



P.O. Box 278  
Riverdale, MD 20738

**Committee:** Environment and Transportation  
**Testimony:** HB 91: Agriculture – Neonicotinoid Pesticides – Prohibitions  
**Position:** Favorable  
**Hearing Date:** February 4, 2026

The Maryland Chapter of the Sierra Club urges a favorable report on HB 91, a bill to regulate the unnecessary and harmful use of crop seeds coated with neonicotinoid insecticides in Maryland agriculture.

As the Legislature recognized with Maryland’s Pollinator Protection Act of 2016 (amended 2021), neonic insecticides are devastating to our bees, butterflies, and other wildlife,<sup>1</sup> including Maryland’s iconic blue crabs,<sup>2</sup> while also posing threats to human health.<sup>3</sup> While the 2016 law targeted the use of neonics on residential properties, the current bill addresses a form of neonics in widespread use on our farms: seeds of corn, wheat and soybeans coated with the insecticides.

When neonic-coated seeds germinate, all parts of a plant become infused with the poisons, from roots and shoots to leaves, flowers, fruits, and seeds. As a result, bees ingest significant amounts of neonics when they forage on the protein-rich pollen of soybeans and corn.<sup>4</sup> At the same time, most of the seeds’ insecticide coating (up to 95 percent) is washed by rainfall into the soil before the seeds germinate. This process makes the soil deadly for Maryland’s many ground-nesting

---

<sup>1</sup> DiBartolomeis, M., et al., “An Assessment of Acute Insecticide Toxicity Loading (AITL) of Chemical Pesticides Used on Agricultural Land in the United States,” *PLoS One* (Aug. 6, 2019), <https://bit.ly/2Yr4Xc7>; Douglas, M., et al., “County-level Analysis Reveals a Rapidly Shifting Landscape of Insecticide Hazard to Honey Bees (*Apis mellifera*) on US Farmland,” *Scientific Reports* (Jan. 21, 2020), <https://go.nature.com/2SKhjHP>.

<sup>2</sup> Osterberg, J. S., et al., “Acute toxicity and sub-lethal effects of common pesticides in post-larval and juvenile blue crabs, *Callinectes sapidus*,” *Journal of Experimental Marine Biology and Ecology*, vols. 424–425, 2012 (<https://doi.org/10.1016/j.jembe.2012.05.004>).

<sup>3</sup> Lindwall, C., “Neonicotinoids 101: The Effects on Humans and Bees,” National Resources Defense Council, June 11, 2025 (<https://www.nrdc.org/stories/neonicotinoids-101-effects-humans-and-bees>); Cimino, A.M., et al., “Effects of Neonicotinoid Pesticide Exposure on Human Health: A Systematic Review,” *Environ Health Perspectives*, 2017, 125 (2):155–162 (<https://pubmed.ncbi.nlm.nih.gov/27385285/>).

<sup>4</sup> Bees feed on the pollen of corn and soy plants even though corn is wind pollinated and soy is self-pollinating. See Silliman, M. R., et al., “Row crop fields provide mid-summer forage for honeybees,” *Ecology and Evolution*, June 6, 2022 (: [10.1002/ece3.8979](https://doi.org/10.1002/ece3.8979)); Krupke, C. H., et al., “Multiple Routes of Pesticide Exposure for Honey Bees Living Near Agricultural Fields,” *PLOS One*, January 3, 2012 (<https://doi.org/10.1371/journal.pone.0029268>)

Founded in 1892, the Sierra Club is America’s oldest and largest grassroots environmental organization. The Maryland Chapter has over 70,000 members and supporters, and the Sierra Club nationwide has over 800,000 members and nearly four million supporters.

bees,<sup>5</sup> as the coating from a single seed contains enough toxin to kill 80,000 bees.<sup>6</sup> The loss of these bees undermines the pollination that is required of numerous Maryland crops, including blueberries, strawberries, cherries, apples, tomatoes, peppers, eggplants, cucumbers, watermelons, squash, and melons.<sup>7</sup> Making matters worse, some of the neonic chemicals drain through the soil into the water table, through which they travel to nearby streams, ponds, and the Chesapeake Bay. Once there, they poison those waters for aquatic insects and the fish that eat them as well as clams, oysters, and mussels<sup>8</sup> that constitute a significant part of the diet for our blue crabs.<sup>9</sup>

Research at the University of Maryland Extension and Cornell University shows that, as a general matter, neonic-coated corn and soy seeds provide no economic benefit to farmers using them. These seeds increase stand (total weight of mature plants) but produce no increase in overall yield (marketable portions) for the farmer, in spite of the fact that these seeds are significantly more expensive than untreated seeds.<sup>10</sup>

While the bill in its pre-filed form addresses the need to reduce use of neonic-coated seeds in Maryland, it lacks specificity in two key respects, which we urge the bill sponsors to consider.

First, the bill should consider how the Secretary of Agriculture will determine if there is a “presence of pests” or “occurrence of any pest” sufficient to declare the “environmental emergency” that allows for a suspension of the prohibition of these seeds. The Secretary could rely, for example, upon (a) farmers self-reporting, (b) site visits by state inspectors or

---

<sup>5</sup> At least 249 of Maryland’s native bee species build their nests underground. See Wixted, K., “Maryland Native Wildlife: Mining Bees,” MD Dept. of Natural Resources, Mar. 2020 (<https://news.maryland.gov/dnr/2020/03/01/maryland-native-wildlife-mining-bees/#:~:text=With%20spring%20underway%2C%20many%20species,provide%20important%20roles%20in%20pollination>); Wixted, K., “Give it up for the ground nesters,” Connecting Nature and Community, March 2024 (<https://kerrysnature.org/give-it-up-for-the-ground-nesters/#:~:text=Here%20in%20Maryland%2C%20we%20are,them%20nest%20in%20the%20ground>).

<sup>6</sup> Blackledge, S., “How just a single seed can kill 80,000 bees,” *Environment America*, June 25, 2025 (<https://environmentamerica.org/articles/how-just-a-single-seed-can-kill-80000-bees/#:~:text=%233%20Toxic%20soil%20and%20water,altered%20behavior%20after%20neonic%20exposure>); Hodgson, E., “Insecticidal Seed Treatments Can Harm Honey Bees,” Iowa State University Extension and Outreach, April 6, 2012 (<https://crops.extension.iastate.edu/cropnews/2012/04/insecticidal-seed-treatments-can-harm-honey-bees>)

<sup>7</sup> Yurchak, V., “Pollinator Protection for Commercial Vegetable Growers,” Univ. of MD Extension, July 14, 2025 (<https://extension.umd.edu/resource/pollinator-protection-commercial-vegetable-growers/>).

<sup>8</sup> Ewre, E. E., “Impacts of Neonicotinoids on Mollusks: What We Know and What We Need to Know,” *Toxics*, Jan 2022, 9/2 (<https://www.mdpi.com/2305-6304/9/2/21>).

<sup>9</sup> Hoyle, S., and A. Code, “Insecticide Seed Treatments Threaten Midwestern Waterways,” Xerces Society, 2021 (<https://www.xerces.org/sites/default/files/21-020.pdf>); Morrissey, C. A., et al., “Neonicotinoid contamination of global surface waters and associated risk to aquatic invertebrates: A review,” *Environ Toxicol Chem.* 2021, 40(4):1017–1033 (<https://doi.org/10.1016/j.envint.2014.10.024>); Berens, M. J., “Neonicotinoid Insecticides in Surface Water, Groundwater, and Wastewater Across Land-Use Gradients and Potential Effects,” *Environment International*, vol. 74, January 2015 (<https://pmc.ncbi.nlm.nih.gov/articles/PMC8049005/>).

<sup>10</sup> Cramer, M.E., and Hamby, K.A. [Univ. of MD Extension], “Preventative insecticides reduce seedling injury, but do not increase yield in Bt and non-Bt corn grown in the Mid-Atlantic,” *Pest Management Science* (<https://doi.org/10.1002/ps.8694>); Grout, T. A., et al., *Neonicotinoid Insecticides in New York State: Economic Benefits and Risk to Pollinators*, 395 pages, Cornell Univ, 2020 (<https://cornell.app.box.com/v/2020-neonicotinoid-report>).



P.O. Box 278  
Riverdale, MD 20738

contractors, or (c) self-reporting with spot checks by inspectors. Second, the bill may need to specify how the Secretary will determine the size of an area to be covered if the Secretary decides to “suspend the prohibition,” and whether, for example, the area is (a) restricted to the farm field where the pest is documented, (b) a certain radius around it, or (c) a whole county, or that this aspect will be left to the discretion of the Secretary through regulation.

Because HB 91 takes an important step in controlling the use of these pesticides, the Maryland Sierra Club recommends a favorable report on HB 91.

Michael Wilpers  
Issue Lead  
[wilpersm@gmail.com](mailto:wilpersm@gmail.com)

Josh Tulkin  
Chapter Director  
[Josh.Tulkin@MDSierra.org](mailto:Josh.Tulkin@MDSierra.org)

Founded in 1892, the Sierra Club is America’s oldest and largest grassroots environmental organization. The Maryland Chapter has over 70,000 members and supporters, and the Sierra Club nationwide has over 800,000 members and nearly four million supporters.