

Developing Culturally and Linguistically-Appropriate Pesticide/Chemical Education Materials for Hmong Produce Growers

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Purpose:

The purpose of this project is to provide culturally-appropriate pesticide education for Hmong-American farmers in Minnesota and develop a cohort of trained peer educator farmers to continue providing this information within the Hmong farming population in Minnesota. While the number of Hmong farmers continues to rise in Minnesota, few easy-to-understand sources of pesticide safety information exist for this community.

Methods

A small cohort (N=8) from the Hmong farming community was chosen as program participants based on input of project partners based on their leadership potential and interest in the topic. Participants attended a series of informational participatory workshops on key pesticide safety topics (PPE, measuring chemicals, reading chemical labels). Each workshop included hands-on learning and skills-building to ensure farmers have the ability to share the information with peers after the project's end. A summary poster and picture-based handout with simple English were developed with farmer input. To practice sharing information with their peers, the farmer participants presented a session on pesticide safety at the Immigrant and Minority Farmer Conference in February, 2013, and staffed a project information table. Farmer participants also led a pesticide safety class for their peer farmers in March 2013.

Findings:

Hmong farmers seek a broad range of agricultural information and skills, including pesticide safety. Many program participants were not literate in English, and did not use computers, and therefore typical program delivery methods need to be reconfigured to reach these farmers. Participants have had very little interaction with Cooperative Extension or other traditional sources of agricultural education, although one farmer had undergone pesticide applicator training. This project used paper mailings and phone outreach (by a Hmong speaking staff), and farmers stated phone and mail were the best methods to reach them. Peer-to-peer training methods were successful and should be encouraged when working with this community. The farmers preferred a poster-sized visual reminder that can be hung in their packing shed, garage, or other work area. They requested simple English words and phrasing. The project resulted in a significant increase in the understanding of pesticide safety practices and in future education related to pesticide and general safety among the Hmong-American farmers.

Areas for future research:

Future research in this area should focus on developing curriculum and education delivery methods that are suiting for non-English speaking farmers. Cooperative Extension Services, non-profit organizations, University researchers and other groups involved with agricultural education should include Hmong-speaking staff on their projects and consult Hmong farmers to determine their needs and to suggest delivery methods for this information. This National Institutes of Health or other organizations may provide future funding for the expansion and implementation of the findings from this pilot project to reach farmers in greater Minnesota.

Outputs and Outcomes:

- Development and circulation of culturally and linguistically-appropriate educational materials including guides to measuring, PPE, and a picture-based farm food safety poster and booklet.
- 4 hands-on learning sessions attended by Hmong farmer participants about pesticide safety practices and techniques. Information provided by University of Minnesota staff.
- A farmer-led presentation and table and demonstration at the 8th Annual Immigrant and Minority Farmers' Conference, Feb 2013.

- 1 public food safety training at UROC facility in North Minneapolis for Hmong farmers, led by farmer participants, March 2013.
- Development of sustained networks of Hmong farmers to share information and best practices. Farmers trained as peer educators who are able to work with other Hmong farmers in the community to share best practices to protect and encourage worker safety.
- The project team has seen much more interest in both microbial food safety, integrated pest management and safe pesticide use, including Hmong farmers wanting to become certified organic.

Partnerships:

Resulted in SARE partnership grant project. Train the Trainer food safety education for Hmong farmers. The project also led to partnerships with food hubs, non profits and others that serve Hmong farmers that are interested in helping them adopt GAPs on their farms but are not sure how to start.

Publications:

Annalisa Hultberg MS, Michele Schermann RN, MS & Palee Yang RN (2014) [*A Pilot Project to Develop Culturally and Linguistically-Appropriate Pesticide/Chemical Education Materials for Hmong Produce Growers*](#), Journal of Agromedicine, 19:2, 214-215, DOI: 10.1080/1059924X.2014.891482

Presentations:

Hultberg, A. et. al. *A Pilot Project to Develop Culturally and Linguistically-Appropriate Pesticide/Chemical Education Materials for Hmong Produce Growers*. UMASH Annual Forum, April 17, 2013, Saint Paul MN

Hultberg, A. *A Pilot Project to Develop Culturally and Linguistically-Appropriate Pesticide/Chemical Education Materials for Hmong Produce Growers*. North American Agricultural Safety Summit, September 27, 2013.

Products:

[PPE poster](#)

[Food Safety and Pesticide Safety Resource Guide](#)

[Basic Chemical Use Safety](#)

[Project highlights](#)