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# A BILL FOR AN ACT

RELATING TO INSECTICIDE AND HERBICIDE USE.

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

1           SECTION 1. The legislature finds that pollinators,  
2 including honeybees, are a vital part of agricultural production  
3 in the State of Hawaii. In this State, pollinators are critical  
4 to valuable specialty crops, including melons, watermelons,  
5 cucumbers, squash, lychee, mango, macadamia nuts, coffee beans,  
6 eggplant, avocado, guava, herbs, and some flowering plants, such  
7 as sunflowers. In 2007, the department of agriculture estimated  
8 that nearly seventy per cent of the State's food crops depend on  
9 pollination by bees. In North America, one-third of the food  
10 produced depends on pollination by bees, including nearly  
11 ninety-five varieties of fruits and other foods of high  
12 nutritional value.

13           Scientists have linked the use of systemic neonicotinoid  
14 insecticides to the rapid decline of honeybees and other  
15 pollinators and to the deterioration of pollinator health. This  
16 class of insecticides damages the central nervous system of  
17 insects, causing tremors, paralysis, and death at very low



1 doses. Systemic insecticides are absorbed into treated plants  
2 and distributed throughout their vascular systems. As a result,  
3 treating a plant or coating a seed with neonicotinoids can  
4 render parts of the plant, including the roots, leaves, stems,  
5 flowers, nectar, pollen, and guttation fluid, toxic to insects.  
6 The insecticides are persistent in soil and easily transported  
7 via air, dust, and water. In addition to the acute lethal  
8 effects, neonicotinoid insecticides cause sub-lethal effects,  
9 including impaired foraging and feeding behavior,  
10 disorientation, weakened immunity, delayed larval development,  
11 and increased susceptibility to viruses, diseases, and  
12 parasites. The toxins also kill or weaken beneficial  
13 invertebrates, birds, and other wildlife, through direct and  
14 indirect effects.

15 Hawaii boasts a variety of native pollinators, including  
16 honeycreeper birds, Hawaiian yellow-faced bees, and the  
17 Kamehameha butterfly. Unfortunately, these iconic species are  
18 in peril. Native bees, beneficial insects of all kinds, and  
19 food chains of aquatic invertebrates, insects, birds, bats, and  
20 other pollinators in Hawaii are at risk from environmental  
21 contamination by highly-persistent neonicotinoids. Twenty



1 species of honeycreepers are already extinct. In 2016, the  
2 United States Fish and Wildlife Service added the following  
3 seven species of Hawaiian yellow-faced bees to the federal lists  
4 of endangered and threatened wildlife and plants: *Hylaeus*  
5 *anthracinus*, *Hylaeus longiceps*, *Hylaeus assimulans*, *Hylaeus*  
6 *facilis*, *Hylaeus hilaris*, *Hylaeus kuakea*, and *Hylaeus mana*.  
7 These native bee species are at even greater risk from the use  
8 of neonicotinoid insecticides.

9 Scientists have also found that seeds coated in  
10 neonicotinoids are harmful to birds. The consumption of a  
11 single corn kernel coated with a neonicotinoid can kill a  
12 medium-sized songbird.

13 In 2013, the European Union voted to suspend the use of  
14 three major neonicotinoids, imidacloprid, clothianidin, and  
15 thiamethoxam, on certain agricultural crops pending a review of  
16 their safety. States in this country have also restricted some  
17 neonicotinoid uses to address their risks.

18 In 2015, the United States Environmental Protection Agency  
19 announced a moratorium on approvals for new outdoor uses of  
20 neonicotinoids. Since January 2016, the United States Fish and  
21 Wildlife Service has prohibited uses of neonicotinoid pesticides



1 in agricultural practices within the National Wildlife Refuge  
2 System.

3 The legislature also finds that glyphosate is a broad-  
4 spectrum herbicide, meaning the herbicide kills many varieties  
5 of green vegetation and is widely used in agricultural,  
6 residential, aquatic, and other settings. In fact, glyphosate  
7 is the most widely used herbicide globally and within the United  
8 States due to the widespread cultivation of "Roundup Ready"  
9 crops, i.e., crops that have been genetically engineered to  
10 withstand its application. Because of glyphosate's intensive  
11 and extensive use, it is regularly found in food, the air,  
12 rainfall, and surface waters.

13 The increased use of glyphosate in genetically engineered  
14 agriculture has resulted in the rapid development and  
15 proliferation of previously unknown herbicide-tolerant  
16 superweeds. As more crops are genetically engineered to resist  
17 glyphosate, glyphosate use and resistance in weeds both  
18 increase. Superweeds threaten to overtake the habitat of native  
19 flora and fauna in uncultivated lands and force farmers and land  
20 managers to use increasingly toxic and expensive herbicides,



1 which further exacerbates the environmental and health-related  
2 impacts of the herbicide.

3 The increased use of glyphosate-based herbicides with  
4 glyphosate-resistant crops has substantial environmental  
5 impacts, including reduced biodiversity, the loss of milkweed (a  
6 plant that the monarch butterfly relies on, which has caused a  
7 steady decline in monarch butterfly populations), and potential  
8 impacts to water and aquatic life, such as amphibians.

9 In 2015, the International Agency for Research on Cancer, a  
10 division of the World Health Organization and the world's  
11 leading authority on cancer, unanimously concluded that  
12 glyphosate is a probable carcinogen. The International Agency  
13 for Research on Cancer's determination was based on a rigorous  
14 assessment that concluded that there is sufficient evidence of  
15 carcinogenicity in experimental animals.

16 In light of glyphosate's proven environmental and human  
17 health risks, many jurisdictions have moved to restrict its use.  
18 For example, at least two municipalities in California have  
19 banned the use of glyphosate herbicides from use on public lands  
20 within their localities. These municipalities have found  
21 organic alternatives to glyphosate, such as "avenger," to be



1 effective. California has also proposed listing glyphosate as a  
2 possible carcinogen under the state's Safe Drinking Water and  
3 Toxic Enforcement Act of 1986 (Proposition 65), which requires  
4 California to publish chemicals known to cause cancer or birth  
5 defects or other reproductive harm. Finally, in 2016, the  
6 European Commission, the executive body of the European Union,  
7 made a series of recommendations to restrict the use of  
8 glyphosate while the European Chemical Agency concludes its  
9 review of the chemical. One of the recommendations calls for  
10 minimizing the use of glyphosate herbicides in public parks,  
11 public playgrounds, and gardens.

12 The purpose of this Act is to defend and protect Hawaii's  
13 public health, agricultural economy, and natural ecosystems by:

- 14 (1) Restricting the exposure of Hawaii's honeybees, native  
15 bees, insects, birds, and other pollinators to  
16 neonicotinoid insecticides; and  
17 (2) Restricting the exposure of Hawaii's residents,  
18 plants, animals, and natural resources to glyphosate  
19 herbicides.



1 SECTION 2. Chapter 149A, Hawaii Revised Statutes, is  
2 amended by adding a new section to be appropriately designated  
3 and to read as follows:

4 "§149A- County authority. Any county may adopt a rule  
5 or ordinance that places stricter limitations on the use of  
6 neonicotinoid insecticides or glyphosate herbicides than those  
7 placed by this chapter or rules adopted under this chapter. In  
8 the case of a conflict between the requirements or limitations  
9 of this chapter and any county rule or ordinance regarding the  
10 use of neonicotinoid insecticides, the more restrictive  
11 requirements shall apply."

12 SECTION 3. Section 149A-2, Hawaii Revised Statutes, is  
13 amended by adding two new definitions to be appropriately  
14 inserted and to read as follows:

15 ""Glyphosate" or "glyphosate herbicides" includes all  
16 herbicides that contain glyphosate as one of the active  
17 ingredients and tank mixes of herbicides containing glyphosate  
18 as one of the active ingredients.

19 "Neonicotinoid insecticides" means a class of systemic  
20 pesticides with a common mode of action that affects the central  
21 nervous system of insects that includes the following active



1 ingredients: acetamiprid, clothianidin, dinoteluran,  
2 imidacloprid, thiamethoxam, or other new neonicotinoid  
3 insecticides as specified by the department pursuant to rule."

4 SECTION 4. Section 149A-31, Hawaii Revised Statutes, is  
5 amended to read as follows:

6 "**§149A-31 Prohibited acts.** No person shall:

7 (1) Use any pesticide in a manner inconsistent with its  
8 label, except that it shall not be unlawful to:

9 (A) Apply a pesticide at any dosage, concentration,  
10 or frequency less than that specified on the  
11 label or labeling; provided that the efficacy of  
12 the pesticide is maintained and further provided  
13 that, when a pesticide is applied by a commercial  
14 applicator, the deviation from the label  
15 recommendations must be with the consent of the  
16 purchaser of the pesticide application services;

17 (B) Apply a pesticide against any target pest not  
18 specified in the labeling if the application is  
19 to a crop, animal, or site specified on the label  
20 or labeling; provided that the label or labeling





- 1                   does not specifically prohibit the use on pests
- 2                   other than those listed on the label or labeling;
- 3           (C)   Employ any method of application not prohibited
- 4                   by the labeling;
- 5           (D)   Mix a pesticide or pesticides with a fertilizer
- 6                   when [~~such~~] the mixture is not prohibited by the
- 7                   label or labeling; or
- 8           (E)   Use in a manner determined by rule not to be an
- 9                   unlawful act;
- 10       (2)   Use, store, transport, or discard any pesticide or
- 11                   pesticide container in any manner which would have
- 12                   unreasonable adverse effects on the environment;
- 13       (3)   Use or apply restricted use pesticides unless the
- 14                   person is a certified pesticide applicator or under
- 15                   the direct supervision of a certified pesticide
- 16                   applicator with a valid certificate issued pursuant to
- 17                   rules adopted under section 149A-33(1); provided that
- 18                   it shall be prohibited to use or apply a restricted
- 19                   use pesticide for structural pest control uses for a
- 20                   fee or trading of services, unless the user or
- 21                   applicator is a pest control operator or is employed



- 1 by a pest control operator licensed under chapter  
2 460J;
- 3 (4) Use or apply pesticides in any manner that has been  
4 suspended, canceled, or restricted pursuant to section  
5 149A-32.5;
- 6 (5) Falsify any record or report required to be made or  
7 maintained by rules adopted pursuant to this chapter;  
8 [~~or~~]
- 9 (6) Fill with water, through a hose, pipe, or other  
10 similar transmission system, any tank, implement,  
11 apparatus, or equipment used to disperse pesticides,  
12 unless the tank, implement, apparatus, equipment,  
13 hose, pipe, or other similar transmission system is  
14 equipped with an air gap or a reduced-pressure  
15 principle backflow device meeting the requirements  
16 under section 340E-2 and the rules adopted  
17 thereunder [-]; or
- 18 (7) After December 31, 2019, apply any neonicotinoid  
19 insecticide or glyphosate herbicide, including the  
20 planting of any seed or plant pretreated with any



1           neonicotinoid insecticide, on any public land owned or  
2           maintained by the State without a:

3           (A) License issued by the State or any agency of the  
4           federal government to conduct neonicotinoid  
5           insecticide research; or

6           (B) Permit issued by the State to apply any  
7           neonicotinoid insecticide or glyphosate herbicide  
8           because:

9           (i) The situation poses an immediate threat to  
10           human health and the environment; and

11           (ii) There is no viable alternative to the use of  
12           the proposed neonicotinoid insecticide or  
13           glyphosate herbicide."

14           SECTION 5. Within one year after the effective date of  
15 this Act, the department of agriculture shall adopt rules  
16 pursuant to section 149A-33, Hawaii Revised Statutes, further  
17 defining and implementing the provisions of this Act.

18           SECTION 6. If any provision of this Act, or the  
19 application thereof to any person or circumstance, is held  
20 invalid, the invalidity does not affect other provisions or  
21 applications of the Act that can be given effect without the



1 invalid provision or application, and to this end the provisions  
2 of this Act are severable.

3 SECTION 7. This Act shall be liberally construed to  
4 effectuate its purpose.

5 SECTION 8. Statutory material to be repealed is bracketed  
6 and stricken. New statutory material is underscored.

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



**Report Title:**

Neonicotinoid Insecticide; Glyphosate Herbicide; Pesticides;  
Agriculture

**Description:**

Prohibits the application of neonicotinoid insecticides and  
glyphosate herbicides after December 31, 2019, without a license  
or permit from the state or federal government. (HB1282 HD1)

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not legislation or evidence of legislative intent.*

