Submitted Testimony of Dr Dewey M. Caron, retired Entomologist, in support of SB853

I am a retired Professor of Entomology & Wildlife Ecology from University of Delaware and Affiliate Faculty member of the Department of Horticulture Oregon State University. When I retired in 2009 I moved to Portland Or to be closer to grandkids. I continue my interest with honey bees and extension efforts on improving Honey Bee Health

I write to support passage of HB 3058 that would ban purchase and sale of the Insecticide Chlorpyrifos and restrict use of neonicotinoids to trained individuals by licensing them as Restricted Use pesticides.

The unfortunate decision by the Federal Environmental Protection Agency (EPA) to delay cancellation of use of Chlorpyrifos, as recommended by most experts, continues to put Oregon citizens and our honey bee populations at unnecessary risk. Scientific studies have linked chlorpyrifos to brain damage in children, autism, cancer, reduced IQ, loss of working memory, attention deficit disorders and Parkinson's disease. ATTACHED fact Sheet provides details and sources.

Chlorpyrifos is consistently among the top 5 pesticide compounds found in residue sampling of bees and honey from Honey bee colonies. There are useful alternatives to this insecticide. It is time to begin to get it out of our environment; a ban on use in Oregon will help begin to reduce its presence. We need to take a pro-active stance in Oregon since leadership is lacking from EPA.

I testified last year relative to OR legislation to seek to place neonicotinoids on restricted use status but the legislation never made it out of committee. Neonicotinoids have been found in residue studies of common foods consumed in Oregon, taken form our own outlets. Numerous studies have demonstrated negative effects of neonicotinoids on individual honey bees and residue studies have revealed them present in colonies and bee bodies were analyzed.

Efforts are underway to seek voluntary removal of neonicotinoids from point-of-sale sites so homeowners do not have ready access to them but we need do more to help protect our citizens and pollinators such as honey bees. Restricting their use and providing better training to users of these compounds would help potentially to reduce their negative effects.

I strongly urge you passage of HB 3058 and passage to the full house for their enactment of this legislation to help protect the health of OR citizens and our environment, especially our highly vulnerable honey bee pollinator populations.

Denny W. Com

Attachment on Chlopyrifos

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## CHLORPYRIFOS HARM PEOPLE

Chlorpyrifos is linked to infertility, diabetes, respiratory diseases, developmental disorders and more.

Children are especially susceptible to exposure, resulting in brain damage and developmental disabilities.

Farmworkers and rural communities are at highest risk of exposure from drift.

Communities are exposed to drift from nearby fields and golf courses in their homes, schools and outdoor areas.

Chlorpyrifos is highly toxic to birds, fish and beneficial insects such as bees. <sup>5</sup>

There is no safe level of chlorpyrifos in drinking water. <sup>5</sup>

Chlorpyrifos are particularly dangerous for pregnant women because of their toxicity to the developing infant.



## FARMWORKERS AND CHILDREN ARE AT RISK

Chlorpyrifos is very harmful to farmworkers and are linked to developmental disabilities in children.<sup>1</sup> These are highly toxic nerve agent pesticides that can damage the developing brains of babies and children, leading to lower birth weight, reduced IQ, loss of memory, and delayed motor development.<sup>2</sup> It is also toxic to farmworkers regularly sickening them and sending them to the hospital. Many farmworkers are afraid to report pesticide exposure because they're afraid of being fired or reprimanded.<sup>3</sup>

## WILDLIFE AND WATER

The National Pesticide Information Center (NPIC) lists chlorpyrifos as "highly toxic" to fish, aquatic invertebrates and bees. It may build up in the tissues of fish and aquatic insects, poisoning animals up the food chain. The half-life of chlorpyrifos in soil is between 60 and 120 days, but can span over 1 year depending on the soil type and weather conditions.<sup>45</sup>

<sup>&</sup>lt;sup>1</sup> "Children's Exposure to Chlorpyrifos and Parathion in an Agricultural Community in Central Washington State." National Institute of Environmental Health Sciences, U.S. Department of Health and Human Services, ehp.niehs.nih.gov/doi/abs/10.1289/ehp.02110549.

<sup>&</sup>lt;sup>2</sup> "Rotenberg, Joshua S., and Jonathan Newmark. "Nerve Agent Attacks on Children: Diagnosis and Management." Pediatrics, American Academy of Pediatrics, 1 Sept. 2003,

pediatrics.aappublications.org/content/112/3/648.short.

<sup>&</sup>lt;sup>3</sup> Morones, Alyssa, and Alyssa Morones. "Pesticide Continues to Put Farmworkers and Fetuses in Harm's Way." California Health Report, California Health Report, 8 Sept. 2017, www.calhealthreport.org/2017/08/31/pesticide-continues-put-farmworkers-fetuses-harms-way/.

 <sup>4 &</sup>quot;Chlorpyrifos." National Pesticide Information Center, npic.orst.edu/factsheets/chlorpgen.html.

<sup>5 &</sup>quot;Chlorpyrifos." National Pesticide Information Center, npic.orst.edu/factsheets/archive/chlorptech.html