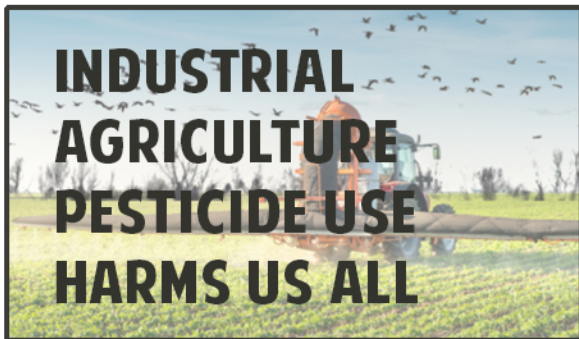


# What Minnesotans need to know about pesticides

- Pesticide use is the number one most devastating factor in pollinator decline.
- Insecticides harm or outright kill bees, butterflies, beneficial insects, birds and wildlife.
- Pesticides disrupt ecological systems, destroy biodiversity and pollute water, land, air and our food source.
- Not only can the main chemical in insecticides, herbicides and fungicides cause harm, but also their inert ingredients and additives can be as harmful.



- Pesticides are ubiquitous in our water and food.
- Neonicotinoids are on the list of surface water pesticides of concern.
- One insecticide-coated seed can kill an entire clutch of songbirds.
- Pesticide-coated seed should be better regulated and is not because of a regulation loophole.
- Science has demonstrated that human health is also at risk from insecticide use. Grow and source your food clean of pesticides.



- Some landowners are haying public-owned road right-of-way habitat for personal use.
- There are 5.6 million acres of state park and public lands that need protection from pesticides for pollinators and wildlife.
- White tailed deer are suffering from neonicotinoid poisoning.
- There are millions of miles of roadsides that could be planted with needed habitat. Let's create a Highways for Habitat program.



- Home insecticides are 3-4 times more concentrated than others.
- Home gardens can thrive without pesticides.
- Be sure to select plants that are NOT treated with bee-killing systemic insecticides.



- Spraying kills bees, butterflies, lightning bugs and more. Dunks kill mayflies and aquatics.
- There have been zero mosquito-borne west Nile virus cases the last several years in MN.
- The most effective tactic is to remove standing water where mosquitos breed.

Repeated exposure to neonics starts to change a bee's life and impact the entire colony. The science shows there are a number of different outcomes after exposure:

# HOW NEONICS HARM BEES



## ILLNESS AND DEATH

Neonics make it hard for bees to groom themselves, making them susceptible to disease and mites and weakening their immune systems.

## LOST & CONFUSED

Neonics affect bees' ability to navigate back to the hive. Unable to find their way home, they die. Worker bees supply the colony's food. If they don't come back, the entire colony can starve.

## COLONY CONTAMINATION

If a bee is able to return to the hive, they return covered in contaminated pollen. As other bees store the pollen, they all become contaminated.

EPA APPROVED

Neonics are water-soluble and applied directly to the soil, or sprayed directly on seeds and plants.

Let's begin with pesticides.

Neonicotinoids, or "neonics," are pesticides approved by the EPA on more than 120 crops – fruits, vegetables, corn, soy, canola, grains – to kill a variety of crop-ravaging insects.

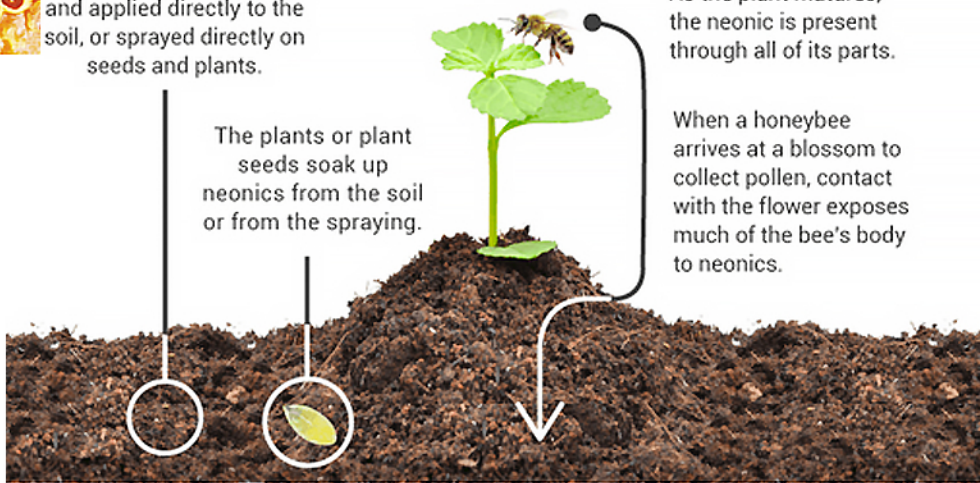
Neonics stay in the plant throughout its life. As the plant matures, the neonic is present through all of its parts.

When a honeybee arrives at a blossom to collect pollen, contact with the flower exposes much of the bee's body to neonics.

The plants or plant seeds soak up neonics from the soil or from the spraying.



FIND MORE ABOUT PROTECTING POLLINATORS AT: [POLLINATORFRIENDLY.ORG](http://POLLINATORFRIENDLY.ORG)



**NEONICS STAY IN THE SOIL** and can be washed into water from erosion or runoff, polluting waterways. Because neonicotinoids are used as soil treatment, they can remain in the soil for years, and new plantings of crops will soak them up.