

**Final report to the Slosson Endowment
for work performed from April 1, 2007 to June 30, 2008**

Title of Project: Evaluation of Interactive IPM Kiosks

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Introduction

In 2004, the State Water Resources Control Board (SWRCB) awarded the County of San Diego funds to help improve water quality in the County. Part of the award was to Provide IPM education to the residents of San Diego County. The County subcontracted with UCCE San Diego to provide a portion of the public outreach and education.

We created content that included identification of common pests in homes and gardens and placed that content on twelve touch-screen kiosks. The graphically based kiosks were placed in

garden and community centers and used at local fairs and training programs for Master Gardeners throughout the state (Figure 1). Integrated pest management information available on the kiosks includes how to manage numerous common home and garden pests such as ants, crabgrass, and powdery mildew as well as information about water quality. Users are able to read information on the screen and print out more detailed facts to take with them (Figure 2). Most of the information was developed from current or newly created Pest Notes or Quick Tip cards. In the initial three months that the kiosks were deployed there was high interest by the community. This proposal was to evaluate and manage the kiosks for at least 12 additional months after placement.



Figure1. Consumer reading screen



Figure 2. Consumer printing information

Goals and Objectives

The objectives of this project relate to the testing of the technology, different kiosk locations, and effectiveness of this method for IPM and water quality information delivery to home gardeners. Using a large number and wide range of locations should allow us to thoroughly test whether this is an appropriate delivery vehicle for such information.

The goals of this project were:

- Evaluation of kiosk method for home gardener information delivery
- Identification of appropriate sites for home gardener information delivery
- Identification of appropriate information to be delivered through kiosks or other outreach mechanism
- Assessment of the potential for increasing awareness of IPM and water quality to non-professional gardeners

With the assistance and recommendations of local Master Gardener representatives and UCCE Environmental Horticulture Advisors, we placed the kiosks in retail nurseries, county fairs, at gardening workshops, and other community events primarily in San Diego, Orange, Los Angeles, Sacramento, Yolo, Fresno, and the San Francisco Bay area.

Discussion

Between April 2007 and June 2008 the six kiosks in the southern region (Los Angeles, Orange and San Diego Counties) have had approximately **14,000** user sessions. From these sessions users viewed **25,800** pages, watched **1,500** videos and printed out information **1,550** tip sheets. These kiosks were deployed to 11 different retail nurseries, 1 international conference, one tribal administration office, 3 big box stores, 36 Master Gardener events including 3 county fairs

and the San Diego Wild Animal Park. One kiosk remains stationary at the San Diego Zoo and one is in the La County Arboretum.

The top three most accessed pest pages were **Ants (1200)**, **Snails & Slugs (1000)** followed by **Safe Disposal (900)**. The top three most printed information pages were Weeds (500), Safe Use and Disposal (400) and Clean Water (350). The top three most often viewed videos were Ants (525), Snails and Slugs (425) and Mildew (275).

The individual consumers found the kiosks easy to use and informative. The most common suggestion we received is a request to add more information. We did update the information on the kiosks in June of this year adding more pests, more information and changing the screens to make them more user friendly.

The success and popularity of the kiosks is evidenced by the feedback that we have received from Master Gardeners, retail nurseries, community groups and individual users of the kiosks. Most of the retail nurseries have repeatedly requested the use of the kiosks. The following are comments from Master Gardeners, retail nursery staff and retail store staff:

As members of the San Diego County Master Gardener Association who frequently staff the "Ask a Master Gardener: booths at public events, we want to give our strong, positive recommendation for the continued use and improvement of the kiosk that has proven so very useful at several of our recent activities. The kiosk has shown to be an excellent interactive device in dispensing target information to the questioner and Master Gardener. It has served as an outstanding support tool to those of us who have had the opportunity to refer its use to our visitors. As its functions are broadened and its feedback is expanded, we have every confidence that the kiosk can become an integral part of the overall effort to help our clients with gardening, conservation and IPM problems.

Al and Dora Myrick - San Diego Master Gardeners

Customers and staff enjoyed the kiosk. I wish we could keep it longer.

Poway Nursery

We have found that the kiosk has proven to be a great resource in helping our customers make decisions about their pest control options. Great tool! Thanks for letting us use it.

Kevin Grangetto - Owner of Grangetto's Farm and Garden Supply

Customers and staff enjoyed the kiosk. I wish we could keep it longer.

Poway Nursery

The pictures were great for easy problem identification

South Coast Plaza Garden Show

Great idea. My customers found it easy to use and informative. Thank you for letting us have it at our store for a short while.

Joe Cordova - Cordova Gardens

I thought that it was a good information source.

Jesse Castro - Pala Reservation Pesticide Technician

The IPM Kiosks in the northern region of the state have grown in number; there are an additional 6 kiosks that are available for use by Master Gardeners, communities, and retail nurseries. The Statewide UC IPM Website (www.ipm.ucdavis.edu) has a schedule for all the locations of the kiosks statewide along with contact information. Project Clean Water (www.projectcleanwater.org) provides a schedule for the kiosk locations in San Diego County as well as information on the Healthy Garden Healthy Home Program under the heading "Safe Pest Control".

While this program is highly successful there are improvements that can be made. Having a portable power source for the kiosks would make it easier to use at certain events such as street fairs or events in parks. The development of a protective hood to shade the screen so it is readable when it is used in outside settings is a frequent request from event coordinators. We have also been asked to increase the number of pests on the kiosks. Initially 48 pests were displayed. As of September 15, 2008 there is information on 60 pests available to gardeners and others.