United States Senate

WASHINGTON, DC 20510

August 5, 2022

The Honorable Michael S. Regan
Administrator
United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Mail Stop 1301A
Washington, DC 20460

Dear Administrator Regan:

I write to urge the Environmental Protection Agency (EPA) to grant the petition referenced in Federal Register Docket ID No. EPA–HQ–OGC–2022–0511 and enforce the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)'s numerous pesticide registration and labeling requirements for each separate crop seed product that is coated with a neonicotinoid or other systemic insecticidal chemical.

Neonicotinoids are powerful insecticides that have been linked to pollinator declines and harm to aquatic ecosystems and water quality. Neonicotinoids pose an acute risk to bees and contribute to bees' high mortality rates and collapsing populations. And by poisoning aquatic insects in water bodies, neonicotinoids eliminate food sources for fish, birds, and other wildlife. [1] Neonicotinoid seed treatments are now the leading delivery method of neonicotinoid insecticides in major crops such as soybean, wheat, cotton and maize.[2]

Neonicotinoid coated seeds release 80-98% of their insecticide into the surrounding environment during planting as dust or after planting, into the soil and soil water. Neonicotinoids from seed treatments can remain present in the soil for months after planting. Neonicotinoids are also highly water soluble so they wash off of the seeds or out of the soil into water bodies. In a nationwide study of streams, neonicotinoids were in over half of sampled streams.[3] Coated seeds that are left out may also be consumed by birds and mammals that are harmed by the pesticide.[4]

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[1] Michelle L. Hladik, Anson R. Main, and Dave Goulson, "Environmental Risks and Challenges Associated with Neonicotinoid Insecticides," *Environmental Science &Amp; Technology* 52, no. 6 (2018): pp. 3329-3335, https://doi.org/10.1021/acs.est.7b06388.

[2] Christian H. Krupke and John F. Tooker, "Beyond the Headlines: The Influence of Insurance Pest Management on an Unseen, Silent Entomological Majority," Frontiers in Sustainable Food Systems 4 (September 2020), https://doi.org/10.3389/fsufs.2020.595855.

[3] Michelle L. Hladik and Dana W. Kolpin, "First National-Scale Reconnaissance of Neonicotinoid Insecticides in Streams across the USA," *Environmental Chemistry* 13, no. 1 (2016): p. 12, https://doi.org/10.1071/en15061.

[4] Charlotte L. Roy et al., "Multi-Scale Availability of Neonicotinoid-Treated Seed for Wildlife in an Agricultural Landscape during Spring Planting," *Science of The Total Environment* 682 (2019): pp. 271-281, https://doi.org/10.1016/j.scitotenv.2019.05.010.

This planting season, almost every field corn seed, about half of soybeans, and nearly all cotton seeds planted will be coated with neonicotinoids. This means that at least 150 million acres of cropland in the United States will be planted with neonicotinoid insecticides.[5]

Despite this ubiquitous use of neonicotinoid coated seeds, the benefits to farmers are minimal. Neonicotinoid seed treatments offer soybean plants a maximum of three weeks of protection and do not protect against major pests that arise later in the bloom stages of the soybean. Analyses, including one done by the EPA, have found that neonicotinoid seed treatments provide little to no benefit in managing insects or improving yield on soybean farms. Additionally, neonicotinoids can have a counter-productive effect by killing beneficial insects that prey on agricultural pests and overuse can lead to the rise of insecticide-resistant pests.[6]

In addition, EPA currently has no regulations related to the disposal of the approximately 10% of pesticide-treated seeds that go unused every year. The lack of oversight by EPA on disposal of these toxic seeds has led to an ongoing environmental and public health disaster in Mead, Nebraska.[7]

EPA needs to end the massive overuse and abuse of neonicotinoid coated seeds in the United States. Accordingly, I request that EPA take action to protect public health and the environment by granting the petition referenced in Federal Register Docket ID No. EPA–HQ–OGC–2022–0511 and enforce FIFRA's numerous pesticide registration and labeling requirements for each separate crop seed product that is coated with a neonicotinoid or other systemic insecticidal chemical.

Sincerely,

Cory A. Booker
United States Senator

[5] John F. Tooker Associate Professor of Entomology and Extension Specialist, "Why It's Time to Curb Widespread Use of Neonicotinoid Pesticides," The Conversation, February 17, 2022, https://theconversation.com/why-its-time-to-curb-widespread-use-of-neonicotinoid-pesticides-96620.
[6] Sara LaJeunesse, "Insecticides Foster 'Toxic' Slugs, Reduce Crop Yields," Penn State University (Penn State News), accessed August 3, 2022, https://www.psu.edu/news/research/story/insecticides-foster-toxic-slugs-reduce-crop-yields/.
[7] Lisa Held, "When Seeds Become Toxic Waste," Civil Eats, April 7, 2022, https://civileats.com/2022/04/05/when-seeds-become-toxic-waste/.