

JAN 19 2018

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# A BILL FOR AN ACT

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RELATING TO '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       population across the islands. Research has shown that Kona  
7       alone produced fifty thousand to sixty thousand tons of  
8       breadfruit per year in what is now the coffee belt. Breadfruit  
9       is believed to have arrived on the Hawaiian islands  
10      approximately seven hundred years ago. Since this introduction  
11      to the climate and soil environment of Hawaii, breadfruit has  
12      consistently contributed to and enhanced all aspects of Hawaii,  
13      including traditional diet, culture, and lifestyle. Its  
14      distinctive beauty and mythical origins, historical, cultural,  
15      religious, and social significance, and the diversity of its  
16      forms in traditional methods of food production have all  
17      contributed to the legacy of breadfruit in the Hawaiian heritage



1 and culture. This significant presence and abundance  
2 illustrates how breadfruit flourishes in modernity as the  
3 contemporary manifestation of Hawaii Nei.

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

14 Significant global resources exist for breadfruit in  
15 Hawaii, including the largest conservation effort of breadfruit  
16 agrobiodiversity by the National Tropical Botanical Gardens,  
17 significant product research and development by the University  
18 of Hawaii, Pacific-wide relationships and development efforts  
19 through The Pacific Business Center Program at the Shidler  
20 School of Business Administration, and cooperative development  
21 structures and processing infrastructure as seen in The Hawaii



1 'Ulu Producers Cooperative. Dozens of other small breadfruit  
2 producers around the State make diverse products such as chips,  
3 hummus, pies, and baking mixes, and a growing number of  
4 restaurants, distributors, and retail vendors are carrying  
5 breadfruit products.

6 Despite the increase in breadfruit development in the  
7 State, the growth of markets and infrastructure needed to  
8 utilize the projected ten- to twenty-fold increase in fruit  
9 production is in a precarious state. Substantial investments  
10 into breadfruit research and development have occurred, but  
11 additional research and market support are required to develop  
12 sustainable breadfruit production methods, postharvest handling,  
13 processing and refinement, manufacturing methods, scalable flour  
14 mill design, packaging, market product development and testing,  
15 distribution, and regional sustainable capacity for supply for  
16 breadfruit products. Without additional support, the growth of  
17 farm production could quickly undermine the development that has  
18 been accomplished. In order to realize the vast potential of  
19 breadfruit to serve as a major contributor to local food and  
20 food security, support for the burgeoning industry is needed.



1       A conservative estimate of \$2,000,000 per year farm value,  
2 e.g., two million pounds of fruit per year, is anticipated  
3 within five years based on trees currently in the ground that  
4 have yet to be productive, with additional economic development  
5 coming from processing, marketing, and distribution of the  
6 fruit. The global gluten-free market was valued at  
7 \$14,940,000,000 in 2016 and is expected to grow at a compound  
8 annual growth rate of 9.3 per cent from 2017 to 2025,  
9 illustrating the potential market for breadfruit. Furthermore,  
10 the profit projected from processing and marketing the  
11 breadfruit flower as an organic insecticide is estimated to  
12 exceed the million dollar mark. This profit may be due to the  
13 far more potent nature of the breadfruit flower that contains a  
14 natural tri-chemical compound combination that so powerfully  
15 acts as a repellant that the breadfruit outperforms its  
16 synthetic competitors.

17       The economic development potential for the processing,  
18 refinement, packaging, and exporting of breadfruit products for  
19 the state and national market is substantial considering the  
20 general employment and economic benefits to the State



1 simultaneously strengthen the authentic Hawaiian experience for  
2 the visitor industry.

3 'Ulu is a long-lived, easy to grow, productive, nutritious,  
4 starchy staple crop that will continue to contribute to  
5 environmental, social, and economic health for generations. As  
6 everyone who has tasted extraordinary dishes made from 'ulu  
7 knows, there is now high potential for 'ulu to contribute to  
8 healthy diets and food security ideals based on locally grown  
9 foods. In fact, the State has already begun to realize some of  
10 the vast, potential benefits of 'ulu. The department of  
11 education recently placed an order so that all three hundred of  
12 Hawaii's public schools will have 'ulu for at least one meal.

13 The purpose of this Act is to make an appropriation for the  
14 research, development, marketing, and conservation of  
15 breadfruit.

16 SECTION 2. There is appropriated out of the general  
17 revenues of the State of Hawaii the sum of \$650,000 or so much  
18 thereof as may be necessary for fiscal year 2018-2019 for the  
19 research, development, marketing, and conservation of breadfruit  
20 as follows:



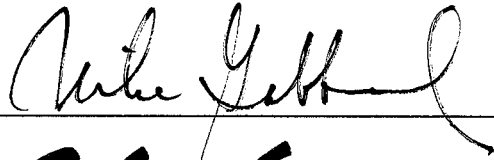


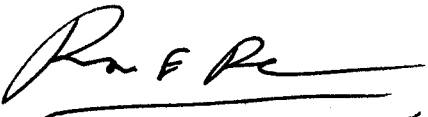

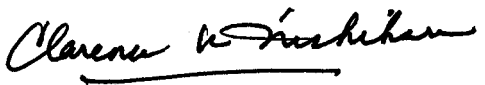

# S.B. NO. 2069

- (1) Developing breadfruit businesses that have demonstrated significant product sales;
- (2) Performing research that is directly supporting farmers and industry development; and
- (3) Providing ancillary support such as tree production, marketing, and public education.

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, 2018.

INTRODUCED BY:



# S.B. NO. 2069

**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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not legislation or evidence of legislative intent.*

