

1 H.626

2 Introduced by Representatives Sheldon of Middlebury and Troiano of

3 Stannard

4 Referred to Committee on

5 Date:

6 Subject: Agriculture; control of pesticides; pollinator protection; neonicotinoid

7 pesticides; treated article seed

8 Statement of purpose of bill as introduced: This bill proposes to prohibit the
9 use of the neonicotinoid pesticides until the Secretary of Agriculture, Food and
10 Markets adopts rules for the sale, use, or application of neonicotinoid
11 pesticides. If the Secretary fails to adopt the rules by July 1, 2024, the
12 prohibition on the sale, use, or application of neonicotinoid pesticides would
13 become permanent.

14 An act relating to the sale, use, or application of neonicotinoid pesticides

15 It is hereby enacted by the General Assembly of the State of Vermont:

16 ~~*** Findings ***~~

17 Sec. 1. FINDINGS

18 ~~The General Assembly finds that.~~

1 (1) Roughly one-third of the global food supply and 75 percent of all
2 agricultural crops depend on pollination by bees, birds, and other wildlife,
3 including many of the fruits, vegetables, nuts, and seeds we eat every day.

4 (2) In Vermont, native pollinators are vital to the State's agricultural
5 systems, and protecting the health of pollinators is necessary to ensure the
6 viability of farming in Vermont.

7 (3) Neonicotinoid pesticides are a relatively new class of synthetic
8 insecticides introduced in the 1990s that were rapidly adopted by the
9 agricultural industry to the point that they are now the most widely applied
10 class of pesticide in the world.

11 (4) In Vermont, neonicotinoid pesticides for farming are most
12 commonly found as powdered coatings on seeds and are applied almost every
13 time treated seed is planted.

14 (5) Seed coatings, however, violate science-based integrated pest
15 management (IPM) principles, as IPM guidelines recommend applying
16 pesticides not on the presumption of a pest problem but only when pests are
17 present at damaging levels and other control methods have failed.

18 (6) Consequently, the use or overuse of neonicotinoid pesticides has
19 been linked to pollinator decline worldwide.

1 (7) In 2012, a study demonstrated that a neonicotinoid pesticide called
2 thiamethoxam can cause high mortality in honeybees by compromising their
3 ability to navigate back to the hive.

4 (8) In 2014, a Harvard School of Public Health study confirmed that
5 low doses of a neonicotinoid pesticide called imidacloprid contributed to
6 colony collapse disorder in bees.

7 (9) In 2015, a study showed that the levels of neonicotinoid pesticides
8 currently used in agriculture causes both impairment of bees' brain cells and
9 poor performance by the colony.

10 (10) In 2016, the Vermont General Assembly enacted 2016 Acts and
11 Resolves No. 83 to establish the Pollinator Protection Committee to
12 recommend measures the State can take to protect pollinator populations.

13 (11) In 2017, the Vermont Pollinator Protection Committee issued its
14 recommendations to the General Assembly, including multiple recommended
15 changes to the State's pesticide rules to mitigate the effects of neonicotinoid
16 pesticides on pollinator populations. To date, none of the recommended
17 changes to the State pesticides rules have been adopted.

18 (12) Subsequent studies demonstrated that bees exposed to
19 neonicotinoid pesticides from corn crops or nontarget pollen have decreased
20 survival and immune responses in bees and that 75 percent of global honey
21 supply samples contained detectable levels of neonicotinoid pesticides.

1 ~~(12) In 2021, the U.S. Environmental Protection Agency (EPA) issued~~
2 ~~draft biological evaluations of three neonicotinoid pesticides: clothianidin,~~
3 ~~imidacloprid and thiamethoxam. The EPA biological evaluations determined~~
4 ~~that:~~

5 ~~(A) clothianidin is highly toxic to bees on an acute exposure basis~~
6 ~~and that data suggested potential effects on honeybee and bumble bee~~
7 ~~populations;~~

8 ~~(B) clothianidin is likely to adversely affect 67 percent of all~~
9 ~~threatened and endangered species of wildlife;~~

10 ~~(C) imidacloprid is highly toxic to bees and birds on an acute~~
11 ~~exposure basis;~~

12 ~~(D) imidacloprid is likely to adversely affect 79 percent of all~~
13 ~~threatened and endangered species of wildlife;~~

14 ~~(E) thiamethoxam is highly toxic to bees on an acute exposure basis~~
15 ~~with additional potential effects to honeybees that manifest as impacts to~~
16 ~~numbers of adults and decreases in brood size; and~~

17 ~~(F) thiamethoxam is likely to adversely affect 77 percent of~~
18 ~~threatened and endangered species of wildlife.~~

19 ~~(14) Despite its findings in its own biological evaluations, EPA~~
20 ~~continues to allow clothianidin, imidacloprid, thiamethoxam, and other~~
21 ~~neonicotinoid pesticides to be used for agriculture and other uses, albeit~~

1 ~~subject to potential management measures first proposed in 2020, but still not~~
2 ~~implemented.~~

3 (15) To protect the pollinators, birds, and threatened and endangered
4 species of Vermont while also protecting the long-term viability of farming in
5 the State, the General Assembly should ban the use of the neonicotinoid
6 pesticides until the Vermont Agency of Agriculture, Food and Markets has
7 revised the State pesticide rules to implement integrated pest management
8 requirements for the use of neonicotinoid pesticides, including best
9 management practices to prevent harm to pollinators, birds, and threatened
10 species.

11 (16) If the Agency of Agriculture, Food and Markets does not amend
12 the pesticide rules as required, the statutory prohibition on the use of
13 neonicotinoid pesticides should become permanent.

14 * * * Ban on Neonicotinoid Pesticides; Reversion upon Rulemaking * * *

15 Sec. 2. 6 V.S.A. § 918(f) is amended to read:

16 (f) ~~The Secretary shall register as a restricted use pesticide any~~
17 ~~neonicotinoid pesticide labeled as approved for outdoor use that is distributed,~~
18 ~~sold, sold into, or offered for sale within the State or delivered for~~
19 ~~transportation or transported in intrastate commerce or between points within~~
20 ~~this State through any point outside this State, provided that the Secretary shall~~

1 ~~not register the following products as restricted use pesticides, unless classified~~
2 ~~under federal law as restricted use products:~~

3 ~~(1) pet care products used for preventing, destroying, repelling, or~~
4 ~~mitigating fleas, mites, ticks, heartworms, or other insects or organisms;~~

5 ~~(2) personal care products used for preventing, destroying, repelling, or~~
6 ~~mitigating lice or bedbugs;~~

7 ~~(3) indoor pest control products used for preventing, destroying,~~
8 ~~repelling, or mitigating insects indoors; and~~

9 ~~(4)(1) treated article see. No person shall sell, use, or apply~~
10 ~~neonicotinoid pesticides in the State except when authorized by the Secretary~~
11 ~~under subdivision (2) of this subsection.~~

12 ~~(2) the Secretary may authorize the use or application of a neonicotinoid~~
13 ~~pesticide upon a determination that a threat to Vermont crops exists that~~
14 ~~requires the use of that pesticide and no other pesticide or class of pesticides~~
15 ~~would be effective in addressing the threat.~~

16 Sec. 3. 6 V.S.A. § 918(f) is amended to read:

17 ~~(f)(1) No person shall sell, use, or apply neonicotinoid pesticides in the~~
18 ~~State except when authorized by the Secretary under subdivision (2) of this~~
19 ~~subsection.~~

20 ~~(2) the Secretary may authorize the use or application of a neonicotinoid~~
21 ~~pesticide upon a determination that a threat to Vermont crops exists that~~

1 ~~requires the use of that pesticide and no other pesticide or class of pesticides~~
2 ~~would be effective in addressing the threat~~ The Secretary shall register as a
3 restricted use pesticide any neonicotinoid pesticide authorized under the rules
4 required by this chapter and labeled as approved for outdoor use that is
5 distributed, sold, sold into, or offered for sale within the State or delivered for
6 transportation or transported in intrastate commerce or between points within
7 this State through any point outside this State, provided that the Secretary shall
8 not register the following products as restricted use pesticides, unless required
9 to be registered as restricted use under the rules required by this chapter or
10 unless classified under federal law as restricted use products:

11 (1) pet care products used for preventing, destroying, repelling, or
12 mitigating fleas, mites, ticks, heartworms, or other insects or organisms;

13 (2) personal care products used for preventing, destroying, repelling, or
14 mitigating lice or bedbugs;

15 (3) indoor pest control products used for preventing, destroying,
16 repelling, or mitigating insects indoors; and

17 (4) treated article seed that is not coated with a neonicotinoid pesticide.

18 Sec. 4. IMPLEMENTATION; EFFECTIVE DATE; REPEAL

19 (a) Sec. 2 (ban on use of neonicotinoid pesticides) of this act shall take
20 effect on July 1, 2022.

1 ~~(b) Sec. 3 (reversion to regulation of neonicotinoids as restricted use) of~~
2 this act shall take effect on the effective date of the rules required under
3 6 V.S.A. § 918a for the application of neonicotinoid pesticides in the State.

4 (c) If the Secretary of Agriculture, Food and Markets fails to adopt the
5 rules required under 6 V.S.A. § 918a on or before July 1, 2024, Sec. 3 of this
6 act (reversion to regulation of neonicotinoids as restricted use) and 6 V.S.A.
7 § 918a (neonicotinoid pesticide rulemaking) shall be repealed on July 1, 2024
8 and the prohibition on the sale, use, or application of neonicotinoid pesticides
9 under 6 V.S.A. § 918(f) as enacted by Sec. 2 of this act shall control the sale,
10 use, or application of neonicotinoid pesticides in the State.

11 * * * Rules for Application of Neonicotinoid Pesticides * * *

12 Sec. 5. 6 V.S.A. § 918a is added to read:

13 § 918a. RULES FOR SALE, USE, OR APPLICATION OF
14 NEONICOTONOID PESTICIDES

15 The Secretary shall adopt by rule requirements for the sale, use, or
16 application of neonicotinoid pesticides in the State. The rules shall include:

17 (1) required integrated pest management practices to be implemented
18 prior to use of neonicotinoid pesticides or treated article seed coated with
19 neonicotinoid pesticides;

20 (2) best management practices, restrictions, or prohibitions on the use, or
21 application of neonicotinoid pesticides that are highly toxic to bees, birds, and

1 ~~wildlife, including provisions addressing seasonal application, application in~~

2 proximity to flowering trees or plants, and time of day application;

3 (3) requirements for buffers of at least 50 feet from pollinator foraging
4 sites, in which neonicotinoid pesticides shall not be used or applied;

5 (4) restrictions on the application of neonicotinoid pesticides when
6 environmental conditions, such as wind, increase the potential for drift of the
7 pesticide away from the land where it is used or applied;

8 (5) a statewide prohibition on application of neonicotinoid pesticides to
9 ornamental plants accessible to pollinators when the pesticide is applied by soil
10 drench, trunk injection, foliar, and basal bark sprays;

11 (6) requirements for reporting the use of neonicotinoid pesticides and
12 treated article seed coated with neonicotinoid pesticides, including reporting
13 the location of use and the amount of pesticide or treated article seed used; and

14 (7) requirements for equipment or planters used to apply neonicotinoid
15 pesticides or treated article seed coated with neonicotinoid pesticides.

16 * * * Practicable Alternatives * * *

17 Sec. 6. SECRETARY OF AGRICULTURE, FOOD AND MARKETS;

18 PRACTICABLE ALTERNATIVES

19 The Secretary of Agriculture, Food and Markets, in consultation with the
20 Secretary of Natural Resources, shall identify practicable and feasible
21 alternatives to the use of neonicotinoid pesticides containing the active

1 ~~ingredients clothianidin, imidacloprid, thiomethoxam, dinotefuran, or~~
2 ~~acetamiprid. On or before January 15, 2023, the Secretary of Agriculture,~~
3 ~~Food and Markets shall submit the identified practicable and feasible~~
4 ~~alternatives to the House Committees on Natural Resources, Fish, and Wildlife~~
5 ~~and on Agriculture and Forestry and the Senate Committees on Natural~~
6 ~~Resources and Energy and on Agriculture.~~

7 * * * Effective Date * * *

8 Sec. 7. EFFECTIVE DATE

9 ~~This act shall take effect on July 1, 2022.~~

Sec. 1. 6 V.S.A. § 1105a is amended to read:

*§ 1105a. TREATED ARTICLES; POWERS OF SECRETARY; BEST
MANAGEMENT PRACTICES*

*(a) The Secretary of Agriculture, Food and Markets, upon the
recommendation of the Agricultural Innovation Board, may adopt by rule:*

*(1) best management practices (BMPs), standards, procedures, and
requirements relating to the sale, use, storage, or disposal of treated articles
the use of which the Agricultural Innovation Board has determined will have a
hazardous or long-term deleterious effect on the environment, presents a likely
risk to human health, or is dangerous,*

~~(2) requirements for the response to or corrective actions for exigent circumstances or contamination from a treated article that presents a threat to human health or the environment;~~

~~(3) requirements for the examination or inspection of treated articles the use of which the Agricultural Innovation Board has determined will have a hazardous or long-term deleterious effect on the environment, presents a likely risk to human health, or is dangerous;~~

~~(4) requirements for persons selling treated articles to keep or make available to the Secretary records of sale of treated articles, and what treatments were received, the use of which the Agricultural Innovation Board has determined will have a hazardous or long-term deleterious effect on the environment, presents a likely risk to human health, or is dangerous; or~~

~~(5) requirements for reporting of incidents resulting from accidental contamination from or misuse of treated articles the use of which the Agricultural Innovation Board has determined will have a hazardous or long-term deleterious effect on the environment, presents a likely risk to human health, or is dangerous.~~

~~(b) At least 30 days prior to prefiling a rule authorized under subsection (a) or subsection (c) of this section with the Interagency Committee on Administrative Rules under 5 V.S.A. § 857, the Secretary shall submit a copy of~~

~~the draft rule to the Senate Committee on Agriculture and the House
Committee on Agriculture and Forestry for review.~~

~~(c)(1) Under subsection (a) of this section, the Secretary of Agriculture,
Food and Markets, after consultation with the Agricultural Innovation Board,
shall adopt by rule BMPs for the use of treated article seeds in the State. In
developing the rules with the Agricultural Innovation Board, the Secretary
shall address:~~

~~(A) establishment of threshold levels of pest pressure required prior
to use of treated article seeds;~~

~~(B) availability of nontreated article seeds;~~

~~(C) economic impact from crop loss as compared to crop yield when
treated article seeds are used;~~

~~(D) relative toxicities of different treated article seeds and effects of
treated article seeds on human health and the environment;~~

~~(E) surveillance and monitoring techniques for in-field pest pressure;~~

~~(F) ways to reduce pest harborage from conservation tillage
practices; and~~

~~(G) criteria for a system of approval of treated article seeds.~~

~~(2) In implementing the rules required under this subsection, the
Secretary of Agriculture, Food and Markets shall work with farmers, seed
companies, and other relevant parties to ensure that farmers have access to~~

~~appropriate varieties and amounts of untreated seed or treated seed that has
not been treated with a neonicotinoid pesticide.~~

~~Sec. 2. 6 V.S.A. § 3036 is added to read:~~

~~§ 3036. MONITORING OF POLLINATOR HEALTH~~

~~The Secretary of Agriculture, Food and Markets shall monitor managed
pollinator health to establish pollinator health benchmarks for Vermont,
including:~~

- ~~(1) presence of pesticides in hives;~~
- ~~(2) mite pressure;~~
- ~~(3) disease pressure;~~
- ~~(4) mite control methods;~~
- ~~(5) genetic influence on survival;~~
- ~~(6) winter survival rate; and~~
- ~~(7) forage availability.~~

~~Sec. 3. IMPLEMENTATION; RULEMAKING~~

~~The Secretary of Agriculture, Food and Markets shall adopt the rules
required under 6 V.S.A. § 1105a for the use of treated article seeds on or before
July 1, 2024.~~

~~Sec. 4. AGENCY OF AGRICULTURE, FOOD AND MARKETS;~~

~~RESIDUALS MANAGEMENT POSITIONS~~

~~Two new permanent classified positions at the Agency of Agriculture, Food and Markets are authorized in fiscal year 2023 for the purpose of staffing the Agency's Residuals Management Program, supporting the Agricultural Innovation Board, and enforcing and reviewing the use of treated article pesticides in the State. The two positions shall be transferred and converted from existing vacant positions in the Executive Branch. The two positions shall be funded from the revenue raised from the registration of soil amendments under 6 V.S.A. chapter 28 and the registration of dosage form animal health products and feed supplements under 6 V.S.A. chapter 26. In fiscal year 2023, \$181,190.00 is appropriated to the Agency of Agriculture, Food and Markets for the purpose of hiring the two new positions in the Agency's Residuals Management Program. The two positions shall be funded from the revenue raised from the registration of soil amendments under 6 V.S.A. chapter 28 and the registration of dosage form animal health products and feed supplements under 6 V.S.A. chapter 26.~~

Sec. 5. EFFECTIVE DATE

~~This act shall take effect on July 1, 2022.~~

Sec. 1. 6 V.S.A. § 1101 is amended to read:

§ 1101. DEFINITIONS

As used in this chapter unless the context clearly requires otherwise:

(1) *“Secretary” shall have the meaning stated in subdivision 911(4) of this title.*

(2) *“Cumulative” when used in reference to a substance means that the substance so designated has been demonstrated to increase twofold or more in concentration if ingested or absorbed by successive life forms.*

(3) *“Dealer or pesticide dealer” means any person who regularly sells pesticides in the course of business, but not including a casual sale.*

(4) *“Economic poison” shall have the meaning stated in subdivision 911(5) of this title.*

(5) *“Pest” means any insect, rodent, nematode, fungus, weed, or any other form of terrestrial or aquatic plant or animal life or virus, bacteria, or other microorganisms, which the Secretary declares as being injurious to health or environment. Pest shall not mean any viruses, bacteria, or other microorganisms on or in living humans or other living animals.*

(6) *“Pesticide” for the purposes of this chapter shall be used interchangeably with “economic poison.”*

(7) *“Treated article” means a pesticide or class of pesticides exempt under 40 C.F.R. § 152.25(a) from regulation under the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. § 136-136y.*

(8) *“Neonicotinoid pesticide” means any economic poison containing a chemical belonging to the neonicotinoid class of chemicals.*

(9) “Neonicotinoid treated article seeds” are treated article seeds that are treated or coated with a neonicotinoid pesticide.

Sec. 2. 6 V.S.A. § 1105a is amended to read:

§ 1105a. TREATED ARTICLES; POWERS OF SECRETARY; BEST
MANAGEMENT PRACTICES

(a) The Secretary of Agriculture, Food and Markets, upon the recommendation of the Agricultural Innovation Board, may adopt by rule:

(1) best management practices (BMPs), standards, procedures, and requirements relating to the sale, use, storage, or disposal of treated articles the use of which the Agricultural Innovation Board has determined will have a hazardous or long-term deleterious effect on the environment, presents a likely risk to human health, or is dangerous;

(2) requirements for the response to or corrective actions for exigent circumstances or contamination from a treated article that presents a threat to human health or the environment;

(3) requirements for the examination or inspection of treated articles the use of which the Agricultural Innovation Board has determined will have a hazardous or long-term deleterious effect on the environment, presents a likely risk to human health, or is dangerous;

(4) requirements for persons selling treated articles to keep or make available to the Secretary records of sale of treated articles, and what

treatments were received, the use of which the Agricultural Innovation Board has determined will have a hazardous or long-term deleterious effect on the environment, presents a likely risk to human health, or is dangerous; or

(5) requirements for reporting of incidents resulting from accidental contamination from or misuse of treated articles the use of which the Agricultural Innovation Board has determined will have a hazardous or long-term deleterious effect on the environment, presents a likely risk to human health, or is dangerous.

(b) At least 30 days prior to pre-filing a rule authorized under subsection (a) or subsection (c) of this section with the Interagency Committee on Administrative Rules under 3 V.S.A. § 837, the Secretary shall submit a copy of the draft rule to the Senate Committee on Agriculture and the House Committee on Agriculture and Forestry for review.

(c)(1) Under subsection (a) of this section, the Secretary of Agriculture, Food and Markets, after consultation with the Agricultural Innovation Board, shall adopt by rule BMPs for the use in the State of neonicotinoid treated article seeds. In developing the rules with the Agricultural Innovation Board, the Secretary shall address:

(A) establishment of threshold levels of pest pressure required prior to use of neonicotinoid treated article seeds;

(B) availability of nontreated article seeds that are not neonicotinoid treated article seeds;

(C) economic impact from crop loss as compared to crop yield when neonicotinoid treated article seeds are used;

(D) relative toxicities of different neonicotinoid treated article seeds and the effects of neonicotinoid treated article seeds on human health and the environment;

(E) surveillance and monitoring techniques for in-field pest pressure;

(F) ways to reduce pest harborage from conservation tillage practices; and

(G) criteria for a system of approval of neonicotinoid treated article seeds.

(2) In implementing the rules required under this subsection, the Secretary of Agriculture, Food and Markets shall work with farmers, seed companies, and other relevant parties to ensure that farmers have access to appropriate varieties and amounts of untreated seed or treated seed that are not neonicotinoid treated article seeds.

Sec. 3. 6 V.S.A. § 3036 is added to read:

§ 3036. MONITORING OF POLLINATOR HEALTH

The Secretary of Agriculture, Food and Markets shall monitor managed pollinator health to establish pollinator health benchmarks for Vermont, including:

- (1) presence of pesticides in hives;
- (2) mite pressure;
- (3) disease pressure;
- (4) mite control methods;
- (5) genetic influence on survival;
- (6) winter survival rate; and
- (7) forage availability.

Sec. 4. IMPLEMENTATION; REPORT; RULEMAKING

(a) On or before March 1, 2024, the Secretary of Agriculture, Food, and Markets shall submit to the Senate Committee on Agriculture and the House Committee on Agriculture and Forestry a copy of the proposed rules required to be adopted under 6 V.S.A. § 1105a.

(b) The Secretary of Agriculture shall not file the final proposal of the rules required by 6 V.S.A. § 1105a under 3 V.S.A. § 841 until at least 90 days from submission of the proposed rules to the General Assembly under subsection (a) of this section or July 1, 2024, which ever shall occur first.

Sec. 5. REVIEW AND REPORT ON BMPS FOR TREATED ARTICLE

SEEDS

On or before February 15, 2023, the Agricultural Innovation Board shall submit to the Senate Committee on Agriculture and the House Committee on Agriculture and Forestry a written report regarding whether best management practices (BMPs) should be adopted for the use of treated article seeds that are not neonicotinoid treated article seeds. The report shall include:

(1) a summary of the Agricultural Innovation Board's review of treated article seeds that are not neonicotinoid treated article seeds, including identification of treated article seeds that may have adverse effects on human health or the environment;

(2) a recommendation of whether BMPs for treated article seeds that are not neonicotinoid treated article seeds should be adopted and whether they should be adopted by rule; and

(3) proposed BMPs for treated article seeds that are not neonicotinoid treated article seeds.

Sec. 5a. AGENCY OF AGRICULTURE, FOOD AND MARKETS;

RESIDUALS MANAGEMENT POSITIONS

Two new permanent classified positions at the Agency of Agriculture, Food and Markets are authorized in fiscal year 2023 for the purpose of staffing the Agency's Residuals Management Program, supporting the Agricultural Innovation Board, and enforcing and reviewing the use of treated article pesticides in the State. In fiscal year 2023, \$181,190.00 is appropriated to the

Agency of Agriculture, Food and Markets for the purpose of hiring the two new positions in the Agency's Residuals Management Program. The two positions shall be funded from the revenue raised from the registration of soil amendments under 6 V.S.A. chapter 28 and the registration of dosage form animal health products and feed supplements under 6 V.S.A. chapter 26.

Sec. 6. EFFECTIVE DATE

This act shall take effect on July 1, 2022.