



# SONOMA COUNTY VITICULTURE NEWSLETTER



*April 2005*

*Rhonda Smith, Viticulture Farm Advisor*

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## **Trapping in 2005 for Vine Mealybug in Sonoma County**

For the last two years, UC Cooperative Extension (UCCE) coordinated the voluntary vine mealybug (VMB) trapping program in Sonoma County. We worked with the County Agriculture Commissioner's office which provided the traps and mapped the locations of vineyards (by address) that participated in the program. Owners and managers of over 300 properties participated. Staff in the UCCE office read a total of over 4,500 traps using stereo (dissecting) scopes. To conduct this program, we received funding from two sources – a grant from the American Vineyard Foundation (provided to Kent Daane, Extension Specialist, UC Berkeley) and the Sonoma County Grape Growers Association.

In some properties, when males were trapped, vineyard managers and field workers walked the blocks looking for the infestations that were the source of the males. In this manner, infestations were located on 13 properties. Based on the location of other properties that caught males, we estimate that an additional 20 sites may have infestations of VMB in Sonoma County.

### **Programs in other counties**

In other grape growing counties, VMB trapping programs in 2004 were quite varied in design. Trapping was done by County Agriculture Commissioner staffs and/or by Western Farm Service (a supplier of ag products and services in the Central Valley and Central Coast). Trap densities ranged from 2 per square mile to 1 per 80 acres. In a few counties, trapping was not done on a county-wide basis and only a few properties were trapped. At the end of 2004, one or more VMB infestations were confirmed in 16 counties and in four other counties, males were trapped but the infestations have not been located.

Last year, Lake and Mendocino County Agriculture Commissioner staffs placed traps in vineyard properties and a single male was located in a trap in Lake County. The Napa County Agriculture Commissioner staff conducted a geographic information system (GIS)-based trapping program that was funded by the Napa Valley Vintners Association, Napa Valley Grape Growers Association and the Farm Bureau. In 2004, 7 traps were placed per square mile in agriculture areas and 1 trap per square mile in urban areas. Traps were set out in early summer and each was checked by staff every 2-4 weeks. If VMB males were found in a trap, the vineyard owner was notified and additional traps were set out by the county staff. Growers were encouraged to walk the blocks to locate infested vines. By the end of 2004, a total of 31 infested sites had been found in Napa County. Males were trapped in an additional 7 sites where the infestations have not yet been located.

### **UCCE will not read traps, but traps will be available**

The UCCE Sonoma office will not be coordinating or conducting VMB trapping in 2005. This means growers will be responsible for setting traps out and for determining if the traps caught mealybugs. We will provide training opportunities to do this (see below). The Sonoma County Agriculture Commissioner is not

funded to conduct a trapping program. As we go to press, the availability of VMB traps and where you can pick them up has not been decided. As soon as that information is available, it will be posted on the UC Cooperative Extension Sonoma County website. Go to <http://cesonoma.ucdavis.edu/> and click on Available Publications. It will also be announced at the workshops (see workshop flier in this newsletter). UC will provide a 2005 VMB trapping protocol at the same web site. We can also mail or fax it. The protocol will be modified from past years. Based on our data from the last two years, we recommend that you set traps out in your vineyard no earlier than **June**.

We have also concluded that fewer trap changes per site are necessary. However, the more frequently you “read” the trap, the sooner you will know if it contains VMB males and thus the sooner you can begin to look for the infestation. If you have never trapped VMB males on your property, then we recommend the trap and lure be changed once a month (sooner if the trap is soiled). In general, one trap site per 80 vineyard acres is adequate. In smaller vineyards, obviously one trap site will suffice. If you have caught VMB males on your property in the past, then you should consider increasing the trap density and/or the frequency that you “read” the traps. The protocol will have additional details. It is important that you read it.

Growers, managers and PCAs will have to “read” their own traps and to do it correctly, a stereo scope is necessary. It is extremely difficult to use a standard 10x hand lens to focus on every small insect on a sticky trap because your face, hands and lens will get covered in stickem. A scope with a maximum magnification of 30X is sufficient for this task. It can be used to identify the presence of male mealybugs on the trap, and with training that we will provide, you can also determine if the mealybugs are grass mealybugs or others.

### **Which mealybug is it?**

As you may know, the VMB pheromone lure used with the sticky trap was developed to specifically attract the male VMB; however, in the North Coast, two species of **grass** mealybugs and the **grape** mealybug have also been caught in traps. With training, it is possible to visually separate grass mealybugs from VMB by looking at the specimen on the trap surface with a dissecting scope. However, it is *extremely* difficult to separate grape mealybug (*Pseudococcus maritimus*) from VMB (*Planococcus ficus*) on the trap in that manner.

As a result, all traps with a suspect VMB must be returned to the Sonoma County Agriculture Commissioner’s office to differentiate between grape and vine male mealybugs. That office will then send the trap to the California Department of Food and Agriculture lab where technicians will cut specimens from the trap, mount them on slides for observation with a compound microscope and finally determine the species by comparing microscopic characters. That verification process was used by counties throughout the state – including Sonoma County – to ensure the accuracy of the trap catches.

### **Two training opportunities provided by UC Cooperative Extension**

The UCCE Sonoma office will offer “Vine Mealybug Trap Reading Workshops” in May for people interested in learning how to identify mealybugs on a sticky trap. This will be a hands-on training with stereo microscopes and sticky traps. Workshops will be offered almost hourly for two days and each person will have their own scope to use. **You must phone the UCCE office to reserve a space.** More information is in the enclosed flier.

The UCCE Sonoma office will also offer indoor workshops, taught in Spanish, to vineyard foremen and supervisors on how to identify VMB infestations in the vineyard. They will be held in three locations in late May and early June. You will receive information on those workshops in a future mailing.

### **Coordinating your VMB trapping efforts**

The take home message is simple: if you trap for VMB, then you will be able to find VMB infestations sooner than later. Sonoma County has relatively few infested vineyards but that number will increase if growers do not take the following actions:

- Set out VMB traps in your vineyard
- Walk the property to locate infestations
- Take the necessary actions to reduce the population
- Deliver clean fruit to wineries
- Prevent further movement of the insects within the vineyard and to your neighbor's vines

When a trap catches male vine mealybugs, the grower will have lots of questions. Are the trapped males from your property or your neighbor's property? Should you spend money on labor to walk your vineyard looking for an infestation? Is your neighbor even trapping? Is your neighbor already treating a known infestation? To learn the answers, you need to talk with your neighbors.

The Sonoma County Grape Growers Association (SCGGA) is interested in coordinating vine mealybug neighborhood grower groups. The purpose of each neighborhood group would be to coordinate trapping plans and share trap results. In this manner, growers are more likely to find the infestation that is the source of the trapped males. Once infested vineyards are found, steps can be taken by the vineyard owner and their neighbors to limit the risk of spread of VMB. If you would like to participate in a neighborhood grower group, contact Nick Frey, Executive Director of the SCGGA at 707-206-0603, 291-2857 or [frey@scgga.org](mailto:frey@scgga.org).

### **For more information**

The following links provide you with color photos and information on VMB trapping, identification, biology and control. If you cannot download the information, please contact our office and we can mail you selected articles.

- <http://cesonoma.ucdavis.edu> Click on Available Publications
- <http://vinemealybug.uckac.edu>
- <http://anrcatalog.ucdavis.edu/> ... Enter "vine mealybug" in the search bar to be taken to the free publication, "Vine Mealybug – What you Should Know".
- <http://www.ipm.ucdavis.edu/PMG/selectnewpest.grapes.html> Find the various mealybug pests in the list under "Insects and Mites."

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## Trapping for Vine Mealybug in 2005 Trap Reading Workshops – RSVP Required



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