

JAN 23 2015

A BILL FOR AN ACT

MAKING AN APPROPRIATION FOR RESEARCH, DEVELOPMENT, MARKETING,
AND CONSERVATION OF 'ULU.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. Hawaiian breadfruit ('ulu) has a long history in
2 Hawaii as an important and consistent food source. This
3 illustrious history includes a period during which breadfruit
4 played a significant role in providing an annual production of
5 millions of pounds of nutritious food that sustained the
6 traditional population across the islands. Breadfruit is
7 believed to have arrived on the Hawaiian islands approximately
8 seven hundred years ago. Since this introduction to the climate
9 and soil environment of Hawaii, breadfruit has consistently
10 contributed to and enhanced all aspects of Hawaii, including
11 traditional diet, culture, and lifestyle. Its distinctive
12 beauty and mythical origins, historical, cultural, religious,
13 and social significance, and the diversity of its forms in
14 traditional methods of food production have all contributed to
15 the legacy of breadfruit in the Hawaiian heritage and culture.
16 This significant presence and abundance illustrates how



1 breadfruit flourishes in modernity as the contemporary
2 manifestation of Hawaii Nei.

3 The combination and collective force of discrete factors
4 over the past decade have demonstrated that breadfruit
5 consumption and research is growing in relevance, including the
6 availability of large numbers of breadfruit trees, expansion of
7 the gluten-free market, confirmation of value in breadfruit by-
8 products, and the increasing market movement toward locally
9 grown food. For the first time in the technological era,
10 breadfruit has the potential to become a major commercial crop,
11 even while remaining closely connected to traditional Hawaiian,
12 Polynesian, Micronesian, and Melanesian values.

13 Conservation of breadfruit agrobiodiversity and development
14 of micropropagation methods by the Breadfruit Institute at the
15 National Tropical Botanical Garden provide the means to rapidly
16 expand breadfruit plantings and utilization for commerce and for
17 food sustainability. The Pacific Business Center Program at the
18 Shidler school of business administration at the University of
19 Hawaii has initiated a program for analysis and testing of
20 shelf-stable breadfruit products, such as gluten-free flour, as
21 well as developing technology for processing breadfruit latex



1 and inflorescence for its insect repellent properties in
2 collaboration with the college of tropical agriculture and human
3 resources at the University of Hawaii, National Tropical
4 Botanical Garden Breadfruit Institute, and Department of Grain
5 Science and Industry at Kansas State University.

6 Additional research is required to develop sustainable
7 breadfruit production methods, postharvest handling, processing
8 and refinement, manufacturing methods, scalable flour mill
9 design, packaging, market product development and testing,
10 distribution and regional sustainable capacity for supply for
11 breadfruit flour and by-products for refinement and export from
12 Hawaii.

13 A projected \$10,000,000 per year farm value is anticipated
14 within ten years, with room in local markets to expand
15 significantly thereafter. This injection of value may provide
16 direct benefit to farmers, as well as ancillary economic impact
17 through value-added production. The gluten-free market
18 servicing United States consumers is expected to exceed
19 \$15,000,000,000 in 2016, on top of the current commodities value
20 for organic latex priced at \$900 per gallon. Furthermore, the
21 profit projected from processing and marketing the breadfruit



1 flower as an organic insecticide is estimated to exceed the
2 million dollar mark. This profit may be due to the far more
3 potent nature of the breadfruit flower that contains a natural
4 tri-chemical compound combination that so powerfully acts as a
5 repellant that the breadfruit outperforms its synthetic
6 competitors.

7 The economic development potential for the processing,
8 refinement, packaging, and exporting of breadfruit flour and by
9 products for the state and national market is substantial
10 considering the general employment and economic benefits to the
11 State simultaneously strengthens the authentic Hawaiian
12 experience for the visitor industry.

13 As everyone who has tasted extraordinary dishes made from
14 'ulu knows, there is now high potential for 'ulu to contribute to
15 healthy diets and food security ideals based on locally grown
16 foods. 'Ulu is a long-lived, easy to grow, productive,
17 nutritious, starchy staple crop that will continue to contribute
18 to environmental, social, and economic health for generations.

19 The purpose of this Act is to make an appropriation for the
20 research, development, marketing, and conservation of
21 breadfruit.



SECTION 2. There is appropriated out of the general revenues of the State of Hawaii the sum of \$650,000 or so much thereof as may be necessary for fiscal year 2015-2016 for the research, development, marketing, and conservation of breadfruit.

The sum appropriated shall be expended by the college of tropical agriculture and human resources at the University of Hawaii for the purposes of this Act.

SECTION 3. This Act shall take effect on July 1, 2015.

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Report Title:

Agriculture; Breadfruit; 'Ulu; Appropriation; University of
Hawaii College of Tropical Agriculture and Human Resources

Description:

Appropriates funds for the research, development, marketing, and
conservation of 'ulu.

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