March 25, 2019

House Committee on Agriculture and Land Use
Senate Committee on Environment and Natural Resources
900 Court St. NE
Room 347
Salem, Oregon 97301
(503)-986-1731

RE: Oregon HB3058/ SB 853—A Ban on Chlorpyrifos and Restrictions on Neonicotinoids

Dear Honorable Members of the Senate Committee on Environmental and Natural Resources and Members of the House Committee on Agriculture and Land Use,

On behalf of Friends of the Earth and our 69,622 members and supports in Oregon, we are writing in support of HB 3058/SB 853, which would classify the neonicotinoid class of pesticides as "restricted use" in Oregon so that only those trained are able to use them. The bill would also ban the toxic pesticide chlorpyrifos. This bill is a necessary step to protect the environment, public health and the food system in Oregon.

With over 1.5 million members and supporters nationwide and 69,622 in Oregon, Friends of the Earth is an environmental organization that defends the environment and champions a healthy and just world. We're part of Friends of the Earth International, a federation of groups working in 75 countries on today's most urgent environmental and social issues. Our current campaigns focus on promoting clean energy and solutions to climate change, ensuring the food we eat and products we use are safe for our health and the environment, and protecting marine ecosystems and the people who live and work near them.

The way we manage our landscapes and grow our food is harming our bees, along with a host of other essential species—including wild bees, birds, bats, butterflies, dragonflies, lacewings, ladybugs, earthworms, small mammals, amphibians, and aquatic insects—based on an increasingly heavy use of ever more toxic pesticides, which is eliminating critical habitat and contaminating soil and water.[1, 2, 3, 4, 5, 6, 7, 8, 9, 10] Some scientists are saying we are in the midst of a "second Silent Spring."[11] Thousands of studies have been published identifying pesticide use, including neonicotinoids as a leading driver of bee-declines based on a strong and growing body of science and are calling for immediate restrictions to avoid further declines. If unsustainable losses of bees and other essential pollinators continue, it could lead to irreversible harmful effects on our food system and the environment. Further, the U.S. estimates that forty percent of all invertebrate pollinator species are on the brink of extinction.[12] In addition to these studies, which convey human exposure to pesticides, a recent meta-analysis reports on the devastating impact agricultural pesticides have on insect populations and predicts the "collapse of nature."[13] On the heels of this study, the Food and Agriculture Organization of the United Nations published a report warning that the state of the world's biodiversity threatens our food security, nutrition, health, livelihood and environment.[14]

Neonicotinoids are the world's most widely-used class of insecticides, they are used on over 140 crops.[15] The science is clear that neonicotinoids harm are having wide spread and long term impacts on our environment. In 2014, a comprehensive review of more than 1,121 peer-reviewed studies released by the *Task Force on Systemic Pesticides* – a group of global, independent scientists – confirmed 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, reptiles, and birds. The Task Force called for immediate regulatory action to restrict neonicotinoids.[16] In September 2017, the Task Force released a follow-up study on neonicotinoids and other systemic insecticides. The new assessment found even broader impacts than the 2015 conclusions. The scientists concluded that neonicotinoids represent a major worldwide threat to biodiversity and ecosystems and called for immediate action to prevent any further environmental destruction.[17]

Even at sub-lethal doses, these pesticides weaken the immune systems of bees making them more susceptible to pests and

pathogens.[18] Research also indicates that neonicotinoids are contaminating waterways and harming aquatic organisms, including crabs.[19] Further, the neonicotinoid imidacloprid is toxic to at least seven species of bird and causes testicular anomalies and reduced fertility, reduced eggshell thickness and embryo size, and reduced hatching success and chick survival in birds.[20] Just one seed coated in neonics is enough to kill a songbird, according to a report by the American Bird Conservancy.[21]

Bayer and Syngenta, the companies that manufacture neonics, commissioned a study published in the journal *Science* that tested fields in Europe for contamination and the effects on both managed and native bee colonies. This landmark study found clear evidence that bees who fed on plants treated with these pesticides suffered terrible losses.[22] Another study, also published in the journal *Science*, found neonics used in agriculture are contaminating nearby bodies of water and being absorbed into pollinator attractive plants, exposing bees to neonics.[23] Another study found that bumblebee queens exposed to neonicotinoids were 26 percent less likely to lay eggs, compared to queens that were not exposed. Researchers found that this rate of decline could threaten extinction of wild bumblebee populations.[24]

Oregon is also experiencing significant pollinator decline. According to the Bee Informed Partnership, from 2017-2018 beekeepers in Oregon lost an average of 35 percent of their hives.[25] This degree of loss is unsustainable (the beekeeping industry says annual acceptable losses are 14 percent or less).[26]

In addition, there is evidence that neonicotinoids may be associated with adverse developmental health outcomes, including congenital heart defects, neural tube defects, and autism spectrum disorder.[27] Research also indicates that neonicotinoids are potential endocrine disruptors and may alter estrogen levels in humans.[28]

This bill is consistent with action being taken by other states, cities and federal agencies in the United States. In April 2016, Maryland became the first state in the country to pass a bill to eliminate consumer use of neonicotinoids.[29] A few weeks later, Connecticut passed a bill restricting their use.[30] In August 2018, Minnesota's governor issued an executive order to restrict neonicotinoids, including creating a "Treated Seed Program," which would "provide the State with the authority to regulate seeds treated with pesticides, fund research to develop need-based recommendations for the use of seed treatments, and may require that untreated seeds and seeds treated at lower pesticide application rates are available in the market.[31]

More than 200 cities, states and universities across the U.S. have taken steps to restrict systemic insecticides, including neonicotinoids and plant pollinator friendly, native and drought tolerant plants that aren't pre-treated with these chemicals.[32] These entities include: Oregon, Minnesota, Atlanta, GA, Great Barrington, Marblehead, and Newton, MA, Seattle, Thurston County and Spokane, WA, Shorewood, St. Louis, Minneapolis, Andover, and Stillwater, MN, Ogunquit, ME, Eugene, Portland and Cannon Beach, OR, Boulder, CO, Warren County, NC, Skagway, Alaska, San Francisco, Palo Alto and Sacramento, CA as well as Emory University, Southern Oregon University and Vermont Law School.[33]

At the federal level, the Council on Environmental Quality released guidance in October 2014 recommending that federal facilities and federal lands not use systemic insecticides or acquire seeds and plants from nurseries that have been treated with systemic insecticides.[34] In 2015, the EPA announced a moratorium on new or expanded uses of neonicotinoids while it evaluates the risks posed to pollinators.[35] In September 2015, the 9th Circuit Court ruled to revoke EPA's approval for sufloxaflor — a neonicotinoid — saying, "Leaving the EPA's registration of sulfoxaflor in place risks more potential environmental harm than vacating it."[36] At the end of 2017, EPA issued its aquatic and non-pollinator risk assessment which found that the majority of uses of neonicotinoids on currently registered crops resulted in risks to freshwater invertebrates that exceeded levels of concern — the threshold at which harm is known to occur. The agency also found that risks posed to certain birds from eating neonic-treated seeds exceeded the agency's level of concern by as much as 200-fold. The EPA's own assessment found that if neonic-treated seeds make up just one percent to six percent of a bird's diet, serious harms could result.[37] In response to growing scientific concern, the European Union recently voted to ban all outdoor uses of neonicotinoids and Canada has proposed following suit.[38, 39]

In the marketplace, more than 140 garden retailers, nurseries and landscaping companies, including the two largest home improvement retailers in the world, Home Depot[40] and Lowe's,[41] as well as Walmart,[42] Whole Foods company's,[43] True Value,[44] Ace Hardware,[45] and BJ's Wholesale Club,[46] have committed to take steps to eliminate neonicotinoids. Greenhouse

Grower's 2016 State of the Industry Survey found 74 percent of growers that supply mass merchants and home improvement chains said they will not use neonicotinoid insecticides in 2016.[47]

We are supportive of this bill because it would also address the toxic pesticide chlorpyrifos. We are deeply concerned that chlorpyrifos is being used in Oregon in agriculture and to manage golf courses, which can cause some serious environmental problems including contaminating our water, ruining pristine streams, destroying habitats and producing landslides. Chlorpyrifos can cause brain damage in children,[48] contaminates our waterways and harms wildlife.[49, 50] This chemical is associated with reduced IQ,[51] loss of working memory,[52] attention deficit disorders[53] and delayed motor development.[54] Just a one-time exposure at a critical stage of fetal development can have a life-long impact, including severe learning disabilities and autism spectrum disorders.[55]

In the case of chlorpyrifos, it is particularly toxic to children. Further, this pesticide can drift at unsafe levels 300 feet from the turf's edge. This means that people playing golf, course employees and families living on or near a golf course could be harmed by this pesticide if it is used.[56] On golf courses, unless banned or identified, parents have no way of knowing if a course is using this chemical. There is no reason for us to be putting our children, public health or the environment in jeopardy. There are safer alternatives that golf courses can use. In Virginia, the superintendent of the Bayville Golf Club in Virginia Beach has said, "We refuse to use [chlorpyrifos]. It damages children's brains and is toxic to Bay life."[57] In addition, the Golf Course Superintendents Association noted in its 2017 March magazine that, "If more courses move away from primary reliance on adulticides, monitoring of larvae will become more important, which could, in turn, reduce total insecticide use. Because highly resistant weevil populations are also more tolerant of — if not resistant to — most of the currently available larvicides, superintendents will also have to start relying more on bio-rational insecticides and cultural means to manage weevil populations." It is really a no-brainer. If there are less-toxic alternatives, they should be used and chlorpyrifos should be banned. We urge the state of Oregon to take immediate action by passing HB 3058/SB 853 out of committee to make the state safer for people and the planet.

In addition to putting public health, particularly young children at risk, chlorpyrifos is also contaminating waterways. By eliminating chlorpyrifos, golf course superintendents will be protecting them from the impact of this toxic runoff. By using this toxic pesticide the state is unnecessarily putting species at risk. Federal scientists have concluded that this pesticide poses a risk to about 1,800 critically threatened or endangered species.[58] We will help protect them by taking action in Oregon.

This pesticide are also showing up in our food. Chlorpyrifos is widely applied in the production of fruits, vegetables, nuts and other conventionally grown crops.[59] In February, new testing conducted by Friends of the Earth in collaboration with fourteen organizations across the country revealed that store brand foods tested from Kroger, Albertsons/Safeway, Walmart and Whole Foods contain toxic pesticides including organophosphates (the same class of pesticides as chlorpyrifos) and neonicotinoids.[60] The foods tested were items that kids and families typically eat including oat cereal, apples, applesauce, spinach and pinto beans. These pesticides are linked to serious adverse human health impacts and environmental harm. A peer-reviewed study published in February in *Environmental Research* and led by researchers at UC Berkeley and Friends of the Earth found that switching to an organic diet and dramatically reduced exposure to pesticides in just one week.[61] The most significant declines involved organophosphates, a class of highly neurotoxic pesticides linked to brain damage in children: the study found a 95% drop in levels of malathion and a nearly two thirds reduction in chlorpyrifos. Organophosphates are so toxic to children's developing brains that scientists have recommended a full ban.[62] Farmers, farmworkers and rural communities are at increased risk of exposure; agricultural use of chlorpyrifos is associated with immediate and long-term adverse health impacts for those who are exposed.[63, 64, 65, 66, 67]

Chlorpyrifos is so dangerous that the EPA recommended a ban on this pesticide[68] However, that decision was reversed by EPA Administrator Scott Pruitt.[69] In response, numerous state attorneys general have filed a lawsuit against the EPA over the reversal, and the state of Hawaii just passed a bill banning chlorpyrifos.[70, 71] The science is clear that chlorpyrifos is unsafe for people and the environment and the pesticide should not be used in Oregon.

While the federal government is unwilling to prioritize people, especially children, over chemical company profits, the state of Oregon has an opportunity to stand up and pass legislation to protect its citizens. There is no reason to expose anyone in the state to a pesticide that is derived from a nerve gas made in Nazi Germany. For the sake of our children and for public health,

wildlife and the environmental in Oregon, we urge the committee to ban chlorpyrifos now and place restrictions on neonicotinoids by passing HB 3058/SB 853.

Sincerely,

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Friends of the Earth-U.S.

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