ARTICLE 48

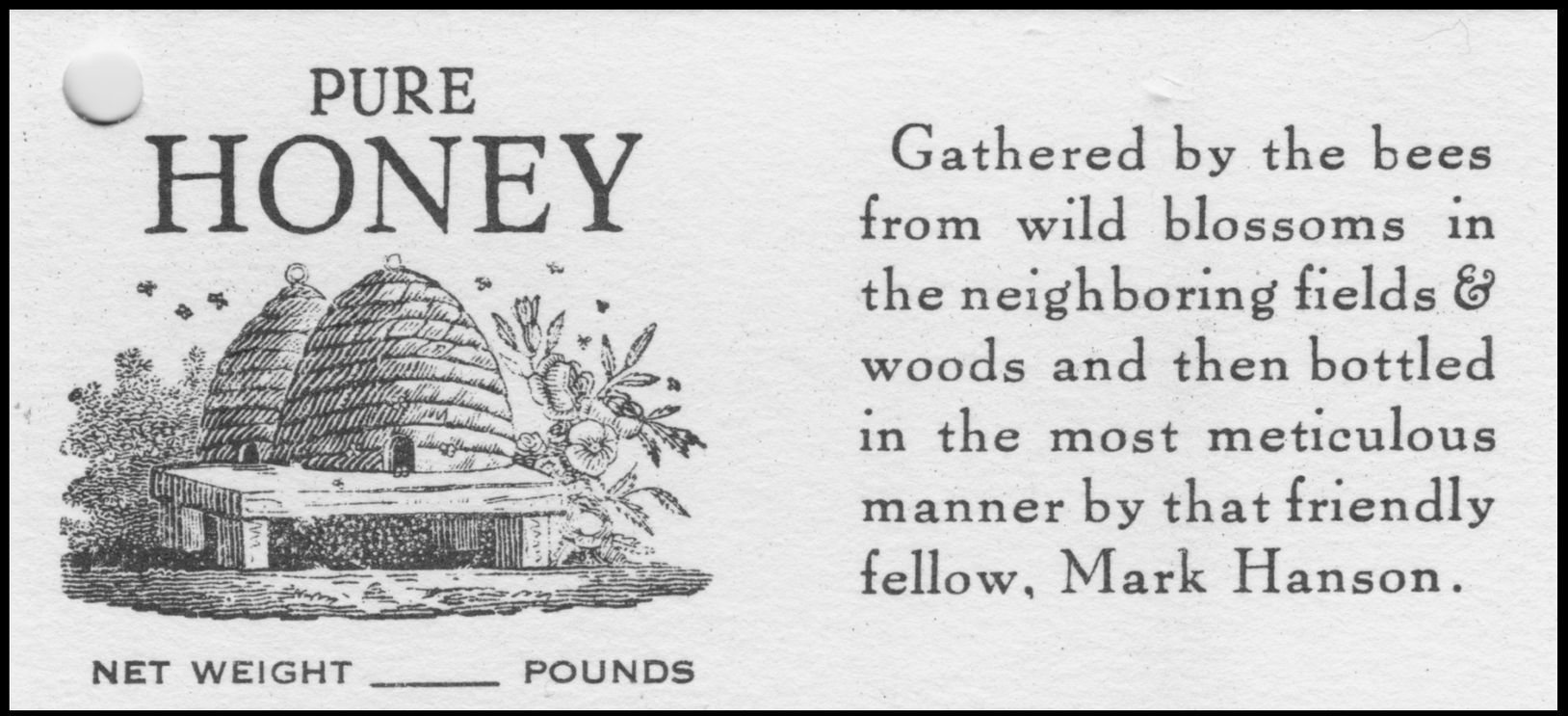
To determine whether the Town will vote to amend the Town Bylaws by adding a Bylaw for the reduction/elimination of neonicotinoid pesticides, because extremely small amounts of this pesticide family are extremely toxic to honey bees and other pollinators, or take any other action relative thereto.

Article 48: Work to reduce the sale and use of neonicotinoid pesticides

Dinny McIntyre, Select Board Hearing 2/10/2016

Last Winter 80% of Concord's Bee Hives Died

no bees after 46-years of bee keeping



Neonicotinoid pesticides (“neonics”)

- Neonics are ‘*systemic*’ — they poison a whole plant’s: roots, stems, leaves, pollen, nectar and fruit.
- They attack insect nervous systems.

Neonics highly toxic to pollinators

- Sub-lethal doses impair pollinator’s ability to:
  - learn and remember where flowers are located.
  - navigate back to its colony leading to Colony Collapse Disorder (CCD) — when a hive dies but the bees are gone.

Test showed neonics kill honey bee hives in winter

“Bees from six of twelve neonicotinoid-treated colonies had abandoned their hives, and were eventually dead with symptoms resembling CCD. However, we observed a complete opposite phenomenon in the control colonies [no exposure to neonics] which … re-populated quickly with new emerging bees”. One of the six control colonies was lost due to Nosema-like infection.”

Lu, Warchol, Callahan
Department of Environmental Health, Harvard University
Bulletin of Insectology 67 (1): 125-130, 2014

Comparing performance

- 50% of hives exposed to neonics died during the test and all failed to build up in the spring.
- 17% of hives not exposed to neonics died but remaining hives built up normally in the spring.

Comparing dead bees showed neonics caused CCD - like symptoms

Dead control hive - lots of dead bees

Dead neonic hives - few dead bees.

Neonics Harm Bumble Bees

"We exposed colonies of bumble bee[s]... to field-realistic levels of the neonicotinoid imidacloprid. Treated colonies suffered an 85% reduction in production of new queens compared with control colonies."

Whitehorn, O'Connor, Wackers, and Goulson,
School of Natural Sciences, Lancaster University, UK

Science, Vol 336, 20 April 2012

What can home owners, gardeners, landscapers and golf courses do?

- Check pesticide labels: avoid products containing pesticides such as “Merit”.
- Use safe alternatives: Milky Spore for lawn grubs, tick tubes and repellant for deer ticks.
- Avoid neonics on crops that pollinators visit: corn, strawberries, squash, cucumbers, etc.
- Adopt successful organic pest control methods.
- Plant pollinator-friendly plants, shrubs and trees.

What can towns and conservation organizations do?

- Avoid using neonics on their parks, forests and trees.
- Add pollinator-friendly plants, shrubs, and trees to town land.
- Practice land-management that supports pollinators.

What else?

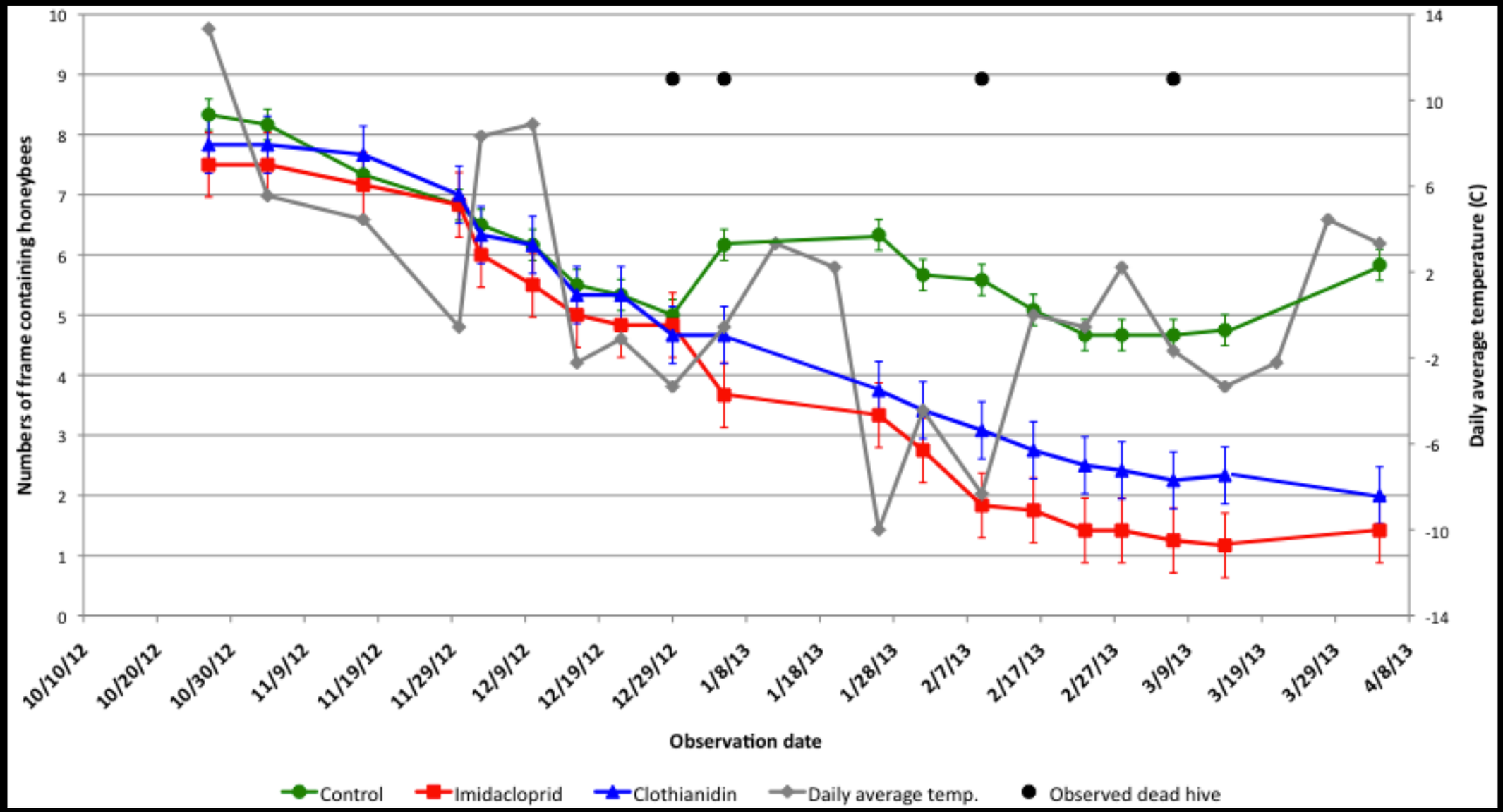
- Support two bills in the Massachusetts House: H.655 — which requires licensing of neonic applicators, and H.3417 which sets up a further study of Colony Collapse Disorder.

- Contact the EPA before mid March, to comment on its preliminary pollinator risk assessment of 25 ppb (parts per billion) for imidacloprid.

- Support Concord’s resolution concerning neonicotinoids (Article 46)

Winter populations of test hives: green/no neonic, red and blue sub-lethal neonic exposure

(Second of two reports by Harvard School of Public Health)



Proposed Resolution:

“To determine whether Town Meeting will vote to request the Select Board to transmit to appropriate state authorities Town Meeting's support for more targeted and comprehensive regulation of the sale and use of neonicotinoid pesticides in the hope that this would reduce their impact on the devastation of bee populations, to eliminate their use on town properties by town departments, and to direct town departments to use all legal means to discourage their use within the town.”

ARTICLE 48

To determine whether the Town will vote to amend the Town Bylaws by adding a Bylaw for the reduction/elimination of neonicotinoid pesticides, because extremely small amounts of this pesticide family are extremely toxic to honey bees and other pollinators, or take any other action relative thereto.