



How To Stop Pesticides From Becoming People-icides

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INTRODUCTION

California's Central Valley (see map below) produces 25% of the food and 40% of the produce in the United States (United States Geological Survey, 2017). The vast majority of farmworkers in California were born in Mexico (Stochlic and Rittenhouse, 2013), and many speak, read, and write only Spanish OR indigenous languages - many don't speak Spanish. (Arcury & Quandt, 2007). Farmworking communities, including workers, their families, schools, and nearby towns are at risk of pesticide exposure due to their proximity to pesticides, language barriers, and other factors. Pesticides have a wide range of negative effects on human health. California has stronger pesticide regulations than any other state.



RESEARCH METHODOLOGIES

Execution Plan



Feb 4

Called and emailed people and organizations to set up interviews



Mar 5

Found codes and used tables to analyze data for themes and patterns

Jan 15



Decided who to interview using reports from my background research and existing contacts

Feb 23



Conducted interviews over the phone with four sources while my mentor transcribed them



Topographic map of California: flat green areas are farmland

DISCUSSION, ANALYSIS, AND EVALUATION

Medicine

- Farmworkers need better access to healthcare
 - Some don't see doctors so they don't have to miss paid work hours
- Healthcare would be more effective if farmworkers were educated regarding pesticide usage and incidents
- **Training is only effective if the culture encourages speaking up**

Incident Reports

- Incidents are severely underreported, which can harm farmworker health and interferes with pesticide data
- Underreporting is often a cultural issue--workers fear punishment

Laws

- California has more stringent pesticide laws than any other state
- Laws can only be effective if they are enforced; often **penalties for employers who break laws aren't harsh enough**
- Farmworkers are protected by EPA instead of OSHA

Overall, findings indicate that farmworkers in California are somewhat protected from pesticide exposure. If these issues are addressed, they will be better protected.

DATA AND FINDINGS

Issues



“Even doctors that work in rural areas may not recognize the signs of pesticide [poisoning]” - Margaret Reeves

Farm workers often don't get the healthcare they need. There are language barriers, as many workers speak indigenous Mexican languages rather than Spanish or English. Workers aren't always told what pesticides they were exposed to, they may not report incidents to their supervisors, and doctors may misdiagnose pesticide poisoning.

Laws



“The law is only as good as its enforcement” - Margaret Reeves

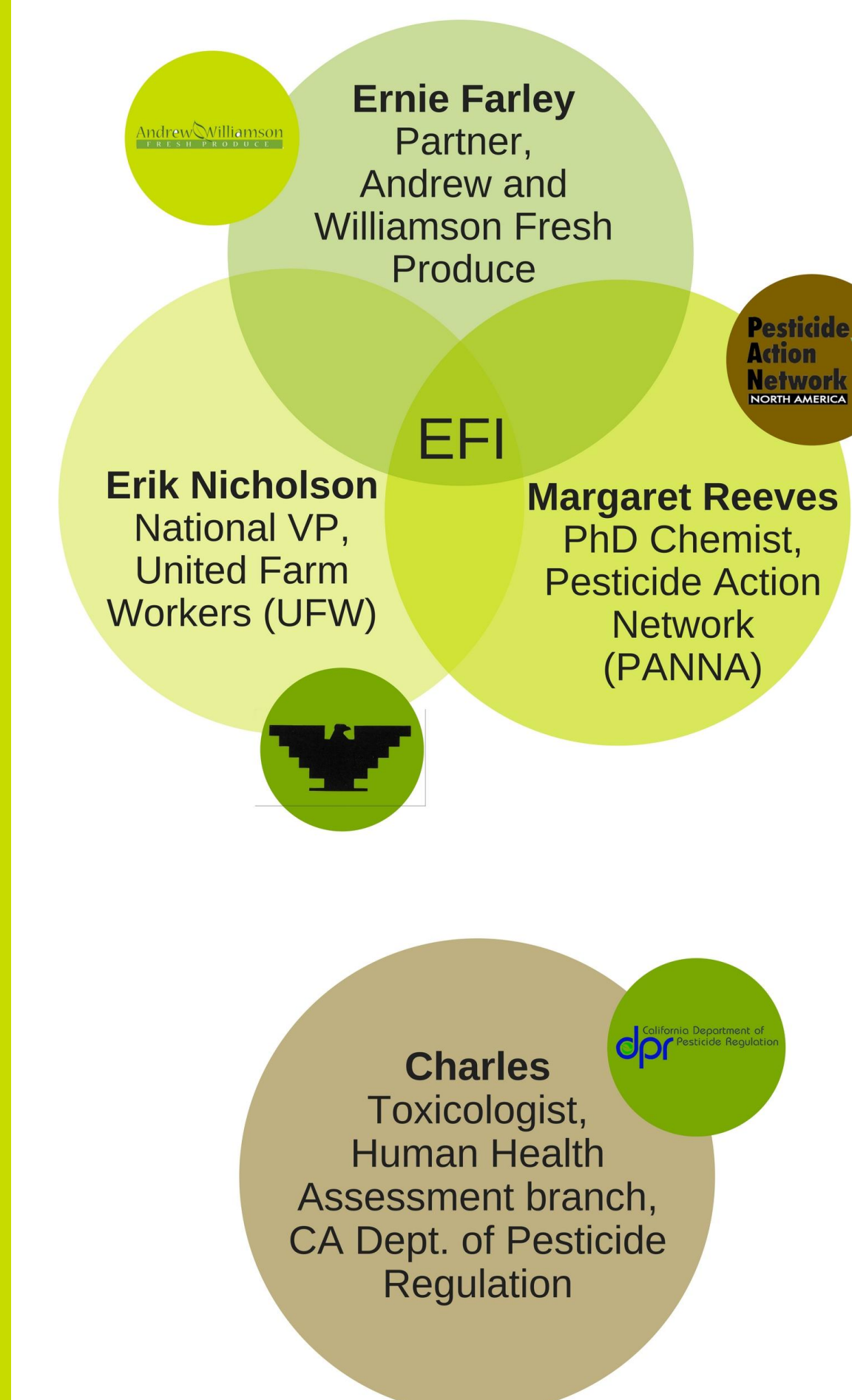
California has far more farming regulations than most other states. All farmworkers in CA receive annual training, which includes IPM², and restricted pesticide applicators are specialized. Signs are in fields to warn people to stay out after pesticide application. However, fines for violations are often too low to discourage them.

Incident Reports



Farms report pesticide use and poisoning to the county, which reports to the state. Incidents are investigated and farms can be fined for code violations. These fines are small and tend to be insignificant. However, incidents of poisoning often go unreported. Underreporting can be driven by fear of job loss and lack of education about pesticides.

Interview Sources



Solutions

Culture



“What really really is the magic is to create a culture of ‘raising your hand’” - Ernie Farley

When the culture on a farm discourages workers asking questions and correcting supervisors, it leads to many accidents. Fostering a culture of ‘raising your hand,’ which includes asking questions, can minimize accidents by ensuring workers stop each other from walking into fields that were recently sprayed and that they ask for help when needed.

Equitable Food Initiative (EFI)



“Great results so far - win win all around” - Margaret Reeves

EFI is a project that brings together many stakeholders including consumers, retailers, and growers with the goal of growing responsibly. They run trainings for leaders on farms. Workers are paid better for increased skill, growers get to sell more high-quality produce, and retailers are willing to pay for these benefits. Consumers need to support it as well.

CONCLUSIONS, IMPLICATIONS, AND NEXT STEPS

Conclusions

- The Equitable Food Initiative (EFI) is a non-profit organization founded by Oxfam America that brings together various stakeholders. It has been improved conditions for farmworkers and everyone else involved in food production and consumption.
- Culture on a farm can be the difference between a safe and a dangerous workplace. Workers need the confidence to speak up, ask questions, and even correct their bosses. The boss is important in fostering this culture.

Implications

- From success and growth of EFI, I infer that the industry is moving in the direction of better treatment for farmworkers
- This matters because farmworkers are entitled to the same rights as all other Americans
- Mistreatment of farmworkers is an **environmental justice issue**

Next Steps

- **What you buy matters!** Impress upon consumers the importance of buying food from farms that treat their workers well.
- Make a poster targeted at consumers to
 - Educate them on pesticide usage and regulation
 - Explain the importance of buying from ethical farms
 - Motivate them to **act** and **vote with their dollars**

ACKNOWLEDGEMENTS /

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References

- Arcury, T. A., & Quandt, S. A. (2007). Delivery of health services to migrant and seasonal farmworkers. *Annual Review of Public Health*, 28, 345-363. Retrieved from <http://www.annualreviews.org/doi/citedby/10.1146/annurev.publhealth.27.021405.102106>
- Stochlic, R., & Rittenhouse, T. (2013). *A research and outreach agenda for agricultural workers in California*. Retrieved from UC Davis Agricultural Sustainability Institute website: <http://asi.ucdavis.edu/programs/sarep/publications/food-and-society/researchagendaforfarmworkers-2013.pdf>
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² Integrated Pest Management is a process used to avoid fix pest issues while minimizing environmental damage.

