Attention hunters, anglers, nature lovers and outdoors folks

Neonic-coated seeds: Why do we care, and how can you help?

- Widespread use of neonicotinoid insecticides threatens the health of Minnesota ecosystems.
- Neonicotine seed coatings are currently exempt from regulation, though studies show negligible financial benefit to farmers.[5]
- We are advocating for a targeted approach (**not an all-out ban**) to the regulation of neonicotinoid-coated seeds, benefiting wildlife while maintaining farmer's bottom lines.
- Join us in our fight to limit the use of neonics on seeds by educating fellow hunters, anglers, concerned friends and neighbors and by talking to your legislators.
- Follow the QR code below and the Notes on page 2 to learn even more about neonics.

What are neonics?

- Nicotine-based insecticides acting as neurotoxins
- Water soluble, easily leaching into streams, lakes, groundwater and drinking water
- Toxic seed coating on nearly all corn seeds and most soybean seeds
- Indiscriminate poisons having lethal and important sub-lethal effects on ability to reproduce, escape prey and acquire food[2, 3]

What does research suggest?

- Minnesota Department of Agriculture found at least one neonic in 95 percent of regularly sampled flowing-water sites, and 87 percent of sites showed two or more neonics present.[3]
- At a minimum, 80 percent of neonics seed treatment leaches into water sources.
- Sustained levels of neonics sampled in urban lakes and streams
- Half of the U.S. population is exposed to at least one neonic chemical.[2]
- Children 3-5 years olds are subject to higher exposures, and therefore, higher risk.[6]
- Sub-lethal exposure in people and animals may lead to reproductive difficulty, neurological and developmental issues.[6]

How are fish and their food sources impacted?

- Neonics are highly toxic to aquatic and terrestrial invertebrates that serve as a food source to many animals including, but not limited to, fish.
- Over the past 10 years, anglers report drastically reduced, more sporadic insect hatches.
- Radar imagery of the Hexagenia hatch on the Mississippi River shows a nearly 50 percent reduction in hatch volume.
- In 2002, MN stream anglers had an economic impact of over $47 million and 820 jobs.[8]

What are the impacts on pollinators, birds and bees?

- One neonic treated corn seed can kill 80,000 bees.[1]
- Sharp-tailed grouse and prairie-chicken livers (90 % and 76 %, respectively) sampled in Minnesota had detectable concentrations of more than one neonicotinoid.[7]
- Insect mortality threatens human food production and reduces food available for birds, fish, wild turkeys, pheasants and other animals that forage for insects.

Are large mammals like deer impacted?

- In 2019, 29 percent (64 percent in 2021) of deer sampled had levels associated with fawn mortality and birth defects."[4]
- Deer spleen neonic incidence increased from 61 percent of deer sampled in 2019 to 94 percent in 2021.[4]

Twin Cities Trout Unlimited--January 2026
For more info, visit our website twincitiestu.org, or email to neonics@twincitiestu.org

Notes:

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2. Lindwall, Courtney. “Effects of Neonicotinoids on Humans and Bees.” Natural Resources Defense Council (NRDC), June 11, 2025. https://www.nrdc.org/stories/neonicotinoids-101-effects-humans-and-bees.

3. Mineau, Ph.D., Pierre. Neonic Pesticides in Minnesota Water - Their Contamination of and Threats. https://www.nrdc.org/sites/default/files/2024-12/neonic-pesticides-in-minnesota-water.pdf. (Minnesota), December 2024, 51.

4. Gunderson, Dan. “Data Show Increasing Insecticide Levels in Minnesota Deer.” MPR News, Minnesota Public Radio, August 23, 2022. https://www.mprnews.org/story/2022/08/23/data-show-increasing-insecticide-levels-in-minnesota-deer.

5. Mourtzinis, Spyridon, Christian H. Krupke, Paul D. Esker, et al. “Neonicotinoid Seed Treatments of Soybean Provide Negligible Benefits to US Farmers.” Scientific Reports 9, no. 1 (2019): 11207. https://doi.org/10.1038/s41598-019-47442-8.

6. “Neonic Pesticides: Potential Risks to Brain and Sperm.” January 6, 2021. https://www.nrdc.org/bio/jennifer-sass/neonic-pesticides-potential-risks-brain-and-sperm.

7. Roy, Charlotte L., and Da Chen. “High Population Prevalence of Neonicotinoids in Sharp-Tailed Grouse and Greater Prairie-Chickens across an Agricultural Gradient during Spring and Fall.” Science of The Total Environment 856 (January 2023). https://doi.org/10.1016/j.scitotenv.2022.159120.

8. Gartner, PhD, William C, Lisa L Love, PhD, Daniel Erkkila, PhD, David C Fulton, PhD, Tourism Center, University of Minnesota Extension Service, and Minnesota Cooperative Fish and Wildlife Research Unit. “Economic Impact and Social Benefits Study of Coldwater Angling in Minnesota.” “Final Report.” Report (Minnesota), 2002, 129. https://files.dnr.state.mn.us/fisheries/management/coldwateranglingreport.pdf