March 8, 2023

Representative Samantha Vang, Chair
Agriculture Finance and Policy Committee
Minnesota House of Representatives
100 Rev. Dr. Martin Luther King Jr. Blvd.
Saint Paul, MN 55155

Re: Support for Bills to Protect People and Pollinators From Pesticides, HF 2472 & HF 1130

Dear Chair Vang and Member of the Agriculture Finance and Policy Committee:

The undersigned 17 groups write in support of protections for pollinators from toxic pesticides, especially systemic insecticides like neonicotinoids ("neonics")—the most ecologically devastating pesticides since DDT. Neonics widely contaminate the environment and are driving a disappearance of bees and other insect life. **We urge your support for two bills, which will make Minnesota a nationwide leader in addressing this agricultural and ecological crisis:**

- **HF2472, a bill to develop a regulatory program for pesticide-treated seeds that currently evade regulation; and**
- **HF1130, a bill to allow municipalities to decide what pesticides are used in their locality.**

Bees—critical pollinators of crops and wild plants—are disappearing. Minnesota beekeepers lost 58% of their honey bee colonies, despite months of additional beekeeper labor to keep them alive.[1] And insect life more broadly is declining,[2] including many of the more than 450 species of wild bees in Minnesota.[3] These losses threaten profound harm to agriculture and ecosystems. A recent study estimates that pollinator declines have already led to a 3-5% decline in fruit, vegetable, and nut production worldwide, reducing access to healthy foods and increasing the number of premature deaths by 500,000 per year.[4]

Neonics are largely to blame for these pollinator losses. Neonics were the first class of "systemic insecticides," meaning they are designed to be absorbed by plants and transported throughout their tissues, making whole plants toxic to insects. Since the mid-2000s—when neonic use and honey bee losses both suddenly skyrocketed—an overwhelming body of research reveals neonics as a leading cause of bee and broader pollinator declines. This includes comprehensive literature reviews by

internationally renowned experts, a Cornell University review of over 1,100 peer-reviewed studies, and the largest bee colony field study to date.[5]

But neonics impact far more than bees. They also contribute to mass bird losses and decimate aquatic ecosystems,[6] and mounting evidence highlights serious threats neonic exposure poses to human health. A recent study of 171 pregnant women nationwide found that over 95% had been recently exposed to neonics[7]— a disturbing statistic given research linking exposure to neonics in the womb to increased risk of malformations of the developing heart and brain.[8] Animal studies echo these findings, connecting neonics to birth defects and higher rates of death in white-tailed deer, and neurological and reproductive harms in other mammals.[9]

Minnesota is no stranger to widespread neonic contamination, with the Minnesota Department of Agriculture (MDA) frequently detecting neonics in both surface water and groundwater in the state.[10] And just last year, the Minnesota Department of Natural Resources (DNR) released data showing neonics in the bodies of 94% of white-tailed deer tested in the state, with 64% containing levels associated with higher rates of birth defects and stillbirths.[11] These numbers increased from 61% and 29%, respectively, just two years before. In other words, neonic contamination is ubiquitous in Minnesota's environment—and the problem is getting worse.

Minnesota must take swift action to protect its pollinators, ecosystems, and people. The undersigned organizations especially urge your support for the following bills:

- **HF2472, a bill to develop a regulatory program for treated seeds.** While treated seeds have been linked with widespread ecological harms, a loophole in Minnesota's pesticide law allows them to go untracked and largely unregulated by MDA. Treated seeds—crop seeds that have been treated with a mixture of chemicals prior to planting—likely represent the number one use of neonics nationwide. And despite their widespread use, studies show that they provide little to no benefit to farmers in many circumstances.[12] Building on a set of MDA recommendations from 2016,[13] this bill would direct MDA to develop a program to track treated seed use, mitigate their impacts, and ensure that treated seeds are used only where needed.
- **HF1130**, **a bill to allow municipalities to make decisions about what pesticides are used in their neighborhoods.** Currently, state law prohibits local governments from regulating pesticides. This bill would end that policy and extend power to local communities who want to protect themselves from neonics and other toxic pesticides.

We urge your support for these crucial bills, which will give Minnesota's pollinators a fighting chance against an onslaught of toxic pesticides. Please feel free to contact Lucas Rhoads with any questions, at lrhoads@nrdc.org.

Respectfully,

In Alphabetical Order:
Thomas E. Casey
Chair, Board of Directors
Friends of Minn. Scientific and Natural Areas

Aimee Code
Pesticide Program Director, Xerces Society for Invertebrate Conservation

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Laura Schreiber
Policy Organizer, Land Stewardship Project

[1] Bee Informed Partnership, Open Research, https://research.beeinformed.org/loss-map/ (select "Survey Year" 2021/22, "Loss Calculation" Weighted Average, and "Season" Annual).
[2] *See, e.g.*, Casper A. Hallman, *More than 75 Percent Decline Over 27 Years In Total Flying Insect Biomass in Protected Areas*, PLoS ONE 12(10): e0185809 (Oct. 18, 2017), https://doi.org/10.1371/journal.pone.0185809
[3] *See, e.g.*, Michael Greshko, *First U.S. Bumblebee Officially Listed as Endangered*, National Geographic (Mar. 22, 2017), https://www.nationalgeographic.com/science/article/bumblebees-endangered-extinction-united-states (rusty patched bumble bee disappeared by nearly 90% since the 1990s).
[4] Damian Carrington, *Global Pollinator Losses Causing 500,000 Early Deaths a Year – Study*, The Guardian (Jan. 9, 2023), https://www.theguardian.com/environment/2023/jan/09/global-pollinator-losses-causing-500000-early-deaths-a-year-study.
[5] *See, e.g.*, Lennard Pisa et al., *An Update of the Worldwide Integrated Assessment (WIA) on Systemic Insecticides. Part 2: Impacts on Organisms and Ecosystems*, Envtl. Sci. Pollution Research Int'l (Nov. 9, 2017), https://bit.ly/2HqqHwB; Thomas Wood & Dave Goulson, *The Environmental Risks of Neonicotinoid Pesticides: A Review of the Evidence Post 2013*, Envtl. Sci. Pollution Research Int'l, 24(21): 17285–17325 (Jun. 7, 2017), https://bit.ly/2Hpn8T5; Ben A. Woodcock et al., *Country-specific Effects of Neonicotinoid Pesticides on Honeybees and Wild Bees*, 356 Science 6345, 1393-1395 (Jun. 30, 2017), https://politi.co/2HrEnDl; Ben A. Woodcock et al., *Impacts of neonicotinoid use on long-term population changes in wild bees in England*, 7 Nature Communications 12459 (Aug. 16, 2016), https://go.nature.com/2EU6Xho; Travis A. Grout et al., *Neonicotinoid Insecticides in New York State*, Cornell University (June 23, 2020), https://bit.ly/2XIB2cA.
[6] *See, e.g.*, Masumi Yamamuro et al., *Neonicotinoids Disrupt Aquatic Food Webs and Decrease Fishery Yields*, Science (Nov. 1, 2019), https://bit.ly/34rKCSG; Yijia Li et al., *Neonicotinoids and Decline in Bird Biodiversity in the United States*, Nat. Sustain. (Aug. 10, 2020), https://go.nature.com/2F3Mz0u.
[7] Jessie Buckley et al., Exposure to Contemporary and Emerging Chemicals in Commerce among Pregnant Women in the United States: The Environmental influences on Child Health Outcome (ECHO) Program, Environ. Sci. Technol. 56(10), 6560-6579 (2022), https://pubs.acs.org/doi/10.1021/acs.est.1c08942.
[8] *See generally* Jen Sass, NRDC, *Neonic Pesticides: Potential Risks to Brain and Sperm* (Jan. 6, 2021), https://on.nrdc.org/3ARUxRw.
[9] *Id.*
[10] Minn. Department of Agriculture, 2021 Water Quality Monitoring Report (June 15, 2022), https://wrl.mnpals.net/islandora/object/WRLrepository%3A3880/datastream/PDF/view.
[11] Dan Gunderson, Data Show Increasing Insecticide Levels in Minnesota Deer, MPR News (Aug. 23, 2022), https://www.mprnews.org/story/2022/08/23/data-show-increasing-insecticide-levels-in-minnesota-deer.
[12] *See, e.g.*, Jocelyn Smith et al., *Quantifying Early Season Pest Injury and Yield Protection of Insecticide Seed Treatments in Corn and Soybean Production in Ontario, Canada*, J. of Econ. Entomology 113(5), 2197-2212 (Oct. 2020), https://bit.ly/3G4GDl3; Jacob Pacenka et al., *IPM Reduces Insecticide Applications by 95% While Maintaining or Enhancing Crop Yields Through Wild Pollinator Conservation*, PNAS 118 (44) (Oct. 25, 2021); Mourtzinis et al., *Neonicotinoid Seed Treatments of Soybean Provide Negligible Benefits to U.S. Farmers*, Scientific Reports 9 (11207) (2019), http://bit.ly/3tvOUH8; Genevieve Labrie, *Impacts of Neonicotinoid Seed Treatments on Soil-Dwelling Pest Populations and Agronomic Parameters in Corn and Soybean in Quebec (Canada)*, PLoS ONE 15(2): e0229136 (2020), http://bit.ly/3g2FDn1.
[13] MDA, Review of Neonicotinoid Use, Registration, and Insect Pollinator Impacts in Minnesota (Aug. 2016), https://www.mda.state.mn.us/sites/default/files/inline-files/neonicreviewrpt2016.pdf.