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Protect Children, Farmers, and Farmworkers from Nerve Agent Pesticides Act of 2017 (S 1624, 115th Congress)

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Last Action
Referred to Committee

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Jul 25 2017

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Originating Entity

Senate [18]

The Policy

Synopsis

The Protect Children, Farmers, and Farmworkers from Nerve Agent Pesticides Act of 2017, **S 1624** [19], amends Section 402 of the Federal Food, Drug, and Cosmetic Act (**21 U.S.C. 342** [20]) to ban food containing the organophosphate pesticide **chlorpyrifos** [21]. Specifically, the following language is appended to the criteria defining prohibited foods by the following:

"(j) Notwithstanding any other provision of law, if it bears or contains chlorpyrifos, including any residue of chlorpyrifos, or any other added substance that is present on or in the food primarily as a result of the metabolism or other degradation of chlorpyrifos.''

Additionally, the Environmental Protection Agency (EPA) would be required to contract the National Research Council to conduct a thorough risk assessment of the threat of organophosphate pesticides (e.g., chlorpyrifos) to both the general population and particularly vulnerable subpopulations such as fetuses, infants, children, and farmworkers. Specifically, the research would focus on understanding neurodevelopmental effects of low-dose exposure to organophosphate pesticides among aforementioned vulnerable groups and understanding risk for exposure through diet, pesticide drift, volatilization, occupational, and take-home exposures. This contract would be entered within 90 days of the passage of S 1624 and the review would be submitted by October 1, 2019.

Furthermore, the bill requires the EPA to take regulatory action if tolerance standards for any organophosphate pesticide exposure do not align with the existing standards outlined in Section 408(b)(2) of the Federal Food, Drug, and Cosmetic Act (**21 U.S.C. 346a(b)(2)** [22]) or the Federal Insecticide, Fungicide, and Rodenticide Act (**7 U.S.C. 136 *et seq.*** [23]).

The EPA is instructed to take this regulatory action within 90 days of awareness of such misalignment.

Context

The Food Quality Protection Act of 1996 (**PL 104-170** [24]) charges the EPA to ensure with "reasonable certainty" that pesticide exposures will cause "no harm" to consumers. Additional attention must also be focused on the sensitivity of children to chemicals and potential for harm concerning neonatal exposure in determining appropriate tolerance levels. The EPA is responsible for prohibiting the pesticide and its residues if these conditions cannot be assured.

In October 2015, the EPA **proposed to revoke** [25] all food residue tolerance for the pesticide chlorpyrifos in response to a September 2007 **petition** [26] from the National Resources Defense Council (**NRDC** [27]) and Pesticide Action Network North America (**PANNA** [28]). In November 2016, the EPA **updated its human health risk assessment** [29] to reflect that exposures to residues on food and drinking water exceed

safe levels. However, in March 2017 EPA Administrator Scott Pruitt **denied the petition** [30] to ban chlorpyrifos. In August 2018, the United States Court of Appeals for the Ninth Circuit **declared** [31] that the EPA must ban chlorpyrifos within 60 days of the court ruling.

The Science

Science Synopsis

Chlorpyrifos is an **organophosphate** [32] compound first developed as a nerve agent for use in WWII and subsequently adopted as an insecticide in residential and commercial agriculture. Organophosphate pesticides are **toxic** [33] to the nervous system because they inhibit the function of **cholinesterase** [34], an enzyme critical to maintaining control of nerve impulses at neuromuscular junctions.

Symptoms of acute poisoning include nausea, vomiting, convulsions, respiratory paralysis, and potentially death. Even low-level **chlorpyrifos exposure in children** [35] can lead to neurodevelopmental deficits and in prenatal cases can lead to reduced IQ, loss of working memory, motor delays, attention-deficit disorders, and structural brain changes. Children have a **higher risk of pesticide poisoning** [36] compared to adults because they consume more food proportional to their body weight, among other reasons. Farmworkers and their families are also exposed to unsafe levels of chlorpyrifos through food, drinking water, and airborne drift from nearby fields.

Project TENDR (**Targeting Environmental Neuro-Developmental Risks** [37]), a group composed of leading scientific and medical experts and child health advocates, identified organophosphate pesticides among classes of "neurodevelopmentally toxic chemicals that can contribute to learning, behavioral, or intellectual impairment, as well as specific neurodevelopmental disorders such as ADHD or autism spectrum disorder."

The Debate

Endorsements & Opposition

- EarthJustice, **press release** [38], July 25, 2017: "The chemical industry can and must do better than continue to push for the use of nerve agents in our food. This bill comes at a crucial time when scientific integrity and the protection of the public is compromised by industry collusion with the administration. The most exposed and vulnerable among us are our children, farmworkers and families in rural communities, and they deserve action now."
- Dr. Philip Landrigan (Dean for Global Health at Icahn School of Medicine at Mount Sinai)**press article** [39], July 25, 2017: "Chlorpyrifos has been shown beyond any shadow of a doubt to damage the brains of children, especially those of fetuses in the womb."
- Dow Chemical, **press article** [39], July 25, 2017: "Current regulatory safety standard for chlorpyrifos rests on five decades of experience in use, health surveillance of manufacturing workers and applicators, and more than 4,000 studies and reports examining the product in terms of health, safety and the environment. Authorized uses of chlorpyrifos products, when used as directed, offer wide margins of protection for human health and safety."

Status

S 1624 was introduced in the Senate on July 25, 2017, and referred to the Committee on Agriculture, Nutrition, and Forestry.

Related Policies

H.R. 3380 - Pesticide Protection Act of 2017[40]
This bill prohibits any registrations of chlorpyrifos for use as a pesticide and revokes all tolerance for any residue of the chemical in food.

H.R. 6631 - Ban Nerve Agents In Our Food Act of 2018[41]
This bill outlaws the sale and use of organophosphate pesticides and mandates that the EPA cancel the registration of organophosphate pesticides from the Federal Insecticide, Fungicide, and Rodenticide Act.

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