

4-2011

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### Recommended Citation

Fishel, F., & Langeland, K. (2011). Pesticide Applicator Profiling: Using Polycom® Distance Delivery for Continuing Education and Characterizing Florida's Licensed Applicators. *The Journal of Extension*, 49(2), Article 33. <https://tigerprints.clemson.edu/joe/vol49/iss2/33>

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**April 2011**  
**Volume 49 Number 2**  
**Article Number 2TOT7**

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# **Pesticide Applicator Profiling: Using Polycom® Distance Delivery for Continuing Education and Characterizing Florida's Licensed Applicators**

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**Abstract:** The University of Florida offers continuing education units (CEUs) via distance technology using Polycom® to meet requirements for applicators of pesticides to renew their licenses. A large statewide event conducted in 2010 also included a needs assessment of this group concerning CEUs. Results indicate that these applicators strongly prefer earning CEUs rather than retesting for renewal and that they don't mind short travel distances and paying nominal fees to attend programs. Distance delivery was a first-time experience for most in obtaining CEUs, and they were overwhelmingly positive about attending such an event in the future.

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## **Introduction**

Resource challenges have increased the need for more efficient means of educational program delivery to Extension audiences. Distance delivery offers potential savings in miles traveled, time, and costs (Cecil & Feltes, 2002). Work conducted in Texas also noted that Extension professionals perceive that use of such technology makes programs available to larger and more diverse audiences while providing for multi-delivery systems (Dromgoole & Boleman, 2006). Several distance delivery formats are available, but considerable interest within the University of Florida/IFAS Extension (UF/IFAS) has been with Polycom® (Vergot, 2004).

An Extension program that lends itself well to using Polycom® is pesticide applicator training. Applicators of restricted use pesticides are legally mandated to become certified and licensed (US EPA, 2005). Also, many employers require applicators to be licensed if applying any type of pesticide. In Florida, as in most states, applicators must obtain continuing education units (CEUs) on a regular basis to keep the license valid (FDACS, 2007). The use of Polycom® offers a means for efficiently offering CEU programs to this audience at a statewide level. Our initial Polycom® effort was launched in 2009 with favorable results and was described (Fishel, Ferrell, Vallad, Price, Cherry, Mizell, & Duncan, 2010).

Designing CEU programs can be a challenging task. A large statewide conference offers the prospect for conducting needs assessment surveys to assist in future program development. Educators have used a variety of methods to collect information for needs assessment, including written questionnaires (Etlings, 1995). Extension educators regularly conduct such surveys to assist in developing programs to meet client needs (Ahmann, 1979; Beckley & Smith, 1985; Gilmore, 1989). Because of the real need and success of our 2009 endeavor, a similar event was planned for 2010, on a much larger scale. Our major objectives for the 2010 program were two-fold:

- Offer CEUs to applicators.
- Administer a survey to characterize our population of applicators, including their licensing characteristics and CEU needs. Creating such a profile would provide input for planning future events.

## Methodology

Based on planning committee recommendations, the 2010 event was expanded from 2009's program to include more host sites and offer more CEUs. The theme of herbicides, weeds, and their control was the focus of the agenda's topics, and appropriate specialists were selected as speaker PowerPoint® format. The 6-hour program met state-approval for 6 CEUs in 12 applicator categories. Solicitation for host sites and publicizing the event was conducted from January through mid-March, 2010.

On March 30, 2010, the program was delivered from the UF main campus in Gainesville to 50 satellite host sites consisting of Extension offices and UF/IFAS research and education centers throughout the state. Preceding the event, a survey instrument was designed to ascertain knowledge gained, typical of an Extension program, but we also desired to glean information that would assist us in planning future CEU events. The survey was administered by host site coordinators to audience members immediately following the program, but prior to distributing CEU credit verification forms. This article reports on and discusses selected findings from the survey, focusing only on applicators' opinions concerning CEU acquisition.

## Results and Discussion

The statewide total attendance was 1,028 applicators (approximately 10% of Florida's licensed applicators). There were 667 surveys returned, for a response rate of 65%. CEU needs assessment data are shown in Table 1. To keep licenses valid, applicators in Florida have a choice of retaking initial certification exams, earning CEUs, or a combination of the two. The survey revealed that applicators showed a strong preference for attending CEU programs as a means of renewal (92.4%). Coupled with exam anxiety, employment is at stake for many in this audience if licenses are not maintained; therefore, this is not unexpected. A similar mail survey was conducted in 2004 and showed that 95% of Florida applicators preferred to renew by obtaining CEUs (Langeland, 2004).

Slightly more than half (56.5%) stated that obtaining CEUs in their areas was at least "fairly easy." This could be interpreted that CEU providers, including Extension, are doing a reasonable job of providing opportunities; however, with more than 40% of this audience having some difficulty in locating classes in their areas, this opens up some prospect for Extension's involvement. Although these data are pooled across the entire state, Langeland's work showed that 20% to 40% of the applicators in the northwest part of the state had difficulty at the time of that survey (Langeland, 2004).

Most (73.9%) applicators don't mind a relatively short commute of less than 50 miles to attend an event offering CEUs. A positive response to this question declined dramatically for distances greater than 50 miles. Interestingly, 17.0% stated that they would drive any distance as long as they weren't required to reexamine. For some of this audience, resources prohibit travel expenses, which reinforce the need for distance delivery, including Polycom®.

The fee question was put into the survey as a gauge due to increasingly tighter budgets faced by UF/IFAS. Attendance fees are strictly determined by the provider of the CEU program. There are no legal mandates in regards to what a provider may charge. More than 80% stated they would pay at least \$20 per CEU. Similar to the question concerning distance to attend a program, there remains a proportion of this audience who will also spend unlimited amounts to avoid retaking certification exams.

The final two questions attempted to determine the audience's experience with distance technology as a CEU delivery method and the likelihood that they would attend distance programs in the future. The first of these two questions showed that Polycom® delivery was a new experience for most (68.6%). Because the response to this question was essentially identical to our 2009 effort (Fishel, Ferrell, Vallad, Price, Cherry, Mizell, & Duncan, 2010), Polycom® remains far from reaching its full potential with the pesticide applicator population, at least in Florida. Also an extremely promising aspect of these results from an educator's perception is that the majority (97.8%) stated they would attend a future event of similar format.

**Table 1.**

CEU Needs Assessment Data for Pesticide Applicators Attending the 2010 UF/IFAS Polycom® Continuing Education Event

CEU Element				
<sup>1</sup> What is your preferred method of renewing your license?				
Earn CEUs 617	Retake exams 8	Combination CEUs + exams 43		
<sup>1</sup> How difficult is it for you to obtain CEUs in your area?				
Impossible 8	Very difficult 66	Somewhat difficult 212	Fairly easy 260	No problem 112
<sup>1</sup> How far are you willing to travel to attend an event offering CEUs (miles)?				
0 â 10 51	10 â 25 184	25 â 50 246	50 â 100 90	Any distance, as long as I don't have to retake exams 80
How much are you willing to pay per CEU (\$)?				
10 343	20 121	50 15	Any amount, as long as I don't have to retake exams 79	

<sup>1</sup> Is this your first attendance at an event that used distance technology to deliver CEUs?				
Yes: 465	No: 213			
<sup>1</sup> If yes, would you attend a similar type of event in the future?				
Yes: 479	No: 11			
<sup>1</sup> Number of applicators.				

## Implications

Because of the legal need, pesticide applicators are a captive audience for Extension. Polycom® offers major benefits by maximizing cost and time efficiency. Our experience has shown that licensed pesticide applicators seeking CEU courses are very willing to attend these events. These results should be an indication to Extension educators that this technology presents great potential not only for CEU classes, but for other types of programming as well.

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