



POLLINATOR FRIENDLY ALLIANCE
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Support for HF2472: New program for systemic pesticide-treated seed established, new account in agricultural fund established, and money appropriated.

Date: March 6, 2023

To: Minnesota House of Representatives, Agriculture Finance & Policy Chair Vang and Committee Members.

We strongly support HF2472. [Pollinator Friendly Alliance](http://WWW.POLLINATORFRIENDLY.ORG) is a Minnesota conservation organization with a membership of urban and rural residents, scientists, businesses, farmers and ecologists from around Minnesota and beyond. We urge state legislators to step up in the absence of a fail-safe system to protect our waters, land and people from pesticide seed contamination. This is not a big ask - to simply strengthen the existing system for better stewardship. The rewards for health are great.

This bill is essential because it would protect Minnesota from unregulated use of crop seeds treated with neurotoxic, bee and bird-killing neonicotinoids and other pesticides that harm pollinators, birds, ecosystems, and human health, and ensure these products are used only where needed. Currently, there are not adequate federal or Minnesota state safeguards for the health of people and the environment from pesticide contamination from treated seed. Additionally, treated seed currently is NOT regulated as a pesticide in Minnesota.

Some countries have banned neonicotinoid pesticides and/or neonic-treated seed entirely. Other communities around the U.S. are further restricting use. Almost fifty Minnesota communities have adopted resolutions to cease neonicotinoid pesticide use.

Pollinator populations continue to decline putting ecosystems at risk, and a third of birds in North America have disappeared. Neonicotinoid insecticides that are commonly used to treat crop seeds like corn and soybean, are increasingly viewed as a serious threat to human health. Research published last year found that over 95% of 171 pregnant women tested from around the country had neonics in their bodies,ⁱ with levels steadily increasing over the four-year study, and other research shows that neonics are passed from pregnant women to developing fetuses.ⁱⁱ This is serious cause for concern, as neonics are neurotoxins that have been linked with a range of developmental harms, including malformations of the developing heart and brain, as well as autism-like symptoms.ⁱⁱⁱ

Neonicotinoid contamination has been studied repeatedly and reported on for years – it is no secret that neonicotinoid insecticides on coated seeds are toxic. Recent science shows neonics have [human health effects](#), pesticides kill pollinators outright and sicken them at sublethal doses, neonics contaminate water ([Five surface water pesticides of concern, Minnesota MDA 2020](#)), birds are effected ([Neonic reduces migration in songbirds, Eng 2019](#)) and most recently large mammals such as deer ([Effects of neonics on physiology and reproduction of white-tailed deer, Berheim 2019](#)). Two flagship species- monarch butterfly and rusty patched bumble bee (Minnesota state bee) are under the watchful eyes of pollinator researchers and declining numbers of monarchs tell us that pollinators are at a critical point for extinction requiring immediate action.

We recommend MDA develop this long-overdue regulatory program that is critical to protect Minnesota families and ecosystems from the effects of pesticide exposure. We urge your support for HF2472.

Thank you,
POLLINATOR FRIENDLY ALLIANCE
www.pollinatorfriendly.org

Selected support references:

HUMAN HEALTH EFFECTS OF NEONICS National toxicology report from US Dept. of Health and Human Services ISSN: 2473-4756 https://ntp.niehs.nih.gov/ntp/results/pubs/rr/reports/rr15_508.pdf

NRDC BRIEFING TO CONGRESS on Neonic Pesticide Human Health Harms, October 2019.
<https://www.nrdc.org/experts/jennifer-sass/nrdc-briefs-congress-neonic-pesticide-human-health-harms>

PESTICIDES IN MINNESOTA WATERS: Minnesota Department of Agriculture, *surface water pesticides of concern* (2020)
<https://www.mda.state.mn.us/surface-water-pesticides-concern>

INSECTICIDE COATED SEED CONTAMINATES NEBRASKA COMMUNITY AT ETHANOL PLANT
January 2021: <https://www.theguardian.com/us-news/2021/jan/10/mead-nebraska-ethanol-plant-pollution-danger>

POLLINATOR DECLINE: Xerces Society: *The science behind the role neonics play in harming bees*. Jennifer Hopwood, Aimee Code, Mace Vaughan et al. (2016)
https://xerces.org/sites/default/files/2018-05/16-023_01_XercesSoc_ExecSummary_How-Neonicotinoids-Can-Kill-Bees_web.pdf

NEONIC EFFECTS ON LARGE MAMMALS: Scientific Reports: *Effects of Neonicotinoid Insecticides on Physiology and Reproductive Characteristics of Captive Female and Fawn White-tailed Deer*. Elise Hughes Berheim, Jonathan A. Jenks, Jonathan G. Lundgren, et al. volume 9, Article number: 4534 (2019)
<https://www.nature.com/articles/s41598-019-40994-9>

RESULTS OF PESTICIDE STUDY OF NEONIC EXPOSURE TO WHITE-TAILED DEER IN MINNESOTA
March 1, 2021, Minnesota Department of Natural Resources
<https://www.dnr.state.mn.us/news/2021/03/01/preliminary-results-pesticide-study-show-widespread-neonicotinoid-exposure-minnesota-white-tailed-deer>

NEONIC EFFECTS ON SONGBIRDS: Science: *A neonicotinoid insecticide reduces fueling and delays migration in songbirds*. Margaret L. Eng, LeBridget, J. M. Stutchbury, Christy A. Morrissey. Issue 13 Sep 2019: Vol. 365, Issue 6458, pp. 1177-1180.
<https://science.sciencemag.org/content/365/6458/1177>

POLLINATOR PROTECTION RESOLUTION: *Model resolution for cities, counties, state agencies, school districts*. Pollinator Friendly Alliance, Humming for Bees, Pesticide Action Network, Pollinator Minnesota 2020.
<https://static1.squarespace.com/static/59fcf40ab1ffb6ee9911ad2a/t/5f8fb7dcac3e6348089291a2/1603254237712/MODEL+resolution+2020.pdf>

NEONIC CAUSES AUTISM-LIKE SYMPTOMS: November, 2022. Neurosciencenews.com
<https://neurosciencenews.com/neonicotinoid-asd-21898/>

AN UPDATE OF THE WORLDWIDE INTEGRATED ASSESMENT ON SYSTEMIC INSECTICIDES: PART 2: IMPACTS ON ORGANISMS AND ECOSYSTEMS: 2021 Pisa, Goulson, Yang, Gibbons, Sanchez-Bayo
<https://link.springer.com/article/10.1007/s11356-017-0341-3>

RULEMAKING TO REGULATE TREATED SEED, California 2020 NRDC

ⁱ 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>.

ⁱⁱ Zhang H, Bai X, Zhang T, Song S, Zhu H, Lu S, Kannan K, Sun H. Neonicotinoid Insecticides and Their Metabolites Can Pass through the Human Placenta Unimpeded. *Environ Sci Technol.* 2022 Dec 6;56(23):17143-17152. doi: 10.1021/acs.est.2c06091. Available online <https://pubmed.ncbi.nlm.nih.gov/36441562/>.

ⁱⁱⁱ Jennifer Sass, *Neonic Pesticides: Potential Risks to Brain and Sperm*, NRDC (Jan. 6, 2021), <https://on.nrdc.org/3k8NUFb>.