



# Retail Nursery Newsletter

## An Information Source for Retail Nursery Professionals

Volume 3, Issue 1

April/May 2008

### **Healthy Garden— Healthy Home**

**Helping to improve  
water quality in  
San Diego County  
through the  
implementation of  
Integrated Pest  
Management  
practices.**

### **It's The Water That Connects Us!**



#### **Inside this issue:**

Online Training	1
IPM Information Kiosk	1
Pest of the Month—Rats	2
Diaprepes Update	3
Workshops and Educational Materials	4



### **UC IPM launches online training program for retail employees**

Home gardeners buying pesticides often turn to store clerks to give them information about pesticides and IPM. A new, free, online training course on the UC IPM Web site ([www.ipm.ucdavis.edu](http://www.ipm.ucdavis.edu)) provides retail employees the background they need to provide good answers.

Surveys show that retail employees are one of the most important



**A Sample Screen on  
Reading a Pesticide Label**

sources of information for consumers when they purchase pesticides, yet

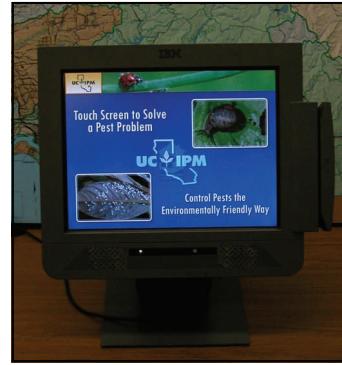
many have little training or expertise in pesticide use.

UC IPM's online course, partially funded through a grant from the California Department of Pesticide Regulation and U.S. EPA, seeks to address this educational need. The program will include two modules—the first on pesticides and pesticide safety and the second on integrated

(Continued on page 3)

### **Touch-Screen IPM Information Kiosks Available for Local Nurseries and Garden Centers**

The Healthy Garden/Healthy Home Program, in collaboration with the UC Statewide IPM Program, has developed an interactive Information Kiosk. The touch-screen units, which provide the consumer with UC generated IPM information, are available for use for 45-day periods during the initial test year. The IPM Kiosk provides the consumer with management tips related to irrigation, fertilization, pest identification, pest management, least toxic control tips, safe use and disposal of chemicals, and runoff prevention. Each unit



**IPM Touch-Screen Kiosk**

also has printer capabilities so that the user can print out useful management tips and contact information for the Cooperative Extension and Master Gardener program. Retail nursery and garden centers can

use these units as part of their customer education efforts. Each unit is self-contained and only requires a simple electrical outlet for operation. We are looking for additional retailers to help in the evaluation of this outreach tool by placing a kiosk in their store during our initial introductory/evaluation phase (to be held from February 2007 – June 2008). Interested managers should contact Debbie McAdams, [dmcadams@ucdavis.edu](mailto:dmcadams@ucdavis.edu) 858-694-3393, at the UC Cooperative Extension Office to arrange for the placement of a unit in your establishment.

## **Have you B.E.T. on a rat? Don't gamble with your pest control!**

**by Peter Newman, UCCE San Diego County Staff Research Associate**

Often the most tempting solution for a rat problem is to reach for the nearest rodenticide. However, usually this should be the last line of defense. The rise of anticoagulant resistance tactics mean you should leave the poison until last in any rodent control scheme. Also, rodenticides may pose a problem to other animals and rat predators. Your plan of action should always begin by identifying the problem and then assess the need for rodenticide use.

In the USA two pest rat species exist, neither is native, imported on trading ships several centuries ago. Both share certain characteristics and behavior. Yet both have unique traits and require distinct approaches when control is needed.



**Norway Rat**

Norway rats, known as brown or sewer rats, are stocky and larger than roof rats. Their burrows are found along building foundations, beneath rubbish or woodpiles, and in moist areas in and around gardens and fields. When they invade buildings, they usually remain in the basement or ground floor areas.



**Roof Rat**

Roof rats, also called black rats, are slightly smaller than Norway rats. Their tails are longer than their heads and bodies combined. Roof rats are very agile climbers and

usually live and nest above ground in shrubs, trees, and dense vegetation such as ivy. In buildings, they are most often found in enclosed or elevated spaces in attics, walls, false ceilings, and cabinets.

**Identifying the problem –** Burrow runs and fresh dropping, digging, smudge marks, scratching sounds in attics/walls and damaged food stuffs usually identify the extent of a rat infestation. Inspect your yard and garden periodically throughout the year, experience shows controlling rats early, before infestation, is less costly and less time consuming than when their numbers are high.

**Do you need a rodenticide?** Remove shelter and weed cover. Protect/remove obvious food sources. **B.E.T. – baiting, exclude, trap** should be implemented in the following order.

**Exclusion** is the best and longest lasting form of rat control. "Build them out," seal all cracks, openings, water pipes, electric wires, sewer pipes, drains, and vents. No opening more than a 1/4 inch should be left unsealed. Check doors, windows, and screens. Use steel wool, wire, lightweight sheet metal to exclude, other materials such as plastic, wood or caulk may be gnawed and are therefore not effective barriers. Where roof rats are present or suspected check and seal all roofline access points i.e. vents.

**Trapping** is one of the safest and most effective methods for controlling rats in and around homes and garages. Simple wooden rat sized traps work well. Bait with nut, meat, dried fruit, or bacon securely attached to the trap with string, dental floss or even glue. Peanut butter or cheese works although rats often remove these without setting off the trap. It is a good idea to bait traps 'unset' at least one night to improve acceptance of baited traps. Set traps along runways in secluded areas where rats are likely to shelter. Set them so that the rat passes directly over the trigger point. Always use as many traps as practical. A dozen or

more traps for a heavily infested home may be necessary. Place rat traps about 10 to 20 feet apart. Dispose of dead rats by burying or placing them in plastic bags, sealing, and putting them in the trash. Do not touch the rodent with bare hands and wash thoroughly after handling traps. An alternative to snap traps are glue boards. These work like flypaper and trap the rat on the glue board. A disadvantage is that the trapped rat may not die quickly, and you may need to kill it. *Live trapping of rats is not recommended, trapped rats cannot be released elsewhere, because of their pest status.*

**Baiting** is best used when rat numbers are high or there is continuous reinfestation. Consider hiring a licensed professional pest control operator whenever toxic baits are to be used. Additional toxic baits may be available to licensed users. Toxic baits work in two ways, either an anticoagulant, causing death by internal bleeding, or as an acute toxin. Anticoagulant baits require multiple feedings over a period of several days. Newer single-feeding anticoagulants are available but are used in the same manner. Baits must be consumed in adequate amounts to be effective. With all anticoagulants, death is generally delayed 2 to 6 days after a lethal dose of bait has been consumed.

Rat baits are available in meal, pellet, kernel, or block form. Pellet or meal baits are frequently sold in small packets called "place packs." Also, a wide variety of paraffin block baits are marketed and convenient to use. Most of these blocks must be placed in a tamper-resistant bait station to prevent dogs and other animals from chewing on them. These enclosures protect the bait from weather and restrict accessibility to rodents, providing a safeguard for people, pets, and other animals. Each station should have at least two openings for rats to enter and exit. Place in the same manner as traps. All bait stations should be clearly labeled.

## Online Training continued from page 1

pest management.

The modules are intended for employees of any retail store that sells home and garden pesticides, including nurseries, hardware stores, drug and grocery stores, and discount stores. In addition, anyone who advises residents about home and garden pesticides, such as Master Gardeners, landscape professionals, and those in public agencies or Cooperative Extension, may also find the modules useful.



**A Sample Screen on Protective Clothing**

The pesticide course outlines five key steps to follow when handling customer questions:

1. Identify the problem.
2. Define management options.
3. Direct customers to least-toxic products.
4. Open and review the label with the customer.
5. Be sure the customer has everything they need before they leave the store.

Each step is described in detail. Although the course is about pesticides, it makes the point that pesticides aren't always neces-

sary, and nonchemical alternatives may be safer and more effective. Sources for finding additional information are provided.

A main focus is showing users how to use the pesticide label to answer questions and help select the right pesticide. The presentation is broken into sections, each one targeting an aspect of the pesticide label. After describing each label component, the presentation shifts into a discussion of formulations, discussing the differences between ready-to-use pesticides and concentrates and emphasizing less-toxic pesticides. During the 30-minute narrated presentation, participants also get a good overview of measuring and mixing equipment, application equipment, and protective clothes to wear when mixing and applying pesticides. The course emphasizes proper storage and disposal as well as the effect that pesticides can have on the environment. Tips on cleaning up spills and leaks are given. Color photographs and line drawings complement the narrated and written content in the course, making it easy to understand.

Video clips provide transitions into new topics, and sections are followed by a series of multiple-choice questions to help participants review the material. The course is designed so that a user has to answer the questions correctly before moving to the next section, however, no scoring records are kept.

A committee consisting of

several experts in the field, including a general manager of an independent nursery and an independent consultant, reviewed the course material, and a pilot group tested the usability of the course.

Participants can find the course by clicking on the Training Programs link on the UC IPM home page. They'll be asked to register for the course before taking it. After they have completed the course, they will be able to comment on their experience and will be sent a certificate of completion. They will also be able to print a list of resources that refers them to websites and publications for additional information.

**A Sample Quiz Question**

A second module on IPM practices is scheduled for release in December 2008 and will complete the course. The module's focus includes pest types, damage, management methods, and pest management tools available from retail outlets.

## Diaprepes Root Weevil Update

by Loretta Bates, UCCE San Diego County Staff Research Associate

Since the root weevil *Diaprepes abbreviatus* was first reported in San Diego County in 2006 the County and the State of California have been aggressively monitoring the movement of the weevil and attempting to contain and eradicate the pest.

Currently there are 7 quarantine zones, from La Jolla to

Oceanside, the newest in the Rancho Santa Fe area. Within the quarantine zones, the CDFA has an active spray program at confirmed find sites. Research is ongoing to evaluate the effectiveness of several biological control agents, including nematodes and the parasitoid wasp, *Aprostocetus vaquita-*

*rum*. Unfortunately, *Diaprepes* continues to be found in occasional shipments of ornamentals from Florida.

**Adult  
*Diaprepes*  
Root Weevil**



## **HEALTHY GARDEN—HEALTHY HOME**

University of California Cooperative Extension  
Farm and Home Advisors Office  
5555 Overland Avenue, Building #4, Suite #4101  
San Diego, CA 92123

Phone: 858-694-2184  
Fax: 858-694-2849  
E-mail: [saparker@ucdavis.edu](mailto:saparker@ucdavis.edu)  
Web Site: [www.cesandiego.ucdavis.edu](http://www.cesandiego.ucdavis.edu)



The University of California prohibits discrimination against or harassment of any person on the basis of race, color, national origin, religion, sex, physical or mental disability, medical condition (cancer related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran (special disabled veteran, Vietnam-era veteran or any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized). University policy is intended to be consistent with the provisions of applicable State and Federal laws. Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action/Staff Personnel Services Director, University of California, Agriculture and Natural Resources, 300 Lakeside Drive, 6<sup>th</sup> Floor, Oakland CA 94612-3560. (510) 987-0096. University of California, County of San Diego, and the United States Department of Agriculture cooperating.



## **FREE Point-of-Purchase Educational Materials and Training Workshops Available for Local Nurseries and Garden Centers!**

As part of the **Healthy Garden – Healthy Home** Integrated Pest Management (IPM) outreach effort, research based educational materials, and the fixtures necessary to display them, are available to nursery and garden centers throughout San Diego County. Materials include water resistant pest cards (in English and Spanish) and informational tear-off sheets. Pest Card topics include; *Ants, Aphids, Cockroaches, Earwigs, Fleas, Giant Whitefly, Gophers, Head Lice, Rats, Snails & Slugs, Spiders, Termites, Safe Use & Disposal of Pesticides, Lawn Insects, and Gardening with Good Bugs*. Tear-Off Sheet topics include; *General IPM Information, Ants, Snails & Slugs, Aphids, and Pre-*

*venting Irrigation Runoff.*

In addition to these Point-Of-Purchase items, several educational videos ranging in length from 15 seconds to 3 minutes are available for use in your store. Both DVD and video format are available.

Workshops for nursery staff focusing on topics related to IPM and Water Quality are also available for booking.

For more information about any of these opportunities or to make arrangements for your nursery or garden center to participate in this program please contact Scott Parker by phone, 858-694-2184, or email, [saparker@ucdavis.edu](mailto:saparker@ucdavis.edu).



**Sample Pest Cards  
Display Racks**