PRESS RELEASE - August 31, 2022

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New research is adding to evidence that neonicotinoid insecticides, known to be toxic to pollinators, are widely spreading in the environment and have negative impacts on the health and viability of birds AND mammals.

New research about to be published: DR. JONATHAN JENKS on *neonicotinoid effects on mammals and birds*, listen to recording here Aug. 2022:

https://youtu.be/qGdHhogZdW0

BACKGROUND: Neonicotinoids (neonics) are a family of systemic insecticides used ubiquitously in U.S. industrial agriculture and horticulture. In Minnesota neonic-coated seed is used annually on over 15 million acres of corn and soybean fields even though research shows that the coated seeds do not increase soybean crop yields. Although seed coatings account for the largest use of the insecticide, the influence of agri-business on EPA's pesticide regulatory process has created a loophole in which the insecticidal seed coating is largely untracked and unregulated.

DR. JONATHAN LUNDGREN on agricultural effects of pesticides research, March 2022:
https://youtu.be/nSmi0xnHZIg

More research is underway, but it's now clear that neonicotinoids are a serious health risk not only to pollinators and aquatic insects but to birds and mammals. The drift from neonic-coated seeding and from insecticide spraying are likely causing severe health effects in white-tailed deer and neonics are accumulating in the bodies of a wide range of birds and wildlife.

THE NEW SOUTH DAKOTA STUDY by Dr. Jonathan Jenks showed that ingestion of field-realistic levels of neonicotinoid insecticides reduced feeding, lowered body mass and fat, and caused lethargy with less activity in adult female and young white-tailed deer. In pheasants the chemical concentrations correlated to reduced adult and chick survival. A study conducted by the North Dakota Department of Game and Fish concluded that the insecticide is accumulating in predator species such as otters, bobcats and fishers.

MINNESOTA DNR COLLECTED DEER SPLEENS which contributed to the Dakota research. In a second year of spleen testing, neonicotinoids were found to be rapidly spreading throughout the state deer herd with researchers finding neonics in nearly all the sampled deer. And in just one year the amount of neonics detected in deer more than doubled. **MPR ARTICLE, Dan Gunderson, Aug. 2022:**
https://www.mprnews.org/story/2022/08/23/data-show-increasing-insecticide-levels-in-minnesota-deer

WATER CONTAMINATION: Neonicotinoids spread rapidly through the environment due to their high-water solubility and their persistence in the environment. Neonicotinoids have a half-life of as much as 1000 days which means that after 3 years half the chemical is still available in the soil and water to be

absorbed by plants and consumed by wildlife. **The Minnesota PCA found widespread neonic contamination of surface water in Minnesota, Dec 2020.**
https://setac.onlinelibrary.wiley.com/doi/10.1002/etc.4959

SONGBIRDS: **Neonics reduce fueling and delay migration in songbirds:** Science, Sept 2019
https://www.science.org/doi/full/10.1126/science.aaw9419

American Bird Conservancy, Just one neonic-coated seed can kill a songbird:
https://abcbirds.org/article/birds-bees-and-aquatic-life-threatened-by-gross-underestimate-of-toxicity-of-worlds-most-widely-used-pesticide-2/#:~:text=%E2%80%9CA%20single%20corn%20kernel%20coated,can%20fatally%20poison%20a%20bird.

Initiative to remove neonics and systemic coated seed from protected wildlife areas. Listen to short video on the Minnesota initiative here: https://www.youtube.com/watch?v=-hZ2-BpuSDw

EXPERTS:

- Dr. Jonathan Jenks, Professor of Wildlife Science, Scientist of Mammalogy, Jonathan.jenks@SDState.edu
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