
A BILL FOR AN ACT

RELATING TO HAWAII PESTICIDES LAW.

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

1 SECTION 1. Moneys in the pesticide use revolving fund are
2 required to be expended by the department of agriculture to
3 support, among other things, the pesticide program's
4 registration and licensing, certification and education, and
5 compliance monitoring activities. Increasing the funds in the
6 pesticide use revolving fund will allow the department of
7 agriculture to have a greater amount of dedicated funding for
8 the State's efforts in providing pesticide regulation with
9 informed and educated studies.

10 The number of large-scale, outdoor commercial agricultural
11 operations in Hawaii has been increasing. Unlike the majority
12 of Hawaii's farmers, these operations regularly release high
13 volumes of restricted use pesticides into the environment. The
14 United States Environmental Protection Agency classifies
15 pesticides as restricted use pesticides if they are determined
16 to cause "unreasonable adverse effects on the environment" when
17 used "without additional regulatory restrictions." Information



1 pertaining to the intensive use of pesticides in large-scale
2 commercial agriculture within the State is not readily available
3 to the public.

4 Therefore, the purpose of this Act is to increase the
5 pesticide use revolving fund moneys in order to allow the
6 department of agriculture to have the necessary funds available
7 to carry out its statutory mandate and to protect the State's
8 environment and residents from the unintended impacts of large-
9 scale pesticide use by implementing the recommendation of the
10 JFF Study Group's report that the good neighbor program be
11 revised and expanded. Specifically, this Act implements the JFF
12 Study Group's recommendation by making the reporting guidelines
13 of the Kauai agricultural good neighbor program mandatory for
14 large-scale, outdoor commercial agricultural operations across
15 the State.

16 The further purpose of this Act is to provide funds for a
17 study of the presence of breakdown products, or biomarkers, of
18 agricultural chemicals in the meconium stool of babies born in
19 Hawaii. The specific biomarker to be tested for is a breakdown
20 product of chlorpyrifos.



1 Chlorpyrifos is a pesticide which has been widely used in
2 the United States in both agriculture and pest control in
3 dwellings. It is a restricted use pesticide because acute
4 exposure to it can cause serious, even lethal, effects. Prompt
5 treatment can usually reverse those acute effects.

6 However, of even greater concern is that it has been shown
7 that chlorpyrifos is a potent teratogen. A teratogen is defined
8 as any agent or factor that induces or increases the incidence
9 of abnormal prenatal development. Some examples would be
10 radiation, drugs such as thalidomide, and viruses such as
11 rubella. Chlorpyrifos was designed to affect the nervous system
12 of insect pests but can consequently affect the nervous system
13 of humans. The developing nervous system of the fetus is
14 particularly vulnerable to injury, which can then affect the
15 eventual structure and wiring of the brain, potentially
16 severely. Studies have found marked structural and behavioral
17 abnormalities of the brains of children who had been exposed to
18 chlorpyrifos as fetuses in the womb.

19 During fetal development, the fetus starts ingesting
20 amniotic fluid at about sixteen weeks of gestation. The
21 contents of the amniotic fluid swallowed accumulate over the



1 subsequent twenty-four weeks before birth. This accumulation
2 called meconium is passed shortly after birth. If chlorpyrifos
3 is inhaled or ingested by the mother, some of it is transmitted
4 through the placenta to the fetus, and breakdown products of
5 chlorpyrifos can be measured in the meconium stool revealing any
6 fetal exposure. In children and adults, exposure to
7 chlorpyrifos will not result in accumulation and will only be
8 measurable for a short time after acute exposure.

9 Measurements of a particular breakdown product 3,5,6-
10 trichloro-pyridinol (TCPy) in the meconium stool of newborns has
11 been shown to be a reliable indicator of fetal exposure. When
12 chlorpyrifos was banned for residential use fetal exposure was
13 dramatically lowered after the residential ban.

14 The United States Environmental Protection Agency is now
15 contemplating another ban of chlorpyrifos for use on any edible
16 crop. That decision is expected on March 31 of this year. It
17 is not clear whether the decision will provide for a phase-out
18 period. What is clear is that that ban will not extend to
19 outdoor use on non-edible crops, such as seed corn, and thus the
20 use of chlorpyrifos will likely continue.



1 The legislature finds that testing of the meconium stool of
2 newborns from at least three Hawaii counties should show if
3 there is fetal exposure and allow an evaluation of risk. If
4 fetal exposure is found, then it will be important to determine
5 the source or to proceed to ban chlorpyrifos in the State.

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

9 "PART . PESTICIDE MANDATORY DISCLOSURE

10 §149A-A Definitions. As used in this part:

11 "Commercial agricultural entity" means any individual,
12 partnership, association, corporation, limited liability
13 company, or organized group of persons, regardless of whether
14 incorporated, that is engaged in commercial agricultural
15 production.

16 "Commercial agricultural production" means:

- 17 (1) Commercial production of any seed, crop, plant,
18 timber, livestock, poultry, fish, bees, or apiary
19 products; or



1 (2) Testing or experimental production of any seed, crop,
2 plant, timber, livestock, poultry, fish, bees, or
3 apiary products.

4 "Commercial agricultural production area" means real
5 properties and areas owned, leased, or otherwise operated or
6 controlled and used by a commercial agricultural entity for
7 commercial agricultural production.

8 "Experimental use pesticide" means a pesticide whose use is
9 authorized by an experimental use permit by either the United
10 States Environmental Protection Agency or the department.

11 **§149A-B Mandatory disclosure of commercial agricultural**
12 **pesticide use.** Effective one year following the effective date
13 of Act , Session Laws of Hawaii 2017, any commercial
14 agricultural entity that annually purchases or uses in excess of
15 pounds or gallons of non-diluted restricted use
16 pesticides during the prior calendar year shall disclose the use
17 of all pesticides, including restricted use, general use, and
18 experimental use pesticides. No later than sixty days following
19 the end of each calendar year, each commercial agricultural
20 entity subject to this section shall provide to the department
21 annual reports of all pesticides used in outdoor applications



1 during the preceding calendar year. The annual reports shall
2 comply with section 149A-C and shall be deemed public records
3 and posted online on the department's website.

4 **§149A-C Public reports; contents.** The department shall
5 adopt rules, pursuant to chapter 91, requiring that public
6 annual reports required under section 149A-B include the
7 following information:

- 8 (1) A listing of all pesticides used in outdoor
9 applications, by federal and state registrations or
10 permit numbers, commercial product names, and active
11 ingredients;
- 12 (2) The total quantities used for each pesticide; and
- 13 (3) A general description of the geographic location,
14 including, at a minimum, the tax map key number, in
15 which the pesticides were used.

16 **§149A-D Rules.** The department shall adopt rules pursuant
17 to chapter 91 to implement this part; provided that the
18 department may not establish exemptions not expressly authorized
19 in this part."

20 SECTION 3. Section 149A-13.5, Hawaii Revised Statutes, is
21 amended as follows:



1 1. By amending subsection (b) to read:

2 " (b) Moneys in the pesticide use revolving fund shall be

3 expended by the department to support the pesticide program's

4 registration and licensing, certification and education, and

5 compliance monitoring activities. The department shall also

6 expend revolving fund moneys on the establishment of pesticide

7 training workshops, educational programs, development of

8 integrated pest management strategies, the pesticide subsidy

9 program created under Act 105, Session Laws of Hawaii 2014, and

10 other services for pesticide users such as the agricultural pest

11 control industry, the structural pest control industry, and

12 consumer users of pesticides, which provide pesticide

13 instruction in areas including but not limited to the

14 collection, disposal, and recycling of pesticide containers;

15 clinical studies on pesticides; and all other pesticide services

16 deemed necessary by the department. Moneys from the revolving

17 fund may be used for personnel, services, materials, and

18 equipment for the purposes of this section[; ~~provided that the~~

19 ~~use of moneys from the revolving fund for personnel costs shall~~

20 ~~be limited to those employees under the registration and~~

21 ~~education section of the department's pesticides branch].~~



1 Moneys expended by the department from the pesticide use
2 revolving fund for training workshops, educational programs, and
3 other services for the agricultural pest control industry, the
4 structural pest control industry, and consumer groups shall be
5 expended in a manner that appropriately addresses the needs of
6 each category of pesticide user."

7 2. By amending subsection (e) to read:

8 "(e) All unobligated, unencumbered, or unexpended funds
9 remaining in the fund in excess of [~~\$250,000~~] \$_____ at
10 the close of each fiscal year shall lapse to the state
11 general fund."

12 SECTION 4. There is appropriated out of the general
13 revenues of the State of Hawaii the sum of \$ _____ or so much
14 thereof as may be necessary for fiscal year 2017-2018 to be
15 deposited into the pesticide use revolving fund.

16 SECTION 5. There is appropriated out of the pesticide use
17 revolving fund the sum of \$ _____ or so much thereof as may be
18 necessary for fiscal year 2017-2018 to provide a grant to the
19 University of Hawaii John A. Burns school of medicine to develop
20 a study that will determine the exposure of chlorpyrifos to



1 pregnant mothers on Hawaii island, Oahu, and Kauai by examining
2 the meconium of newborn babies.

3 The sums appropriated shall be expended by the University
4 of Hawaii for the purposes of this Act.

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

8 SECTION 7. If any provision of this Act, or the
9 application thereof to any person or circumstance, is held
10 invalid, the invalidity does not affect other provisions or
11 applications of the Act that can be given effect without the
12 invalid provision or application, and to this end the provisions
13 of this Act are severable.

14 SECTION 8. In codifying the new sections added by section
15 2 of this Act, the revisor of statutes shall substitute
16 appropriate section numbers for the letters used in designating
17 the new sections in this Act.

18 SECTION 8. Statutory material to be repealed is bracketed
19 and stricken. New statutory material is underscored.

20 SECTION 9. This Act shall take effect on July 31, 2150.



Report Title:

Mandatory Pesticide Disclosure; Chlorpyrifos Study; Pesticide Use Revolving Fund; Appropriation

Description:

Requires disclosure of commercial agriculture pesticide use under specified conditions. Revises the ceiling and use of the Pesticide Use Revolving Fund. Appropriates funds for the John A. Burns School of Medicine to study the exposure of Chlorpyrifos on pregnant mothers. (SB804 HD1)

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

