

Organizational Letter Urging Protection of Pollinators

Fall/Winter 2015

Dear Massachusetts Legislators,

On behalf of our millions of members and supporters, the undersigned organizations urge you to take immediate action to protect bees and other pollinators to protect Massachusetts agricultural economy, food supply and environment. We respectfully urge you support and help implement the Eight County President's Beekeepers Pollinator Protection Plan Framework created by local experts in bee health, supported by more than 3,000 beekeepers from the state of Massachusetts and submitted to the Department of Agricultural Resources for consideration to become the official Pollinator Protection Plan of Massachusetts, pass sensible restrictions on indiscriminate neonicotinoid use by passing H.655-An Act Protecting Massachusetts Pollinators, and increase investment in research and funding for implementation of alternatives that support a prosperous agricultural system and require large users of pesticides to publically report their usage annually.

Bees and other pollinators are essential to our nation's food supply, farming system, economy, and environment accounting for as much as \$27 billion to the U.S. economy annually,¹ but they are in great peril and populations are dwindling worldwide. A growing body of scientific evidence points to the widespread and indiscriminate use of a class of neurotoxic pesticides called neonicotinoids ('neonics') as a key factor in bee die-offs. These pesticides are used on 140 crops and in gardens and landscapes.² Neonicotinoids are now the most widely used class of insecticides in the world. Acute exposure to these pesticides can directly kill bees – some of the neonics are 5,000-10,000 times more acutely toxic to bees than DDT - while chronic exposure has been shown in laboratory studies to impair bee health, making it more difficult for the colony to breed, to fight off disease and pathogens, and to survive winter.³ What makes neonics so harmful to bees is that they are systemic – meaning they are absorbed into the cellular structure which then acts as poison in the whole treated plant including the nectar and pollen that bees eat – and they are persistent, lasting months or even years in the plant, soil, and waterways. Traditional best management practices for bee protection, such as not spraying during the day or on bloom, doesn't work for neonicotinoids.

Over thirty retailers, institutions, federal agencies and city and state governments recognize it is imperative to act quickly to protect pollinators from bee-toxic pesticides. The U.S. Fish and Wildlife Service will phase out use of neonicotinoids on all national wildlife refuge lands by 2016. In the past year, the European Union as well as the states of Minnesota and Oregon and nearly twenty cities including Spokane, WA, Seattle, WA, Eugene, OR, Minneapolis, MN, Boulder, CO and the province of Ontario, Canada have all passed measures to address the use of neonicotinoids. The Council on Environmental Quality released guidance for protecting bees on federal facilities and lands. This guidance outlines a number of recommendations including that federal lands acquire seeds and plants

¹ Losey, J.E. and M. Vaughan. 2006. The economic value of ecological services provided by insects. *Bioscience*, 56(4): 311–323

² Mullin CA, Frazier M, Frazier JL, Ashcraft S, Simonds R, vanEngelsdorp D, et al. 2010. High Levels of Miticides and Agrochemicals in North American Apiaries: Implications for Honey Bee Health. *F. Marion-Polled. PLoS ONE* 5:e9754; doi:10.1371/journal.pone.0009754.

Brown, Timothy, Kegley, Susan, Archer, Lisa, Finck-Haynes, Tiffany, Olivastrì, Beatrice. 2014. Gardeners Beware 2014: Bee-Toxic Pesticides Found in "Bee-Friendly" Plants sold at Garden Centers Across the U.S. and Canada. http://libcloud.s3.amazonaws.com/93/3a/3/4738/GardenersBewareReport_2014.pdf

³ Williamson SM, Wright GA. 2013. Exposure to multiple cholinergic pesticides impairs olfactory learning and memory in honeybees. *Journal of Experimental Biology* 216: 1799–1807; doi:10.1242/jeb.083931

Henry M, Beguin M, Requier F, Rollin O, Odoux J-F, Aupinel P, et al. 2012. A Common Pesticide Decreases Foraging Success and Survival in Honey Bees. *Science* 336: 348–350; doi:10.1126/science.1215039

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Pettis JS, Lichtenberg EM, Andree M, Stitzinger J, Rose R, vanEngelsdorp D. 2013. Crop Pollination Exposes Honey Bees to Pesticides Which Alters Their Susceptibility to the Gut Pathogen *Nosema ceranae*. *PLoS ONE* 8:e70182; doi:10.1371/journal.pone.0070182.

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from nurseries that do not treat these items with systemic insecticides and that chemical controls not be used in established pollinator habitats.⁴

Various stakeholders are taking steps to restrict the use of neonicotinoids, because the science is clear that pesticides are a leading driver of bee declines and are harming many other important and beneficial organisms, including birds, bats, butterflies, dragonflies, lacewings, ladybugs, earthworms, small mammals, amphibians, aquatic insects and soil microbes — putting food production and the environment in jeopardy.⁵ A global body of twenty-nine independent scientists - the Task Force on Systemic Pesticides- reviewed more than 1,121 peer-reviewed studies published in the last five years, including industry-sponsored studies, and called for immediate regulatory action to restrict neonicotinoids.⁶

Meanwhile, EPA has acknowledged its own program deficiencies and inadequacies in the following areas: enforcement guidance for neonicotinoids, a reporting system for bee kills, and labels on neonicotinoid products. This spring, EPA placed a moratorium on new or expanded uses of neonicotinoids,⁷ but has not addressed current uses on the market. In September 2015, the 9th Circuit Court ruled to revoke EPA's approval for sulfoxaflor, a bee-toxic neonicotinoid pesticide, saying, "Leaving the EPA's registration of sulfoxaflor in place risks more potential environmental harm than vacating it."⁸

If current rates of bee die-offs continue (an average of more than 30 percent per year) and with Massachusetts beekeepers losing 46.4% of their hives just this past year, it is unlikely that Massachusetts beekeeping industry will survive, putting our agriculture industry and our food supply at serious risk.⁹ To protect Massachusetts agricultural economy and environment, we collectively urge you to take the following steps:

1. Adopt the Eight County President's Beekeepers Pollinator Protection Plan Framework created and supported by more than 3,000 Massachusetts beekeepers.
2. Pass restrictions on neonicotinoid pesticides by first passing H. 655- An Act protecting Massachusetts Pollinators.

⁴ Guidance for Federal Agencies on Sustainable Practices for Designed Landscapes. The White House Council on Environmental Quality. www.whitehouse.gov/administration/eop/ceq/sustainability/landscaping-guidance. www.WhiteHouse.gov

⁵ Mullin CA, Frazier M, Frazier JL, Ashcraft S, Simonds R, vanEngelsdorp D, et al. 2010. High Levels of Miticides and Agrochemicals in North American Apiaries: Implications for Honey Bee Health. *F. Marion-Polled*. PLoS ONE 5:e9754; doi:10.1371/journal.pone.0009754.

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Krischik, V. A., A. Landmark, and G. Heimpel. 2007. Soil-applied imidacloprid is translocated to nectar and kills nectar-feeding *Anagyrus pseudo cocci* (Girault) (Hymenoptera: Encyrtidae) *Environ. Entomol.* 36(5): 1238-1245.

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⁶ Gibbons D, Morrissey C, Mineau P. 2014. A review of the direct and indirect effects of neonicotinoids and fipronil on vertebrate wildlife. Springer Berlin Heidelberg. doi: 10.1007/s11356-014-3180-5

⁷ U.S. Environmental Protection Agency. Letter. April 2 2015. <http://www2.epa.gov/sites/production/files/2015-04/documents/neonicotinoid-new-use.pdf>

⁸ United State Court of Appeals for the Ninth Circuit Court. No. 13-72346. 2015. <http://earthjustice.org/sites/default/files/files/sulfoxaflor-opinion.pdf>

⁹ Bee Informed Partnership. Colony Loss 2014-2015: Preliminary Results. <http://beeinformed.org/2015/05/colony-loss-2014-2015-preliminary-results/>

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3. Increase investments in green, fair and cutting-edge agroecological alternatives to neonicotinoids that support a prosperous agricultural system.
4. Require users of pesticides to publicly report their usages annually.

Thank you for your attention to this urgent matter. We hope that you will prioritize action on this issue of vital importance to our food system, economy and environment.

Sincerely,

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