

**Testimony transcript for Aimee Code, Pesticide Program Coordinator,  
The Xerces Society for Invertebrate Conservation**

**OREGON HOUSE COMMITTEE ON AGRICULTURE AND NATURAL RESOURCES**

**Hearing on House Bill 4139**

**Oregon State Capitol**

**February 12, 2014**

**8:00 A.M.**

**900 Court Street NE, Salem, Oregon 97301**

Thank you for taking the time to consider legislation to address the important issue of protecting pollinators from pesticides.

With pollinator crop services estimated at \$600 million per year in Oregon alone, addressing the risks of neonicotinoids and other pesticides to pollinators is necessary to maintain Oregon's vital agricultural industry.

The Xerces Society is cautiously supportive of HB 4139. The educational component of this bill will help better inform licensed applicators about ways to limit pollinator exposure to these pesticides. Through the task force, this bill also has the *potential* to create meaningful legislation that will help protect pollinators and other beneficial insects from insecticides. Still, our support is restrained as the direction the task force will chose is still unknown and education alone cannot solve the problems these pesticides pose to pollinators.

The Xerces Society supports the creation of a solid regulatory framework to reverse the concerning trends in pollinator decline linked with exposure to neonicotinoid insecticides.

These chemicals entered the market in the mid-1990s. They were touted as least toxic and therefore their regulation was relatively lax. Whereas many insecticide products designed for commercial use are restricted, meaning you need a license to apply them, the vast majority of commercial neonicotinoid products were not listed as restricted use. Therefore, businesses can use these products at their place of business, without any training beyond what the label affords.

Furthermore, some labels failed to set clear guidelines on use rates. A Xerces Society analysis of a single home garden product for use on apple trees exposed that the active ingredient could be applied at 32 times the rate allowed in agriculture.

We raised this issue with the Oregon Department of Agriculture and action is being taken to rectify the problem. Thank you ODA. Still, this raises the question: how many other products have similarly inadequate regulation?

The tidal wave of scientific studies demonstrating their significant persistence, their widespread use, their contamination of water, and most importantly their toxicity to pollinators and yes to people warrants greater regulatory oversight.

The U.S. Environmental Protection Agency has initiated registration reviews for the neonicotinoids. But those processes are slow, not scheduled for completion until 2019.

With HB 4139, Oregon has the opportunity to craft more immediate solutions that work for Oregonians. I hope you'll support HB 4139, and subsequent meaningful legislation in 2015.

Thank you for your time. I am happy to answer any questions.

### **Background on the impact of neonicotinoid pesticides in pollinator decline**

Pollinators are in decline. Annual losses of honey bees in the U.S. are from 30% to over 40%. Many of the nation's native bumble bees are also in decline.

Bees are threatened by multiple causes including habitat loss, disease, and pesticide use.

Imidacloprid, clothianidin, dinotefuran, and thiamethoxam (four of the most widely used neonicotinoids) are highly toxic to honey bees and bumble bees. Some of the breakdown products are just as toxic.

Even if bees are not killed outright sublethal levels of neonicotinoids can damage the ability of honey bees to fly and navigate and learn new tasks, which can impair their foraging ability.

There is also emerging evidence that neonicotinoids affect the honey bee queen's ability to lay eggs. All of these issues impact hive health.

Bumble bees exposed to imidacloprid at levels found in crops produced 85% fewer new queens and had significantly reduced colony growth rates. Loss of queens will decrease future bumble bee populations.

This risk of neonicotinoids goes beyond pollinators. Several recent studies show that systemic insecticides can have a negative impact on natural enemies, such as lady beetles that attack crop pests.

We know that when pollinators or other beneficial insects are exposed to these chemicals there can be a negative impact. The likelihood is high that bees and other beneficial insects are being exposed to harmful levels of these chemicals in the environment.

- **These products have a systemic mode of action:** This means they translocate into every part of the plant including nectar and pollen. Soil drenches to pumpkins resulted in levels that caused sublethal effects or could be chronically lethal, and, as industry studies show, residue levels can be lethal in ornamental plants.
- **Neonicotinoids can be persistent for long periods in plants and soil.** They can persist in soil for months or years after a single application. Also untreated plants may absorb chemical residues in the soil from the previous year. Measurable amounts of residues were found in woody plants up to six years after a single application.
- **Neonicotinoids are commonly found in our nations streams.** Neonicotinoids are one of the most widely used class of chemicals in this country. The U.S. Geological Service routinely finds these chemicals in stream samples across the U.S.

### **To learn more about the toxicity of neonicotinoids to pollinators and beneficial insects**

Beyond the Birds and the Bees, Effects of Neonicotinoid Insecticides on Agriculturally Important Beneficial Insects: <http://www.xerces.org/beyond-the-birds-and-the-bees/>

Are Neonicotinoids Killing Bees? A Review of the Research into the Effects of Neonicotinoid Insecticides on Bees, with Recommendations for Action:  
<http://www.xerces.org/neonicotinoids-and-bees/>

### **Mission**

The Xerces Society is a nonprofit organization that protects wildlife through the conservation of invertebrates and their habitat. Established in 1971, the Society is at the forefront of invertebrate protection worldwide, harnessing the knowledge of scientists and the enthusiasm of citizens to implement conservation programs.