
Neonicotinoid Pesticides in Minnesota

Why Minnesota needs to restrict neonic-coated seed

Neonicotinoids (“neonics”) are the most widely used pesticides in the world. In Minnesota, they coat nearly all corn seed and about 45% of soy seed planted each year, but only 5% of the chemical is absorbed by the plant. The rest washes into our soil, rivers, and drinking water, with mounting evidence of harm to wildlife and human health.

The Scale of the Problem

- **40,000 kg** of neonics sold for agricultural use in Minnesota in 2020 alone
- **12 million acres** of Minnesota farmland treated with neonics in 2020
- **95% of Minnesota surface waters** tested by the MDA (2011–2022) contained neonics
- **10-41% of Minnesota springs and wells** contain neonics

Harm to Wildlife

- Mayfly populations, a key food source for fish and birds, have declined over 50% since 2012
- EPA finds neonics potentially jeopardize 200 endangered species
- Linked to weakened honeybee hive survival, reproduction, memory, and foraging ability
- A major driver of the 29% decline in the U.S. bird population since 1970
- Harms aquatic insects that fish, including Minnesota trout, depend on for food

Harm to Human Health

- Neonics bind to the same neuroreceptor in humans that they target in insects
- Linked to reproductive, metabolic, and endocrine harm
- Pregnant women exposed to neonics show higher rates of delivery problems and birth defects
- Prenatal exposure is associated with higher risk of developmental issues in children

Coated Seeds Offer Little Benefit

Field trials comparing neonic-coated corn and soy seed to untreated seed found no significant yield benefit in 82–97% of cases. Most Minnesota farmland is coated with these pesticides as a default, not based on demonstrated need. And farmers who want untreated seed often can't find it.

The Regulatory Gap

The Minnesota Pesticide Control Act tasks the MDA with regulating pesticides in the state. But because the EPA exempts itself from regulating “treated articles”, a category that includes coated seed, the MDA has used that same loophole to avoid regulating neonics, too. Minnesotans have effectively become unwitting participants in a massive, unconsented experiment.

The Solution: Verification of Need

Several states have adopted “verification of need” programs. They require a state agency to confirm neonics are actually necessary for a given field before treated seed can be used and guarantee access to untreated seed for farmers who don’t need it. This approach would protect both Minnesota agriculture and Minnesota’s water, wildlife, and public health. See [sc.org/mn-neonic](https://www.sierraclub.org/mn-neonic) to learn more.

Source: “[Poisoning the Well: Neonicotinoids in Minnesota](#),” Dawn Georgieff. Compiled from MDA, EPA, and peer-reviewed research.

Sierra Club North Star Chapter
2300 Myrtle Avenue, Suite 260
St. Paul, MN 55114
(612) 659-9124

sierraclub.org/minnesota
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