HB 3058 & SB 853

From the desk of Rep. Courtney Neron BACKGROUND INFORMATION

# NEONICS HARM BEES

**Neonics is short for neonicotinoids (pronounced nee-ō-nick-ō-tin-oid), a class of insecticides that attacks the nervous systems of insects and small mammals.**

Neonics are the world's most commonly used insecticides.[3]

They are used in agriculture, urban yards, and for termite and flea prevention in pets.[3]

There are safer, economical alternatives.

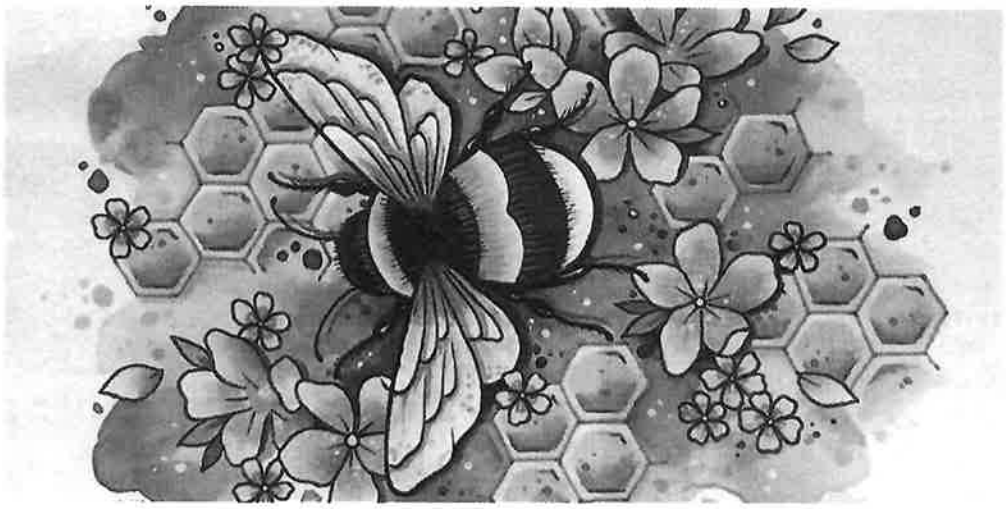
The EU has already banned the use of neonics to protect their pollinators.

Pesticide labels don't warn consumers that neonics poison nectar and pollen that feed bees.

Neonics kill all insects, not just unwanted pests.[1]

Neonics are a major contributing factor to the catastrophic loss of bees and other animals.[1]

The rate of neonics applied by home gardeners is often higher than on farms.[4]



ARTWORK BY LORNA LAINE

## NEONICS KILL BEES

Bees and other pollinating insects are crucial to food production in Oregon. Neonics are a major contributing factor to the catastrophic loss of bees and other beneficial insects. Studies conclude that very small doses of neonics can kill bees and build up in soils to levels that can kill beneficial ground-nesting insects (like bumblebees and ladybugs) overtime.[1]

## OUR FUTURE RELIES ON BEES

Amid rapid climate changes and other impacts of human activities, we are witnessing continuous declines in bee health across the planet. If this trend continues, nutrient-rich crops such as fruits, nuts and many vegetables will be replaced largely by self-pollinating and wind-pollinated crops like rice, corn and wheat. The unpredictable changes in global climate are likely to make such problems worse in the future.[2] We must take action to protect bees now so that we can protect future generations from food-shortages and ecosystem collapse.

[1] Goulson, Dave. "Call to Restrict Neonicotinoids." Science, American Association for the Advancement of Science, 1 June 2018, science.sciencemag.org/content/360/6392/973.1. (Turn Over)

[2] "Can Agricultural Practices That Mitigate or Improve Crop Resilience to Climate Change Also Manage Crop Pests?" NeuroImage, Academic Press, 31 July 2017, www.sciencedirect.com/science/article/pii/S221457451630133X.

[3] "The Bitter Battle over the World's Most Popular Insecticides." Nature News, Nature Publishing Group, www.nature.com/news/the-bitter-battle-over-the-world-s-most-popular-insecticides-1.22972.

[4] "Monitoring Neonicotinoid Exposure for Bees in Rural and Peri-Urban Areas of the U.K. during the Transition from Pre- to Post-Moratorium." ACS Publications, pubs.acs.org/doi/abs/10.1021/acs.est.7b06573.

# CHLORPYRIFOS HARM PEOPLE

## Chlorpyrifos is linked to infertility, diabetes, respiratory diseases, developmental disorders and more.

From the desk of Rep. Courtney Neron

Children are especially susceptible to exposure, resulting in brain damage and developmental disabilities.

Farmworkers and rural communities are at highest risk of exposure from drift.

Communities are exposed to drift from nearby fields and golf courses in their homes, schools and outdoor areas.

Chlorpyrifos is highly toxic to birds, fish and beneficial insects such as bees. [5]

There is no safe level of chlorpyrifos in drinking water. [5]

Chlorpyrifos are particularly dangerous for pregnant women because of their toxicity to the developing infant.

## FARMWORKERS AND CHILDREN ARE AT RISK

Chlorpyrifos is very harmful to farmworkers and are linked to developmental disabilities in children.[1] These are highly toxic nerve agent pesticides that can damage the developing brains of babies and children, leading to lower birth weight, reduced IQ, loss of memory, and delayed motor development.[2] It is also toxic to farmworkers — regularly sickening them and sending them to the hospital. Many farmworkers are afraid to report pesticide exposure because they're afraid of being fired or reprimanded.[3]

## WILDLIFE AND WATER

The National Pesticide Information Center (NPIC) lists chlorpyrifos as "highly toxic" to fish, aquatic invertebrates and bees. It may build up in the tissues of fish and aquatic insects, poisoning animals up the food chain. The half-life of chlorpyrifos in soil is between 60 and 120 days, but can span over 1 year depending on the soil type and weather conditions.[4 5]

[1] "Children's Exposure to Chlorpyrifos and Parathion in an Agricultural Community in Central Washington State." National Institute of Environmental Health Sciences, U.S. Department of Health and Human Services, ehp.niehs.nih.gov/doi/abs/10.1289/ehp.02110549.

[2] "Rotenberg, Joshua S., and Jonathan Newmark. "Nerve Agent Attacks on Children: Diagnosis and Management." Pediatrics, American Academy of Pediatrics, 1 Sept. 2003, pediatrics.aappublications.org/content/112/3/648.short.

[3] Morones, Alyssa, and Alyssa Morones. "Pesticide Continues to Put Farmworkers and Fetuses in Harm's Way." California Health Report, California Health Report, 8 Sept. 2017, www.calhealthreport.org/2017/08/31/pesticide-continues-put-farmworkers-fetuses-harms-way/.

[4] "Chlorpyrifos." National Pesticide Information Center, npic.orst.edu/factsheets/chlorpgen.html.

[5] "Chlorpyrifos." National Pesticide Information Center, npic.orst.edu/factsheets/archive/chlorptech.html