

Article 50. Measure Neonicotinoids

To determine whether the Town will vote to appropriate the sum of \$4,000, or any other sum, to be expended by the *Select Board's Pollinator Health Advisory Committee* under the direction of the **Select Board** to compare the level of neonicotinoids in ten or fewer honey bee colonies up to five of which have collapsed and five which have survived, or take any other action relative thereto.

Mark Hanson, 340 Holden Wood Road, Concord, MA 4/4/2016

Colony Collapse



A50. Measure Neonicotinoids.

“Neonics” Harm Bumblebees and Honeybees

Approach

- Control varroa mites ... as much as possible
- Consult Prof. Lu at Harvard about testing **neonic concentrations** in: honey bee hives, soil, runoff
- Consult Prof. Gegear at WPI about bumblebee habitat and testing

Why measure?

- Compare neonic concentrations in hives successful vs. failing hives
- Compare Concord's measured levels with levels measured state-wide by Harvard in 2013
- See if future concentrations are lower

Pesticide-free pollinator habitat

- A *Pollinator Health Advisory Committee* could
Collaborate with:
Garden clubs
Land Owners

How can we increase neonic-free habitat?

- Check pesticide labels: avoid products such as “Merit” which contain neonicotinoid pesticides.
- Use safe alternatives: Milky Spore or beneficial nematodes for turf grubs.
- Avoid neonics on crops that pollinators visit: corn, strawberries, squash, cucumbers, etc.
- Adopt organic pest control methods, where possible.
- Plant pollinator-friendly plants, shrubs and trees that are not treated with neonics.

Beekeepers are willing to contribute substantially
to the cost of testing

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Article 46: Work to reduce

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Neonicotinoid neurotoxins are
'**systemic**': poison roots, stems, leaves,
pollen, nectar, guttation and fruit.



3 tests of hive winter survival after sub-lethal doses of neonicotinoids

- 2012 Harvard / WCBA study: **75%** of control hives survived. **6%** of dosed hives survived.
- 2014 Harvard / WCBA study: **84%** of control hives survived. **50%** of treated hives survived, but none were normal.
- USDA-ARS / U. Maryland study: “Pooled over two years, winter survival of colonies averaged **85.7, 72.4, 61.2 and 59.2%** in the **control, 5, 20 and 100** µg/kg treatment groups, respectively.”

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Mr. Hanson moves that Town Meeting vote to request that the Select Board transmit to appropriate state authorities Concord Town Meeting's support for more targeted and comprehensive regulation of the sale and use of neonicotinoid pesticides in order to reduce their potential impact on pollinator populations, and further to request that Town departments take all appropriate measures to discourage their use within the Town.

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