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Final report to the Elvenia J. Slosson Endowment Fund for work performed from July 1, 2003 – June 30, 2004

Project Title:
Development of IPM Presentations for Master Gardener and Horticultural Advisor Outreach to Community Groups

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INTRODUCTION

Over the last several years, residential pesticides have been detected in local rivers and creeks, contributing to the decline of California's quality of water. In order to improve the water quality in our waterways, the public must be made aware of the problem and educated about ways to reduce pesticide use in and around their homes. Thousands of Master Gardeners are certified throughout the state of California to provide outreach for the University of California Cooperative Extension. Through plant clinics, schools, fairs, and garden shows, volunteers spend hours teaching residents in local communities ways to utilize an integrated approach to pest management. IPM promotes using less toxic methods such as prevention and cultural controls, resorting to pesticides only if no other alternative is available. Many Master Gardeners have the background material needed to provide to residents in their counties however are often uncomfortable when giving formal presentations on technical topics. We have spent the past year developing training modules that will help Master Gardeners in their outreach programs. These modules provide a good structure for a presentation as well as allow for discussion through group exercises. These presentations along with supplementary handouts and posters will help Master Gardeners educate the public on using IPM techniques and choosing management methods that pose reduced risks to the environment.

GOALS / OBJECTIVES

Our goal was to create training modules on topics related to water quality and pest management around the lawn and garden. We chose to develop modules on ants and weeds, as they are two primary pests for which residents treat with pesticides. Each module consists of a 20 – 25 minute presentation followed by a series of exercises designed to generate discussion among the group about the key points in the presentation. Much of the information in both the ant and weed modules focuses on prevention, as it is such a key component in an IPM program. In ants, we focus on sanitation and exclusion techniques while in weeds, we focus on properly preparing the planting site, planting competitive species, and applying mulches. We hope these modules will enhance Master Gardener presentations and make the public aware of alternative control methods.

DISCUSSION

Organization

Before the project began, we met with our cooperators to finalize topics, review the format of the modules, and discuss how Master Gardeners would use the modules in their outreach programs. For each topic, we met with our advisory committee that consisted of Master Gardener Coordinators, a Horticultural Advisor, and University experts to develop learning objectives, discuss interactive segments, and identify key points or management techniques that should be emphasized with the use of color photographs, illustrations, or video clips.

Development of the guide

Once the learning objectives were developed, we created an outline detailing the main points and concepts that would go on each screen. Using existing literature and consulting our committee and other University experts, we developed a script to go along with each presentation screen.

The ant presentation (Figure 1) gives tips for identifying ants and distinguishing them from termites, discusses their biology and food preferences, and outlines environmentally sound ways to manage them. The management approach is reliance on sanitation and exclusion in combination with baiting as necessary and avoidance of insecticide sprays that can cause health or environmental problems. The presentation describes types of baits available, how, when, and where to use them, and how to make them more effective. We also make a special point to discuss the potential for pesticide sprays to drift and affect the quality of water in rivers and creeks in urban areas.

The weed presentation (Figure 2) explains the differences between broadleaves, grasses, and sedges, discusses how weeds reproduce and what makes them so competitive, and identifies several problem weeds found in lawns and landscapes. The management approach for weeds is stopping them before they spread and before they produce seed. Practical methods such as planting dense plants, using mulches, and hand-weeding with various tools are discussed.

Programming the module
The presentations were created using PowerPoint. Each screen was carefully designed to highlight the most important points. We searched our photo collection and incorporated photographs where appropriate and went out and took several more digital photos to fill in the gaps. We worked with ANR Communication Services Manager Michael Poe to film some short video clips that demonstrate various management techniques such as caulking and baiting for ants and installing fabric barrier and mulch for weeds.

A novel component of this outreach project is the crafting of interactive scenarios to stimulate discussion among the audience following the presentation (Figure 3). Working closely with a freelance illustrator, we developed line drawings for this section as well as other screens in the presentation.

Review and revision
Our cooperators, ant experts, and Master Gardeners have reviewed the ant presentation module including the written script, presentation, and interactive scenarios. Comments have been incorporated and the module is now in its final form. We anticipate that the weed module will be sent out for review in early December and be in final form by early 2005.

Supplementary material
The PowerPoint presentation will be distributed to Master Gardener offices on CD-ROM. The CD-ROM will also include a written script to accompany the presentation, a Frequently Asked Questions (FAQ) sheet to guide the presenter through the presentation, and files for handouts and posters that can be printed out and distributed or displayed to the audience. We will also be providing a narrated version of the PowerPoint presentation that will play like a movie for presenters who do not wish to give presentations. This version will be available on the CD-ROM and also on DVD and videotape.

Continuing work
In the spring, Master Gardener or Horticultural Advisor presenters will be trained to use these modules and to reinforce the key points in the presentation. Also, we have funding through the USDA to create two additional modules: one on honeydew-producing insects and a general one on Water Quality Issues and IPM. We expect to have them completed in the fall of 2005.

Expected results
We believe that these IPM presentations and associated materials will help Master Gardeners and Horticultural Advisors inform the public about ways to reduce pesticide use in urban environments and provide science-based solutions for common pest problems.

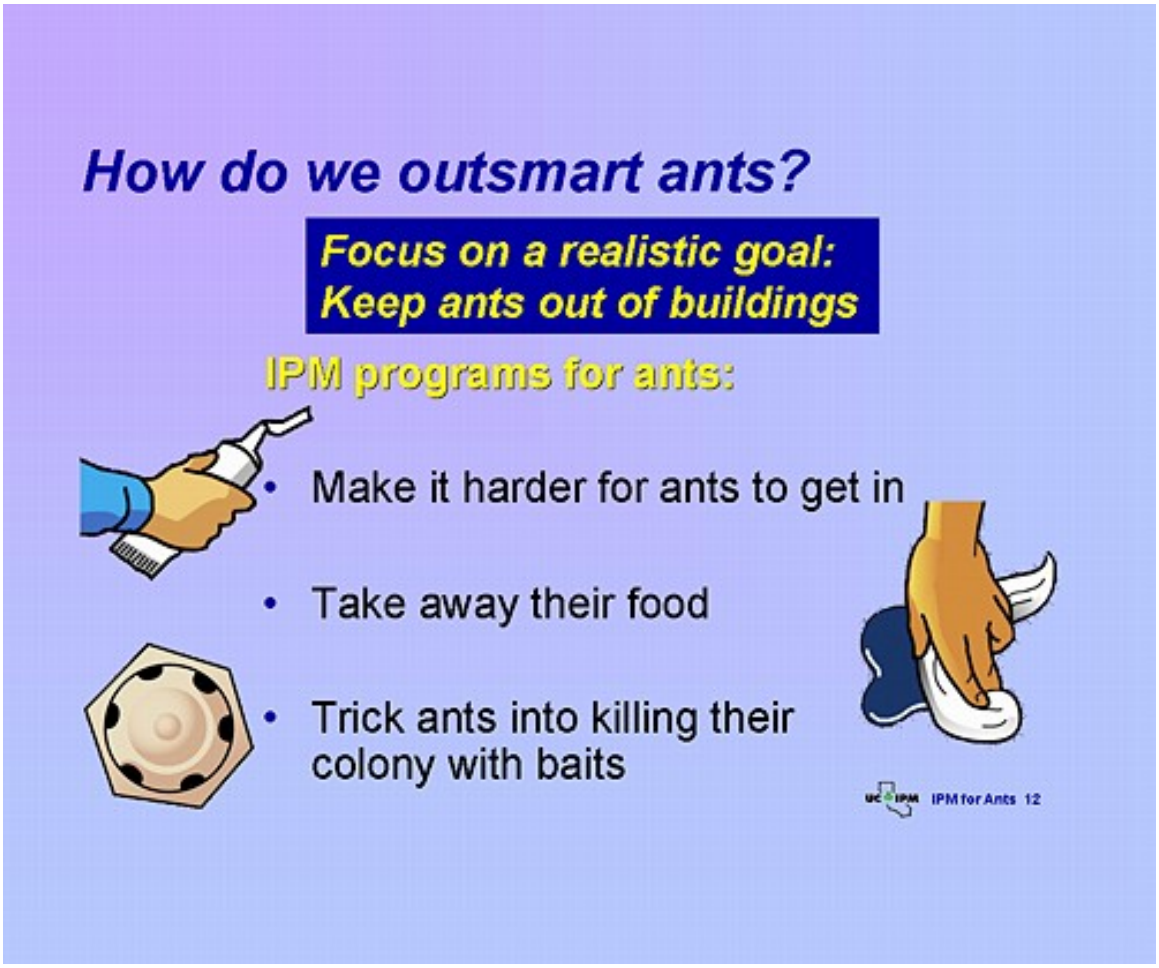

Figure 1: Three practical ways to manage ants around the home.

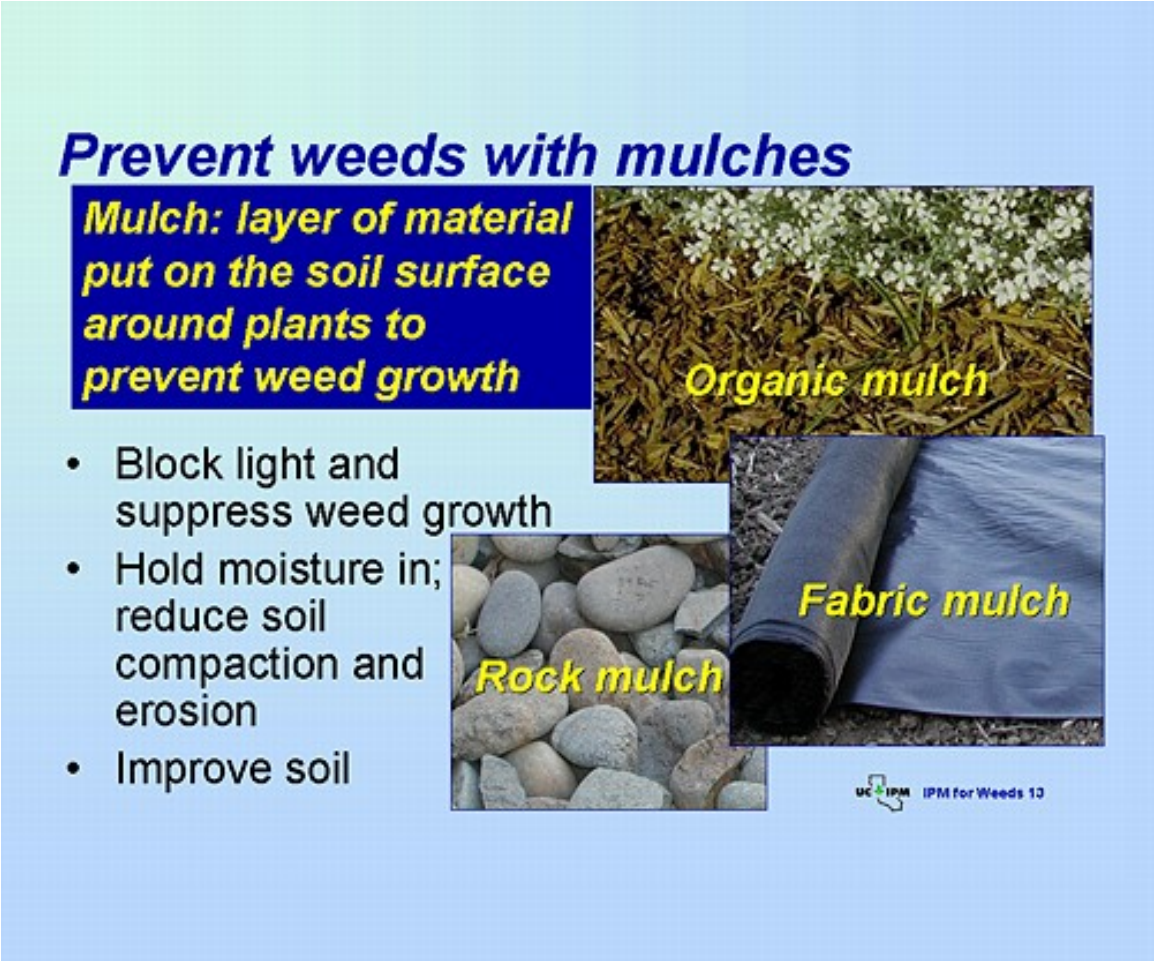

Figure 2: Various types of mulch used to prevent weeds.

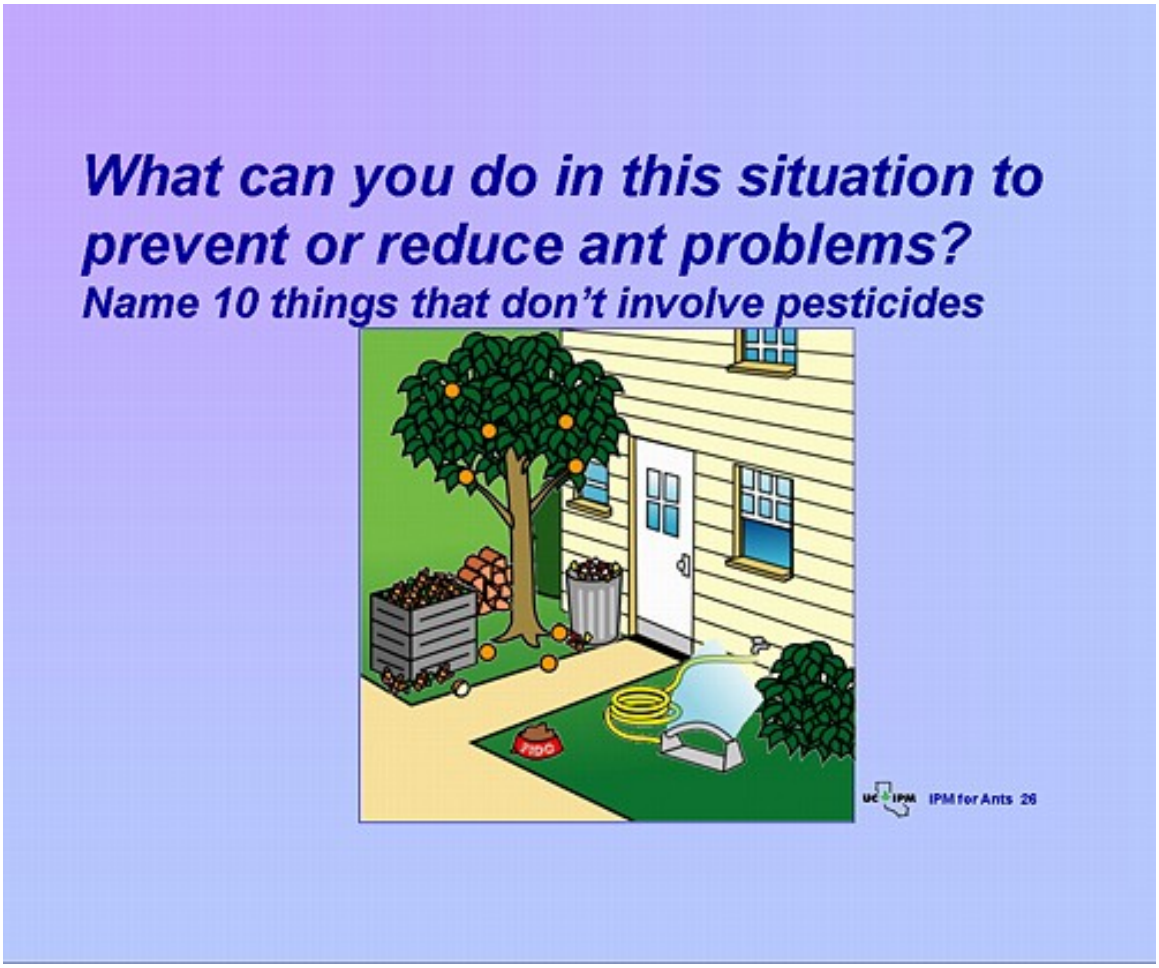

Figure 3: An example of a common situation meant to stimulate discussion among the members of the audience.