

# **Teaching IPM strategies to Home Gardeners through educating Nursery and Garden Center Employees**

## **Creating an IPM Strategy Reference Manual and Lecture for Educating Nursery and Garden Center Employees**

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### **Situation Statement**

For the majority of home gardeners, their first introduction to insect, disease and weed control is through local nurseries and garden centers. Traditionally, these businesses first recommend appropriate chemicals for garden problems. For busy employees, with limited knowledge of pest control, it's more convenient to pick a product from a list rather than take time to study the problem and explain the options.

Twenty years ago university recommendations for pest control was a list of chemicals appropriate for the problem. Today an integrated approach has been adopted and presented as "a comprehensive approach to pest control that uses a combined means to reduce the status of pests to tolerable levels while maintaining a quality environment." However, the majority of green industry employees still rely on the long-established tradition of chemical applications to solve problems in the landscape.

An Integrated Pest Management program is new to most gardeners because it does not call for eradication of a pest, but rather tolerable levels. Realistically, when a chemical is used in an attempt to eradicate an insect the opposite occurs. As chemical residuals weaken insect pests in the landscape, others from neighboring yards move in. Even more devastating is the fact that not only insect pests are killed by the chemical but beneficial insects as well.

In addition to accepting a degree of damage from pests, the concept of integrated pest management also encourages reducing the amount of chemicals introduced into the environment. Some chemicals have been identified as soil and water contaminants and

some pests have developed resistance to chemicals that are routinely used. In the past few years some pesticides have been taken off the market because of the effect they have not only on the environment, but the potential they have to cause problems to children and animals.

USU Extension Agents are routinely asked to identify plant problems, offer solutions and if a client has already visited with a garden center professional and is dissatisfied with the diagnosis and cure, Extension Agents are asked to fix the problem. In order to supply reliable pest control information to consumers through garden center employees, they must first have current, correct information available to share. As a result, consumers will have the information necessary to correctly remedy problems in the landscape. The basic steps to supplying correct information necessary to correct a problem are:

- Proper pest identification. After identifying a potential problem, decide if it's actually a pest. If so, become familiar with the pest's life cycle. There are particular times when a pest is more susceptible to control measures than others. The codling moth is an example of a pest of apple and pear fruit that requires a plan to reduce its numbers. With proper monitoring, and the use of Extension resources, pesticide applications are made when the insect is in the larval or most susceptible stage of development.
- Monitor the landscape. Become familiar with existing plants, as well as the disease and insects that are potential problems. Some problems develop on certain plants, or in particular areas of the landscape year after year. Eliminate problems before they materialize by monitoring these plants or areas each year.
- Avoid buying plants that have inherent problems. Take time to research plants before planting them in the landscape. A quaking aspen in a valley location will generally need treatment for disease and pests. Research plants and look for resistant varieties in problem-prone areas of the landscape.

As nursery professionals and their employees consider the options that are available aside from the typical chemical application methods, ideologies will change and customers will be directed to an integrated approach to controlling pests. Employment of integrated pest management strategies will ensure the quality of our environment, while minimizing the potential problems associated with food and human safety.

## Objectives

- Develop a training meeting for garden center/nursery managers and employees during winter months in Northern Utah, or others who are routinely asked to provide plant diagnostic advice.
- Develop a diagnostic reference manual of fact sheets that outline IPM concepts of specific problems for nursery, garden center and professional use.
- Provide a diagnostic CD that includes IPM strategies to employees trained in Utah in 2006.
- Provide updates for distribution to nursery and garden centers that outline seasonal problems and IPM strategies to provide solutions.
- Present results of training at a professional meeting to share the results of the training and implementation of practices.

## Procedures & Techniques

Compile an informational Training Manual to conduct 2 training sessions for nursery professionals and their employees in Northern Utah in winter 2006. Topics for each 3-4 hour session will include diagnostics, abiotic, insect and disease problems and updates and alternatives to available pesticides emphasizing IPM practices. Provide pesticide CEU's and UNLA hours to participants by offering pesticide use instruction. Provide a diagnostic reference manual and CD for use at the business. Distribute a pre-evaluation and course evaluation to assess participants' concepts of IPM strategies and pest control practices.

## Educational Materials Produced

Manuals produced will be shared through a CD ROM with other Extension offices in the state. The information will be presented at nursery association meetings, master gardener presentations and trainings, and similar horticulture meetings. These materials could be used to help structure an Annual Utah Nursery Employee Training Meeting for different locations in Utah.

## Budget Request

<b>ITEM</b>	<b>COST</b>
Travel Expenses	200.00
Workshop Supplies and Preparation	1000.00
Preparation and reproduction of manuals and CD ROM	500.00
Contract help for preparing diagnostic CD and IPM materials	300.00
<b>Total Estimated Cost</b>	<b>\$ 2000.00</b>
<b>Funding Sources</b> - Training class fee for participants	\$ 300.00
<b>- IPM Mini Grant</b>	<b>\$ 1700.00</b>

