Reinforcing Green Industry Best Management Practices through an Interactive Landscape Field Day

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The Green Industry Best Management Practices program is a University of Florida/IFAS educational approach that provides classroom training to the commercial landscape industry. The 6-hour course consists of five modules that educate landscape workers on how to conserve and protect water resources by integrating Green Industry Best Management Practice concepts into their daily working routines. To complement the classroom teaching, University of Florida/IFAS Extension educators offered a separate landscape training field day. The field day is sponsored once a year in January and consists of four “education stations” designed to transfer classroom theory into real world learning experiences by providing hands-on training.

Materials and Methods

A full-day Best Management Practices workshop was developed with the premise of providing hands-on activities to complement classroom workshops. Hands-on learning provides learning-by-doing where students participate individually or in groups and is a very effective means of complementing traditional classroom programming. The underlying assumption of learning-by-doing is that an activity associated with a career area will be more meaningful and insightful than talking or reading about it in a classroom. Hands-on activities are an important component of teaching because they have a greater impact on learning, retention and stimulate emotions, experiences, and feelings more so than book learning.

Educators. County faculty from University of Florida/IFAS were recruited based on their knowledge of Best Management Practices. When contacting the faculty, it was emphasized that all teaching techniques be based on learning-by-doing and that all field day participants become actively engaged in the learning sessions.

Education Stations. The mechanism for the hands-on teaching activities was four individual education stations, each focusing on a separate Green Industry Best Management Practice. Those practices focused on included 1) fertilizer calibration and application, 2) Integrated Pest Management, 3) pesticide calibration and application, and 4) pesticide safety. Stations were randomly set up outdoors and were separated by at least a 25-yard buffer to prevent voice drift interference. At the time of registration participants were organized into four separate groups and assigned a beginning station. The groups spent 20 min at each station and were rotated with the assistance of a facilitator who kept track of time and directed groups from station to station. While at each station the students calculated fertilizer rates and then applied the calculated amount correctly; inspected plants for insect and disease damage; calibrated a 5-gal backpack sprayer and then applied the measured amount correctly; and dressed in the appropriate pesticide personnel protective equipment as required by the pesticide label provided. Upon completion of the four-station rotation, the participants were greeted by a delicious catered lunch at the cost of $5.00 per head.

Landscape Rodeo. Following lunch anyone who attended the landscape day was invited to participate in a landscape rodeo. The rodeo consisted of two events: a lawn tractor obstacle course and a fertilizer calculation/calibration.

For the lawn tractor competition, each contestant was provided with a mower and was instructed that safety was the upmost concern, and if the mower was operated in an unsafe manner, the contestant would be immediately disqualified. Buckets were located on the center and edges of the course and filled with water to easily see if they were scraped. If the wheels of the mower or the deck touched or upset the bucket, or if the mower deck or tires touched the boundary line, penalty time was added to the time it took each contestant to finish. The total time calculated was the elapsed time to complete the course plus the sum of penalties. Penalty points were assessed at 30 s for each infraction, including driving over the boundary line, not wearing a seat belt, and not parking within 6 inches of a parking cone placed at the end of the course. Additional time was added for scraping a bucket (100 s) and completely knocking the bucket over (300 s).

With the fertilizer competition a 1000 square ft area was marked off. Contestants were then handed a 15–0–15 fertilizer label and asked to calculate the amount of total fertilizer needed to apply 1

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Results and Discussion

Results. Sixty days following the field day participants were mailed a 10-question Likert scale survey. The survey measured how many of the participants had previously attended Green Industry Best Management Practices Workshops, and did participants change their landscape behaviors as a result of the field day. Of the 50 surveys sent, 20 responded (n=20).

1. Did you attend a classroom Green Industries Best Management program prior to the January field day? (n=20) (Fig. 1)

2. Did the activity stations help give you greater confidence to apply Green Industry Best Management Practices into your everyday landscape routine? (n=20) (Fig. 2)

3. Did you before attending the landscape field day: 1) calibrate a spreader before applying fertilizer; 2) calibrate a backpack sprayer before applying a pesticide; 3) identify insect pests before applying a pesticide; 4) read the pesticide label before applying a pesticide? (n=20) (Fig. 3)

4. As a result of attending the landscape field day do you now 1) calibrate a fertilizer spreader before applying a fertilizer; 2) calibrate a backpack sprayer before applying a pesticide; 3) identify pests before applying a pesticide; 4) read the pesticide label before applying a pesticide. (n=20).

From the 20 responses, 17 attended classroom Green Industry Best Management Practices programming prior to participating in the landscape field day. Survey results also indicated that of the 20 respondents, 17 agreed or strongly agreed that by attending the field day they are now more confident with integrating Best Management Practices into their everyday routines. When surveying behavioral change, results indicated that before the field day 35% of the respondents were applying Best Management Practices in their daily routine, while after the field day 85% of the participants indicated that they now actively perform Green Industry Best Management Practices within their daily landscape routines.

Discussion. A hands-on approach is an excellent complement to classroom training. Through the use of the “education stations” participants became and remained engaged and gained confidence to properly integrate Green Industries Best Management Practices into their daily landscape routines. The landscape rodeo was an excellent means to gauge knowledge gained while providing a fun approach to learning. Next year an irrigation station was suggested and will be added to the field day.

One interesting sidebar: the landscape rodeo provided an opportunity for the participants to compete against their peers and showcase their knowledge to them. Many of the participants commented that this provided additional incentive to compete. One of the St. Lucie County parks and recreation supervisors indicated the rodeo was an excellent way to teach while also creating a sense of healthy competition among his staff.

Literature Cited
