

JAN 24 2018

A BILL FOR AN ACT

RELATING TO AGRICULTURE.

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

1 SECTION 1. The legislature finds that the State should
2 establish provisions governing the use of pesticides and
3 genetically engineered crops by large-scale commercial
4 agricultural entities in Hawaii. Article XI, section 1, of the
5 state constitution states, "For the benefit of present and
6 future generations, the State and its political subdivisions
7 shall conserve and protect Hawaii's natural beauty and all
8 natural resources, including land, water, air, minerals and
9 energy sources, and shall promote the development and
10 utilization of these resources in a manner consistent with their
11 conservation and in furtherance of the self-sufficiency of the
12 State. All public natural resources are held in trust by the
13 State for the benefit of the people." The legislature finds
14 that the growth of commercial agricultural entities engaged in
15 the use and development of genetically engineered crops and the
16 widespread use of pesticides in the State have created a
17 situation where residents live, work, and commute daily in close



1 proximity to areas where there is regular application of
2 restricted use pesticides and general use pesticides. There are
3 increasing concerns about the direct and long-term impacts of
4 the large-scale use of pesticides and the impacts that intensive
5 agricultural cultivation is having on the land, natural
6 environment, and human health.

7 The legislature also finds that Hawaii has become a
8 location of increasing commercial agriculture operations that
9 utilize genetically engineered crops for the production of crop
10 seed and field testing of new varieties of genetically
11 engineered crops. Genetically engineered crops potentially
12 disperse into private property and the environment through
13 pollen drift, seed commingling, and inadvertent transfer of
14 seeds by humans, animals, weather events, and other means. This
15 could have environmental and economic impacts.

16 The legislature further finds that records obtained from
17 the state department of agriculture indicate that twenty-two
18 different restricted use pesticides, comprising approximately
19 5,477 pounds and 5,885 gallons, were used during 2012 on Kauai
20 by five commercial agricultural entities, which constituted
21 approximately ninety-nine per cent of the restricted use



1 pesticides utilized by agricultural operations on Kauai, which
2 represents only a single county. Pesticides have the ability to
3 contaminate groundwater and are often toxic to humans, animals,
4 bees, and other insects. Some restricted use pesticides used in
5 Hawaii are banned by the entire European Union. Dust and drift
6 from restricted use pesticides and general use pesticides
7 sometimes travel beyond commercial agricultural operations.
8 Dust, pesticide drift, and long-term exposure to toxic chemicals
9 are potential sources of pollution endangering human health and
10 the natural environment.

11 The legislature therefore finds that the impacts of large-
12 scale intensive cultivation and associated agricultural
13 practices on Hawaii must be further evaluated but cannot be
14 properly evaluated until full disclosure of the pesticides in
15 use is made mandatory statewide. Information pertaining to the
16 intensive use of pesticides within the State and the
17 experimentation and growing of genetically engineered crops at
18 biotech research facilities is currently withheld from the
19 public. Thus the public is unable to evaluate the full extent
20 of the impacts on the residents and environment. In the
21 interest of protecting the health of the people and fragile



1 natural environment of the State of Hawaii, the people of Hawaii
2 have the right to know what pesticides are being used on a
3 significant scale, and what genetically engineered crops are
4 being grown within the State. The people of Hawaii have the
5 right to know what pesticides are being used in their
6 communities and informed on the potential impacts to the health
7 of their selves and their families and the health of the
8 environment.

9 The purpose of this Act is to establish statewide
10 provisions to inform and protect the public from any direct,
11 indirect, or cumulative negative impacts on the health of the
12 people and the natural environment of Hawaii by regulating the
13 use of pesticides and genetically engineered crops statewide and
14 establishing penalties for violations.

15 SECTION 2. Chapter 149A, Hawaii Revised Statutes, is
16 amended by adding a new part to be appropriately designated and
17 to read as follows:

18 "PART . PROTECTION AGAINST NEGATIVE EFFECTS OF PESTICIDES
19 AND GENETICALLY ENGINEERED CROPS

20 §149A-A Definitions. As used in this part, unless the
21 context otherwise requires:



1 "Adult family boarding home" means any family home
2 providing, for a fee, twenty-four hour living accommodations to
3 no more than five adults, unrelated to the family, who are in
4 need of minimal protective oversight care in their daily living
5 activities, and licensed under chapter 346.

6 "Adult family group living home" means any family home
7 providing twenty-four hour living accommodations for a fee to
8 five to eight elderly, handicapped, developmentally disabled, or
9 totally disabled adults, unrelated to the family, who are in
10 need of long-term minimal assistance and supervision in the
11 adult's daily living activities, health care, and behavior
12 management, in compliance with licensing requirements.

13 "Ahupuaa" means a land division usually extending from the
14 uplands to the sea.

15 "Commercial agricultural entity" means a firm, corporation,
16 association, partnership, or any organized group of persons,
17 whether incorporated or not, that is engaged in growing,
18 developing, cultivating, or producing agricultural products.

19 "Crop" means a plant or product thereof that can be grown
20 and harvested for subsistence, profit, or research.



1 "Day care center" means any facility where seven or more
2 children under the age of eighteen are cared for without
3 overnight accommodations at any location other than their normal
4 place of residence, in compliance with licensing requirements.

5 This term includes child care services and other similar uses
6 and facilities consistent with this definition that are not
7 services or uses provided by family child care homes.

8 "Dwelling" means a structure, or part of a structure, that
9 is used as a home, residence, or sleeping place by one person or
10 by two or more persons maintaining a common household, to the
11 exclusion of all others.

12 "Experimental genetically engineered crop" means a crop
13 that has not received final approval by the federal Food and
14 Drug Administration, United States Department of Agriculture,
15 Environmental Protection Agency, or the appropriate federal
16 regulatory body, for human consumption, release into the
17 environment, or both.

18 "Family care home" means any care home occupied by no more
19 than five care home residents and licensed by the State.

20 "Family child care home" means providing child care
21 services and other similar uses consistent with this definition



1 where six or fewer children under the age of eighteen are cared
2 for in a private dwelling unit without overnight accommodations
3 at any location other than the children's normal place of
4 residence and licensed by the State.

5 "Genetically engineered" means produced from an organism or
6 crops in which the genetic material has been genetically
7 engineered through the application of:

8 (1) In vitro nucleic acid techniques, including but not
9 limited to recombinant deoxyribonucleic acid or
10 ribonucleic acid techniques that use vector systems
11 and techniques involving the direct introduction into
12 the crops of hereditary materials prepared outside the
13 crops such as micro-injection, macro-injection,
14 chemoporation, electroporation, micro-encapsulation,
15 and liposome fusion techniques; direct injection of
16 nucleic acid into cells or organelles; encapsulation;
17 gene deletion; and doubling; or

18 (2) Methods of fusing cells beyond the taxonomic family
19 that overcome natural physiological reproductive or
20 recombinant barriers, and that are not techniques used



1 in traditional breeding and selection such as
2 conjugation, transduction, and hybridization.

3 "Genetically engineered crops" means a crop whose genetic
4 material has been genetically engineered.

5 "Ground cover" means small plants such as salal, ivy,
6 ferns, mosses, grasses, or other types of vegetation that
7 normally cover the ground and includes trees and shrubs less
8 than six inches in diameter.

9 "Medical facility" means a hospital operated by a public
10 entity, a hospital licensed under chapter 321, the office of a
11 medical group practice, a licensed physician's office, or any
12 other type of facility where medical records relating to the
13 care or treatment of a patient are kept.

14 "Nurse practitioner" means a person licensed as an advanced
15 practice registered nurse under chapter 457.

16 "Nursing home" means any nursing facility licensed by the
17 department of health.

18 "Orchard" means the establishment, care, and harvesting of
19 over twenty-five fruit-bearing trees or plants, including but
20 not limited to banana, coffee, guava, papaya, or persimmon, for
21 the purpose of selling the fruit to others.



1 "Park" means any park, park roadway, playground, beach
2 right-of-way, or other recreational areas under the control,
3 management, and operation the State.

4 "Perennial waterway" means a natural waterway that has
5 continuous flow in parts of its waterway bed year round during
6 years of normal rainfall.

7 "Physician" means an individual authorized to practice
8 medicine or osteopathy under chapter 453.

9 "Public roadway" means a roadway on which the public is
10 allowed to generally travel in a vehicle without obtaining
11 special permission or providing advance notice.

12 "Registered beekeeper" means a person registered with the
13 Hawaii apiary program through the department.

14 "Residential care home" means any facility providing
15 twenty-four hour living accommodations, for a fee, to adults
16 unrelated to the family, who require at least minimal assistance
17 in the activities of daily living, personal care services,
18 protection, and health care services, but who do not need the
19 professional health services provided in an intermediate,
20 skilled nursing, or acute care facility.



1 "Restricted-entry interval" means the time after the end of
2 a pesticide application during which entry into the treated area
3 is restricted, as contained within the Worker Protection
4 Standard for Agricultural Pesticides regulation established by
5 the Environmental Protection Agency, and specified on all
6 agricultural plant pesticide product labels.

7 "School" means an institution with an organized curriculum
8 offering instruction.

9 "Shoreline" means the upper reaches of the wash of the
10 waves, other than storm and seismic waves, at high tide during
11 the season of the year in which the highest wash of the waves
12 occurs, usually evidenced by the edge of vegetation growth, or
13 the upper limit of debris left by the wash of the waves.

14 "Significant effect" means the sum of effects on the
15 quality of the environment, including actions that irrevocably
16 commit a natural resource, curtail the range of beneficial uses
17 of the environment, are contrary to the State's environmental
18 policies or long-term environmental goals as established by law,
19 or adversely affect the economic welfare, social welfare, or
20 cultural practices of the community and State.



1 "Worker protection standard" means the Worker Protection
2 Standard for Agricultural Pesticides regulation established by
3 the Environmental Protection Agency, which is aimed at reducing
4 the risk of pesticide poisonings and injuries among agricultural
5 workers and pesticide handlers, and contains requirements for
6 pesticide safety training, notification of pesticide
7 applications, use of personal protective equipment, restricted-
8 entry intervals after pesticide application, decontamination
9 supplies, and emergency medical assistance.

10 **§149A-B Mandatory disclosure of pesticide use.** (a) Any
11 commercial agricultural entity that purchased or used in excess
12 of five pounds or fifteen gallons of any single restricted use
13 pesticide during the prior calendar year shall disclose the use
14 of all pesticides of any kind during the following calendar
15 year.

16 (b) Each applicable commercial entity shall post warning
17 signs in the area in which pesticides are to be applied no
18 sooner than twenty-four hours before the scheduled application
19 of any pesticide. The warning signs posted during and after the
20 application of any pesticide shall:

21 (1) Conform to the official label of the pesticide;



1 (2) Conform to the worker protection standard; and

2 (3) Remain posted until the expiration of the applicable
3 restricted-entry interval.

4 The size of and symbols and wording on all signs shall conform
5 to the worker protection standard. A posting notification area
6 shall be provided daily for workers and shall conform to the
7 worker protection standard.

8 (c) Each applicable commercial agricultural entity shall
9 give pesticide pre-application notification, which shall be
10 referred to as good neighbor courtesy notices, to any registered
11 beekeeper, property owner, lessee, or other persons within one
12 thousand five hundred feet of the property line of the
13 commercial agricultural entity where any pesticide is
14 anticipated to be applied. A good neighbor courtesy notice
15 shall also be provided to any revocable permit holder authorized
16 to enter the property of the commercial agricultural entity.
17 Each commercial agricultural entity shall send regular mass good
18 neighbor courtesy notices at least once during every seven-day
19 week period summarizing the anticipated application of any
20 pesticide for the upcoming seven-day week. Good neighbor



1 courtesy notices shall contain the following information

2 regarding all anticipated pesticide applications:

3 (1) Pesticide to be used;

4 (2) Active ingredient of pesticide to be used; and

5 (3) Date, time, and field number of anticipated usage.

6 A mass good neighbor courtesy notice list shall be established

7 and maintained by each commercial agricultural entity and shall

8 include access to a legible map showing all field numbers and

9 any key, legend, or other necessary map descriptions. Any

10 interested person shall submit contact information to the

11 relevant commercial agricultural entity. Interested persons may

12 submit up to three local telephone numbers and two electronic

13 mail addresses. All mass good neighbor courtesy notices shall

14 be sent via telephone, text message, or electronic mail, with

15 the method or methods of transmittal to be determined by each

16 commercial agricultural entity. Each commercial agricultural

17 entity shall provide an alternative method of transmittal for

18 any recipient who does not have access to the technology

19 necessary for the method or methods of transmittal selected by

20 the commercial agricultural entity. Requests to be included on

21 or removed from the mass good neighbor courtesy notice list must



1 be processed within three business days. Whenever a pesticide
2 application that was unforeseen and therefore not contained in
3 the weekly good neighbor courtesy notice is deemed by the
4 commercial agricultural entity to be necessary to alleviate a
5 pest threat, an additional good neighbor courtesy notice shall
6 be generated to all recipients of the mass notification list
7 within twenty-four hours after the application.

8 (d) Each applicable commercial agricultural entity shall
9 submit regular public disclosure reports to the department on
10 forms prepared by the department once every seven-day week
11 period compiling the actual application of all pesticides during
12 the prior week. All public disclosure reports shall be posted
13 online, be made available for viewing and download by any
14 interested persons, and include access to a legible map showing
15 all field numbers and any key, legend, or other necessary map
16 descriptions for all applicable commercial agricultural
17 entities. Disclosure reports shall contain the following
18 information regarding all actual pesticide applications:

19 (1) Date;

20 (2) Time;

21 (3) Field number;



- (4) Total acreage;
- (5) Trade name of pesticide used;
- (6) Environmental Protection Agency registration number;
- (7) Active ingredient of pesticide used;
- (8) Gallons or pounds of pesticide used; and
- (9) Temperature, wind direction, and wind speed at time of pesticide application.

(e) Each applicable commercial agricultural entity shall establish an emergency response hotline to be made available to any licensed physician or nurse practitioner practicing in association with a clinic, medical facility, or emergency center. Within six hours of a request from any such licensed physician or nurse practitioner who provides a documented medical need, the commercial agricultural entity shall provide the following information regarding all actual pesticide applications related to the alleged incident:

- (1) Date;
- (2) Time;
- (3) Field number;
- (4) Total acreage;
- (5) Trade name of pesticide used;



- 1 (6) Environmental Protection Agency registration number;
2 (7) Active ingredient of pesticide used;
3 (8) Gallons or pounds of pesticide used; and
4 (9) Temperature, wind direction, and wind speed at time of
5 pesticide application.

6 **§149A-C Mandatory disclosure of genetically engineered**

7 **crops.** (a) Any commercial agricultural entity that
8 intentionally or knowingly possesses any genetically engineered
9 crop shall disclose the production of the genetically engineered
10 crop.

11 (b) All applicable commercial agricultural entities shall
12 provide annual public reports to the department that shall be
13 posted online and be made available for viewing and download by
14 any interested persons. Reports shall be submitted to the
15 department no later than sixty days following the end of each
16 calendar year.

17 (c) Annual public reports shall include a general
18 description of each genetically engineered crop, a general
19 description of the geographic location, including at minimum the
20 tax map key and ahupuaa where each genetically engineered crop
21 is being grown or developed, and dates that each genetically



1 engineered crop was initially introduced to the particular area
2 of land.

3 **§149A-D Pesticide buffer zones.** (a) Any commercial
4 agricultural entity that purchased or used in excess of five
5 pounds or fifteen gallons of any single restricted use pesticide
6 during the prior calendar year shall not grow crops, except
7 ground cover to which no pesticide is applied, and shall not
8 apply any pesticides in the following areas:

9 (1) Within one thousand five hundred feet of any adult
10 family boarding home, adult family group living home,
11 day care center, family care home, family child care
12 home, medical facility, nursing home, residential care
13 home, or school;

14 (2) Within two hundred fifty feet of any park; provided
15 that, regarding a mature orchard, the crops of which
16 grow in a hedge-like manner creating a windbreak
17 effect, if pesticide application occurs between crop
18 rows from a source that does not exceed two feet from
19 the ground for the purpose of eliminating weeds in the
20 ground, the commercial agricultural entity shall not
21 grow crops within seventy-five feet of any park;



(3) Within five hundred feet of any dwelling; provided that:

(A) If the commercial agricultural entity has an approved soil and water conservation plan that explicitly demonstrates no pesticide drift on the dwelling, then the commercial agricultural entity shall not grow crops within one hundred feet of any dwelling;

(B) If the dwelling is owned by the landowner and occupied by the landowner or a family member of the landowner, and there are no other dwellings occupied by third-parties within five hundred feet of the landowner's dwelling, then there shall be no pesticide buffer zone restricting crop production in proximity to the landowner's dwelling; and

(C) Regarding a mature orchard, the crops of which grow in a hedge-like manner creating a windbreak effect, if pesticide application occurs between crop rows from a source that does not exceed two feet from the ground for the purpose of



1 eliminating weeds in the ground, the commercial
2 agricultural entity shall not grow crops within
3 one hundred feet of any dwelling;

4 (4) Within one hundred feet of any public roadway;
5 provided that pesticides may be used within one
6 hundred feet of any public roadway if the commercial
7 agricultural entity posts notification signage on land
8 that is adjacent to the public roadway no sooner than
9 twenty-four hours before the scheduled application.
10 Roadway signs shall be located at the start and end of
11 the field along the public roadway where application
12 will occur, shall be of a size that is legible from
13 vehicles traveling at the posted speed limit, and
14 shall comply with all department of transportation
15 requirements; and

16 (5) Within one hundred feet of any shoreline or perennial
17 waterway that flows into the ocean. This paragraph
18 shall not apply to any irrigation ditch or drainage
19 canal that does not directly flow to the ocean.

20 (b) Subsection (a) shall not apply to any specific
21 instance where any county, state, or federal government agency



1 has authorized pesticide use for public health or safety
2 purposes.

3 (c) If this section, or any part thereof, is determined to
4 conflict with any pesticide labeling information, the more
5 restrictive and environmentally protective provisions shall
6 apply.

7 **§149A-E Prohibition of open air testing of experimental**
8 **pesticides.** All testing of experimental pesticides shall be
9 conducted in a facility, laboratory, contained greenhouse,
10 fermenter, or other contained structure where the experimental
11 pesticide is contained within a structure designed to prevent
12 the escape of the substance into the open environment; provided
13 that this section is not specifically prohibited by permit or
14 other mechanism governed by federal or state authority.

15 **§149A-F Moratorium on experimental use and commercial**
16 **production of genetically engineered crops.** (a) There shall be
17 a moratorium on all experimental use and commercial production
18 of genetically engineered crops until the department:

19 (1) Completes an environmental impact statement on the
20 health, environmental, and other effects of the



1 production, propagation, and development of
2 genetically engineered crops within the State; and

3 (2) Develops and implements a permitting process
4 sufficient to protect the residents and environment
5 from any significant effects identified in the
6 environmental impact statement.

7 (b) No new permits, amendments to permits, or exemptions
8 to permit requirements shall be issued by any state agency
9 during the moratorium period for any activity that allows for
10 new or expanded use or cultivation of any genetically engineered
11 crop.

12 **§149A-G Environmental impact statement; administration.**

13 (a) The department shall complete an environmental impact
14 statement to determine and evaluate significant effects of the
15 production, propagation, and development of genetically
16 engineered crops within the State and the use of all pesticides,
17 restricted, general use, and experimental, associated with the
18 production, propagation, or development of genetically
19 engineered crops in the State.



1 (b) The governor shall be the accepting authority for and
2 shall authorize the final acceptance acknowledging the
3 completeness of the environmental impact statement.

4 (c) In addition to the requirements of chapter 343, each
5 environmental impact statement shall include provisions for the
6 testing of soil, dust, water, air, and human resident volunteers
7 as may be appropriate, measuring the presence of any pesticide
8 or other related chemicals to further identify any potential
9 health and environmental concerns and to establish a baseline
10 for future testing and studies.

11 **§149A-H Permitting; genetically engineered crops. (a)**

12 The department shall develop and implement a permitting process
13 that shall apply to all commercial agricultural entities that
14 intentionally or knowingly possess genetically engineered crops.

15 (b) Permit conditions shall include:

16 (1) Provisions that facilitate the elimination or
17 mitigation of significant effects identified in the
18 environmental impact statement under section 149A-G;

19 (2) Provisions that effectively prevent cross pollination
20 of non-genetically modified crops by wind, dust,
21 insects, or other means;



(3) Provisions for periodic independent testing of soil, dust, water, air, and human resident volunteers as may be required to further identify health and environmental impacts as a result of the permitted activity. Such testing results shall be public information; provided that personal identification information of resident volunteers shall be redacted;

(4) Provisions that limit pesticide-laden dust, dust containing genetically engineered crop residue, or both from drifting into areas where residents reside or congregate; and

(5) Disclosure provisions required under section 149A-B.

(c) The department shall adopt rules in accordance with chapter 91 to implement this section.

§149A-I Prohibition of open air testing of experimental genetically engineered crops. (a) All testing of experimental genetically engineered crops shall be conducted in a facility, laboratory, contained greenhouse, fermenter, or other contained structure where the experimental pesticide is contained within a structure designed to prevent the escape of the substance into the open environment; provided that this section is not



1 specifically prohibited by permit or other mechanism governed by
2 federal or state authority.

3 (b) At the conclusion of the moratorium period under
4 section 149A-F, open air testing shall be governed by the permit
5 process specified in section 149A-H and rules adopted by the
6 department.

7 **§149A-J Funding sources.** In addition to other funding
8 sources, the department may pay for the environmental impact
9 statement process under section 149A-G, the permitting process
10 under section 149A-H, and other administration costs under this
11 part from fees that are directly related to those operations
12 engaged in the production, propagation, or development of
13 genetically engineered crops through new permit applications
14 fees, fees and taxes associated with pesticide sales, or any
15 mechanism deemed appropriate by the department.

16 **§149A-K Penalties.** (a) Any person who violates any
17 provision of this part shall be assessed a civil fine of no less
18 \$10,000 and not to exceed \$25,000 per day, per violation.

19 (b) In addition to the penalty described in subsection
20 (a), any person who violates any provision of this part shall be
21 guilty of a misdemeanor. The continuance of any violation after



1 conviction shall be deemed a new criminal offense for each day
2 that the violation or violations continue.

3 **§149A-L Rulemaking.** The department shall adopt rules
4 pursuant to chapter 91 necessary to effectuate the purposes of
5 this part."

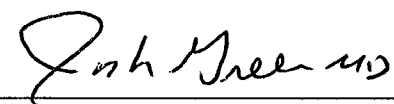

6 SECTION 3. This Act does not affect rights and duties that
7 matured, penalties that were incurred, and proceedings that were
8 begun before its effective date.

9 SECTION 4. If any provision of this Act, or the
10 application thereof to any person or circumstance, is held
11 invalid, the invalidity does not affect other provisions or
12 applications of the Act that can be given effect without the
13 invalid provision or application, and to this end the provisions
14 of this Act are severable.

15 SECTION 5. In codifying the new sections added by section
16 2 of this Act, the revisor of statutes shall substitute
17 appropriate section numbers for the letters used in designating
18 the new sections in this Act.

19 SECTION 6. This Act shall take effect upon its approval.
20

INTRODUCED BY:

S.B. NO. 2874

Handwritten signature or initials



S.B. NO. 2874

Report Title:

Pesticides; Genetically Engineered Crops; Mandatory Disclosure; Buffer Zones; Prohibition of Open Air Testing; Moratorium on Experimental Genetically Engineered Crops; Environmental Impact Statement; Penalties

Description:

Requires certain commercial agricultural entities to disclose use of pesticides. Requires certain commercial agricultural entities to disclose production of genetically engineered crops. Establishes pesticide buffer zones. Prohibits open air testing of experimental pesticides and experimental genetically engineered crops. Places a moratorium on all experimental use and commercial production of genetically engineered crops until the DOA completes an environmental impact statement and implements a permitting process. Establishes requirements for the environmental impact statement and genetically engineered crops permitting process. Imposes penalties for violations. Requires DOA to adopt rules.

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.

