
A BILL FOR AN ACT

RELATING TO TARO SECURITY.

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

1 SECTION 1. Kalo, *Colocasia esculenta*, the Hawaiian word
2 for taro, is a culturally significant plant to the kanaka maoli
3 (Hawaii's indigenous peoples) and the State of Hawaii. Kalo
4 intrinsically embodies the interdependency of the past, the
5 present, and the future, the essence of procreation and
6 regeneration, as the foundation of any sustainable practice.
7 Kalo not only expresses the spiritual and physical well-being of
8 the kanaka maoli and their heritage but also symbolizes the
9 environmental, social, and cultural values important to the
10 State. This relationship is represented in the use of the kalo
11 plant on the crown of King Kalakaua. The state seal,
12 established in 1959, includes eight taro leaves below the
13 shield, honoring the connection between the health of the land
14 and the health of the State. Today, the logo of the office of
15 Hawaiian affairs and many commercial enterprises throughout the
16 State use this symbol to communicate ohana, integrity, and a
17 connection to Hawaiian culture. The State of Hawaii further



1 recognized the cultural and historic significance of taro by
2 designating it as the official state plant.

3 Over three hundred kalo varieties may have existed at the
4 time of the arrival of European explorers (Pukui and Elbert,
5 Hawaiian Dictionary, 1986). Today, there are eighty-five known
6 traditional varieties of taro remaining, including Bun-Long
7 (Chinese), which has been used in Hawaii for more than one
8 hundred fifty years. Of these varieties, sixty-nine are unique
9 to the Hawaiian islands due to the horticultural skills of
10 native Hawaiian farmers (Bulletin 84: Taro Varieties in Hawaii,
11 1939). Some are extremely rare. The State is also a repository
12 for many taro varieties from around the world. Leaf blight-
13 resistant cultivars were developed from this resource using
14 conventional hand-pollination methods to restore taro crops in
15 Samoa in the 1990s. Protecting and maintaining the genetic
16 identity of these varieties is critically important to the
17 recovery of old taro varieties in Hawaii and the Pacific.

18 Kalo is an important food crop in Hawaii and a complex
19 carbohydrate whose hypo-allergenic properties are life-saving
20 for those with digestive disorders and allergies, particularly
21 young children and the elderly. The health implications of
22 non-taro genes in genetically engineered kalo have never been



1 studied, nor has genetically modified taro ever been approved
2 for human consumption. Historically, there were thousands of
3 acres under taro cultivation in Hawaii. Today, however, there
4 remain less than five hundred acres of taro in production in the
5 State. In 2011, the most recent year of the United States
6 Department of Agriculture's National Agriculture Statistics
7 Service's report for Hawaii, 4,100,000 pounds of taro were
8 produced on four-hundred eighty-five acres of commercial taro
9 land (8,454 pounds per acre) at a value of \$2,747,000 farm gate,
10 amounting to an estimated per acre value of \$5,664, excluding
11 lu'au leaf. Raw taro and value-added taro products represent a
12 multi-million-dollar crop in Hawaii with great potential for
13 further growth as the State moves towards food security and
14 self-sufficiency. Control of the single worst taro pest, the
15 apple snail, *Pomacea canaliculata*, will increase taro production
16 on existing acreage by as much as twenty-five per cent (Levin
17 2006). Cold water and adjusting growing regimes will further
18 reduce taro disease. Neither of these issues requires a
19 genetically engineered taro solution. Most locally-grown taro
20 is consumed within the State, indicating a highly specialized
21 market. Millers and consumers have specifically and



1 consistently rejected the use of genetically modified taro or
2 poi.

3 In 2008, the legislature established a two-year taro
4 security and purity task force under Act 211, Session Laws of
5 Hawaii 2008, to address matters ranging from non genetically-
6 modified-organism alternatives to taro farmer issues, including
7 land and water concerns, threats from pests, diseases and taro
8 imports, educational opportunities, and economic issues. In the
9 same year, the counties of Hawaii, Maui, and Kauai supported a
10 moratorium on genetically-modified taro. In November 2008, the
11 county of Hawaii passed ordinance 361 banning the testing,
12 propagating, cultivating, raising, planting, growing,
13 introduction, or release of genetically modified taro on that
14 island. In October 2009, the county of Maui passed ordinance
15 3694 prohibiting the same practices on the islands of Maui,
16 Molokai, and Lanai.

17 The purpose of this Act is to further protect:

- 18 (1) The cultural integrity of kalo as part of the heritage
19 of the Hawaiian people and the State;
- 20 (2) The genetic biodiversity and integrity of all
21 traditional taro varieties in the State as part of the



1 developed exclusively through traditional methods of breeding,
2 hybridization, or nondirected mutagenesis.

3 § -2 Testing taro for genetic-modification purposes;
4 prohibited. No taro shall be tested for genetic-modification
5 purposes in the State of Hawaii.

6 Nothing in this chapter shall be construed to prohibit the
7 use of controlled hand-pollination taro breeding methods (taro-
8 to-taro) to improve taro as a crop.

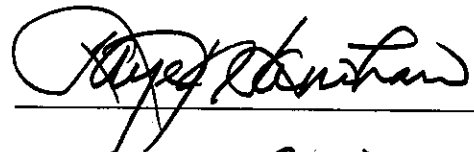
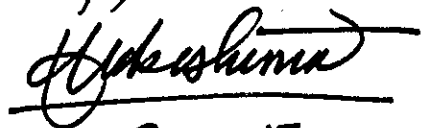

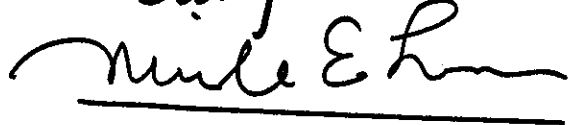
9 § -3 Penalty. Any person who violates this chapter
10 shall be guilty of a petty misdemeanor."

11 SECTION 3. This Act shall not serve as an expression by
12 the State on the merits of biotechnology nor be applicable to
13 any other crop.

14 SECTION 4. This Act shall take effect on July 1, 2013.

15

INTRODUCED BY:

JAN 17 2013



H.B. NO. 107

Report Title:

Taro Security; Testing; Genetic Modification

Description:

Prohibits testing taro for genetic-modification purposes in the State. Establishes penalty. Effective July 1, 2013.

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