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## Diagnostic Walkabouts: Seventeen Years of Specialized Training for Horticultural Professionals

Timothy J. Malinich

*The Ohio State University*, malinich.1@osu.edu

Jacqueline Kowalski

*Ohio State University*, kowalski.124@osu.edu

Charles Behnke

*The Ohio State University*, Behnke.1@osu.edu



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## Diagnostic Walkabouts: Seventeen Years of Specialized Training for Horticultural Professionals

TIMOTHY J. MALINICH<sup>1</sup>, JACQUELINE A. KOWALSKI<sup>2</sup>, AND CHARLES T. BEHNKE<sup>3</sup>

AUTHORS: <sup>1</sup>Ohio State University Extension, Erie County, Ohio State University. <sup>2</sup>Ohio State University Extension, Summit County, Ohio State University. <sup>3</sup>Ohio State University Extension, Ohio State University.

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**Abstract.** A diagnostic walkabout (DW) is an in-field diagnostic training program for professionals in the green industry (greenhouse, landscape, nursery, and turf businesses). DWs have been scheduled annually since 2002 and are easily replicable, fee-based programs that provide cost recovery. DWs also serve as a mentoring program for new Extension educators. Four generations of Extension Educators have participated. Recently, the annual program has been sponsored by state and regional trade associations. What began as an educational outreach program has become a bridge spanning Extension, trade associations, businesses, and generations of Extension educators.

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### INTRODUCTION

The landscaping and grounds keeping industry employs nearly a million people in the United States, with Ohio ranking fifth in number of employees in these fields (U.S. Bureau of Labor Statistics, 2017). Landscaping and grounds keeping businesses are part of what some refer to as the green industry, which also includes nursery and greenhouse growers and retail garden centers. Extension has long provided the green industry educational opportunities such as pesticide applicator training. The landscaping and grounds keeping industry, in particular, has faced pressure to adjust practices to comply with new regulations, decrease pesticide and fertilizer use, and protect pollinators. In response, landscape professionals are voluntarily modifying their methods and are increasingly implementing integrated pest management practices (Alberts, 2018; Irrigation and Green Industry, 2008).

Changes in approach and practice provide Extension an opportunity to offer programming on best management practices and current research. Although Extension engages in knowledge transfer through several channels, in-field hands-on learning continues to be an effective means of information dissemination (Franz et al., 2010; Hawkins & Southard, 2001) and has the ancillary benefit of allowing Extension professionals to maintain relationships with industry associations. Taken together, these circumstances have presented Extension educators in Ohio the opportunity to engage with green industry professionals on multiple levels and train a new generation of Extension personnel via diagnostic walkabouts (DWs).

### HISTORY

The first DW was conceived in 2002 as an outreach and cost recovery program. The Extension educator who founded the program invited established and new educators to coteach it, thereby ensuring training of the new educators in the associated program planning, implementation, and evaluation. This was the beginning of what has now been a years-long program providing professional training to hundreds in the green industry. As Extension educators currently involved with the program, we provide information herein for others interested in replicating or adapting it.

## NEED FOR PROGRAMMING

Commercial pesticide applicators need options for obtaining training and certification credits. The typical commercial applicator schools are held in winter, with few training-for-credit opportunities available in summer. Businesses in Ohio requested hands-on classes and training to fill this gap and sharpen the professional diagnostic skills of their personnel.

## WALKABOUT STRUCTURE

Credits are requested from granting associations, and we present six DWs each season, with the programming occurring at various host sites. Planning starts in spring. We produce flyers indicating locations, credits, and costs and advertise the DWs online.

Each 2-hr session begins with introductions and communication of expectations. We use leading questions to encourage participation, with the answers serving as the beginnings of small discussions. We provide handouts to initiate conversation and supplement information and to be used later as office references or in the field. The handouts include timely information, such as information on symptoms of heat stroke or invasive pest issues. Instructors also bring samples of insects, diseases, or pest issues for review.

The bulk of a DW is the hands-on lab. Approximately 90 min are dedicated to walking the landscape of the hosting facility. As groups tour the property, participants can ask about any issue they see. DW leaders actively scout for pest, weed, and disease problems to discuss. Participants are led through the diagnostic process, from recognizing an issue to determining appropriate courses of action. The walkabouts are timed to take advantage of the typical landscape or turf crew schedule, ending in time for participants to finish their workdays.

## FROM TURF TO CORE TO ORNAMENTAL

Pesticide credits for the walkabouts change throughout the season; some DWs cover industrial vegetation or aquatics as well as the standard turf and ornamental categories. The final sessions always offer an entire hour of training in the core category, addressing topics that include safety and environment. Participants from outside the green industry, such as health department personnel, often take advantage of the DWs for core credit.

Pesticide applicators need to acquire several hours of training to renew their licenses. The DW schedule provides a menu of variable locations and twice monthly sessions to provide applicators ample opportunities to finish accumulating credits. A person lacking all credits could attend three walkabouts to meet regulatory certification requirements.

## WALKABOUTS AS MENTORSHIP

Though the DWs began as a program for industry, the team of instructors also learn from one another in their area of expertise by observing other teaching styles and practicing time management. New educators are invited to nearby DWs for in-service training.

Extension offers some formal succession planning but not for passing off expertise and knowledge from one generation of Extension educators to another (Franz et al., 2010; Schreiner et al., 2018). As colleagues have retired, DWs have taken on a critical mentoring function. New educators have purposefully been included in order to transfer depth of knowledge and maintain industry partnerships. One of the original retired educators still participates, representing involvement by three generations of commercial horticulture educators.

## PARTNERSHIP

The DWs also foster new and beneficial relationships with businesses and trade associations. In more recent years, program implementers have partnered with trade organizations for the handling of registration and marketing. Extension offices receive cost recovery from the trade organizations.

Each DW is hosted at a regional horticulture venue. Zoos, arboreta, local parks, and cemeteries are typical venues for the program. Location partners provide access and early entry in exchange for recognition and gratis registration for staff. The DWs now rotate through many host sites.

## CLIENT RESPONSE

Since the program's inception, 77 DWs have been held with 1,648 participants. An open-ended survey instrument has been used for measuring transfer of knowledge and increase of skill. Survey results indicate that 98% of participants gain knowledge or skills. In asking participants to value the economic impact of the program on their businesses and/or professional careers, we receive answers that vary greatly (\$50 to \$10,000). Other responses have included "priceless" and "infinite." Of note, fewer than half of attendees apply for pesticide credit, indicating the desire for hands-on diagnostic training regardless of recertification needs. Businesses reserve multiple slots for their staff at each DW and send different crews throughout the season. Individual learners often register for three or more DWs per season.

## CONCLUSIONS AND IMPLICATIONS

DWs for green industry professionals evolved into a financially sustaining, client-driven program through recognition of needs. DWs provide the opportunity for mentorship and peer-to-peer learning as new Extension staff are trained to continue essential programming. DWs help Extension maintain and grow new relationships with landscape industry practitioners at a time when Extension resources have become more limited.

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