

IMPACT

University of Idaho
Extension

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Educating Spanish Speaking Pesticide Handlers: Agricultural and Landscape Workers

The Situation

The native language of many pesticide handlers, farm workers, and landscaping workers in the Treasure Valley of Idaho is Spanish. Spanish speaking farm workers have historically been underserved by the pesticide safety training programs offered by the University of Idaho Cooperative Extension system. Beginning in the late 1990's Extension began conducting Spanish pesticide training in eastern Idaho. The program was limited to the eastern Idaho area until 2006, when the first Spanish pesticide safety training was conducted in the Treasure Valley. The need for training conducted in Spanish was magnified in the summer of 2005 when numerous farm workers in Canyon County fell ill as a result of pesticide exposure due to a series of communication failures. Spanish speaking pesticide handlers, farm workers, and landscape workers need continuing opportunities to increase their knowledge of proper pesticide safety as it relates to row crop and orchard production and landscaping pest management.

Our Response

A University of Idaho Critical Issues Grant was awarded to a team of Extension Educators for the purpose of conducting a pesticide safety education program for Spanish speaking pesticide handlers and workers in the Treasure Valley. The cooperators organized a meeting site and prepared a full day educational workshop containing the following topics: how to read pesticide labels, Pesticide Handlers Safety Training, Potato Insect

Identification and Management, pesticide storage and disposal techniques, and West Nile Virus—biology of mosquitoes and integrated pest management practices to help prevent the spread of the virus. All class topics and literature were presented in Spanish. A folder containing pesticide safety materials was given to all attendees along with refrigerator magnets with laundering instructions, in Spanish, to avoid contaminating family laundry with potential pesticide residues from workers' clothing.

Program Outcomes

The workshop was conducted on February 28, 2007 in Weiser, Idaho. Forty farm workers and landscape workers, primarily from Canyon and Washington County, attended the event and were instructed on pesticide safety issues. At the conclusion of the program, each participant received an EPA Pesticide Handler Verification Training Card.

Program participants were given a pre and post test at the workshop, along with program evaluation questions. The evaluation results clearly show that the subject matter taught can be used by participants to make their jobs safer and will make them more valuable employees.

Results from the pre and post test questions indicate that participants had a 20% increase in knowledge on proper methods to contain and cleaning up pesticide spills and a 10% increase in knowledge regarding the use of personal protective equipment. The following list are items identified by class

participants as new things learned that will be helpful to their job:

1. How to read a pesticide label.
2. How to control and clean up a pesticide spill.
3. How to properly use and handle pesticides.
4. How to protect themselves from potential pesticide contamination with proper use of personal protective equipment.
5. How to safely transport and store pesticides.
6. How to protect their families from potential pesticide contamination by not bringing home pesticide residues on themselves or their clothing.
7. Relating to the West Nile Virus section, participants stated they learned about the mosquito life cycle and how to better protect themselves from mosquitoes.

A 2002 study in North Carolina showed that those farm workers with a higher understanding of pesticide safety had a higher incidence of using methods to protect themselves from pesticide exposure. Another study conducted in Washington and Oregon recognized that the migrant farm worker community has been understudied and there are socioeconomic and cultural factors that suggest children of farm workers are at a disproportionate risk for health effects from several environmental exposures, including pesticides. In this study Spanish was the predominant language, with only 15% speaking English as a second language. The mean number years of education, in the study group, was 5.7. Farm workers are not aware of the dangers of carrying home pesticide residues, in many cases this is due to lack of knowledge or understanding because traditional pesticide safety education has been in English. The type of information learned from this workshop helps to educate farm workers about these risks and ultimately protects them and their families from the adverse effects of pesticides.

Arcury, T.A., S.A. Quandt & G.B. Russell. 2002. Pesticide Safety among Farmworkers: Perceived Risk and Perceived Control as Factors Reflecting Environmental Justice. *Environmental Health Perspectives*. V. 110 (2). Pp. 233-240.

McCauley, L.A., M.R. Lasarev, G. Higgins, J. Rothlein, J. Muniz, C. Ebbert & J. Phillips. 2001. Work Characteristics and Pesticide Exposures among Migrant Agricultural Families: A Community-Based Research Approach. *Environmental Health Perspectives*. V. 109 (5). Pp. 533-538.

The Future

Spanish-speaking pesticide handlers, farm workers, and landscape workers were educated, in their native language, about pesticide safety and the proper use and handling of pesticides. This type of educational programming, in Spanish, is crucial to help avoid pesticide contamination to Spanish speaking workers and their families. Based on the evaluation comments, this workshop was appreciated and considered a necessity by the attendees. Due to the growing number of Spanish speaking pesticide handlers and workers, in the Treasure Valley, the pesticide safety and integrated pest management education in Spanish needs to continue on an annual basis.

Cooperators

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