

## Chlorpyrifos and Christmas Trees in Oregon

- The U.S. Environmental Protection Agency has concluded that *all* uses of chlorpyrifos result in unsafe levels of exposure to people who handle chlorpyrifos and people who work in the areas where it is applied. This includes *all* uses on Christmas trees, which continue to pose risks of concern to workers at least 30 days after treatment.<sup>1,2</sup>
- Chlorpyrifos is *not* required to export Christmas trees to Mexico or the European Union. In 2018, the Oregon Department of Agriculture published a summary of export requirements. The guide does not refer to chlorpyrifos in any way. Rather, export to Mexico requires the use of the pyrethroid esfenvalerate, while the guide does not indicate any pesticide requirement for export to the European Union.<sup>3</sup>
- Mexico has a zero tolerance for Douglas-fir needle midge but, in addition to chlorpyrifos, the Pacific Northwest Insect Management Handbook recommends the pyrethroid bifenthrin and the neonicotinoid thiamethoxam for this pest.<sup>4</sup>
- In Oregon, bifenthrin is registered for use on Christmas trees and is registered for control of Douglas-fir needle midge on other conifers. Thiamethoxam is registered for use on Christmas trees although it is not registered for control of Douglas-fir needle midge. In addition, the neonicotinoid imidacloprid is registered for control of Douglas-fir needle midge on other conifers but not Christmas trees.<sup>5</sup>
- In short, with appropriate updates to Oregon pesticide registrations, it is likely that existing chemistries could allow the state's Christmas tree growers to control Douglas-fir needle midge in accordance with the requirements for exporting trees to Mexico.

## References

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- <sup>1</sup> US EPA, Appendix E: Occupational Handler Exposure and Risk Estimates (2016), <https://www.regulations.gov/document?D=EPA-HQ-OPP-2015-0653-0452> (accessed April 29, 2019).
- <sup>2</sup> US EPA, Appendix F: Occupational Post-Application Dermal Exposure and Risk Estimates (2016), <https://www.regulations.gov/document?D=EPA-HQ-OPP-2015-0653-0453> (accessed April 29, 2019).
- <sup>3</sup> Oregon Department of Agriculture, Christmas Tree Shipping Summary 2018, <https://www.oregon.gov/ODA/shared/Documents/Publications/NurseryChristmasTree/XmasNews.pdf> (accessed April 28, 2019).
- <sup>4</sup> Pacific Northwest Extension, Christmas tree (Douglas-fir)-Douglas-fir needle midge, <https://pnwhandbooks.org/insect/hort/christmas-tree/christmas-tree-douglas-fir-douglas-fir-needle-midge> (accessed April 28, 2019).
- <sup>5</sup> This was determined by searching Washington State University, Pesticide Information Center Online, <http://cru66.cahe.wsu.edu/LabelTolerance.html> (accessed April 28, 2019).