Neonic PID Desk Statement

Today, in the interest of better protecting families and pollinators, the EPA is proposing to cancel residential turf applications of imidacloprid, a neonicotinoid insecticide. This action is one of many the agency is proposing in its preliminary interim regulatory decisions for imidacloprid, clothianidin, thiamethoxam, dinotefuran and acetamiprid.

The preliminary neonicotinoid decisions reflect EPA's cutting-edge risk assessments and extensive benefits and risk mitigation analysis, representing more than a decade of work. The EPA is confident that implementing targeted application rate changes, restrictions on specific applications, best practices on farms and other mitigation measures will substantially decrease potential risks, which are balanced by the benefits of this important class of pesticides.

The agency invites comments on the decisions in the following linked dockets through DATE:

[HYPERLINK "https://www.regulations.gov/docket?D=EPA-HQ-OPP-2008-0844"]
[HYPERLINK "https://www.regulations.gov/docket?D=EPA-HQ-OPP-2011-0865"]
[HYPERLINK "https://www.regulations.gov/docket?D=EPA-HQ-OPP-2011-0581"]
[HYPERLINK "https://www.regulations.gov/docket?D=EPA-HQ-OPP-2011-0920"]
[HYPERLINK "https://www.regulations.gov/docket?D=EPA-HQ-OPP-2012-0329"]

Additional Background

The neonicotinoids are a group of insecticides used in agriculture to treat foliage, soil and seeds for a wide variety of crops. They are also used to treat turf, ornamentals, pets (for fleas) and other residential and commercial indoor/outdoor uses. Though all five of these substances are in the neonicotinoid class, acetamiprid is chemically distinct (cyano-substituted) from the others (nitroguanidine-substituted, or N-S) and has a generally lower risk profile to people and non-target species, such as bees, than the other four N-S compounds. Please see the acetamiprid docket linked above for more information.

For imidacloprid, one of the N-S neonicotinoids, new data that was brought to the agency's attention during a public comment period indicates excessive human health risks to both children and adults from residential turf spray applications. The EPA is proposing to cancel all residential turf applications under the Food Quality Protection Act due to these exceedances. Although this is an important use in the market, the agency is required to mitigate non-occupational residential risk under FQPA to ensure "reasonable certainty that no harm will result from aggregate exposure" from pesticide residue in food, drinking water or from residential uses. If implemented, this cancellation will also reduce imidacloprid risks to bees in residential turf scenarios.

Our ecological risk assessments show that for all the N-S neonicotinoids, spray applications pose potential risks to bees. But balancing risks against benefits is a key requirement of U.S. pesticide law. While other countries only look at risk, federal law requires the EPA to use the most robust data available to identify risks as well as benefits and consider both in our pesticide regulatory decisions. So, we preferentially targeted mitigation to pollinator risks on scenarios where the risks were high, but benefits were low. The proposed N-S neonicotinoid decisions include reductions in the amount of insecticide that can be applied, which are tailored specifically to the risks and benefits associated with each crop.

The EPA has applied this same approach to identify and address potential risks to other non-target species, including birds and aquatic species across all approved uses. Through well-informed, targeted approaches to mitigation, the agency is confident the risks that remain from approved uses of the neonics are appropriately balanced by the benefits, as defined in federal law.

One key benefit of the neonicotinoid pesticides is that they are often the most effective protection against particularly difficult pests. In Florida, for example, the Asian Citrus Psyllid represents an existential threat to citrus growers. By the time orange and other citrus trees shows signs of infestation by this invasive

pest, the crop is ruined, and the trees will die. There are similar problems with other pests for cotton, grapes and other crops.

The EPA believes these and other benefits, which are discussed in detail in the benefits assessments in the linked dockets, effectively balance out the real-world risks.

Neonic PID Internal Qs & As

Q1) Why isn't EPA banning the neonics like they have in the EU, Canada and other countries?

One reason why EPA's pesticide regulatory decisions sometimes do not track with those of foreign countries is that federal pesticide law in the United States is rather unique. The Federal Insecticide, Rodenticide, and Fungicide Act requires the agency to consider the risks and the benefits of registered pesticide use, but many other countries only look at risks. The EU, for example, has codified a '[HYPERLINK "https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3Al32042"],' under which manufacturers must "prove the absence of danger." This naturally leads to different regulatory conclusions than a paradigm that requires risks to be balanced against benefits.

Another reason EPA's decision differ from other countries is that our crops, climate and other factors differ, which results in both different pest pressures and associated approved uses. Canada, for example, has no commercial citrus groves and produces ~1/70th the amount of grapes the US does.

Q2) Canada is banning the neonics due to risks to aquatic invertebrates. Why isn't EPA doing the same?

Potential risks to aquatic invertebrates, which fill a foundational role in ecological food webs, are a concern. But Canada does not have the risk/benefit balancing requirement that the EPA must account for under FIFRA. To address concerns about aquatic invertebrates under U.S. law, EPA put unprecedented effort into evaluating the risks to aquatic invertebrates that are associated with all uses, crops, crop stages, sites etc. We found that risks could be mitigated to acceptable levels by, for example, adjusting application rates or timing. We also have a very robust data set supporting our proposed drift and runoff mitigation, which we believe will sufficiently lower potential risks to these ecologically important species.

Q3) What about risks to birds from seeds that have been coated with neonicotinoids to protect the plant as it sprouts and grows?

There are potential risks to birds and small mammals associated with seeds that are coated with neonicotinoids, but we believe that Best Management Practices—such as farmers picking up spilled seed—will be effective in mitigating that concern. Also, high-tech planting equipment using GPS and computer controls is becoming increasingly common in America and helps decrease incidence of spills over older, manually-operated equipment. Seed treatments also have very high benefits and a much better risk profile for people and wildlife, including endangered species, compared to spray applications.

Q4) What about risks from pet flea and tick products?

Though this has been less of a hot topic in media reporting compared to pollinator concerns, there are many human and pet health incident reports the EPA has received that are associated with neonicotinoid flea and tick collars. Over the years, we have required registrants to make changes to certain products that we believe adequately addressed concerns. However, we continue to receive reports. At this time, we are not proposing additional mitigation on pet collars because the benefits are very high, with tens of millions of collars sold per year without ill effects, and the risks remain unclear. The agency will continue to monitor these incidents.

Q5) What about the human health risks?

In addition to the risks to both children and adults from residential turf spray applications of imidacloprid described in the Desk Statement, EPA also identified exceedances for several occupational use

scenarios. For example, workers in seed treatment facilities and applicators in certain agricultural spray scenarios have potential for excessive risk. The EPA is proposing to mitigate these risks by requiring additional Personal Protection Equipment such as gloves, respirators or requiring closed loading systems on labels. The agency does not anticipate significant pushback on these proposals. Under the Federal Insecticide Fungicide and Rodenticide Act, the EPA is required to balance both risk and benefits for each use, however, with cooperation from industry there was mutual agreement on the proposed label changes that would significantly reduce, and eliminate in many scenarios, potential exposure to workers.

Q6) What about bee kills caused by dust off from seed treatments?

For the neonicotinoid active ingredients with seed treatment uses, the potential for off-site drift of contaminated dust at the time of planting was noted in the risk assessments. This concern is supported by multiple bee kill incidents that were associated with the planting of treated seed, particularly with corn, canola and soybean. This potential exposure of bees to treated seed dust can occur directly during planting and/or from direct contact and ingestion of dust residue on or in surface water, pollen and nectar.

The EPA is focusing on mitigating risks from this exposure pathway through wider education and encouraging Best Management Practices. The agency is working with the regulated community in the development of new technologies to reduce potential dust-off during planting. [HYPERLINK "https://www.epa.gov/pollinator-protection/2013-summit-reducing-exposure-dust-treated-seed"] provides more information on this issue.

The docket at the time of release of the preliminary interim decision will also include stewardship pieces from the EPA and the technical registrants discussing potential ways for increasing education on Best Management Practices that reduce potential exposure to bees from dust-off.

Q7) Is EPA's proposed mitigation protective of bees/pollinators?

EPA's risk management approach for the neonics is to preserve a key tool for growers while maximizing targeted risk reduction, particularly to honeybees that provide a benefit to agriculture through pollination services. Bumble bees, leafcutter bees and blue orchard bees also play unique and important roles in commercial pollination services. Protecting honeybees protects agriculture, in that many crops requires commercial pollination. Risk mitigation that reduces impacts to commercial pollinators also mitigates risks to wild, native species of bees. Rate reductions for certain crops where pollinator/bee exposure is expected to be the highest help in reducing potential risks to all pollinators.

Overall, EPA is proposing addressing risk to pollinators through the following general methods:

1. Targeting uses with potentially higher risks and lower benefits through reducing certain rates or restricting critical pre-bloom exposure period.
2. Preserving the current restrictions for application at-bloom to reduce the (acute risk) immediate impacts of exposure.
3. Discouraging use by homeowners to reduce overall exposure, ensure responsible use and prevent overuse/misuse.
4. Reducing exposure off-site through drift and runoff mitigation.
5. Promoting voluntary stewardship efforts to encourage best practices, education and outreach to applicators and beekeepers

Neonic PID Tweets

Regulatory transparency helps reduce risks to families and bees: new data submitted during an open comment period supports EPA's proposal to cancel residential turf applications of imidacloprid, a popular neonicotinoid insecticide.

Popular theories in the media over the years said that 'neonic' insecticide seed coatings and systemic uses made nectar and pollen toxic for bees. EPA's assessments make clear the theories were #FakeNews.

Like orange juice? Asian Citrus Psyllid represents an existential threat to US citrus growers. EPA's proposed regulatory decisions on 'neonic' insecticides lets growers continue protecting their groves.