RE:SB 929 Oregon Pollinator Protection Act
DATE: March 27, 2017
POSITION: SUPPORT
COMMITTEE: Senate Environment and Natural Resources
FROM: Krystal R. Abrams, B.S. Environmental Science, Social Media & Pollinator Project Manager, Beyond Toxics, Eugene OR.

Honorable Senate Environment and Natural Resources Committee,

Nearly every Oregonian heard about the seven major bee die-offs that occurred in Oregon just two years ago – in each case, the investigation conducted by the Department of Agriculture concluded that the cause of the deaths of hundreds of thousands of bees was due to exposure to neonicotinoids. In some cases, the deaths were caused by acute exposure immediately following the spray and for days after the initial application. But the Agency found out something more worrisome: In other cases, the bees died from neonicotinoid contact from a treatment that had taken place more than a year in the past.

Neonicotinoids are the most widely sold pesticides in the US - they are commonly the active ingredient in garden and lawn products. Neonicotinoids are water soluble and systemic pesticides, meaning they are taken up in the vascular system of a treated plant, thereby rendering the whole plant toxic. Systemic pesticides don't wash off. The toxic ingredients become part of the nectar, the pollen and even the moisture, or sweat, of the plant. Bees are poisoned when they are exposed as they pollinate flowers.

Researchers across the United States, including a 2015 published report by the US Geological Survey (USGS), are repeatedly finding high levels of neonicotinoid residues in water that exceed the acute threshold for aquatic and soil invertebrates. The discovery of wide-ranging environmental harm caused by neonicotinoids must become the concern of the State of Oregon.

A USGS press release about the study noted that neonicotinoids can persist in soils and surface water from applications in prior years. Toxic concentrations can last up to a year post-application and sometimes longer. Studies show that even very low concentrations of these chemicals can be toxic to aquatic species.

Neonicotinoids are having effect on ecosystems at levels much lower than what is indicated on the pesticide labels. Currently, anyone can buy neonicotinoid-containing pesticides from a hardware store, or an all-purpose outlet like Fred Meyers, Bi-Mart or Lowes. Anyone can purchase these harmful chemicals and use them indiscriminately on their property with little or no knowledge of proper application.

As Oregon has done with over 400 other pesticide products, the government can require that neonicotinoids are labeled as a Restricted Use Product. The Restricted Use Product designation is used when a pesticide is too toxic in the environment for general use. Neonicotinoids are widely used by consumers on private property and are not regulated to reduce harmful impacts on the environment. The RUP designation insures only a professional applicator is able to buy and apply the product. Such a person would be trained and licensed by the Oregon Department of Agriculture.

Sincerely,

Krystal Abrams
Social Media & Pollinator Projects Manager
Beyond Toxics
1192 Lawrence Street
Eugene, OR, 97401

March 27, 2017

In Support of: SB 929 - Oregon Pollinator Protection Act

Senate Environment and Natural Resources Committee,

Our Statewide Coalition works to protect Oregonians and the natural systems we depend upon from the toxic impacts of pesticides. The coalition includes more than 50 organizations, institutions and businesses representing communities, farmers, anglers, waterkeepers as well as advocates for environmental justice, public health and wildlife. The Coalition requests a favorable vote on SB 929, the Oregon Pollinator Protection Act.

Neonicotinoids (a.k.a., neonics) are a widely used class of pesticides confirmed to be a major contributor to the decline of honey bees and wild, native bees. Their demise threatens our food supply and also adversely impacts wildlife, aquatic life and human health. Scientific confirmation **r**efers to a judgment in the scientific community that the preponderance of peer-reviewed research justify this conclusion. Peer review is conducted by a panel of independent experts in the same scientific field and who have no connection to the study and no conflicts of interest, and judge the research to be valid and worthy of publication. This is a transparent process. It is notably more rigorous than non-peer-reviewed research that for example, federal agencies receive from manufacturers. All research noted in this document has been peer reviewed.

Neonics are pervasive and persistent. Neonics currently account for approximately one third of the world insecticide market (Simon-Delso et al. 2014). Reducing the use and impact of neonics is an urgent issue. Here's why:

THE DECLINE OF HONEYBEES IS WELL DOCUMENTED: Beekeepers across the United States report losing 44 percent of their honey bee colonies during the year spanning April 2015 to April 2016. Total US managed honey colony loss estimates have ranged between 35 and 45% EVERY YEAR since the 2010-2011 season. Dennis vanEngelsdorp, an assistant professor of entomology at the University of Maryland, noted, "We're now in the second year of high rates of summer loss, which is cause for serious concern. Some winter losses are normal and expected. But the fact that beekeepers are losing bees in the summer, when bees should be at their healthiest, is quite alarming." In addition, the Rusty Patch bumblebee was recently listed as endangered, the first insect listed in the continental United States. Seven other Hawaiian species of bees have also been listed as endangered.

POLLINATION SERVICES: **Oregon insect pollination directly supports the agriculture industry in Oregon and is valued at more than $615 million, annually**.
A review of more than 1,121 peer-reviewed studies released in 2014 by the *Task Force on Systemic Pesticides* – a group of 30 global, independent scientists – confirmed that neonics are a key factor in bee declines and are harming beneficial organisms essential to functional ecosystems and food production, including soil microbes, butterflies, earthworms, amphibians, reptiles, and birds. The Task Force called for immediate regulatory action to restrict neonics. In addition to killing bees outright, a preponderance of research confirms that even low levels of these toxic pesticides impair bees' ability to find their way back to the hive, collect food, produce new queens, and fight off Varroa mite infestations.

This is an urgent situation that requires timely action, because more than one out of every three bites of food we eat depends on pollinators. Most fruits and vegetables require pollination -- carrots, avocados, pumpkins, berries, melons, squash, broccoli and so much more. Bees pollinate 71 of the 100 crops that make up 90 percent of the world's food supply.[i] No bees, no honey and no produce to feed our families. The impact is unimaginable.

URBAN USES: Urban pesticide use presents numerous concerns related to human and environmental health. Pesticide application in residential and public areas is threatening water quality in tributaries passing through urban landscapes and contributing to water quality at the watershed level. Current-use pesticides including products used by individual consumers play a significant role in river system water quality. Urban pesticide users may have little pesticide training or knowledge of pesticides, appropriate disposal practices, safer alternatives and Integrated Pest Management (IPM). Additionally, the amount and type of pesticides used by some of these groups is unreported and unknown.

PUBLIC HEALTH: Neonics are neurotoxins and may adversely affect the development of neurons and brain structures associated with functions such as learning and memory, according to recent research by the European Food Safety Authority. Some neonics may affect the developing human nervous system[ii] as well as potentially increase the risk of cancer, reproductive harm and endocrine disruption.[iii] The National Resources Defense Council had a well-respected GreenScreen review conducted to evaluate the human health hazards of neonics. The review identified potential hazards for the following human health endpoints: cancer, reproductive harm, developmental harm and potential endocrine disruption. As a result, NRDC and other organizations asked the NIEHS Office of Health Assessment and Translation to conduct hazard assessments of these pesticides.

AQUATIC LIFE: A USGS study found neonics widespread in the Clackamas watershed at levels toxic to aquatic life. A 2015 USGS study found 59 percent of all streams sampled nationwide had detectable levels of neonic contamination – including sampling from Oregon's Lower Clackamas and Mololla River watershed[iv]. Oregon game birds and fish population declines have also been linked to decreased diet quality due to lack of insect forage available.) Neonics are also linked to declines in macro-invertebrates (including slugs, snails, mayflies and crustaceans[v].

U.S. Fish and Wildlife Service phased out neonic use and it is now prohibited on national wildlife refuges. Some federal agencies are creating guidelines for creating and maintaining quality pollinator-friendly federal lands.

ALTERNATIVES ARE AVAILABLE: The good news is that there are safer neonic-free products available to consumers. (Please see attached chart identifying 30 pests with examples of neonic-free less-toxic products for each pest.)

SB 929 is a critical step to immediately reduce neonic contamination in Oregon's environment. Our landscapes and fishing streams and estuaries are at the brink of ecological collapse. We must act now to ensure that our wild bees, salmon, and birds remain healthy and alive in Oregon.
Our Statewide Coalition, and the many thousands of Oregonians our organizations and businesses represent, support SB 929 for the sake of our Communities, Bees and our Water.

Signed,

Businesses
Oshala Farm
Oregon's Constant Gardener
GloryBee Foods
Mountain Rose Herbs
Hummingbird Wholesale
Coconut Bliss
Bee Thinking
AVEDA
LUSH
NatureLee Inspired
Klamath-Siskiyou Native Seeds
Oregon Bee Store
Katalyst, Inc.
Garden Fever
Urban Bees and Gardens
Zitavex Labs, LLC
Wandering Roots Farm
Oregom Premier Locations
Silver Springs Nursery, Inc

Non-Profit Organizations
Asante Three Rivers Medical Center
Audubon Society of Portland
Beyond Toxics
Blue Mountains Biodiversity Project
Cascadia Wildlands
Center for Biological Diversity
Center for Food Safety
Coast Range Forest Watch
Defenders of Wildlife
Friends of Family Farmers
Friends of Trees
Hells Canyon Preservation Council
Kalmiopsis Audubon Society
KS Wild
Lane County Audubon
Lomakatsi Restoration Project
Native Plant Society of Oregon
– Siskiyou Chapter
Oregon Chapter of the Sierra Club
Oregon Conservation Network
Oregon Environmental Council
Oregon Natural Desert Association

Oregon Wild
Oregon Student Public Interest Research Group
OSPIRG – Southern Oregon University OSPIRG –
University of Oregon
OSPIRG – Lane Community College
Our Family Farms
Pacific Rivers Council
Pollinator Parkways
Pollinator Project Rogue Valley
Rogue Valley Audubon Society
Rogue Climate
Southern Oregon Monarch Advocates
Trout Unlimited
Umpqua Watersheds
Walama Restoration Project
Willamette Farm and Food Coalition

References:

i https://beeinformed.org/2016/05/10/nations-beekeepers-lost-44-percent-of-bees-in-2015-16/

ii http://www.efsa.europa.eu/en/press/news/131217

iii http://docs.nrdc.org/health/files/hea_16011101a.pdf

iv https://pubs.usgs.gov/sir/2008/5027/index.html

v http://journals.plos.org/plosone/article?id=10.1371/journal.pone.00623747