

Preventing Pesticide Exposure Among Farmworkers in the US



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INTRODUCTION

The United States food system is deeply reliant on the use of industrial agricultural practices that are of acute relevance to public health. Policies currently in place are unsustainable, encouraging overproduction, environmental degradation, economic exploitation, with deleterious effects to human and other animal health¹. The agricultural workers who labor in fields to produce and harvest food for the US food system are particularly vulnerable to harm, because of the social risk factors associated institutional practices and policies which leave little protections for farm laborers, most of whom are undocumented and Hispanic².

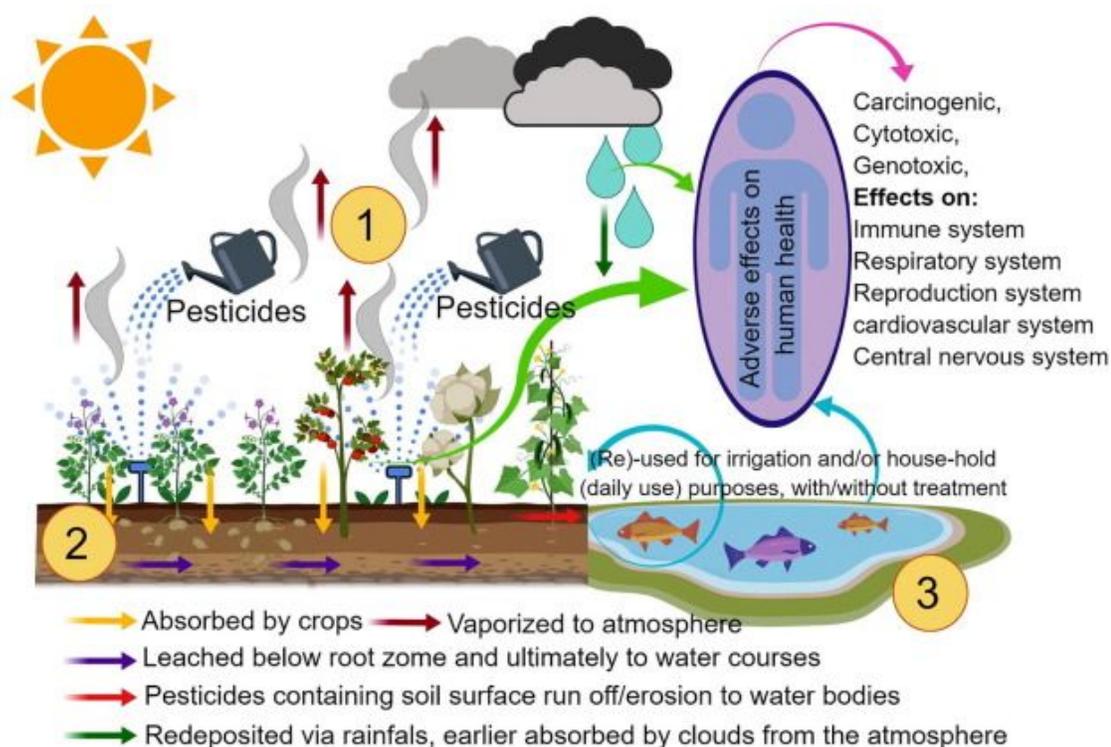


Figure 1: Systems impact of pesticide use on environmental and human health³.

An occupational hazard associated with this position is the risk of exposure to synthetic pesticides as demonstrated in figure 1.³ Agricultural workers are at an elevated risk of acute pesticide poisoning compared to non-agricultural workers by an order of magnitude or greater⁴. Pesticide exposure is associated with a number of serious health conditions, including prostate and lip cancers, and certain forms of lymphomas^{5,6}. Exposure to certain synthetic pesticides, in particular organophosphates, is associated with neurological and neuropsychiatric effects and disorders^{5,7}. There is also evidence pointing to adverse effects on pulmonary function, DNA damage, oxidative stress, metabolic, and thyroid functioning⁵.

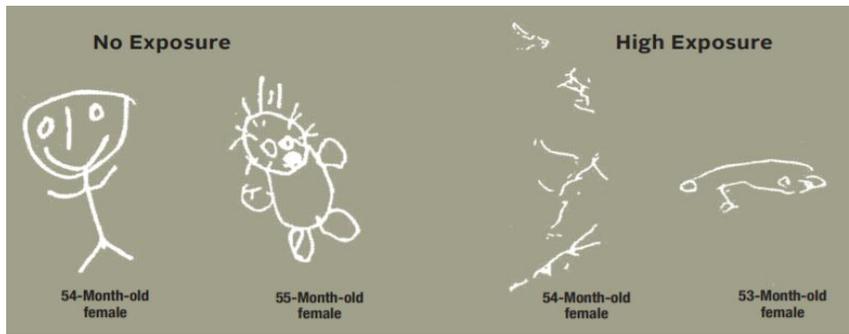
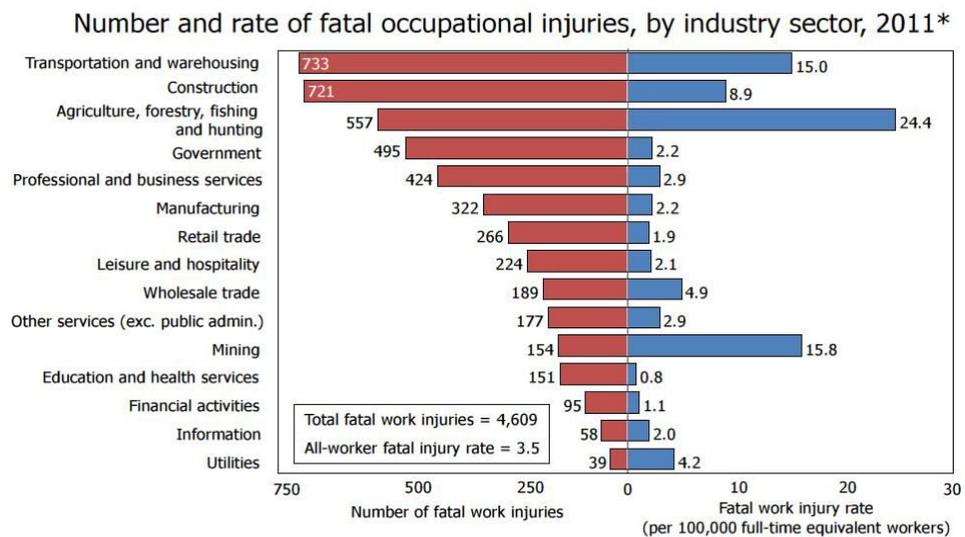


Figure 2: Differences in the drawing ability of children exposed or unexposed to pesticides ⁸

The U.S. has historically failed to implement evidence-based protection policies for migrant workers. Federally, migrant workers have been structurally excluded from traditional labor protections standards despite the high rate of injury experienced in agriculture compared to other occupations, as demonstrated in figure 3.^{9,10} The EPA lacks sufficient regulations and holds little authority in enforcement⁹. This structural exclusion results from limited political power of primarily undocumented migrant farmworkers due to restrictive immigration policy and the power of agricultural industry political lobbyists⁹. This policy brief aims to provide federal policy makers with appropriate public health solutions to address the issue of pesticide exposure in migrant farmworker communities.



Transportation and warehousing surpassed construction in having the highest number of fatal injuries in 2011. The agriculture, forestry, fishing, and hunting sector had the highest fatal work injury rate.

*Data for 2011 are preliminary.

Figure 3: Fatal occupational injuries by industry sector¹⁰

POLICY PROPOSAL # 1: DEVELOP A MANDATORY, NATION-WIDE PESTICIDE INJURY SURVEILLANCE SYSTEM

Policy makers should aim to expand the National Institute for Occupational Safety and Health's SENSOR-pesticide surveillance program to all states. The SENSOR Pesticides program builds and maintains occupational illness and injury surveillance capacity within state health departments to identify outbreaks and pesticide associated problems¹¹. Currently, only 13 states participate in the program, which contributes to an estimated 88% of acute occupational pesticide-related illness (AOPI) unreported¹². States that implemented the SENSOR program have successfully changed federal regulations to reduce pesticide-related health risks, improved regulations regarding training and certification of pesticide applicators, and improved labels on pesticide products¹¹. Additionally, expanding interagency collaboration between state health departments and other relevant agencies can further improve the surveillance system¹².

POTENTIAL BARRIERS:

Expanding surveillance capacity may not address existing barriers to reporting, which include: fear of job loss, fear of deportation, limited English proficiency, lack of formal education, lack of access to healthcare when an exposure occurs, and lack of physician recognition of AOPI¹². Therefore when expanding surveillance infrastructure, policy must include expanded whistleblower laws to protect individuals who report workplace violations¹². Additionally, the expansion should include increased physician training in order to recognize cases of AOPI and determine proper reporting methods.

POLICY PROPOSAL #2: INCREASE ENFORCEMENT CAPACITY FOR FEDERAL REGULATORS

We recommend improving the ability of the federal government to regulate employers who are violating worker protection standards and putting their employees at risk. Specifically, increasing the ability of the Department of Labor's Wage and Hour Division (WHD) to thoroughly audit and investigate complaints of worker protection violations through increased funding and staffing. A recent analysis at the Economic Protection Institute concluded that while more than 70% of WHD investigations reveal some form of violation, farm employers only have a 1.1% chance of being investigated in a given year, in part due to reduced funding for the agency¹³. This is despite the fact that farm employers, and especially farm labor contractors, comprise a greater share of labor violations than its share of US employment¹³.

POTENTIAL BARRIERS:

The WHD does not directly administer pesticide regulations, rather a number of other farm worker protections related to health and safety.

POLICY PROPOSAL #3: BLOCK TRUMP-ERA RULE CHANGES TO WORKER PROTECTION STANDARDS RELATED TO PESTICIDES

Federal lawmakers must prevent a Trump-era EPA rule change that limits the ability of regulators to enforce regulations on application exclusion zones, a key element of preventing pesticide drift. Originally intended to go into effect in December 2020, the rule change has not yet been implemented as it is currently being challenged in federal court¹⁴. Specific guidance proposed in the changes would functionally limit the farm owner's responsibility of potential pesticide exposure to within the boundaries of the property. It also loosens restrictions on the requirement to not have anyone present within the easement area on the farm property¹⁵. The rule change would also allow a pesticide applicator to continue with application if there was someone on the property in an area subject to an easement that was not employed by the farm¹⁵. The combination of these rules are a clear prioritization of private farm owners over the public health.

CONCLUSION

The United States food system labor practices violates human rights and is a large contributor to climate change. In order to address these human rights concerns, the federal government must begin to monitor the use and environmental and health impacts of pesticide use. Creating a centralized surveillance system in all states would allow public health professionals to sufficiently measure the problem and identify points of intervention, however enforcement of regulations would need improvement in order to make the interventions and surveillance system effective. Additionally, the EPA must reinforce regulations of application exclusion zones that were deregulated during the Trump era. These policies must be applied simultaneously in order to ensure a robust system of tracking and enforcing pesticide use related policy to protect worker and environmental health.

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