



NEONICS: THE NEW DDT

What You Need to Know About Pesticides Harming Connecticut's Birds, Bees, Wildlife, & People

WHY DO SCIENTISTS BELIEVE NEONICS ARE SO DANGEROUS?

- Nicotine-like, neonicotinoids (neonics) affect the neurological system. Research shows harms to heart and brain development in prenatally exposed children.
- They are in our water. USGS studies show they are in over 50% of American streams including the Norwalk and Connecticut Rivers.
- Found in our Drinking Water. For example, a study on Long Island Sound found neonics in 30% of drinking water.
- In 2014 USDA found 63% of food samples collected in the US contained at least one neonic, and 57% contained more than one.
- The CDC found neonics in 50% of the population with the highest concentrations found in children.
- A recent study of 171 pregnant women in the U.S. found that over 95% had neonics in their bodies.

NEONICS DESTROY FOOD CHAINS HOLLOWING OUT ECOSYSTEMS

- Sharp declines in bee and other insect populations have been linked to neonics in hundreds of studies compiled by Cornell University and others.
- Neonics have made U.S. agriculture 48 times more harmful to insects since the mid 1990's.
- The loss of 3 billion birds in the last 50 years has been linked to neonics, with the sharpest declines seen in birds that eat insects. Just one coated seed is enough to kill a songbird.
- Neonics also affect mammals. They have been linked to gross congenital defects in white-tailed deer.
- Data on surface water contamination show concentrations of several neonics high enough to be causing impacts in aquatic food chains, i.e. killing the insects that feed the fish, frogs, birds, and other mammals.

ALTERNATIVES FOR NEONICS FOR GRUB CONTROL

Most neonic use in CT is on lawns and golf courses to control grubs, the larvae of Japanese beetles. However, there are viable, more sustainable alternatives.

- A bio-insecticide, GrubGone, employs Btg (*Bacillus thuringiensis gallerias*) available online. Search GrubGone Btg.
- Nematodes, *Heterohabditis spp* is the most effective strain.
- *Milky Spore* is a Japanese beetle grub killing bacterium best applied in late summer. (Less effective in cold climates)
- A parasitic wasp called *Spring Tiphia* is reported to be very effective by the University of Connecticut.
- Several chemical alternatives are available, but because of possible harm to butterflies and aquatic species, we encourage the use of non-chemical treatment methods.



THE PROBLEM WITH NEONIC-COATED SEEDS

- The Department of Agriculture does not track how much corn sold in CT is grown from neonic-coated seeds because, thanks to a loophole, this pesticide seed coating has been exempted from government regulation on the grounds that it is not labeled a pesticide when on a seed. We do know that over 800 million seeds are planted each year in CT and virtually all (except organic) are coated with neonics.
- Only 5% of that pesticide coating is taken up into the plant, according to industry research. The remaining 95% moves through soil and air into waterways.
- Several studies including a recent one by Cornell University reports that using neonic-coated seeds offers 'no overall net income benefits' to farmers and there are safer alternatives.
- Pesticides on the seeds are being used preventatively, whether the plant faces a pest problem or not.

