Using interactive activities to educate and prepare workers for the Oregon Pesticide Applicator Exam

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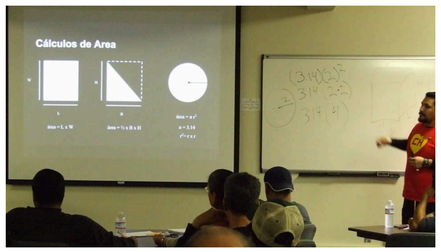
Background

In Oregon, the agriculture industry is experiencing a short supply of licensed pesticide applicators. During the past three years, the pass rate for the Spanish language version of the Oregon Private Pesticide Applicator License Exam has been 16%, compared to 59% for the English language version. In October 2014, three Spanish-language workshops were offered at the North Willamette Research and Extension Center in collaboration with the Oregon Department of Agriculture to support agricultural workers interested in obtaining pesticide applicator certification. This was used as an opportunity to gain insight into possible reasons for the low pass rates and allow us to determine how to provide better support.

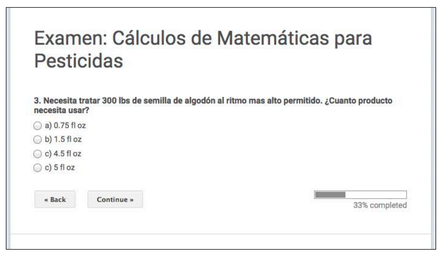
Workshop Structure

Part I: Introductory overview and instruction to introduce topics and relevant background material.



Part II: Participants worked in groups to answer test-like questions relevant to the day's topic.

Part III: Each participant had the opportunity to take a computer-based practice test. This helped them further review the material, and gain familiarity with computer use.



Part IV: Answers to group work and practice tests were reviewed as a class. Any additional questions were answered before concluding the workshop.

Results

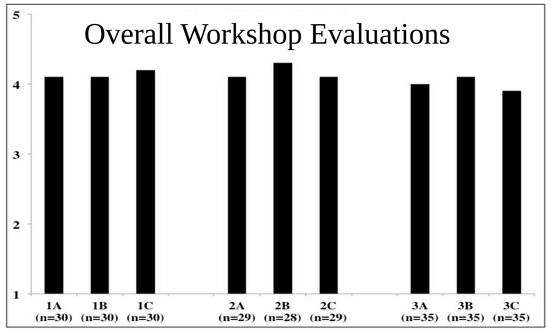


Figure 1. The participants answered three questions (**1:** Overall, how worthwhile was this workshop to you? 1 = not at all, 5 very worthwhile; **2:** Overall, how would you rate the quality of facilitating/teaching? 1 = poor, 5 = great; **3:** How much of the knowledge or skills you gained today will you be able to apply/use? 1 = not at all, 5 = a lot) to evaluate each of the workshops (**A:** Label Interpretation; **B:** Laws & Regulations; **C:** Pesticide Math)

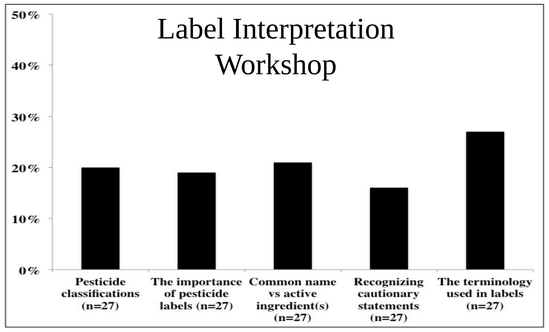


Figure 2. Change in perceived knowledge for each topic covered during the first workshop based on a pre-, post-workshop self evaluation where 1 = no knowledge and 5 = very knowledgeable.

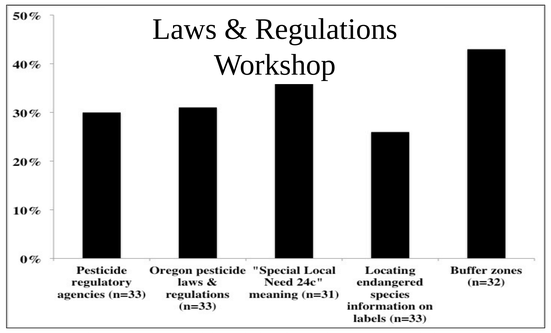


Figure 3. Change in perceived knowledge for each topic covered during the second workshop based on a pre-, post-workshop self evaluation where 1 = no knowledge and 5 = very knowledgeable.

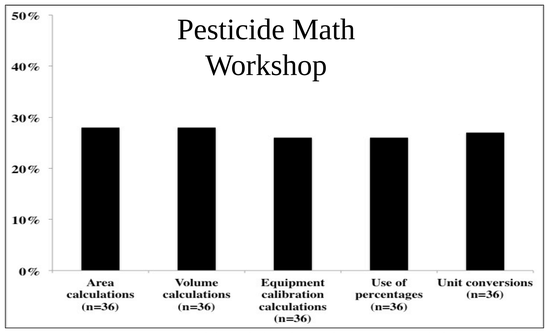


Figure 4. Change in perceived knowledge for each topic covered during the third workshop based on a pre-, post-workshop self evaluation where 1 = no knowledge and 5 = very knowledgeable.

Conclusions & Future Directions

Many of the written comments asked for an increase in the length of instruction or number of times the workshops are offered. As a result, more instructional material will be developed specifically for this audience. Instructional modules that present the material in more length and detail than can be feasibly presented in a workshop will be made available online. The online material will be coupled with in-person workshops to more effectively teach our audience. The overall goal is not only to get workers to pass the exam, but to help them become more knowledgeable about pesticides and pest management in order to minimize hazards associated with pesticide application and use.

Acknowledgements

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