

10-1-2011

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Recommended Citation

Patton, A. J., & Reicher, Z. J. (2011). Basic Training: A 1-Day Education Module for New Clientele in the Turf Industry. *The Journal of Extension*, 49(5), Article 30. <https://tigerprints.clemson.edu/joe/vol49/iss5/30>

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October 2011
Volume 49 Number 5
Article Number 5TOT6

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Basic Training: A 1-Day Education Module for New Clientele in the Turf Industry

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Abstract: It is important that Extension education programs be directed at clientele new to the turfgrass industry. A 1-day Basic Training: Turf Management seminar was created in 2006 to provide education to those new to the turfgrass industry. The seminar covered the basics of turfgrass management including growth, physiology, fertilization, cultural practices, and pest management. Education was provided to 537 clientele with this program during its first 4 years, indicating the popularity of this 1-day training module. Ninety-five percent of attendees indicated that they felt better equipped to do their job after attending the seminar.

Introduction

The use of face-to-face workshops and seminars to teach clientele and transfer technology is common among turfgrass Extension specialists (Patton, Trenholm, & Waltz, 2011), but training opportunities are limited for new employees entering the turfgrass industry. Within the turfgrass industry, the majority of new employees come from lawn care/grounds maintenance (Fidanza, Sanford, Guiser, & Borger, 2009), indicating the importance of developing programs specific for lawn care and grounds maintenance. Although the exact turnover among employees of the turf industry is unknown, it is known that 51% of nursery and landscape industry employees leave their positions less than 5 years after starting (Mathers et al., 2010).

Due to employee turnover and the need to provide introductory level training, it is important that some extension education programs be directed at clientele new to the turfgrass industry. A one-day "Basic Training: Turf Management" seminar was created in 2006 at Purdue University to provide education to clientele new to the turfgrass industry. The seminar was then implemented in Arkansas through the University of Arkansas Cooperative Extension Service and in Indiana through Purdue University and the Midwest Regional Turf Foundation (MRTF) <<http://mrtf.org>>.

Objectives

The primary objective of the seminar was to provide basic turfgrass knowledge and application for new turfgrass industry employees in an efficient 1-day program. The seminar covered the basics of plant growth and physiology; turfgrass establishment, including soil preparation, species selection, planting date, and post-planting care; cultural practices such as mowing, irrigation, aerification, and thatch control; fertilization, including rates, timing, and nutrient sources; common turf weed, insect and disease identification, biology, and control; and, last, the practical and legal aspects of using pesticides.

A secondary objective was to provide additionally training and pesticide recertification credits. The final objective of the seminar was to make a small profit after recovery of programmatic costs. Extension programs should recover costs at a minimum or make a small profit (Voigt & Reicher, 2005) that can be used to fund other Extension activities, professional advancement, equipment, or applied research. Furthermore, paying for education increases the perceived value (Comer, Birkenholz, & Stewart, 2004). In Indiana the cost was \$60 for members of the MRTF and \$90 for non-members. The cost was \$65 in Arkansas. The average profit for these events was \$1,042, with an average attendance of 34.

Logistics

This Basic Training: Turf Management seminar was offered in two states at multiple geographic locations in each state to facilitate greater participation (Figure 1, Table 1). Additionally, the seminar was offered in December through February during a period of inactivity for turf professionals. Locations were selected based upon population and collaboration with county Extension educators. The seminar was advertised to turf clientele in each state using mailing and email lists. The seminars typically had an attendee cap of 50 attendees based on location, which was typically at a county or state Extension office, fairgrounds, community college, or convention center. Preregistration was encouraged for attendees so that binders with handouts could be prepared in advance. The seminar began in the morning and ran for 6 hours total with a break for lunch. Topics were covered by the turfgrass Extension specialist using discussion and lecture.

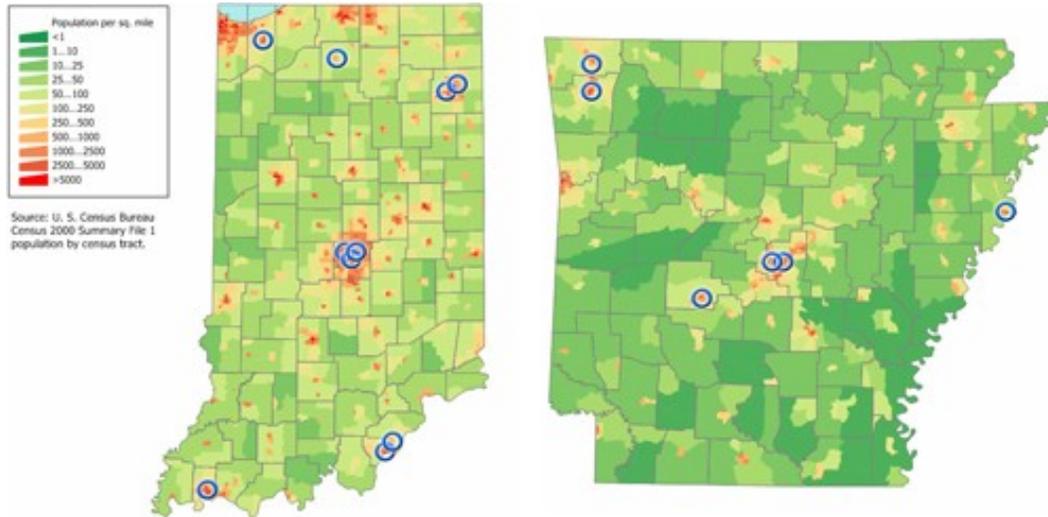
Table 1.

Workshop Locations and the Number of Participants in Each State (2006-2009)

| State | Location (Year) | Number of Seminars | Number of Participants |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------|
| Arkansas | Fayetteville (2007), Hot Springs (2007), Little Rock (2007, 2008), Rogers (2009), West Memphis (2008) | 6 | 135 |
| Indiana | Evansville (2008), Fort Wayne (2007,2009), Indianapolis (2007, 2008, 2009), New Albany (2007), Plymouth (2008), Sellersburg (2008), Valparaiso (2006) | 10 | 402 |
| Total | | 16 | 537 |

Figure 1.

Population Map Showing Basic Training Seminar Locations in Indiana and Arkansas (2006-2009)



Attendee Learning

Pretests/posttests were used to help measure attendee learning. Starting in 2007, a pretest and posttest were given to each participant at the start and end of the seminar, respectively. The questions were based on the content covered during the seminar. Additional data on the turf industry work experience of attendees was collected in 2009.

The data reflect that attendees learned during this seminar, with a modest improvement of 15% from pretest to posttest (Table 2). This improvement was less than expected and less than reported at a week-long turfgrass short course in Illinois and Indiana (Voigt & Reicher, 2005). All experience levels improved from the pretest to posttest, with posttest scores highest among the most experienced. Unexpectedly, improvement was higher (>14%) for those with 5-20 years of experience and lower (<12%) for those with <6 years of experience (Table 3). We are unsure as to why this occurred, but it could be due to 1) the questions we selected for the exam, 2) participants unaccustomed to taking tests, 3) greater recall of previously learned information among advanced participants from pretest to posttest, 4) inaccuracies from guessed answers (La Barge, 2007) or 5) greater interest and attention among those with more turf experience.

Though this seminar was primarily targeted at beginning level turf professionals, 57% of attendees had >5 years of work experience in turf. This suggests that experienced professionals appreciate "refresher" courses, especially when pesticide certification credits are offered, but also indicates that instructors need to be flexible in tailoring each course to the experience level of the attendees.

Table 2.

Improvement as Measured by a Percentage of Correct Answers on a Pretest and Posttest (2007-2009)

| Year | Number of Participants | Pretest (%) | Posttest (%) | Improvement (%) |
|------|------------------------|-------------|--------------|-----------------|
|------|------------------------|-------------|--------------|-----------------|

| | | | | |
|---------------|-----|----|----|----|
| 2007 | 63 | 59 | 71 | 12 |
| 2008 | 110 | 64 | 81 | 17 |
| 2009 | 100 | 66 | 80 | 14 |
| Weighted mean | | 63 | 78 | 15 |

Table 3.

Improvement by Turf Work Experience as Measured by a Pretest and Posttest in 2009 (n=100)

| Experience | Number of Participants | Pretest (%) | Posttest (%) | Improvement (%) |
|-------------|------------------------|-------------|--------------|-----------------|
| < 1 year | 16 | 52 | 61 | 9 |
| 1-2 years | 10 | 53 | 64 | 11 |
| 3-5 years | 17 | 56 | 65 | 9 |
| 5-10 years | 15 | 50 | 67 | 17 |
| 10-20 years | 23 | 53 | 68 | 15 |
| >20 years | 19 | 64 | 72 | 8 |

Attendee Evaluations

At the conclusion of each seminar, each attendee was given a seminar evaluation form to help gather information and document impact. Ninety-two percent of the surveys were completed and returned. The evaluation form included questions on the venue/classroom, most and least favorite topics, suggestions for improvement, five questions about the seminar (Table 4), and an overall seminar quality rating.

The responses (>94%) indicated that attendees would recommend others attend the seminar in the future. Despite pretest and posttest data showing only modest improvement, 95% of attendees felt better equipped to do their job following the seminar (Table 4). Ninety-eight percent of the respondents increased their knowledge of pesticide, nutrient, and water inputs, and 95% increased their understanding of environmental stewardship. Although not a primary objective of this seminar, 72% of attendees felt the seminar would help them save money for their business. These responses are similar to responses in a survey of a week-long turfgrass short course in Illinois and Indiana (Voigt & Reicher, 2005). Attendees rated the overall quality of this seminar as 4.4 on a scale of 1 to 5, where 5=excellent, 4=good, 3=fair, 2=poor, and 1=very poor.

Table 4.

Results of Post Seminar Survey Pooled Across Arkansas (2007-2009) and Indiana (2009) (n=198)

| Question | Yes | No | Unsure |
|----------|-----|----|--------|
| | 95% | 0% | 5% |

| | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|
| Would you consider attending this seminar next year, or recommending that others attend? | | | |
| From discussions at this seminar, do you feel better equipped to do your job more effectively and efficiently? | 95% | 1% | 4% |
| Has this or other Midwest Regional Turf Foundation (or University of Arkansas Cooperative Extension Service) events helped to increase your knowledge of pesticides, nutrients, and water inputs for maintaining turf? | 98% | 1% | 1% |
| From discussions at this seminar, do you feel you will be able to manage turf in a more environmentally conscious manner? | 95% | 1% | 4% |
| From discussions at this seminar, do you feel you will be able save money for your company/organization? | 72% | 7% | 21% |

Conclusion

There are opportunities to provide education to new employees of the turfgrass and green industries. A 1-day seminar covering basic principles of turf management was successful at improving attendee knowledge. Despite the economy, these seminars were well-attended, profitable, and highly rated by those who attended. This seminar can serve as a template and encouragement for those wishing to reach clientele through new educational outreach programs.

Acknowledgements

The authors want to express their gratefulness to Jon Trappe and Jennifer Biehl for their grading tests and compiling survey responses, and to the Midwest Regional Turf Foundation, Purdue University, and the University of Arkansas Cooperative Extension Service for co-sponsoring these seminars.

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