

2/27/2023

To: Natural Resources Committee

Re: Support Bill# AB162

Chair Cohen and members of the committee, my name is Bari Levinson a volunteer member of Sierra Club's Legislative Committee. I am also a medical doctor and a chemical engineer. On behalf of the Club, and our more than 30,000 members and supporters state-wide, I am speaking in support of bill AB162.

AB162 bans all non-agricultural use of neonicotinoid pesticides. For the sake of our food supply, we must save our pollinators! Bees are essential for producing our fruits, vegetables, nuts, and seeds, the most healthful foods on the planet. These foods are packed with phytonutrients that are key in preventing many dreaded diseases including diabetes, heart disease, autoimmune disease and cancer. (1)

So, it is very scary that our bee populations are in severe decline. In Nevada, we lost 53 % of bee colonies in 2019, and 70% in 2018. (2) The loss of bees in the world has been shown to cause 500,000 deaths per year due to lack of healthful foods. (3)

There are many causative factors in the bee colony collapse, but a major cause is the use of neonicotinoid pesticides.(4) Neonics, as they are called, are systemic pesticides, getting into every part of the plant. So when bees drink nectar, they get a dose of this neurotoxic pesticide that causes impaired navigation, impaired foraging, and immune dysfunction; and can directly cause death. (5)

Neonics are water soluble, and seep into our soils and waters, killing aquatic insects, fish and amphibians. They kill birds when contaminated seeds are eaten. (6) They have been found in 94% of white-tailed deer in Minnesota. (7)

Neonics have also been linked to human disease. They have been proven to transfer from a pregnant woman to her fetus (10) and cause serious birth defects. They are causally linked to autism, memory loss (8) and breast cancer. (9)

The good news is that there are many safe alternatives to using neonicotinoid pesticides. (11) If we switch to these safer methods, we could save the pollinators, other animals, and improve human health.

For these reasons, we urge you to support this bill.

Thank you.

(1) *How Not to Die*, 2015, by Michael Greger MD

(2) Bee Informed Partnership. National Management Survey. Total Annual Losses by State.
<https://research.beeinformed.org/loss-map/>

(3) <https://www.theguardian.com/environment/2023/jan/09/global-pollinator-losses-causing-500000-early-deaths-a-year-study>

- (4) See Lennard Pisa et al., *An Update of the Worldwide Integrated Assessment (WIA) on Systemic Insecticides*, *Envtl. Sci. Pollution Research Int'l* (Nov. 9, 2017), <https://bit.ly/2HqqHwB>; Thomas Wood & Dave Goulson, *The Environmental Risks of Neonicotinoid Pesticides*, *Envtl. Sci. Pollution Research Int'l* (Jun. 2017), <https://bit.ly/2Hpn8T5>; Daniel Cressey, *Largest-ever Study of Controversial Pesticides Finds Harm to Bees*, *Nature* (Jun. 29, 2017),
- (5) Harriott, N. 2014. Bees, Birds and Beneficials: How fields of poison adversely affect non-target organisms. *Pesticides and You*. Vol. 33, No. 4 Winter 2013-14. <http://www.beyondpesticides.org/assets/media/documents/infoservices/pesticidesandyou/documents/BeesBirdsBeneficials.pdf>
- (6) Yijia Li et al., *Neonicotinoids and Decline in Bird Biodiversity in the United States*, *Nat. Sustain.* (Aug. 10, 2020), <https://go.nature.com/2F3Mz0u>.
- (7) <https://www.mprnews.org/story/2022/08/23/data-show-increasing-insecticide-levels-in-minnesota-deer>
- (8) M. Ospina et al., *Exposure to Neonicotinoid Insecticides in the U.S. General Population*, *Envtl. Res.* (Jun. 24, 2019) <https://bit.ly/2q11yRf>; Andria Cimino et al., *Effects of Neonicotinoid Pesticide Exposure on Human Health: A Systematic Review*, 125 *Envtl. Health Perspectives* at 155-162 (2017), <https://bit.ly/2NVA1LR>
- (9) <https://beyondpesticides.org/dailynewsblog/2022/10/breast-cancer-month-neonicotinoid-insecticides-and-breast-cancer-risk-triple-negative-breast-cancer/#:~:text=Past%20studies%20suggest%20neonics%20act,in%20initiating%20breast%20cancer%20events>
- (10) <https://beyondpesticides.org/dailynewsblog/2023/01/neonicotinoid-insecticides-add-to-the-growing-list-of-chemicals-that-transfer-between-mother-and-fetus/>
- (11) <https://www.beyondpesticides.org/resources/lawns-and-landscapes/tools-for-change/products-compatible-with-organic-landscape-management>