

February 25, 2019

To: Chair Carolyn Partridge and Members of the House Committee on Agriculture and Forestry

RE: H. 205 Regulation of Neonicotinoids

Dear Representative Partridge and Members of the Committee,

In view of the brief discussion of varroa mites at the end of the Committee's hearing on H. 205, I thought it might be helpful to provide some information about how neonicotinoids affect the immune system of bees. As you will see below, one study specifically mentions that the neonicotinoid thiamethoxam can worsen the effects of varroa mites in bees. The other study confirms that neonics clothianidin and imidacloprid reduce honey bee defenses to viruses (which can be carried by varroa mites).

Given these effects, it certainly makes sense to reduce the exposure of bees to neonicotinoids as much as possible.

Thank you again for the opportunity to testify on H. 205 last Tuesday.

Judy Bellairs  
Forest and Wildlife Committee  
Vermont Chapter of the Sierra Club

"Our data indicates that thiamethoxam can contribute to *Varroa* harmful effects on honey bee pupae."

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0187079>

"Here, we demonstrate that the neonicotinoid insecticide clothianidin . . . adversely affects honey bee antiviral defenses . . . This honey bee immunosuppression is similarly induced by a different neonicotinoid, imidacloprid . . ."

<https://www.pnas.org/content/110/46/18466>