



# Massachusetts Beekeepers Association

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Taryn Lascola-Miner  
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Boston, MA 02114-2151

## **RE: AGR-Pesticide-Literature-Review-FY20 Testimony**

Dear Director Lascola-Miner,

I am writing to comment on the results of 2019 Neonics Scientific Literature Review that was mandated in the FY20 budget.

The review determined that 42 of 43 of the impact-based studies reviewed cited neonicotinoid insecticides as a major contributor to pollinator declines. The review also specifically states that the only studies that had mixed results were industry-funded. These findings are consistent with the overwhelming body of peer reviewed scientific research, worldwide, showing that neonicotinoids are clearly implicated in the unsustainable losses of managed bees and native pollinators.

Therefore, rather than waiting for pending legislation, we urge the Pesticide Board Subcommittee and the Massachusetts Department of Agricultural Resources to prioritize the implementation of the restrictions on the use of neonicotinoids in the Commonwealth of Massachusetts that are detailed in Representative Carolyn Dykema's bill, H.763 – An Act to protect Massachusetts Pollinators.

Both the summary of the results and the results themselves make it clear that Massachusetts regulators and legislators must institute protections from neonicotinoids that are stronger than those proposed by the U.S. Environmental Protection Agency (EPA). Please note that many of the studies analyzed in the Literature Review have also been used in the formulation EPA risk assessments over the past five years.

The findings of this Literature Review are consistent with numerous global studies and demonstrate, along with other factors listed below, that in the face of a broader ecological collapse, restrictions on neonicotinoid use in Massachusetts are clearly warranted:

- A recent study found that U.S. Agriculture is 48 times more toxic to insect life than it was in the early 1990 and that neonicotinoids account for more than 90% of that increase.



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- Another recent ground-breaking study estimates that over 40 percent of insect species face extinction in coming decades and that insects are declining at a rate of extinction eight times faster than other organisms. This comprehensive global meta-analysis concluded that if no action is taken and current rates of insect decline continue, we could face “catastrophic ecosystem collapse” which will have a devastating impact on our food system.
- While the EPA has failed to take significant action to curb the use of neonicotinoids, the European Union has instituted a full ban. Most significantly, early data from the United Kingdom shows that a seven-year-old neonicotinoid ban on oilseed crops has not negatively impacted crop production even as overall insecticide use has decreased. In 2008 Italy instituted a ban on use of neonicotinoids as seed treatments for corn. In an evaluation five years later, researchers found a “clear and dramatic improvement” in the number of bees and colonies in the region.
- Neonicotinoids are also a suspected contributor to the massive North American bird population losses over the last several decades. Neonicotinoid-coated crop seeds blanket agricultural areas—a single seed can contain enough active ingredient to kill a quarter-million bees or more —and eating just one such seed is enough to kill some songbirds. Even at low doses, neonicotinoids can harm birds’ immune systems, fertility, and navigation, and cause rapid weight loss, thereby reducing birds’ chances of surviving in the wild.
- Recently, scientists in South Dakota and Montana released a study showing how exposure to neonicotinoids caused deformities in white tail deer, one of the first studies showing impacts on mammalian wildlife.
- Other research suggests that people exposed to neonicotinoids may similarly be at increased risk of developmental or neurological damage, including malformations of the developing heart and brain, memory loss, and finger tremors. These results raise special concern given that neonicotinoid exposure is often difficult or impossible to avoid. Conventional drinking water treatments do not remove neonicotinoids from contaminated water, and neonicotinoid residues have been found to contaminate produce and baby food. Because neonicotinoids are systemic and therefore permeate foods, they cannot be washed off.

While the Literature Review is limited to impacts on pollinators, the evidence for why we need strong restrictions on the use of neonicotinoids goes well beyond their effects on pollinators.

Given the ecological and public health harms of neonicotinoids, we urge that the Department take immediate action to implement the restrictions on the use of neonicotinoids in the Commonwealth of Massachusetts that are detailed in Representative Carolyn Dykema’s bill, H.763 – An Act to protect Massachusetts Pollinators.



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As representatives of the beekeepers of the Commonwealth of Massachusetts, given the clear need to fill a gap in federal regulation in a time of ecological collapse, we at Mass Bee are counting on the Department of Agriculture to protect the health and ecological integrity of our Commonwealth.

Sincerely,

A handwritten signature in cursive script that reads "Peter J. Delaney".

Peter Delaney, President  
Massachusetts Beekeepers Association  
[president@massbee.org](mailto:president@massbee.org)