



H.706 – An act relating to banning the use of neonicotinoid pesticides

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Photo: Emily May

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Summary

Neonics are highly toxic at **very small** doses to bees, soil and aquatic insects, and birds.

The harms are clear: bee mortality, failure of wild bees to nest or reproduce, declines of aquatic insects.

At field rates, neonic seed treatments are 2.5 to 29x more toxic to bees than replacement options for seed pests.

Seed treatment neonics are the largest contributor to insecticide use in Vermont, but used with little evidence of pest pressure or yield benefits.

Pounds Applied is Not the Same as Risk

Pesticide Risk =
Toxicity and
Exposure

- Highly toxic pesticide applied at low rate can be more risky than less toxic pesticide applied at high rate
- The lethal dose for a bee is 4 billionths of a gram



Neonic impacts on bees

Higher mortality and slower growth in honey bees



Photos: Emily May



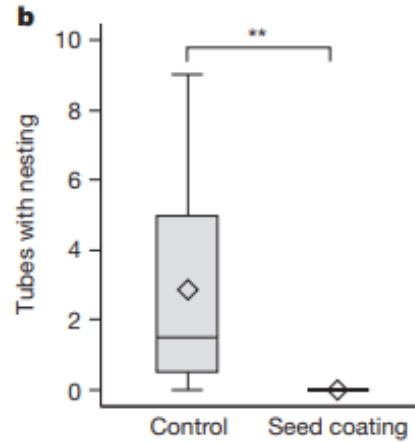
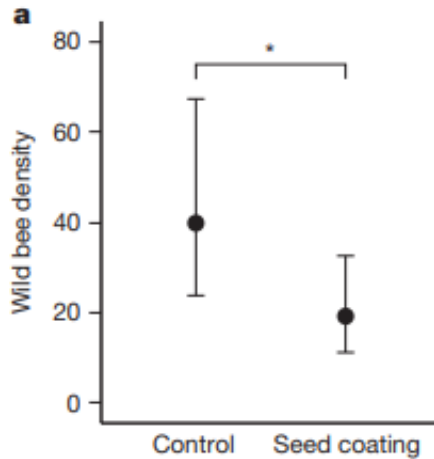
Fewer native bees around fields with higher neonics in soil

Fewer offspring produced by honey bees and wild bees



Seed treatment impacts on wild bees

50% fewer wild bees around fields with neonic treated seeds

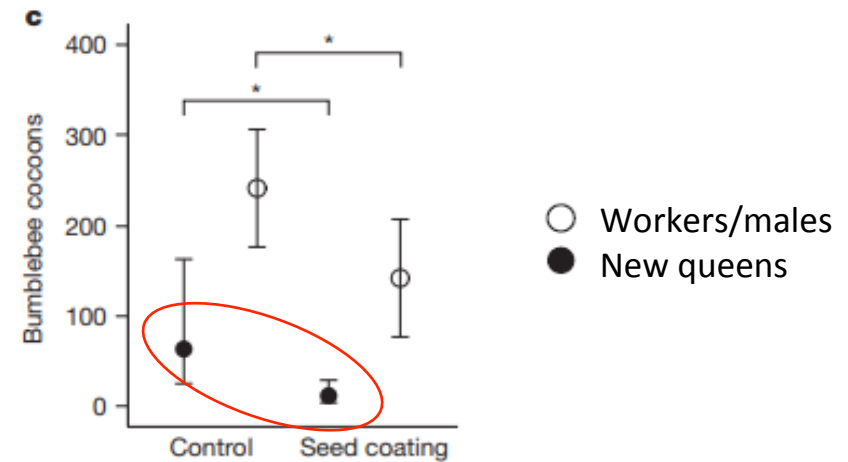


Reduced colony growth and reproduction of bumble bees

70% fewer queens next to neonic treated seed fields

Reduced nesting

100% reduction in mason bee brood cells next to seed-treated canola fields



Figures and data: Rundlof et al (2015)

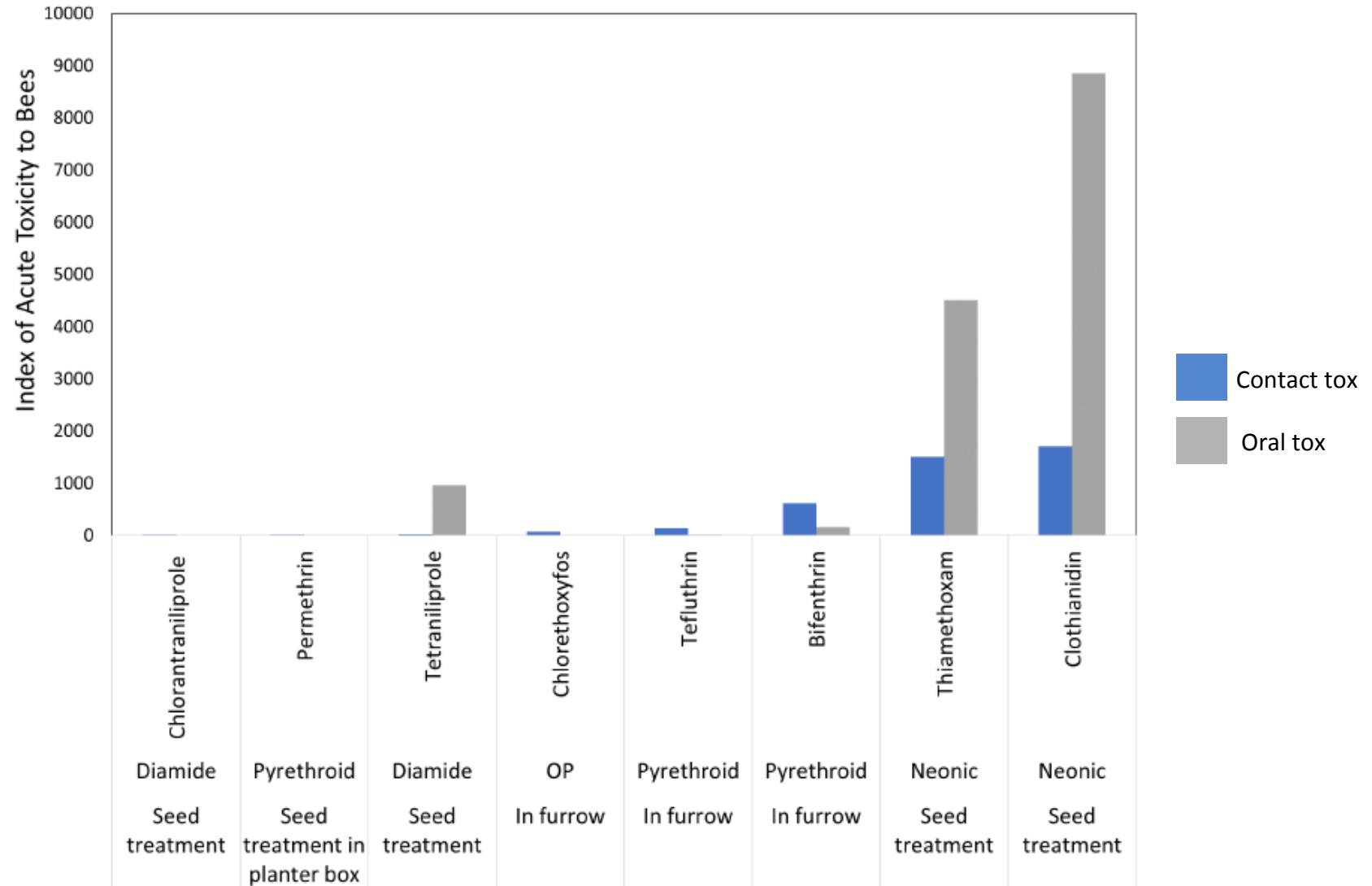
Neonic impacts on aquatic life + food webs



Photo: Keith Williams (Flickr CC)

Comparing Toxicity of Pesticides for Seed Corn Maggot and Wireworm

- Neonic seed treatments introduce highest risk per acre of the alternative seed treatment and in-furrow options
- On average, neonic seed treatments were 11x more harmful by contact and 29x more harmful by oral exposure than alternatives



H.706: Protect Vermont Pollinators



Photos: Emily May

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