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SONOMA COUNTY VITICULTURE NEWSLETTER



May 2004

Rhonda Smith, Viticulture Farm Advisor

Vine Mealybug 2004 Trapping Season

To determine the extent of vine mealybug infestations in Sonoma County, the University of California Cooperative Extension (UCCE) has partnered with the Agricultural Commissioner's Office to **provide sticky traps and read them** for the 2004 field season. Trap kits will be available from the UCCE office beginning in June. You will receive one trap kit for each trap site you have in your vineyard. We suggest you have one trap site per 30 vineyard acres, thus smaller vineyards would have one site only and larger vineyards would have several trap sites.

A trapping protocol sheet will be provided. A trap kit contains two traps and one pheromone lure. Replace a trap every two weeks, thus one kit will supply the materials needed for one trap site for one month. We will supply enough kits for your vineyard to cover a one-month period of time. When you return both traps, you will receive another month's supply.

All traps delivered to our office by growers and PCAs must have ALL of the following information written on each trap: **DATE DEPLOYED, DATE REMOVED, NAME, TRAP SITE ADDRESS and BLOCK.** Traps obtained from the UCCE office will have a stamp on the bottom with space for you to fill in the information. Traps and lures are also available from other sources as well. **UCCE will read any VMB trap set out in Sonoma County only if ALL of the required information is written on each trap when it is delivered to our office.**

The first flight of male vine mealybugs (VMB) in the North Coast begins in May, thus growers are advised to deploy traps in early June. Very low numbers are common in May through August. Trap catches peak in September through November. Thus, trapping should continue from June through Fall.

The funding to read and catalog all of the traps in 2004 has not yet been secured and the Sonoma County Grape Growers Association is soliciting contributions from wineries and growers. If sufficient funds are available, then the Agricultural Commissioners Office will conduct a one-time survey of the county by deploying traps in a grid throughout grape acreage planted since 1997. The one-time survey will occur when the numbers of male mealybugs are high, starting in August or September.

Vine mealybugs were found in the North Coast in 2002. In 2003 UCCE, in collaboration with Sonoma County Agricultural Commissioner, developed a voluntary trapping program funded by

the Sonoma County Grape Growers Association to detect new infestations. As a result of this trapping program, 13 sites were identified as having vine mealybug infestations in Sonoma County. Grape growers are advised to monitor for this insect again this year and to locate infestations in their vineyards. By taking action early, growers may prevent further vine mealybug dispersion and crop damage.

Vine mealybug infestation reduces fruit quality due to the large number of insects feeding on the bunches and the resulting copious quantity of honeydew. When high VMB populations occur and the vineyard is not treated, vines may defoliate prematurely. After repeated annual infestation, vine death can occur.

Vine mealybug traps are used to locate vineyards with new infestations of this exotic pest. The lure is placed inside a delta (tent)-shaped sticky trap and hung inside the vine canopy in the cluster area. The trap is designed to monitor for VMB, not to control the pest. Traps help answer the important question, "Is VMB present somewhere in my neighborhood?" If trap placement, catch numbers, timing and other factors all point to the likelihood that an infestation is somewhere nearby, then efforts should be made to find the female mealybugs and prevent an increase in VMB population density, damage and movement.

Set out VMB traps this year to learn if this pest is in the vicinity of your vineyard. The sooner you find an infestation, the sooner you can take precautions to avoid spreading this insect.

OUR NEW ADDRESS: UC Cooperative Extension
133 Aviation Blvd., Suite 109
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At first light, turn left (south) onto Aviation. The building is at the end of the road.

In California, a farmer is considered a waste discharger. Disturbing soil, applying materials and having precipitation fall on the property can potentially impact water quality and therefore agriculture is regulated. So that growers could continue to perform normal and ordinary farming practices and yet remain within the law, agriculture was given a conditional waiver. That waiver has expired, thus the Regional Water Quality Control Boards are moving to create new programs for all agricultural operations. The following article by David Lewis, UCCE Watershed Management Advisor for Marin, Sonoma and Mendocino Counties, describes the options available to the Regional Boards, what a few have already implemented and what may be in store for growers in Region 1 - the North Coast, and Region 2 - the San Francisco Bay.

WATER QUALITY - FLYING WITHOUT A WAIVER

David J. Lewis

UCCE Watershed Management Advisor

Regulating Water Quality in California Agriculture

Agriculture operations, like grape production, use a number of products including pesticides, herbicides, fertilizers and soil amendments to protect and enhance crop quality. In addition, operations utilize soil management practices such as mowing and tilling for similar crop quality objectives. If any of these applied materials or resulting loose soil reach surface or groundwater, it is considered a discharge of waste. Such wastes or pollution from agriculture has been regulated in California for over three decades.

Beginning in 1982, specific agricultural practices related to applied water and storm water management were regulated for water quality in California under a conditional waiver by the State Water Resources Control Board and respective Regional Water Quality Control Boards. This waiver enabled agricultural practices to be in compliance with the Federal Clean Water Act of 1977 and the California Water Code (aka the "Porter-Cologne Act" of 1969). More specifically, the waiver and its conditions gave agriculture blanket compliance to **Waste Discharge Requirements**.

However, in 1999, Senate Bill 390 was passed because of growing concerns that the conditions in this waiver were not being met. This legislation set an expiration date of January 1, 2003 for all waivers in place prior to January 1, 2000. As a result, agriculture and the State and Regional Boards are currently regulating potential water pollution without the legal safety net that a waiver provides.

A waiver is not the only option for regulating water quality from agriculture and many of these regulations are still in effect despite the expiration of the waiver. The options that are currently available to regulate potential non-point source pollution include the following.

- **Complaint Investigations:** In this option Regional Water Quality Control Board staff or public complaints of discharge are investigated and regulated according to the State Board's Non-Point Source Control Plan. There are three tiers in this plan that are of increasing regulatory intervention. The first is *Self-Determined Implementation of Management Practices* through which an identified discharger works cooperatively with staff to take corrective measures and reduce or stop any waste discharge. If this proves unsuccessful, the second tier or *Regulatory-based Encouragement of Management Practices* is pursued. The discharger, with Board staff encouragement, must take measures to reduce or stop waste discharge. Lastly, if these measures are not taken and discharge of waste has not been controlled, than *Effluent Limitations and Enforcement* can be pursued. These include actions such as Cleanup and Abatement, Cease and Desist Orders, and Administrative Civil Liability.

- **Waste Discharge Requirements and Permit:** Formal permitting of waste discharge is another existing option for dischargers and Regional Boards. These permits are a form of effluent limitations and enforcement wherein a potential discharger files a Report of Waste Discharge with the Regional Board. This report is reviewed and a determination is made by the Board to issue a Waste Discharge Permit and Waste Discharge Requirements. The filing of a Report of Waste Discharge has corresponding application fees and also requires sufficient information to determine compliance with the California Environmental Quality Act.
- **Total Maximum Daily Loads (TMDL):** This water quality regulatory process begins with identification of impaired water bodies typically for a specific pollutant such as sediment or nutrients. An example is the approved Action Plan for the Garcia River Watershed Sediment TMDL. The fundamental aim of this approach is to improve water quality in the identified impaired stream as opposed to regulating waste discharge through the Non-Point Source Control Plan tiers or Waste Discharge Requirements. In TMDLs however, potential controllable and uncontrollable sources of the pollutant are identified. Agricultural operations are controllable pollutant sources thus the identification of pollutant delivery sites and mitigation are required.

Regulating potential waste discharge from agriculture by either complaint investigation, permits or TMDLs is staff intensive for Regional Boards and in many cases cost prohibitive for individual growers and producers. It is for this reason that since the passage of Senate Bill 390 and the expiration of the original conditional waiver, respective Regional Boards have been researching their options and implementing revised conditional waivers.

Regional Board Conditional Waiver Proposals and Programs

California is divided into nine Regional Water Quality Control Boards. Currently, two of these, the Central Coast (Region 3) and the Central Valley (Region 5) have proposed or adopted revised conditional waiver programs for agriculture. In the case of the Central Coast Region, individual 5-year waivers are proposed for those individuals who have completed 15 hours of farm water quality planning course work and developed a farm water quality plan for their operation. These individuals are required to report every other year and participate in a monitoring program, the details and requirements of which are under development. Individuals who have not completed 15 hours of training and a farm plan can be granted a one-year waiver if they are pursuing water quality management course work. This waiver can be renewed up to three years. Upon completion of the 15 hours of course work and the farm water quality plan, a five-year waiver can be granted.

There are two waiver options in the Central Valley Region's approved conditional waiver program. The first is through membership and compliance with a coalition group waiver. In this option, coalition members work together to conduct water quality monitoring, provide education on improving water quality management practices, and secure funding to implement those practices. Individuals not participating in a coalition waiver can apply for and receive an individual waiver with all of the corresponding monitoring and reporting requirements. Many

growers in the region have submitted notices of intent and joined respective coalitions. Coalitions will begin water quality monitoring and reporting this year.

The San Francisco Region (Region 2) will not implement a conditional waiver program for agriculture at this time but will continue to work with agriculture on water quality management through the three tiers of the Non Point Source Pollution Control Plan. Outcomes from the implementation of conditional waivers in Regions 3 and 5 will be reviewed to decide if Region 2 should implement a similar program. In addition, Region 2 is implementing Total Maximum Daily Loads for sediment in Napa and Sonoma Creek Watersheds that will provide direction for implementing practices to improve water quality on agricultural lands in those watersheds.

In the North Coast Region (Region 1), staff is currently researching the options to regulate agriculture waste discharge. Currently, they are operating on a compliant investigation basis and issue permits as requested by dischargers. They also intend to conduct a survey to determine the extent of potential impacts to water quality from irrigated agriculture and storm water management on irrigated lands. Similar to Region 2, staff in Region 1 will track the developments and lessons learned from the conditional waiver programs in Regions 3 and 5. They are also pursuing total maximum daily loads in a number of watersheds and developing a region wide plan for sediment and erosion control.

Grower Options and Next Steps

A grower or producer in any Region can apply for an individual Waste Discharge Requirements and Permit. Other options available to a grower depend upon the Region in which the farm is located. Those in Region 1 and 2 are in a “wait and see” mode with regard to any conditional waiver program. In Region 2, waivers will only be put into place if required as a result of the developments in Regions 3 and 5. Growers will, however, need to continue their compliance with water quality regulations. And in the case where there are TMDLs, those growers will need to comply with any requirements established for those specific watersheds.

Managers and owners in Region 1 are not going to have to participate in a conditional waiver program immediately. However, the potential for waste discharge exists and growers will need to demonstrate that they are making efforts to reduce impacts to surface and groundwater. Implementing the practices and techniques demonstrated at soil erosion control workshops as well as the measures established in vineyard and farm water quality management plans are effective ways to be compliant. Region 1 staff will research the extent of irrigated agriculture in the North Coast Region. The research may be in the form of a survey and will be forthcoming in the near future. It would be wise for growers or grower organizations to participate so staff receives accurate information. The Board staff is interested in developing programs and options to regulate water quality that are applicable and feasible for North Coast agriculture. They can do that more accurately with constructive industry input and participation.

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Topics: Vine Mealybug 2004 Trapping Season
Water Quality - Flying Without A Waiver



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