

“Breadfruit—From Tree to Consumer: Information guides, video, and workshops”

Final report

Hawai‘i Department of Agriculture (HDOA), Agricultural Development Division

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III. PROJECT REPORT

A. Project Title: Breadfruit—From Tree to Consumer: Information guides, video, and workshops

B. Project Summary

Background

Due to recent efforts by the Breadfruit Institute to make trees available to farmers, combined with public education by the Ho‘oulu ka ‘Ulu—Revitalizing Breadfruit project, production of breadfruit in Hawai‘i is expected to increase dramatically over the next few years. This project will strengthen breadfruit markets through printed and online educational materials about harvest and postharvest, fruit handling and food preparation, and varieties. Instructional guides and videos will be produced for wide dissemination. Four workshops will provide hands-on training to breadfruit growers. The project will be conducted on Hawai‘i Island, O‘ahu, Maui and Kaua‘i and will assist Hawai‘i’s growers in supplying grocery stores, restaurants, farmers markets, and other markets with high quality breadfruit, and help chefs and consumers become familiar with breadfruit handling in the kitchen and preparing delicious and nutritious dishes with it.

Importance and Timeliness

Breadfruit or ‘ulu has been cultivated in Hawai‘i for close to 1,000 years. Prior to Western contact and changing diets, breadfruit contributed significantly to the Hawaiian diet, making Hawaiians among the most self-sufficient and well-nourished peoples in the world (Meilleur 2004). Because of a shift towards cheap, imported starches, increasing urbanization, and changing lifestyles, until recently breadfruit had all but disappeared from the diet in Hawai‘i.

In recent years, breadfruit has become a promising fledgling crop for Hawai‘i based upon rapidly increasing interest on the part of producers and consumers who are interested in traditional crops for economic development, food security, nutritional (Jones et al., 2011) and cultural reasons. Many visitors are also interested in trying breadfruit as part of their authentic Hawai‘i experience. A large potential export market for breadfruit products also exists within the large communities of Pacific islanders who reside on the U.S. mainland. In addition, markets can be created in the food service industry where new cuisines have developed in recent years incorporating Asian/Pacific influences into themes such as Hawai‘i Regional Cuisine.

Three main types of breadfruit are currently grown in Hawai‘i, the Hawaiian/Tahitian (‘ulu), Micronesian, and Samoan/Ma‘afala. Beginning in 2009, the Ma‘afala variety propagated by a commercial partner of the Breadfruit Institute was made available via tree sales to farmers and homeowners through outreach programs and commercial nurseries on Kaua‘i, Maui, O‘ahu, and Hawai‘i Island. The more than 5,000 trees distributed in Hawai‘i in 2011 are expected to begin bearing fruit in 2–3 years. A breadfruit tree in its prime productive age of 10–50 years can produce 150–250 fruit or 300–500 lbs/year or more (Ragone 2011). At an average retail price of \$2/lb., the 5,000 trees distributed in 2011 are capable of generating \$3–5 million dollars in retail sales per year—if the market is properly developed. The current market value of breadfruit is estimated to be a small fraction of this amount. This project initiates the process of turning breadfruit into a high-quality marketable food with high consumer demand.

Despite increasing consumer demand and the imminent production surge in breadfruit, a number of barriers must be overcome in order to increase the market availability, distribution, and commercial competitiveness of breadfruit. Many growers have limited understanding of when a

fruit is ready to harvest (Worrell et al. 1998; Ragone and Wiseman, 2007) and how to best harvest and handle the fruit to ensure a high quality product is delivered to market. As with any perishable crop—producers must learn proper handling of breadfruit to optimize its value to consumers, and therefore its commercial value. Similarly, chefs and consumers also need essential information on handling and preparation of breadfruit. Without this information, much of the existing and future breadfruit crop will go to waste, either on farm, in transit, in the market, or in the consumer’s kitchen.

This project will benefit growers, markets, and consumers by educating them about proper harvest timing and methods, postharvest handling and storage, and the essential concepts of preparing breadfruit in various dishes. The project will produce a farmer guide of best harvest/postharvest practices, fact sheets for chefs and consumers, instructional videos, and four workshops. Potential markets will become adverse to breadfruit if the product is poor quality and quickly spoils—new consumers who do not have a good first-time experience with the fruit will not want to purchase or consume it again.

This project is solely aimed at increasing the competitiveness of breadfruit, a specialty crop as defined by the USDA, to fill demand for locally grown starch.

Build on previous SCBGP

This project has not been submitted to nor funded by another Federal or State grant program.

C. Project Approach

Work accomplished in accordance with Work Plan

1) Harvest and Postharvest Guide

*Write and publish a 24-page **guide** with color photographs for growers on best practices for harvest/postharvest handling to optimize value in the marketplace.*

A) A 28-page harvest and postharvest guide *Breadfruit Production Guide: Recommended practices for growing, harvesting, and handling* was completed. (See attached). Over 70 photographs and six diagrams illustrate concepts presented in the text. The contents are:

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Introduction.....	1
Benefits of Best Practices	3
Pre-harvest	5
Harvest.....	12
Fruit Maturity Indicators.....	16
Postharvest	22
References and Recommended Reading.....	27

B) The *Breadfruit Production Guide* is posted at breadfruit.info and breadfruit.org for free download.

D) 600 copies of the guide were printed and distributed as follows:

- To participants at *Breadfruit—From Tree to Table* statewide workshops (450 cp)
- Through the Breadfruit Institute to growers, and to HDOA

2) Handling and Preparation Fact Sheets

Write and publish *breadfruit* two 2-page **fact sheets** for chefs and consumers on how to handle and prepare breadfruit and its nutritional value and versatility as a food.

A) Brief Breadfruit Basics

Brief Breadfruit Basics, a 2-page fact sheet that discusses the handling and preparation of breadfruit has been completed. (See attached.)

- It is available for download at www.breadfruit.info and breadfruit.org.
- 1000 copies have been printed and distributed to participants at *Breadfruit—From Tree to Table* statewide workshops (see below) and other public events.

B) *Breadfruit—Nutritional value and Versatility*, a 2-page fact sheet that discusses the nutritional qualities and ways to utilize breadfruit has been completed.

- It is available for download at www.breadfruit.info and breadfruit.org.
- 1000 have been printed and distributed to participants at *Breadfruit—From Tree to Table* statewide workshops (see below) and other public events.

3) Information Cards on Varieties

Write and publish **information cards** for growers and chefs for each of the three common varieties in Hawai‘i (Hawaiian ‘ulu/Tahitian type, Micronesian, and Samoan/Ma‘afala variety).

Three-2 page each variety cards have been completed for: Ma‘afala, ‘Ulu, and Meinpadahk

- It is available for download at www.breadfruit.info and breadfruit.org.
- 1000 copies have been printed and distributed to:
 - University of Hawai‘i at Manoa, College of Tropical Agriculture Extension Offices on Maui, Kaua‘i, O‘ahu, and Hawai‘i.
 - The Breadfruit Institute of the National Tropical Botanical Garden

Conclusion and Recommendations about publications: These publications are the first of their kind to be produced in Hawai‘i. They will continue to be useful in years to come as the breadfruit industry grows in Hawai‘i. All publications should be updated periodically and should remain available in print and online.

4) Instructional Videos

Shoot, edit, and produce a 5–10 minute instructional video on best practices for harvest/postharvest handling and a 5–10 minute instructional video on how to handle and prepare breadfruit for chefs and consumers.

The two videos are available at the HIHomegrown YouTube channel and through breadfruit.info and breadfruit.org. Videos have also been distributed through the Facebook pages of Hawai‘i Homegrown Food Network and The Breadfruit Institute.

A.Video 1: *Harvest and Postharvest Best Practices* (125 views to date)

The 6-minute video highlights:

1. Stages of maturity

2. What to look for in a mature breadfruit
3. How to harvest
4. Draining latex
5. Storing fruit to extend shelf life

Link at: <https://www.youtube.com/watch?v=4HflepyXZto>

B. Video 2: *Handling and Preparation of Breadfruit with Sam Choy and Friends (89 views to date)*

The 15-minute video highlights:

1. Sap issues and how to remedy
2. Different methods of cutting and peeling fruit
3. Steaming
4. Boiling
5. Frying
6. Baking
7. Variety of Dishes

Link at: https://www.youtube.com/watch?v=cgr3eF_-TKc

5) Workshops

A series of four workshops will be held throughout Hawai‘i to provide hands-on instruction on the information covered in the guide and video.

A) Workshop 1: November 9, 2013, Kona, Hawai‘i

The first workshop was held on November 9, 2013 in Kona, Hawai‘i (See Attached Poster).

Content

Participants were rotated every half hour through six different presentations as follows:

- Working with Variety: Introduction to three breadfruit varieties in Hawai‘i: How to identify, when to pick, and distinguishing between green, mature and ripe breadfruit. Presented by Dr. Diane Ragone, Director, Breadfruit Institute of the National Tropical Botanical Garden.
- Tree to Table: Harvesting techniques, tricks and tools, and postharvest handling. Presented by Ian Cole, Collection Manager, Breadfruit Institute of the National Tropical Botanical Garden.
- Beyond Sticky—Basic Preparation and Handling: How to prepare breadfruit for use in a variety of dishes or for storage. Presented by Shirley Kauhaihao, Ho‘oulu ka ‘Ulu.
- Some Like It Ripe: Making gourmet dishes from ripe breadfruit. Presented by John Cadman, Pono Pies.
- Going To Market: Where to sell breadfruit? How much to charge? What kinds of value added products are viable? Presented by Craig Elevitch, Hawai‘i Homegrown Food Network and Ho‘oulu ka ‘Ulu project.

- Food from the Gods: Breadfruit and the cultural importance in the Pacific Islands, presented by Ku‘ulei Keakealani, Educational Coordinator, Ka‘ūpūlehu Interpretive Center at Kalaemanō.

Publicity

Press releases were sent to the following media outlets: West Hawai‘i Today, Hawai‘i Tribune Herald, Big Island Weekly, North Hawai‘i News, Hawaii247.com. The following print and online sources published editorial content or the press release:

- Big Island Weekly: <http://bigislandweekly.com/sections/e/breadfruit-moves-deliciously-tree-table.html>
- Hawaii247.com: <http://www.hawaii247.com/2013/10/20/workshop-helps-increase-breadfruit-appetite-nov-9/>
- Damon Tucker.com: <http://damontucker.com/2013/10/03/workshop-helps-increase-the-appetite-for-breadfruit/>

Calendar listings were submitted to the above, as well as to KonaWeb.

Growers, buyers and chefs, as well as the general public, were targeted, therefore we utilized the email lists of project partners such as:

- Kona-Kohala Chefs Association/ACF
- Hawai‘i Tropical Fruit Growers
- UH-CTAHR
- Hawai‘i Homegrown Food Network
- Kamehameha Schools
- Hawai‘i Island Landscape Association
- Amy B.H. Greenwell Ethnobotanical Garden
- National Tropical Botanical Garden

Additionally, the workshop was shared and viewed widely on Facebook through Hawai‘i Homegrown Food Network, Breadfruit Institute, Diane Ragone, Andrea Dean, Kamehameha Schools and others.

The workshop page at: <http://hawaiihomegrown.net/breadfruit-workshop> received 2807 hits between August 26, 2013 and May 5, 2014.

Attendance

120 people pre-registered and attended the event. This number exceeded our original goal of 40 participants by 200%.

B) Workshop #2: January 9, 2014—Maui, UH Maui College, Kahului

The second workshop was held on January 9, 2014 in at UH Maui College in Kahului, Maui. (See Attached Poster).

Content

Participants listened to five different presentations (each apx 40 minutes each) as follows:

- Working with Variety: Introduction to three breadfruit varieties in Hawai‘i: How to identify, when to pick, and distinguishing between green, mature and ripe breadfruit.

Presented by Dr. Diane Ragone, Director, Breadfruit Institute of the National Tropical Botanical Garden.

- Tree to Table: Harvesting techniques, tricks and tools, and postharvest handling. Presented by Ian Cole, Collection Manager, Breadfruit Institute of the National Tropical Botanical Garden.
- Some Like It Ripe and Beyond Sticky: Basic Preparation and Handling: How to prepare breadfruit for use in a variety of dishes or for storage. Making gourmet dishes from ripe breadfruit. Presented by John Cadman, Pono Pies.
- Going To Market: Where to sell breadfruit? How much to charge? What kinds of value added products are viable? Presented by Craig Elevitch, Hawai'i Homegrown Food Network and Ho'oulu ka 'Ulu project.
- 'Ulu and its Relationship to Hawaiian Culture: presented by Kalapana Kollars, Musician and Cultural Practitioner.

Breadfruit trees and cookbooks were available for sale at the event.

Publicity

Press releases were sent to the following media outlets: Maui Time Weekly, Maui News, StarAdvertiser, Hawaii Public Radio, Pacific Radio Group, KAOI, KPOA and County of Maui Communications Office. The following print and online sources published editorial content or the press release:

MauiTime News Blog: <http://mauifeed.com/maui-news/january-workshop-aims-to-increase-appetite-for-breadfruit/>

Maui Time Weekly: <http://mauifeed.com/maui-news/breadfruit-tree-to-table-initiatives-on-maui-hooulu-ka-ulu/>

Hawai'i State Department of Agriculture Blog: <http://hdoa.hawaii.gov/blog/main/ulu-workshops/>

MauiNews.com: <http://mauinews.com/page/content.detail/id/580536/Workshop-all-about-breadfruit.html?nav=15>

Calendar listings were submitted to the above. Growers, buyers and chefs, as well as the general public, were targeted, therefore we utilized the email lists of project partners such as:

- Hawaii State Department of Agriculture
- Whole Foods Markets
- John Cadman
- Hawai'i Tropical Fruit Growers
- Hawai'i Homegrown Food Network
- Kamehameha Schools
- National Tropical Botanical Garden
- MALP: Maui Association of Landscape Professionals
- UH-CTAHR
- Haiku Helen, who administers an email newsletter that is distributed to over 1,000 people on Maui.

The workshop was shared and viewed widely on Facebook through Hawai'i Homegrown Food Network, Breadfruit Institute, Diane Ragone, Andrea Dean, Kamehameha Schools and others.

The workshop page at: <http://hawaiihomegrown.net/breadfruit-workshop> received 2807 hits between August 26, 2013 and May 5, 2014.

Attendance

77 people pre-registered and attended the event. This number exceeded our original goal of 40 participants by about 90%.

C) Workshop #3: January 10, 2014—O'ahu, Bishop Museum, Honolulu.

The third workshop was held on January 10, 2014 in at Bishop Museum, Honolulu. (See Attached Poster).

Content

Participants were rotated every forty minutes through five different presentations as follows:

- Working with Variety: Introduction to three breadfruit varieties in Hawai'i: How to identify, when to pick, and distinguishing between green, mature and ripe breadfruit. Presented by Dr. Diane Ragone, Director, Breadfruit Institute of the National Tropical Botanical Garden.
- Tree to Table: Harvesting techniques, tricks and tools, and postharvest handling. Presented by Ian Cole, Collection Manager, Breadfruit Institute of the National Tropical Botanical Garden.
- Some Like It Ripe and Beyond Sticky: Basic Preparation and Handling: How to prepare breadfruit for use in a variety of dishes or for storage. Making gourmet dishes from ripe breadfruit. Presented by John Cadman, Pono Pies.
- Going To Market: Where to sell breadfruit? How much to charge? What kinds of value added products are viable? Presented by Craig Elevitch, Hawai'i Homegrown Food Network and Ho'oulu ka 'Ulu project.
- Kū Mai Ka 'Ulu: Revealing the cultural significance of 'ulu in Hawai'i through mo'olelo and Cultural Collection items presented by the Bishop Museum Culture Education staff.

Breadfruit trees, breadfruit and cookbooks were available for sale at the event.

Publicity

Press releases were sent to the following media outlets: StarAdvertiser, MidWeek, Hawaii Public Radio. Paid ads were run in MidWeek (See Attached). The following print and online sources published editorial content or the press release:

KHON: Ulu workshop emphasizes fruit's economic impact (link removed)

KITV4: <http://www.kitv.com/news/hawaii/how-you-can-grow-and-use-breadfruit-in-your-meals/23858298>

Flyers up: <http://www.bishopmuseum.org/media/2014/pr14001.html>

Examiner.com: <http://www.examiner.com/article/breadfruit-workshops-on-maui-o-ahu-and-kauai>

The Sustainable Leader: http://www.thesustainableleader.org/ai1ec_event/breadfruit-from-tree-to-table-oahu-workshop/?instance_id=

Calendar listings were submitted to the above. Growers, buyers and chefs, as well as the general public, were targeted, therefore we utilized the email lists of project partners such as:

- Hawaii State Department of Agriculture
- Whole Foods Markets
- Hawai‘i Tropical Fruit Growers
- Hawai‘i Homegrown Food Network
- Kamehameha Schools
- Hawaii People’s Fund
- Bishop Museum
- National Tropical Botanical Garden
- Pacific Gateway Center
- Hawai‘i Food Policy Council
- Kanu Hawai‘i
- Kualoa Ranch
- UH-CTAHR

The workshop was shared and viewed widely on Facebook through Hawai‘i Homegrown Food Network, Breadfruit Institute, Diane Ragone, Andrea Dean, Kamehameha Schools and others.

The workshop page at: <http://hawaiihomegrown.net/breadfruit-workshop> received 2807 hits between August 26, 2013 and May 5, 2014.

169 people pre-registered and 150 people attended the event. This number exceeded our original goal of 40 participants by 300%.

D) Workshop #4: January 11, 2014—Kaua‘i, Breadfruit Institute of the National Tropical Botanical Garden, Kalaheo

The fourth workshop was held on January 11, 2014 in at Breadfruit Institute of the National Tropical Botanical Garden in Kalaheo, Kaua‘i.

(See Attached Poster).

Content

Participants listened to five different presentations (each apx 40 minutes each) as follows:

- Working with Variety: Introduction to three breadfruit varieties in Hawai‘i: How to identify, when to pick, and distinguishing between green, mature and ripe breadfruit. Presented by Dr. Diane Ragone, Director, Breadfruit Institute of the National Tropical Botanical Garden.

- Tree to Table: Harvesting techniques, tricks and tools, and postharvest handling. Presented by Ian Cole, Collection Manager, Breadfruit Institute of the National Tropical Botanical Garden.
- Some Like It Ripe and Beyond Sticky: Basic Preparation and Handling: How to prepare breadfruit for use in a variety of dishes or for storage. Making gourmet dishes from ripe breadfruit. Presented by John Cadman, Pono Pies.
- Going To Market: Where to sell breadfruit? How much to charge? What kinds of value added products are viable? Presented by Craig Elevitch, Hawai‘i Homegrown Food Network and Ho‘oulu ka ‘Ulu project.
- Food From the Gods: Breadfruit and the cultural importance in the Pacific Islands, presented by Wayne 'Palala' Harada.

Breadfruit trees and cookbooks were available for sale at the event.

Publicity

Press releases were sent to the following media outlets: The Garden Isle, StarAdvertiser, MidWeek, Hawaii Public Radio, KKCR, KONG,. Paid ads were run in MidWeek (See Attached). The following print and online sources published editorial content or the press release:

The Garden Island: http://thegardenisland.com/lifestyles/food-and-cooking/from-tree-to-table/article_a8edeb4c-7293-11e3-b9d3-001a4bcf887a.html?mode=jqm

MidWeek: <http://www.midweekkauai.com/mixing-breadfruit-new-years/>

Calendar listings were submitted to the above. Growers, buyers and chefs, as well as the general public, were targeted, therefore we utilized the email lists of project partners such as:

- Hawaii State Department of Agriculture
- Whole Foods Markets
- Hawai‘i Tropical Fruit Growers
- Hawai‘i Homegrown Food Network
- Kamehameha Schools
- Hawaii People’s Fund
- National Tropical Botanical Garden
- UH-CTAHR
- Malama Kauai

The workshop was shared and viewed widely on Facebook through Hawai‘i Homegrown Food Network, Breadfruit Institute, Diane Ragone, Andrea Dean, Kamehameha Schools and others.

The workshop page at: <http://hawaiihomegrown.net/breadfruit-workshop> received 2807 hits between August 26, 2013 and May 5, 2014.

66 people pre-registered and 70 people attended the event. This number exceeded our original goal of 40 participants by about 75%.

Conclusion and Recommendations: The workshops on each island were sold out to the capacity of the rooms. The demand for increased knowledge about growing, harvesting and utilizing breadfruit as a commercial crop and for local food self-sufficiency is very strong. The workshop

formats worked well to impart in-depth information in a relatively intimate setting.

Enhanced Competitiveness of Breadfruit

All of the above five activities enhanced the competitiveness of breadfruit as a crop by:

- Targeting growers, markets, and consumers
- Educating on proper harvest timing and methods, postharvest handling and storage, and the essential concepts of preparing breadfruit in various dishes.
- Highlighting market information and the potential for value-added products from breadfruit.

Contributions and Roles of Project Partners

All of the project partners listed above assisted with disseminating information.

- Amy B.H. Greenwell Ethnonotanical Garden provided the venue and set-up at no cost.
- Bishop Museum partnered by providing the venue and set-up at low cost, as well as cultural practitioners and publicity support.
- Kamehameha School Land Assets Division provided additional funding, as well as outreach and publicity on all islands.
- The Breadfruit Institute of the National Tropical Botanical Garden is a co-equal partner in the Hooulu ka ‘Ulu project and as such provided logistical and outreach support, as well as content expertise.
- Hawai‘i State Department of Agriculture provided outreach support through its email contacts as well as through the press office.

D. Goals and Outcomes Achieved

Goal: Specialty crop growers who attend one of the four workshops will learn best practices in harvest and postharvest handling of breadfruit.

Target: The project staff anticipates that a minimum of 40 attendees will attend each of the four workshops (total 160). These attendees will increase their knowledge of harvest and postharvest handling of breadfruit by 65 percent as a result of completing these workshops.

E□□□□□□□□□□ baseline: A pre-workshop survey designed by the presenters will be given to workshop attendees as part of the workshop enrollment process to assess their knowledge of key concepts, establishing their baseline knowledge.

Performance measure: A post-workshop survey of attendees will determine their increase in knowledge of the key concepts; results will be compared to pre-surveys for reporting.

Target	Expected	Actual	Conclusion
40 attendees for each of the four workshops (total 160). Attendees will increase their	160 attendees 65% increase knowledge	417 attendees Kona: Pre-Survey: 73.5% with STDEV of 12.73	# attendees exceeded by 160% Attendees increased knowledge by 10–

knowledge by 65%.		Post-Survey: 87.5% with STDEV of 8.45 Oahu, Maui, Kauai: Pre-survey: 77.2% with STDEV of 10.08. Post-Survey: 85.3%, with STDEV of 10.86.	19%, less than the target of a 65% increase. Given the pre-survey knowledge level, the 65% goal was not mathematically possible.
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Potential Economic Impact

Economic impact is a long-term goal, but the workshops directly resulted:

- Whole Foods expanding the use of breadfruit in their ready to eat department, thereby increasing the market for breadfruit on Maui and O‘ahu.
- A number of participants considering the launch of value-added products.

E. Beneficiaries

Beneficiaries	Activity	Impact	Number
Breadfruit Growers, Chefs and Consumers	Workshops, Educational Materials, Instructional Videos	<ul style="list-style-type: none"> • Increased knowledge of when to harvest breadfruit at the optimum stage of development for the three most common breadfruit varieties in Hawai‘i • Increased knowledge of best practices for harvesting and postharvest handling of breadfruit to deliver a good quality product to markets. • Optimize the use of existing breadfruit crops by reducing waste through proper harvest and handling. • Increased acceptability and demand for breadfruit by markets and consumers through: <ul style="list-style-type: none"> -Receiving good quality fruit -Understanding of handling and preparation. -Understanding nutritional benefits. 	417 participants 600 guides printed 1,000 views/year (estimated)

F. Lessons Learned

Staff insight

- Farmers, consumers and chefs in Hawai‘i are very enthusiastic about breadfruit.
- Video production always takes more time and effort than one anticipates—allow more time for editing and revision.
- Having all of the printed materials for distribution online and at future events is a great benefit to the community.
- Measuring increased knowledge is difficult and time consuming.

Unexpected outcomes or results

- We did not expect such an overwhelming positive response to the workshop. On all islands, we had to close registration due to space limitations.
- The format we used, when space permitted, of rotating between 5–6 concurrent workshop sessions was especially effective in addressing short attention spans and allowing people to learn in small groups where questions were encouraged.

If goals/outcomes not achieved

- All goals and outcomes were achieved.

Lessons Learned

- Hold workshops in larger venues in the future.
- Allow for walk-ins to compensate for about 15% no-shows.

G. Contact Person

Project Leader

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Tel: 808.332.7234 ext 224; Fax: 808.332.9765
Email: ragone@ntbg.org

H. Additional Information

- Links to all applicable documents referred to in the text, above.
- Photos attached.
- Please see attached for PDF copies of all printed materials, ads and posters.

Final budget

EXPENSES	Proposed SCBGP funds	Actual SCBGP funds	Proposed cash/in- kind match	Actual cash/in- kind match	Comments
Personnel	\$17,540	\$17,540	\$4,960	\$13,333	
Travel	\$5,100	\$5,100	\$4,338	\$216	
Contractual	\$14,132	\$14,132	\$6,818	\$7,549	
Other	\$9,450	\$9,450		\$2,473	
TOTALS	\$46,222	\$46,222	\$11,778	\$23,571	



Dr. Diane Ragone of the Breadfruit Institute with breadfruit variety display at the Kona Breadfruit—From Tree to Table workshop on November 9, 2013. Photo: Craig Elevitch



Kalapana Kollars presents “Ulu and its Relationship to Hawaiian Culture” at the Maui Breadfruit—From Tree to Table workshop on January 9, 2014. Photo: Craig Elevitch



Ian Cole of the Breadfruit Institute demonstrates tree pruning and harvesting at the Kauaʻi Breadfruit—From Tree to Table workshop on January 11, 2014. Photo: Craig Elevitch



Participants enjoy breadfruit hummus at the Oʻahu Breadfruit—From Tree to Table workshop on January 10, 2014. Photo: Craig Elevitch