Watts Remy

From: ray seidler <rayseidler@msn.com>
Sent: Monday, March 25, 2019 10:27 PM
To: SENR Exhibits
Subject: I support pesticide legislation

March 23, 2019
Oregon Senate Committee on Environmental and Natural Resources
Oregon House Committee on Agriculture and Land Use.
Salem, OR.

Dear Committee members:
I write as a scientist with about 40 years of research and teaching experiences with environmental microbiology, chemistry, and risk assessments of genetically engineered crops and their pesticides. I am a retired Professor of Microbiology from Oregon State University, and a retired Senior Research Scientist with the United States Environmental Protection Agency. I write to enthusiastically support HB3058 and SB853 to regulate neonicotinoid insecticide sales and use for homeowners and to prohibit the sale and use of the insecticide chlorpyrifos.
As you deliberate the fate of House Bill3058 and Senate Bill SB8534 I ask you keep the following issues in mind.
Neonicotinoids (neos) are chemical modifications of nicotine. Nicotine is the addictive chemical found in tobacco. Bee behavior studies are consistent with bees and bumble bees becoming addicted to exposures to neos and pollinators may actually seek that chemical out repeatedly in "natural" field exposures. 1
Dr Richard Gill, from the Department of Life Sciences at Imperial College, said, "Given a choice, native bees initially appear to avoid neonicotinoid-treated food. However, as individual bees increasingly experience the treated neo-containing food they develop a preference for it. "3 I say, simple 1-time experimental dose/toxicity laboratory studies conducted by industry for regulatory purposes therefore, may not be reflective of real-world accurate assessment of pollinator exposures. Bees may be repeatedly exposing themselves to addictive neos just like addicted humans repeatedly crave exposures to nicotine.

Other political districts in the world have already banned or restricted the use of neonicotinoid insecticides, primarily due to their multiple impacts on honeybees and native bees. For example, EU member states have voted in favor of a total outdoor ban on three neonicotinoid pesticides thiamethoxam, clothianidin, and imidacloprid across the EU in order to protect pollinators. Their use is still allowed in confined greenhouses. 2

It is incredible that over 800 peer reviewed scientific studies have been published in the last 8-10 years showing innumerable impacts of neonicotinoids on various classes of beneficial non-target organisms and little or no regulatory actions have taken place by the United States regulators. 4 Studies have shown the toxic reach of neos extends far beyond just pollinators because this class of insecticides persist for years in soils and are highly mobile, moving from fields into lakes, streams, ponds, wetlands, into neighboring soils, into weedy plants, and even into the shellfish in estuaries. Neos impact activities of microbes, earthworms, and numerous other creatures in soil ecosystems. 5

One of the most important aspects about these Bills is that it will make it harder for homeowners to purchase and use neonicotinoids. This is a good thing because over half of these insecticides are bought and used by home owners.6 As a rule these folks would not be knowledgeable about neo non-target effects, know how to make appropriate dilutions of the concentrated materials, and perhaps not be as concerned about impending rain events when the neos are applied since they spread rapidly in water systems.
The potency of a Neo will vary with the compound but it's about 5,000-10,-000 times greater than DDT. 7. This potency makes it even harder for homeowners to make the appropriate dilutions (if necessary) and to use the insecticide properly. Properly educated and licensed professional applicators are needed to use these insecticides if their use is going to be allowed.

Taken collectively, home owners are probably more to blame than farmers for some of the many issues associated with dispersal of these insecticides into the environment. I strongly support making neos a restricted use allowed to be used only by professional applicators.

The banning of chlorpyrifos should be one of the easiest decisions that any legislature or regulatory body can make. Various studies have documented the positive correlation between exposures to chlorpyrifos (aka Dursban, Lorsban, etc) and damage to the developing brain of babies and young children causing lowered I.Q., delayed motor development and other neurological effects. This pesticide is banned for homeowner use but it is still used commercially on a variety of fruits and vegetables that can be consumed raw (e.g. apples, broccoli). Even low to moderate levels of exposure to the insecticide chlorpyrifos during pregnancy may lead to long-term, potentially irreversible changes in the brain structure of the child, according to a 2012 brain imaging study by researchers from the Columbia Center for Children's Environmental Health.8 This study was the first to take MRI brain scans and noted structural brain changes that correlated with loss of cognitive functions.
As long ago as 2016 an EPA science advisory committee (SAP) cited that epidemiology and toxicology studies suggest there is evidence for adverse health outcomes associated with chlorpyrifos exposures. 9 The decision to ban chlorpyrifos through an EPA decision has been on and off for the last several years. The current administration has been allowed to appeal a recent decision to ban it as recently as February of this year.10
It is long past time that this toxic organophosphate insecticide be banned for sale in Oregon.

Citations:
1.https://www.theguardian.com/environment/2018/aug/29/like-nicotine-bees-develop-preference-for-pesticides-study-shows
2. https://www.theguardian.com/environment/2018/aug/29/like-nicotine-bees-develop-preference-for-pesticides-study-shows
3. https://www.chemistryworld.com/news/europe-to-impose-near-total-ban-on-neonicotinoids/3008965.article

4.https://www.newscientist.com/article/dn25783-neonicotinoid-pesticides-are-bad-news-for-everything/

5. https://www.iucn.org/content/systemic-pesticides-pose-global-threat-biodiversity-an ecosystem-services
6.https://www.ncbi.nlm.nih.gov/pubmed/29952204
7.https://www.xerces.org/wpcontent/uploads/2016/10/HowNeonicsCanKillBees_XercesSociety_Nov2016.pdf
8. https://www.mailman.columbia.edu/public-health-now/news/prenatal-exposure-insecticide-chlorpyrifos-linked-alterations-brain-structure
9. https://www.epa.gov/sites/production/files/2016-10/documents/session_7f_chlorpyrifos_update.pdf

10. https://www.reuters.com/article/us-usa-epa-pestocide/epa-wins-new-chance-to-argue-against-pesticide-ban-idUSKCN1PW20B

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