

Support SB 853, HB 3058, HB 2619

My testimony is based on my diverse background both in toxicology, environmental science, and my work with a private agricultural consulting firm that works with conventional farmers across the nation in the transition to certified organic farming practices. My testimony provides a balanced look at the issues related to the use of chlorpyrifos since I have research experience looking at the impacts of insecticides on wildlife, and my consulting work in the agriculture industry showing that the use of these powerful insecticide is not necessary in the economic success of large-scale farms.

Chlorpyrifos

Past research looking at the effects of chlorpyrifos on humans and wildlife has shown that the toxic mechanism of action of this powerful insecticide is the same as the nerve agent VX that has been used in chemical warfare. Most toxicological studies have focused on this effect. However, recent studies have shown that long-term exposure to low levels of chlorpyrifos has deleterious effects on humansⁱ, particularly the developing brain of children^{iii iv v}. These findings led the EPA to restrict the use of chlorpyrifos in homes^{vi}. However it is unfortunate that the EPA did not take the final steps to ban this dangerous pesticide forcing states to take action.

If we approach this problem using a logical perspective, we find it is not necessary to use insecticides that have significant impacts on both humans and other environmental compartments when we know there are safer alternatives (including safer chemicals that can be used that have no significant long-term economic impact on the farmer). The only reason there would be a lack of support to ban and/or restrict these insecticides would be the influence of lobbying from the chemical companies that produces these chemicals. To protect the health of farmworkers, to safeguard our food supply, and to protect our environment, we urge Oregon to join Hawaii in passing the statewide ban on Chlorpyrifos found in SB 853/HB 3058.

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ⁱⁱ Jaga K. and Dharmani C. (2003) Sources of exposure to and public health implications of organophosphate pesticides. *Rev. Panam. Salud Publica* 14, 171–185

ⁱⁱⁱ Eaton D. L., Daroff R. B., Atrup H. et al. (2008) Review of the toxicology of chlorpyrifos with an emphasis on human exposure and neurodevelopment. *Crit. Rev. Toxicol.* 38(Suppl. 2), 1–125.

^{iv} Engel S. M., Wetmur J., Chen J., Zhu C., Barr D. B., Canfield R. L. and Wolff M. S. (2011) Prenatal exposure to organophosphates, paraoxonase 1, and cognitive development in childhood. *Environ. Health Perspect.* 119, 1182–1188

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^{vi} Lemus R. and Abdelghani A. (2000) Chlorpyrifos: an unwelcome pesticide in our homes. *Rev. Environ. Health* 15, 421–433.