Tropical Agriculture and Human Resources (Departments of Tropical Plant and Soil Science and Horticulture, respectively), and Dr. Diane Ragone of The Breadfruit Institute at the National Tropical Botanical Garden. The cooperative structure additionally provides a vital pathway for horizontal farmer-to-farmer knowledge sharing, which helps address problems as they arise and develop real world solutions on the ground. Finally, the co-op has organized valuable training opportunities for both members and non-member farmers, most recently in farm food safety with Dr. Luisa Castro of the Hawai'i Department of Agriculture and in breadfruit variety identification with Dr. Ragone. The expanded educational programs proposed under this grant, including workshops targeting non-member farmers – especially young, beginning and socially disadvantaged producers, will greatly support Hawai'i's breadfruit industry development and contribute to farmers' viability as well as to our overall food security, health and sustainability.

At the same time, ongoing education about breadfruit for consumers and the public at large is vital to creating well-integrated supply and demand within the state. As the largest breadfruit producer group in Hawai'i by both tree and fruit volume and by number of farmers, HUPC is pioneering entry of breadfruit products into local markets and



expanding access to this nutritious sustainable crop for local communities. Our cooperative model enables the development of economies of scale and has allowed us to penetrate over 100 local schools, hospitals, restaurants and grocery stores, among other community outlets such as CSAs and farmers markets. To date, HUPC's educational efforts for consumers have targeted schools – where diet related health problems such as obesity, diabetes and hypertension affect a substantial portion of the population, and grocery stores – including at all 18 stores throughout Hawai'i Island that currently carry our value added breadfruit products (all KTAs, Island Naturals, Abundant Life, Takatas, Choicemart, Kona Town Market, Kohala Grown Market, Locavore, Kea'an Natural Foods and Puako General Store). The activities proposed in this grant will allow us to greatly expand our educational services, particularly targeting some of the most underserved groups in the state including Native Hawaiians and Pacific Islanders, who are disproportionately affected by diet related diseases which consumption of breadfruit can help mitigate.

Our specific goals through this grant include:

1. To support small-scale farmers, particularly young, new and socially disadvantaged producers including Native Hawaiians and Pacific Islanders, by providing technical assistance on breadfruit production, pruning, maintenance, harvest and post harvest, as well as education about the cooperative business and how it can benefit their operation;
2. To educate consumers and the public about how to use breadfruit, its history and cultural significance, nutritional profile, and public benefits in terms of food security, climate change resilience and long-term sustainability, while increasing access to this nutritious and culturally appropriate for Hawai'i's most underserved populations.

We believe in the importance of education for a thriving breadfruit industry, a healthy community and a sustainable island. Please contact me by email if you would like to communicate directly with any of our members, our community partners and our collaborators. We would be happy to connect you and also to answer any questions you may have regarding HUPC and our current programs. Thank you for considering HUPC for the GIA application.

Sincerely,



Max Bowman, HUPC Board President  
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808-937-6485