

116TH CONGRESS
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To prohibit the use of chlorpyrifos on food, to prohibit the registration of pesticides containing chlorpyrifos, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. UDALL (for himself, Mr. BLUMENTHAL, Mr. BOOKER, Mr. CARDIN, Mrs. FEINSTEIN, Mrs. GILLIBRAND, Ms. HARRIS, Mr. LEAHY, Mr. MARKEY, Mr. MERKLEY, Mr. SANDERS, Mr. VAN HOLLEN, and Mr. WHITEHOUSE) introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To prohibit the use of chlorpyrifos on food, to prohibit the registration of pesticides containing chlorpyrifos, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Protect Children,
5 Farmers, and Farmworkers from Nerve Agent Pesticides
6 Act of 2019”.

7 **SEC. 2. FINDINGS.**

8 Congress finds as follows:

1 (1) In 1996, Congress unanimously passed the
2 Food Quality Protection Act of 1996 (Public Law
3 104–170; 110 Stat. 1489) (referred to in this sec-
4 tion as “FQPA”), a comprehensive overhaul of Fed-
5 eral pesticide and food safety policy. That Act
6 amended the Federal Insecticide, Fungicide, and
7 Rodenticide Act (7 U.S.C. 136 et seq.) (referred to
8 in this section as “FIFRA”) and the Federal Food,
9 Drug, and Cosmetic Act (21 U.S.C. 301 et seq.), the
10 laws that govern how the Environmental Protection
11 Agency (referred to in this section as the “EPA”)
12 registers pesticides and pesticide labels for use in the
13 United States and establishes tolerances or accept-
14 able levels for pesticide residues on food.

15 (2) The FQPA directs the EPA to ensure with
16 “reasonable certainty” that “no harm” will result
17 from food, drinking water, and other exposures to a
18 pesticide. If the EPA cannot make this safety find-
19 ing, it must prohibit residues and use of the pes-
20 ticide on food. The FQPA mandates that the EPA
21 must consider children’s special sensitivity and expo-
22 sure to pesticide chemicals and must make an ex-
23 plicit determination that the pesticide can be used
24 with a “reasonable certainty of no harm” to chil-
25 dren. In determining acceptable levels of pesticide

1 residue, the EPA must account for the potential
2 health harm from pre-and postnatal exposures. The
3 economic benefits of pesticides cannot be used to
4 override this health-based standard for children from
5 food and other exposures.

6 (3) Chlorpyrifos is a widely used pesticide first
7 registered by the EPA in 1965. Chlorpyrifos is an
8 organophosphate pesticide, a class of pesticides de-
9 veloped as nerve agents in World War II and adapt-
10 ed for use as insecticides after the war. Chlorpyrifos
11 and other organophosphate pesticides affect the
12 nervous system through inhibition of cholinesterase,
13 an enzyme required for proper nerve functioning.
14 Acute poisonings occur when nerve impulses pulsate
15 through the body, causing symptoms like nausea,
16 vomiting, convulsions, respiratory paralysis, and, in
17 extreme cases, death. Based on dozens of peer-re-
18 viewed scientific articles, the EPA determined that
19 exposure during pregnancy to even low levels of
20 chlorpyrifos that caused only minimal cholinesterase
21 inhibition (10 percent or less) in the mothers could
22 lead to measurable long-lasting and possibly perma-
23 nent neurobehavioral and functional deficits in pre-
24 natally exposed children.

1 (4) People, including pregnant women, are ex-
2 posed to chlorpyrifos through residues on food, con-
3 taminated drinking water, and toxic spray drift from
4 nearby pesticide applications. Chlorpyrifos is used on
5 an extensive variety of crops, including fruit and nut
6 trees, vegetables, wheat, alfalfa, and corn. Between
7 2006 and 2012, chlorpyrifos was applied to more
8 than 50 percent of the Nation’s apple and broccoli
9 crops, 45 percent of onion crops, 46 percent of wal-
10 nut crops, and 41 percent of cauliflower crops.

11 (5) Chlorpyrifos is acutely toxic and associated
12 with neurodevelopmental harms in children. Prenatal
13 exposure to chlorpyrifos is associated with elevated
14 risks of reduced IQ, loss of working memory, delays
15 in motor development, attention-deficit disorders,
16 and structural changes in the brain.

17 (6) There is no nationwide chlorpyrifos use re-
18 porting. The United States Geological Survey esti-
19 mates annual pesticide use on agricultural land in
20 the United States, and estimates that chlorpyrifos
21 use on crops in 2014 ranged from 5,000,000 to
22 7,000,000 pounds of chlorpyrifos.

23 (7) In its 2016 report, the Federal Insecticide,
24 Fungicide, and Rodenticide Act Scientific Advisory
25 Panel recognized “the growing body of literature

1 with laboratory animals (rats and mice) indicating
2 that gestational and/or early postnatal exposure to
3 chlorpyrifos may cause persistent effects into adult-
4 hood along with epidemiology studies which have
5 evaluated prenatal chlorpyrifos exposure in mother-
6 infant pairs and reported associations with neurode-
7 velopment outcomes in infants and children.”.

8 (8) Chlorpyrifos has long been of concern to the
9 EPA. Residential uses of chlorpyrifos ended in 2000
10 after the EPA found unsafe exposures to children.
11 The EPA also discontinued use of chlorpyrifos on to-
12 matoes and restricted its use on apples and grapes
13 in 2000, and obtained no-spray buffers around
14 schools, homes, playfields, day cares, hospitals, and
15 other public places, ranging from 10 to 100 feet. In
16 2015, the EPA proposed to ban all chlorpyrifos food
17 tolerances, based on unsafe drinking water contami-
18 nation, which would end use of chlorpyrifos on food
19 in the United States. After updating the risk assess-
20 ment for chlorpyrifos in November 2016 to protect
21 against prenatal exposures associated with brain im-
22 pacts, the EPA found that expected residues from
23 use on food crops exceeded the safety standard, and
24 additionally the majority of estimated drinking water
25 exposures from currently allowed uses of chlorpyrifos

1 also exceeded acceptable levels, reinforcing the need
2 to revoke all food tolerances for the pesticide.

3 (9) Chlorpyrifos threatens the healthy develop-
4 ment of children. Children experience greater expo-
5 sure to chlorpyrifos and other pesticides because,
6 relative to adults, they eat and drink more propor-
7 tional to their body weight. A growing body of evi-
8 dence shows that prenatal exposure to very low lev-
9 els of chlorpyrifos can lead to lasting and possibly
10 permanent neurological impairments. In November
11 2016, the EPA released a revised human health risk
12 assessment for chlorpyrifos that confirmed that
13 there are no acceptable uses for the pesticide, all
14 food uses exceed acceptable levels, with children ages
15 1 to 2 exposed to levels of chlorpyrifos that are 140
16 times what the EPA considers acceptable.

17 (10) Chlorpyrifos threatens agricultural work-
18 ers. Farm workers are exposed to chlorpyrifos from
19 mixing, handling, and applying the pesticide, as well
20 as from entering fields where chlorpyrifos was re-
21 cently sprayed. Chlorpyrifos is one of the pesticides
22 most often linked to acute pesticide poisonings, and
23 in many States, it is regularly identified among the
24 5 pesticides linked to the highest number of pes-
25 ticide poisoning incidents. This is significant given

1 widespread under-reporting of pesticide poisonings
2 due to such factors as inadequate reporting systems,
3 fear of retaliation from employers, and reluctance to
4 seek medical treatment. According to the EPA, all
5 workers who mix and apply chlorpyrifos are exposed
6 to unsafe levels of the pesticide even with maximum
7 personal protective equipment and engineering con-
8 trols. Field workers are currently allowed to re-enter
9 fields within 1 to 5 days after chlorpyrifos is sprayed
10 based on current restricted entry intervals on the
11 registered chlorpyrifos labels but unsafe exposures
12 continue on average 18 days after applications.

13 (11) Chlorpyrifos threatens families in agricul-
14 tural communities. Rural families are exposed to un-
15 safe levels of chlorpyrifos on their food and in their
16 drinking water. They are also exposed to toxic levels
17 of chlorpyrifos when it drifts from the fields to
18 homes, schools, and other places people gather. The
19 EPA's 2016 revised human health risk assessment
20 found that chlorpyrifos drift reaches unsafe levels at
21 300 feet away from the edge of the treated field, and
22 the chemical chlorpyrifos is found at unsafe levels in
23 the air at schools, homes, and communities in agri-
24 cultural areas. The small buffers put in place in

1 2012 leave children unprotected from this toxic pes-
2 ticide drift.

3 (12) Chlorpyrifos threatens drinking water. The
4 EPA's 2014 and 2016 risk assessments have found
5 that chlorpyrifos levels in drinking water are unsafe.
6 People living and working in agricultural commu-
7 nities are likely to be exposed to higher levels of
8 chlorpyrifos and other organophosphate pesticides in
9 their drinking water.

10 (13) In 2015, leading scientific and medical ex-
11 perts, along with children's health advocates, came
12 together, under "Project TENDR: Targeting Envi-
13 ronmental Neuro-Developmental Risks" (referred to
14 in this section as "TENDR"), to issue a call to ac-
15 tion to reduce widespread exposures to chemicals
16 that interfere with fetal and children's brain develop-
17 ment. Based on the available and peer-reviewed sci-
18 entific evidence, the TENDR authors identified
19 prime examples of neurodevelopmentally toxic chemi-
20 cals "that can contribute to learning, behavioral, or
21 intellectual impairment, as well as specific
22 neurodevelopmental disorders such as ADHD or au-
23 tism spectrum disorder," and listed organophosphate
24 pesticides, among them. In 2018, leading scientists
25 involved with TENDR published an article in PLOS

1 Medicine that found that prenatal exposure to
2 organophosphate pesticides such as chlorpyrifos,
3 even at low levels that were previously considered
4 safe, are putting children at risk for cognitive and
5 behavioral deficits and neurodevelopmental dis-
6 orders. The scientists recommended phasing out
7 chlorpyrifos.

8 (14) In August 2018, based on overwhelming
9 findings that chlorpyrifos is unsafe for public health,
10 and particularly harmful to children and farm-
11 workers, the United States Court of Appeals for the
12 Ninth Circuit ordered the EPA to move forward
13 with a ban of chlorpyrifos, stating that “the time
14 has come to put a stop to this patent evasion” of the
15 law. However, instead of complying with the court
16 order, the EPA has appealed the ruling.

17 **SEC. 3. PROHIBITION ON USE OF CHLORPYRIFOS ON FOOD.**

18 Section 402 of the Federal Food, Drug, and Cosmetic
19 Act (21 U.S.C. 342) is amended by adding at the end the
20 following:

21 “(j) Notwithstanding any other provision of law, if
22 it bears or contains chlorpyrifos, including any residue of
23 chlorpyrifos, or any other added substance that is present
24 on or in the food primarily as a result of the metabolism
25 or other degradation of chlorpyrifos.”.

1 **SEC. 4. PROHIBITION ON REGISTRATION OF PESTICIDES**
2 **CONTAINING CHLORPYRIFOS.**

3 Section 3(f) of the Federal Insecticide, Fungicide,
4 and Rodenticide Act (7 U.S.C. 136a(f)) is amended by
5 adding at the end the following:

6 “(5) PROHIBITION ON REGISTRATION OF PES-
7 TICIDES CONTAINING CHLORPYRIFOS.—

8 “(A) IN GENERAL.—The Administrator
9 shall not register under this Act any pesticide
10 containing chlorpyrifos as an active ingredient.

11 “(B) CANCELLATION OF REGISTRA-
12 TIONS.—The Administrator shall cancel the
13 registration under this Act of any pesticide con-
14 taining chlorpyrifos as an active ingredient.

15 “(C) ADMINISTRATION.—The Adminis-
16 trator shall carry out subparagraph (B) without
17 regard to sections 6(a)(1), 6(b), and 15.”.

18 **SEC. 5. PESTICIDES AND DEVICES INTENDED FOR EXPORT.**

19 (a) IN GENERAL.—Section 17(a) of the Federal In-
20 secticide, Fungicide, and Rodenticide Act (7 U.S.C.
21 136o(a)) is amended—

22 (1) by redesignating paragraphs (1) and (2) as
23 subparagraphs (A) and (B), respectively, and indent-
24 ing appropriately;

1 (2) in the matter preceding subparagraph (A)
2 (as so redesignated), by striking “Notwithstanding”
3 and inserting the following:

4 “(1) IN GENERAL.—Except as provided in para-
5 graph (3), notwithstanding”;

6 (3) in the undesignated matter following para-
7 graph (1)(B) (as so designated), by striking “A copy
8 of that statement” and inserting the following:

9 “(2) TRANSMISSION TO APPROPRIATE OFFI-
10 CIAL.—A copy of the statement described in para-
11 graph (1)(B)”;

12 (4) by adding at the end the following:

13 “(3) EXCEPTION FOR PESTICIDES CONTAINING
14 CHLORPYRIFOS.—Paragraph (1) shall not apply to
15 any pesticide containing chlorpyrifos as an active in-
16 gredient.”.

17 (b) CONFORMING AMENDMENT.—Section 3(f)(4) of
18 the Federal Insecticide, Fungicide, and Rodenticide Act
19 (7 U.S.C. 136a(f)(4)) is amended in the undesignated
20 matter following subparagraph (B) by striking “17(a)(2)”
21 and inserting “17(a)(1)(B)”.

22 **SEC. 6. EXEMPTION OF FEDERAL AND STATE AGENCIES.**

23 Section 18 of the Federal Insecticide, Fungicide, and
24 Rodenticide Act (7 U.S.C. 136p) is amended in the first
25 sentence by inserting “(except with respect to any pes-

- 1 tieide containing chlorpyrifos as an active ingredient)”
- 2 after “provision of this Act”.