

115TH CONGRESS
1ST SESSION

S. 1624

To prohibit the use of chlorpyrifos on food, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JULY 25, 2017

Mr. UDALL (for himself, Mr. BLUMENTHAL, Mr. BOOKER, Mr. DURBIN, Mrs. GILLIBRAND, Mr. MARKEY, Ms. HARRIS, Mr. CARDIN, and Mr. MERKLEY) introduced the following bill; which was read twice and referred to the Committee on Agriculture, Nutrition, and Forestry

A BILL

To prohibit the use of chlorpyrifos on food, 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 2017”.

7 **SEC. 2. FINDINGS.**

8 Congress finds as follows:

9 (1) In 1996, Congress unanimously passed the
10 Food Quality Protection Act of 1996 (Public Law

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

13 (2) The FQPA directs the EPA to ensure with
14 “reasonable certainty” that “no harm” will result
15 from food, drinking water, and other exposures to a
16 pesticide. If EPA cannot make this safety finding, it
17 must prohibit residues and use of the pesticide on
18 food. The FQPA mandates that EPA must consider
19 children’s special sensitivity and exposure to pes-
20 ticide chemicals and must make an explicit deter-
21 mination that the pesticide can be used with a “rea-
22 sonable certainty of no harm” to children. In deter-
23 mining acceptable levels of pesticide residue, EPA
24 must account for the potential health harm from
25 pre-and postnatal exposures. The economic benefits

1 of pesticides cannot be used to override this health-
2 based standard for children from food and other ex-
3 posures.

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

23 (4) People, including pregnant women, are ex-
24 posed to chlorpyrifos through residues on food, con-
25 taminated drinking water, and toxic spray drift from

1 nearby pesticide applications. Chlorpyrifos is used on
2 an extensive variety of crops, including fruit and nut
3 trees, vegetables, wheat, alfalfa, and corn. Between
4 2006 and 2012, chlorpyrifos was applied to more
5 than 50 percent of the Nation’s apple and broccoli
6 crops, 45 percent of onion crops, 46 percent of wal-
7 nut crops, and 41 percent of cauliflower crops.

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

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

20 (7) In its 2016 report, the Federal Insecticide,
21 Fungicide, and Rodenticide Act Scientific Advisory
22 Panel recognized “the growing body of literature
23 with laboratory animals (rats and mice) indicating
24 that gestational and/or early postnatal exposure to
25 chlorpyrifos may cause persistent effects into adult-

1 hood along with epidemiology studies which have
2 evaluated prenatal chlorpyrifos exposure in mother-
3 infant pairs and reported associations with neurode-
4 velopment outcomes in infants and children.”.

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

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

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

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

11 (11) Chlorpyrifos threatens families in agricul-
12 tural communities. Rural families are exposed to un-
13 safe levels of chlorpyrifos on their food and in their
14 drinking water. They are also exposed to toxic levels
15 of chlorpyrifos when it drifts from the fields to
16 homes, schools, and other places people gather.
17 EPA's 2016 revised human health risk assessment
18 found that chlorpyrifos drift reaches unsafe levels at
19 300 feet away from the edge of the treated field, and
20 the chemical chlorpyrifos is found at unsafe levels in
21 the air at schools, homes, and communities in agri-
22 cultural areas. The small buffers put in place in
23 2012 leave children unprotected from this toxic pes-
24 ticide drift.

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

8 (13) In 2015, leading scientific and medical ex-
9 perts, along with children’s health advocates, came
10 together, under “Project TENDR: Targeting Envi-
11 ronmental Neuro-Developmental Risks” (referred to
12 in this section as “TENDR”), to issue a call to ac-
13 tion to reduce widespread exposures to chemicals
14 that interfere with fetal and children’s brain develop-
15 ment. Based on the available and peer-reviewed sci-
16 entific evidence, the TENDR authors identified
17 prime examples of neurodevelopmentally toxic chemi-
18 cals “that can contribute to learning, behavioral, or
19 intellectual impairment, as well as specific neurode-
20 velopmental disorders such as ADHD or autism
21 spectrum disorder,” and listed organophosphate pes-
22 ticides, among them. In the United States, based on
23 reporting from parents, 1 in 6 children have a devel-
24 opmental disability or other developmental delay.
25 The TENDR Consensus Statement concludes that

1 “to help reduce the unacceptably high prevalence of
2 neurodevelopmental disorders in our children, we
3 must eliminate or significantly reduce exposures to
4 chemicals that contribute to these conditions.”.

5 **SEC. 3. PROHIBITIONS RELATING TO CHLORPYRIFOS.**

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

9 “(j) Notwithstanding any other provision of law, if
10 it bears or contains chlorpyrifos, including any residue of
11 chlorpyrifos, or any other added substance that is present
12 on or in the food primarily as a result of the metabolism
13 or other degradation of chlorpyrifos.”.

14 **SEC. 4. REVIEW OF ORGANOPHOSPHATE PESTICIDES.**

15 (a) IN GENERAL.—Not later than 90 days after the
16 date of enactment of this Act, the Administrator of the
17 Environmental Protection Agency (referred to in this sec-
18 tion as the “Administrator”) shall offer to enter into a
19 contract with the National Research Council to conduct
20 a cumulative and aggregate risk assessment that address-
21 es all populations, and the most vulnerable subpopula-
22 tions, including infants, children, and fetuses, of exposure
23 to organophosphate pesticides.

24 (b) CONTENTS OF REVIEW.—The review under sub-
25 section (a) shall—

1 (1) assess the neurodevelopmental effects and
2 other low-dose effects of exposure to organophos-
3 phate pesticides, including in the most vulnerable
4 subpopulations, including—

5 (A) during the prenatal, childhood, adoles-
6 cent, and early life stages; and

7 (B) agricultural workers;

8 (2) assess the cumulative and aggregate risks
9 from exposure described in paragraph (1), which
10 shall aggregate all routes of exposure, including diet,
11 pesticide drift, volatilization, occupational, and take-
12 home exposures; and

13 (3) be completed and submitted to the Adminis-
14 trator not later than October 1, 2019.

15 (c) REGULATORY ACTION.—

16 (1) APPLICABILITY.—This subsection shall
17 apply if the Administrator becomes aware of any ex-
18 posure to any organophosphate pesticide, including
19 exposures described in paragraphs (1) and (2) of
20 subsection (b), that does not meet, as applicable—

21 (A) the standard under section 408(b)(2)
22 of the Federal Food, Drug, and Cosmetic Act
23 (21 U.S.C. 346a(b)(2)); or

1 (B) any standard under the Federal Insec-
2 ticide, Fungicide, and Rodenticide Act (7
3 U.S.C. 136 et seq.).

4 (2) ACTION.—Not later than 90 days after the
5 date on which the Administrator becomes aware of
6 any exposure under paragraph (1), the Adminis-
7 trator shall take any appropriate regulatory action,
8 regardless of whether the review under subsection
9 (a) is completed, including—

10 (A) revocation or modification of a toler-
11 ance under section 408 of the Federal Food,
12 Drug, and Cosmetic Act (21 U.S.C. 346a); or

13 (B) modification, cancellation, or suspen-
14 sion of a registration under the Federal Insecti-
15 cide, Fungicide, and Rodenticide Act (7 U.S.C.
16 136 et seq.).

17 (d) EFFECT.—Nothing in this section authorizes or
18 requires the Administrator to delay in carrying out or
19 completing, with respect to an organophosphate pesticide,
20 any registration review under section 3(g) of the Federal
21 Insecticide, Fungicide, and Rodenticide Act (7 U.S.C.
22 136a(g)), any tolerance review under section 408 of the
23 Federal Food, Drug, and Cosmetic Act (21 U.S.C. 346a),
24 or any registration or modification, cancellation, or sus-
25 pension of a registration under section 3 or 6 of the Fed-

1 eral Insecticide, Fungicide, and Rodenticide Act (7 U.S.C.
2 136a, 136d), if—

3 (1) the organophosphate pesticide does not
4 meet applicable requirements established under
5 those provisions of law; or

6 (2) the review, registration, modification, can-
7 cellation, or suspension is required—

8 (A) by statute;

9 (B) by judicial order; or

10 (C) to respond to a petition.

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