



NORTHWEST CENTER FOR
ALTERNATIVES TO PESTICIDES

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Dear Ms. Cook,

Thank you for inviting comment on Oregon OSHA's proposal to adopt alternate rules for worker protection. According to the text of the proposed changes, Oregon proposes to:

- decline to adopt portions of the recent federal rule strengthening worker protections for agriculture (the "Worker Protection Standard" or WPS - 40 CFR 170.405(a)), and
- to implement OAR 437-004- 6405 instead.

The federal rule, many years in the making, contained several elements to strengthen protections for people applying or exposed to pesticides in an agricultural setting. In particular, the new federal WPS rule adopted an Agricultural Exclusion Zone (AEZ) to protect anyone within range of a pesticide application. The AEZ, as described in the federal rule, refers to the area surrounding the pesticide application equipment that must be free of all persons other than appropriately trained and equipped handlers during pesticide applications. The AEZ moves with the application equipment, akin to a "halo." The size of an AEZ varies from zero to 100 feet, depending on the type of application and other factors, including droplet size, and height of nozzles above the planting medium.¹

According to the new federal WPS, provision 170.505(b) establishes a requirement for the handler to suspend the application if any workers or other persons are anywhere in the AEZ. This requirement is NOT limited to the boundaries of the establishment. This includes people occupying migrant labor camps or other housing or buildings that are located on the agricultural establishment.

Oregon OSHA's mission, prominently displayed at the website is: "To advance and improve workplace safety and health for all workers in Oregon."

¹ Under the federal rule, the AEZ is 100 feet for aerial, air blast, fumigant, smoke, mist and fog applications, as well as spray applications using very fine or fine droplet sizes (a volume median droplet diameter (VMD) size of less than 294 microns). An AEZ of 25 feet is required when the pesticide is sprayed using droplet sizes of medium or larger and from more than 12 inches above the plant medium. An application that does not fall into one of these categories does not require an AEZ.

OSHA spokespeople have framed the proposal as providing an “added margin of safety.” We certainly hope that OSHA crafted this revision in the spirit of protecting worker safety and health, however we disagree that the proposal improves on the federal rule. On the contrary, this proposal from Oregon OSHA does **not** protect workplace safety and health for all workers in Oregon and increases health risk when compared to the federal WPS rule, particularly in orchards where airblast sprays are common and drift is most likely to occur.

OSHA states that drift is not legal but ignores the fact that it occurs as a matter of course, even when following best practice models and label directions. In practice drift is very difficult to avoid. Research conducted by the University of Washington found that pesticides do not stay where they are sprayed. The Washington Aerial Drift study found “spray drift occurring despite adherence to general precautionary pesticide application guidelines.” This 2002 research analyzed a routinely scheduled aerial organophosphorus pesticide application of methamidophos in central Washington and tested the crops and surrounding rural agricultural community².

Additionally, the federal government uses standardized drift modeling in its risk assessment. Models used by the US government to estimate drift (Agdrift) yield estimated drift distances from aerial and airblast spraying in the neighborhood of 300 feet routinely. For example, the EPA’s recently completed biological evaluation for chlorpyrifos estimated 3-6% loss of pesticide from aerial application as far as 300 feet away.³ Another recently completed EPA risk assessment for imidacloprid estimates the drift fraction at 25 ft away from the spray to be approximately 3% and 1.5% for ground and air-blast applications, respectively.⁴ Both of these chemicals are commonly used in Oregon agriculture.

According to departmental reports from Washington, drift is the most common source of acute illness related to agricultural use of pesticides. During 2005-2012, farm workers suffered 66% of all illnesses from drift, and fifty-six percent of these illnesses were the result of off-target pesticide drift. It is widely believed that drift incidents are significantly underreported due to worker fears concerning retaliation and intimidation.⁵

Thus, drift happens, and the curve of drift is markedly higher the closer to the application site. Therefore, it is disingenuous to claim that a “shelter in place” strategy with no minimum buffer from pesticide applications would protect farm workers. The substandard houses (described as “drafty” in an OPB segment⁶) occupied by (often migrant) farmworkers are unlikely to be sealed adequately to prevent airflow exposure. OSHA understands this issue as the party responsible for inspecting farmworker work camps. Data obtained by OPB reveals that ten percent of OSHA citations written on farm worker work camps concern the soundness of roof, walls, windows and

² Tsai, M.-Y., Elgethun, K., Ramaprasad, J., Yost, M. G., Felsot, A. S., Hebert, V. R., et al. (2005). The Washington aerial spray drift study: Modeling pesticide spray drift deposition from an aerial application. *Atmospheric Environment*, 39 (33), 6194-6203.

³ U.S. Environmental Protection Agency (EPA). 2017. Biological Evaluation Chapters for Chlorpyrifos ESA Assessment. <https://www.epa.gov/endangered-species/biological-evaluation-chapters-chlorpyrifos-esa-assessment>, Appendix 3-3. Spray Drift Considerations for Chlorpyrifos.

⁴ U.S. EPA. 2017. Preliminary Aquatic Risk Assessment to Support the Registration Review of Imidacloprid. <https://www.regulations.gov/document?D=EPA-HQ-OPP-2008-0844-1086>, pp. 79-80.

⁵ Holmes, S. (2013). *Fresh Fruit, Broken Bodies: Migrant Farmworkers in the United States*. Berkeley: University of California Press.

⁶ Burns, J. 2017. Protecting Farmworkers From Pesticides By Sheltering Them Indoors Draws Skepticism. Oregon Public Broadcasting Report 12-13-17. <https://www.opb.org/news/article/sheltering-indoors-farmworkers-pesticides-oregon/>

doors. Worker housing should be located in the safest area possible and should be meet safety standards.

OSHA also ignores the possibility that workers or their family members will contact, even inadvertently, items that will or may be sprayed or drifted upon, including doors, door knobs, lawn chairs, picnic tables, cars, strollers or anything else left exterior to the housing.

Pesticide exposure puts not only workers, but also infants, children, and pregnant women at risk. Numerous studies have cited the vulnerability of these populations to pesticide exposure. Acute and chronic exposures during critical time windows are linked to a variety of chronic health effects.⁷

There are better alternatives, as well as less-toxic pesticides and sustainable farming practices that would reduce exposure. Organizations who work on behalf of farmworkers and their communities (including Pinos Campestinos del Noroeste (PCUN), Mujeres Luchadores Progresistas, FHDC, Latinos Unidos Siempre, SEIU, CBTU Trade Union, and Mano a Mano Family Center) as well as other allies want stronger - not weaker - protections. These organizations are asking for a 300-ft buffer zone around worker housing for pesticide spraying in agricultural fields and orchards. This measure will help prevent direct pesticide exposure for farmworkers and their families far better than either the federal AEZ provision or the OSHA proposal.

In solidarity with farmworker and community organizations mentioned above, NCAP supports a 300-ft permanent no-spray buffer around farmworker housing for all pesticide applications.

We note that OSHA proposes that each farm also provide information about pending pesticide applications at an “information station.” We strongly recommend that this information be in an area accessible to both farmworkers **and** their families. We also strongly recommend that the information include: accurate information on the products to be sprayed beforehand (active ingredient and product name); product label; application method to be used; dosage; and the pounds of active ingredient to be applied per acre. This will at least allow individuals to review the label, have some understanding of the risk and to choose whether to be present during the spray.

Farmworkers and their families deserve no less than these provisions. It is time for OSHA to be firm on this issue, and to adopt the best strategy to protect worker health and safety.

Thank you for the opportunity to comment.

Sincerely,

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⁷ Roberts, J. and Karr, C. Pesticide exposure in children. *Pediatrics*. 2012. 130(6):e1765-88. doi: 10.1542/peds.2012-2758. Epub 2012 Nov 26.