



ARTICLE 40. Neonicotinoids Prohibition on Town Land

To determine whether the Town will vote to ensure that any new leases or license agreements (not including renewals) entered into by the Town for agricultural or retail use on Town-owned land will prohibit the use of neonicotinoids, including neonicotinoid-coated seed, or take any other action relative thereto.



Pollinators are at Risk!

- Pollinators are a necessary component of a healthy ecosystem and food system, providing essential pollination of plants in order to grow vegetables, herbs, and fruits.



- In MA, over 45% of agricultural commodities rely on pollinators, mainly wild and managed bees, for pollination.
- At risk due to climate change, habitat loss, pesticides and diseases.



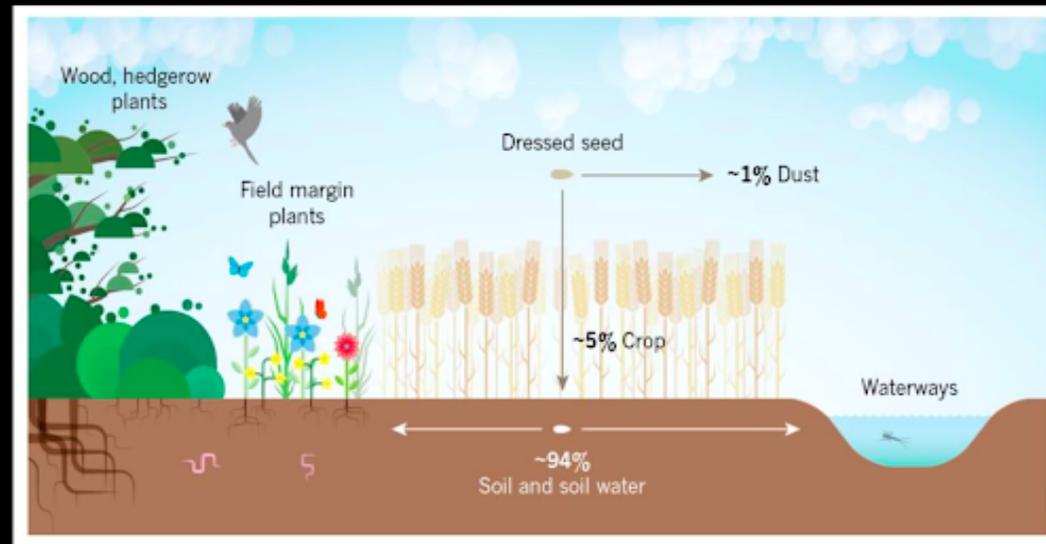
What are Neonicotinoids?

- Systemic insecticides resembling nicotine
 - Acetamiprid, clothianidin, imidacloprid, nitenpyram, nithiazine, thiacloprid and thiamethoxam.
- Introduced to the US market in the mid-1990s
 - Lower toxicity to mammals than organophosphate and carbamate insecticides
 - By 2011, over 90 percent of field corn and 40 percent of soybeans planted were treated with a neonicotinoid.
- Systemic action leads to distribution throughout plants.
 - Stem, leaves, nectar, pollen, vegetables & fruit.



Environmental fate of neonic seed dressings

ARTICLE 40



Goulson, D. 2014. *Nature*, doi:10.1038/nature13642

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- For the most commonly used seed treatments, reported half-lives in soil typically range from 200 to in excess of 1000 days.



MA Pollinators are at Risk

- Neonicotinoids present a major risk to bee pollinators
 - Direct mortality at very low doses
 - Sub-lethal effects render bees less able to forage, pollinate, and reproduce.
- Harvard research study (Lu et al., 2016)
 - Nearly three quarters of all pollen and honey tested from across MA contained at least one detectable neonicotinoid.
- Neonicotinoids have been banned in the European Union.



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