

# Environmental issues with Neonic Restrictions

- The current available alternative does not have the same efficacy on tree and ornamental insects..
- The current data does not support banning the use of neonicotinoids. Most state more research is needed to fully understand any environmental implications that might be present.
- The EPA is currently performing an extensive review of many neonicotinoid insecticides including: imidacloprid, clothianidin, thiamethoxam, dinotefuran, and acetamiprid. The planned completion date of the review is in 2021 at which time the EPA will pursue risk mitigation.
- The bee population in NJ is doing well with the biggest issues in our state being attributed to the varroa destructor. Many hive losses are also attributed to the high rate of hobbyists who are not as diligent as commercial beekeepers at protecting their hives from the pest.

[https://research.beeinformed.org/reports/state\\_reports/state\\_report/?year=2018&state=NJ](https://research.beeinformed.org/reports/state_reports/state_report/?year=2018&state=NJ)

[https://research.beeinformed.org/reports/state\\_reports/state\\_report/?year=2017&state=NJ](https://research.beeinformed.org/reports/state_reports/state_report/?year=2017&state=NJ)

<https://downloads.usda.library.cornell.edu/usda-esmis/files/rn301137d/nc5819380/t148g6070/hcny0820.pdf>

- New Jersey has one of the most strict pollinator protection laws in place, with regulations requiring licensed applicators contact beekeepers prior to an application of a pesticide labeled to negatively affect bees.
- The industry supports the formation of a Healthy Pollinator Task Force whose purpose would be to look at pollinators in NJ and determine not only their state of well-being, but steps that should be taken to ensure health and prosperity in the State. A bill forming a Task Force was passed in the State Assembly and held up in the State Senate.
- Neonicotinoid insecticides were developed and utilized for their high mammalian safety factor and target specificity.
- Certified Pesticide Applicators are using neonics professionally and responsibly, utilizing Integrated Pest Management plans and only applying products to targeted plants.
- Written Best Management Practices have been outlined by the State Golf Course Superintendents Association (GCSANJ) and detail steps to take to insure applications are made in a responsible manner cognizant of the health of the surrounding pollinators and environment.  
[https://issuu.com/gcsanj/docs/new\\_jersey\\_best\\_management\\_practices\\_for\\_golf\\_cour](https://issuu.com/gcsanj/docs/new_jersey_best_management_practices_for_golf_cour)
- Many of the products used in the Green Industry are in a granular formation that do not come in contact with pollinators and are not even required to have pollinator warnings on the label.
- Neonicotinoids are used to protect native trees such as Ash and Hemlock from harmful invasive species. They are also proving to be very useful against the Spotted Lantern Fly as it continues to spread across the state. <https://apnews.com/article/insects-ithaca-trees-beetles-959993391658fa51bad2081f5ceec7ac#:~:text=ITHACA%2C%20N.Y.,visibly%20alter%20the%20campus's%20appearance>.
- The use of curative methods to control pest outbreaks will focus mainly on older less targeted chemistry and have a higher toxicity to non-target organisms.
- Turf applications present the lowest risk of both runoff and impact to pollinators of any outdoor usage of neonicotinoids yet are the only uses targeted by this bill.

- Turf applications also are one of the smallest use categories in terms of either acres treated or pounds of product applied.
- The proposed neonicotinoid bill has the exact opposite effect on the Environment when looking at Post Emergent Grub Control. According to Cornell University, Dylox, one of the few options available if the ban goes into effect, has an Environmental Impact Quotient (EIQ) of 307. Arena has an EIQ of 31.0. Arena has a 90% more favorable EIQ than the product we will be forced to use.

# Economical issues with Neonic Restrictions

- One of the more common species infesting turf *Popillia japonica* (Japanese beetle) was estimated in 2000 to cause over \$234 million in annual economic damage
  - USDA/APHIS, 2000. Managing the Japanese Beetle. A Homeowner's Handbook.  
[http://www.bueblo.gsa.gov/cic\\_text/housing/japanese-beetle/jbeetle.html](http://www.bueblo.gsa.gov/cic_text/housing/japanese-beetle/jbeetle.html)
  - Adjusted for inflation, the 2021 cost would be ~\$355 million
- A single preventive spring application of imidacloprid can provide effective season-long control of multiple white grub species.
- The current price of the alternative is as much as 10x the current price of neonic.
- Generic or alternate forms of the current alternative will **NOT** be available on the market for at least a few years. If other alternatives are brought to market, they will not be generic options and there is no reason to believe that prices will drop significantly.
- Forcing small businesses to shoulder the higher cost will negatively affect the employees they are able to maintain.
- Multi-year contracts that have been agreed upon for the yearly maintenance of commercial and residential properties are based on currently available chemistries. The sudden removal of products from the market will make it difficult for small businesses to
- Neonicotinoid treatment of hardwoods & conifers is valuable for the control of a number of highly destructive wood boring or invasive insects that cause billions of dollars of damage to forests, natural resources, & urban property values.
- Imidacloprid is one of the only chemical treatments that can provide long term control of invasive insects such as:
  - Hemlock Woolly Adelgid <https://www.fs.fed.us/foresthealth/technology/pdfs/HWA-FHTET2014-05.pdf>
  - Emerald ash borer  
[http://www.emeraldashborer.info/documents/Multistate\\_EAB\\_Insecticide\\_Fact\\_Sheet.pdf](http://www.emeraldashborer.info/documents/Multistate_EAB_Insecticide_Fact_Sheet.pdf)
  - Asian Long Horned Beetle [https://www.aphis.usda.gov/publications/plant\\_health/2016/faq-albtreatments.pdf](https://www.aphis.usda.gov/publications/plant_health/2016/faq-albtreatments.pdf)

For general landscape ornamental applications, imidacloprid has a high degree of effectiveness & utility.

- Broad effectiveness against common pests: aphids, leafhoppers, leafminers, mealybugs, psyllids, scales & whiteflies
- Usefulness for controlling critical invasive & emergent pests including: Asian citrus psyllid, Japanese beetle, glassy winged sharpshooter & silverleaf whitefly
- The systemicity of imidacloprid allows for soil & drench applications that reduce: - off target movement from drift - total applications per season to control pests - non-target exposure to pesticides such as pyrethroids, organophosphates, carbamates & others that would have to be applied more frequently as foliar sprays
- The presence of a the EPA "Bee Box" & other label language clearly communicates the hazard of imidacloprid to bees & provides guidelines for effective pollinator protection

Additional benefits for the use of imidacloprid in turf & ornamentals can be found at the comprehensive reviews housed at [www.growingmatters.org](http://www.growingmatters.org) Some key topics are summarized by the fact sheets below:

[Fact Sheet – The Value of Neonicotinoids in Flowers Trees Shrubs Lawns](#)

[Fact Sheet – About Neonicotinoids](#)

[Fact Sheet – Key Pests Controlled by Neonicotinoids](#)

[Fact Sheet – Emerald Ash Borer Case Study](#)

[Fact Sheet – Chinch Bug Case Study](#)

[Fact Sheet – Silverleaf Whitefly Case Study](#)