University of California Cooperative Extension Fresno County

# Vine Lines

Stephen J. Vasquez, Viticulture Farm Advisor

*June 2009 Issue*



## LAST CALL: Vine Lines—Now an exclusive E-Newsletter

The University of California Cooperative Extension newsletter—*Vine Lines*—has been in distribution since the 1960's. From the beginning, the publication has been free for Fresno County grape growers and allied industry, giving them relevant and timely information on grape production. Its popularity grew and the free newsletter became a favored source of information throughout California's grape growing regions. Although subscriptions have dropped in the past few years, *Vine Lines* remains a relevant publication, with many of the articles being published a second time in trade publications that have regional and state distribution.

In an effort to improve the dissemination of grape production information to growers and allied industry, *Vine Lines* was offered as an e-newsletter in 2006. Since that time approximately 10% of the *Vine Lines* subscribers have requested the e-version. The difficult economy and tight county budget has determined that *Vine Lines* can no longer be a free publication. The final free copy of Vine Lines will be the June 2009 issue. In order to continue receiving the newsletter you must subscribe to the free e-version. To do so, click (or type in) the following link, type in your email and fill out the form.

**Vine Lines Subscription page:** http://ucanr.org/vinelines-subscription

Once subscribed, you will receive an email informing you that the most recent issue has been posted. Past issues since August 2006 have been archived, which allows you to access and print them from my website.

Although the final free hardcopy of Vine Lines will be in June 2009, a paid subscription is available. Subscriptions will cost $12 and consist of 6 copies of Vine Lines delivered via the US Postal Service. The subscription fee will help cover the cost of paper, printing and preparation for mail distribution. Hard copy subscriptions will start with the August 2009 issue and end with the June 2010 issue. An invoice will be sent to hard copy subscribers thereafter. If you are interested in continuing your hardcopy subscription, please fill out and send the following form.

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**Paid subscriptions rates are only applicable to the Continental US**

For additional questions regarding Vine Lines please contact Terri at 559-456-7285

Name_____ Phone:_____

Address:_____

City:_____ State:_____

Zip Code:_____Check No._____

I would like to receive 6 issues of *Vine Lines* for $12.00/year (beginning in August 2009)- - - - - ☐

Please make check payable to *UC Regents* and send to: **Vine Lines Subscription**
**1720 South Maple Avenue**
**Fresno CA 93702-4516**

# 6th International Table Grape Symposium to be Held in California

The International Table Grape Symposium is convened every few years in countries having a significant interest in table grapes. Past meetings have been held in California, Australia, Chile and most recently in South Africa in 2007. California will once again host the meeting in Davis, CA, in June 2010. The symposium will allow university researchers, growers, and representatives from agricultural companies, to network, exchange ideas, and hear about the most current research on table grapes from around the world. Topics to be discussed will include new cultivars and rootstocks, plant growth regulators, improvements in trellis and canopy management, irrigation and fertilization, pests and disease control and advances in postharvest technologies as well as others.

The symposium will be held at the University of California, Davis in Davis, California from Thursday, June 24 through Saturday, June 26, 2010, followed by a three day technical tour. Interested parties are encouraged to complete the online Statement of Interest Survey as soon as possible so they can begin receiving meeting updates as it approaches. The 6th International Table Grape Symposium will provide an excellent opportunity to learn more about the science and business of table grape growing on a global scale.

Information, including the survey, can be found at the symposium website:
http://groups.ucanr.org/GoGrapes2010

Should you have any questions about the symposium, please contact Jennifer Hashim-Buckey or Stephen Vasquez at 6thinttablegrapesymposium@gmail.com.

# Weed Management and Drought in Grapes

*Kurt Hembree*

Prolonged periods of dry conditions affect weed growth, herbicide performance, and complicates weed management strategies. Competition for water between crops and weeds increases as soil moisture becomes limited, so weed control is even more important when water is scarce. Fewer weeds are usually observed during dry conditions and they tend to be less vigorous. However, some weeds like Russian thistle and field bindweed develop extensive root systems early and take advantage of limited surface soil moisture, making them more competitive and difficult to control. Other weeds, like hairy fleabane and horseweed, can adapt to both wet and dry conditions. While weed vigor and size may be reduced under dry conditions, they can still produce a lot of viable seed.

When soil moisture is adequate, a properly timed shallow cultivation can be use to control weeds. However, during dry conditions, tillage can result in a loss of soil moisture, potentially limiting crop growth, particularly in newer plantings. Since herbicides play a vital role in grape production, it's important to understand how pre- and postemergent herbicide performance changes under droughty conditions.

Preemergent herbicides require moisture for activation and movement into the soil where weed seeds germinate. Sunlight degrades preemergent herbicides from the soil surface if it not activated by water and moved into the soil soon after application. This is not a concern in annual crops where irrigation water or mechanical methods are used for crop stand development and herbicide activation. However, in perennial crops like grapes, growers rely upon rainfall for herbicide incorporation and activation. Product labels specify how long the herbicide can remain on the soil surface after treatment before rainfall must occur (see table). Some loss of the herbicide by sunlight degradation can be expected once the herbicide is applied to the soil surface, so apply them as close to rainfall as possible. Sprinkler, basin-flood, or furrow irrigation can also be used to activate the herbicide in lieu of rainfall.

Performance of postemergent herbicides also changes during dry conditions. Systemic herbicides are especially impacted under droughty conditions. Examples include 2,4-D, glyphosate, and sethoxydim. Water-stressed weeds have thicker waxy leaves (cuticle), reducing herbicide absorption into the plant. Plant growth processes are also altered, reducing movement of herbicides within the target weeds to sites of activity. If movement of herbicides with the carbohydrates or water stream in the target weeds is reduced, control will be reduced.

Since contact herbicides do not require movement within weeds, they are less likely to be affected by drought conditions. However, drought-stressed weeds can sometimes have spindly shoots and/or leaves, making them harder to kill. Examples of herbicides commonly affected include

*(Continued on page 4)*

Incorporation and activation requirements of some preemergent herbicides.

| Herbicide common name | Herbicide trade name | Time to incorporation | Moisture needed for activation |
|---|---|---|---|
| trifluralin | Treflan®, Trilin®, etc. | <24 hours | mechanically |
| pendimethalin | Prowl EC® | <7 days | mechanically |
| napropamide | Devrinol® | <10 days | ¼" |
| diuron | Karmex®, Direx® | <14 days | ¼" |
| pronamide | Kerb® | <14 days | ¼" |
| oryzalin | Surflan®, Oryzalin® | <21 days | ½" |
| pendimethalin | Prowl H2O® | <21 days | ½" |
| rimsulfuron | Matrix FNV® | <21 days | ½" |
| flumioxazin | Chateau® | <28 days | ¼" |
| isoxaben | Gallery T&V® | <28 days | ½" |
| oxyfluorfen | Goal 2XL®, etc. | <28 days | ¼" |
| norflurazon | Solicam® | <28 days | ¼" |
| simazine | Princep®, Caliber 90® | <28 days | ¼" |

# International Symposium on Grapevine Canopy Management Scheduled for July 16th in Davis

An international symposium on grapevine canopy management will be held on Thursday, July 16th, at Freeborn Hall on the UC Davis Campus. The symposium, **Recent Advances in Canopy Management**, will honor Dr. Mark Kliewer, Professor Emeritus, Department of Viticulture and Enology, UC Davis, and a world renowned authority on grapevine canopy management. Kliewer retired from UC Davis in 1994, following a 30-year career of teaching and research.

The symposium will feature the leading international scientists currently working in canopy management research, including Prof. Alain Carbonneau of France, Prof. Hans Schultz of Germany, Prof. Stefano Poni of Italy and Peter Clingeleffer of Australia, as well as noted international viticulture consultant Dr. Richard Smart. Three of Kliewer's former UCD graduate students, Prof. Alan Lakso of Cornell University, Dr. Pat Bowen of the Pacific Arig-Food Research Centre in Canada and Dr. Nick Dokoozlian, E&J Gallo Winery, will also be featured speakers.

A similar event was organized by Kliewer in Davis in 1986, which marked the beginning of the canopy management revolution in California. Carbonneau and Smart were participants in that program as well.

"Mark Kliewer is a pioneer in the field of grapevine canopy management research, and we felt that it was time to honor his contributions by inviting the world's leading researchers to Davis to discuss the many advancements in the field since 1986" said Dr. Jim Wolpert, UC Davis Extension Viticulturist and Chair of the symposium organizing committee. "The researchers participating in this event make up a scientific 'dream team' of those working in canopy management research. This is a unique opportunity for California grape growers to hear the latest advancements first-hand from the world's leading authorities."

The cost of registration for the event is $300 per person by June 30th. The registration fee includes morning and afternoon refreshments, lunch and a copy of the symposium proceedings. To register for the event or for more information, go to: http://conferences.ucdavis.edu/canopymgt2009

# Drought Management

(*continued from page 3*)

carfentrazone, paraquat, and oxyfluorfen. Using a higher label rate and appropriate spray adjuvant can help compensate for drought-stressed conditions. Using an N-based additive (like ammonium sulfate) and/or a crop oil adjuvant may also help increase absorption into the leaf surfaces of stressed weeds. Apply the spray mixture in enough water to adequately cover the weeds and increase the chance of absorption and/or contact activity. Making applications toward the end of the day as the temperature begins to decrease often aids efficacy.

Achieving effective weed control can be difficult during conditions of drought. Weed growth will be altered, making them less susceptible to control. In grapes, apply preemergent treatments as close to rainfall as possible, otherwise consider irrigation as a source of herbicide activation. Postemergent herbicide performance, especially systemic-type herbicides, is often reduced under dry conditions. Apply these herbicides when weeds are young and succulent to improve control. In some cases, it may be better to wait to make postemergent treatments after the weeds receive moisture and are less stressed. Also, using N-based additives and/or certain adjuvants can help aid in control. If at all possible, spray later in the evening when the temperature begins to decrease.

*Kurt Hembree is a UC Cooperative Extension Farm Advisor in Fresno County.*

# We're on Facebook!

Recently we joined Facebook, a social networking site on the internet. To find us, enter this URL into the address field of your browser:
http://www.facebook.com/pages/Parlier-CA/San-Joaquin-Valley-Viticulture/87616688567?ref=nf

Entering the awfully long URL will be the hardest part about using Facebook. Once our site is displayed on your browser, you can bookmark it which will allow you to return to it very easily. Our pages are public, so you may visit them and view all of the content, without subscribing to Facebook.

When you first visit our site you'll notice several tabs near the top center portion of the page. Currently, the tabs are labeled "Wall", "Info", "Photos", "Boxes", and "Notes". Wall is the default page, and here you will find a list of short messages and updates, including weekly powdery mildew reports. The wall is interactive, and Facebook members can comment on our messages, or add their own. Many of these messages are simultaneously sent via Twitter, and you can receive them that way if you prefer (http://twitter.com/grapetweets).

The next tab, labeled "info", only has the address to the Kearney Agricultural Center, so it is not particularly informative. If you click on the tab labeled "Photos", you will see several folders containing pictures of research projects or lab staff, most of which have informative captions. We will continue to add new pictures as we make our way through the season. The tab labeled "Boxes" is worth clicking on, as it will take you to a page with lots of content, including links to other useful websites, event notices, recent articles from our blog, and abstracts of selected research publications. The "notes" tab will be used for links to viticulture meetings which we are not the host of. If you have such a meeting, send us the link and we'll post it. We hope you'll soon visit us on Facebook and let us know what you think of this project.

# Erineum Mite Outbreaks

Erineum mite populations seem to be exploding this season. In the past two weeks, a half-dozen samples have been dropped off at my office for inspection. Normally, a few samples are brought in from backyard vineyards, which I expect. However, the most recent samples and calls have been from commercial wine grape vineyards with concerns that it is downy mildew. First, let me assure you that it is not downy mildew. The Valley has not experienced an outbreak of downy mildew since the mid-90's when a few table grape vineyards were identified with the disease after optimal weather; rain and warm temperatures. The recent erineum mite outbreaks in commercial vineyards are easily explained by a reduction in sulfur use for powdery mildew. Winegrape vineyards tend to experience more frequent outbreaks when wineries request a reduction in sulfur dust so it does not interfere with fermentation. Below is a summary of erineum mite life cycle.

**Seasonal Development and Life Cycle**

Erineum mites, *Colomerus vitis*, overwinter under outer bud scales and move to unfolding leaves in spring. They associate in small groups, feeding on lower leaf surfaces. The end result is a blistering affect (Fig. 1) with masses of enlarged leaf hairs inside a blisterlike area on the leaf (the erineum).

On the undersides of the leaves, beneath the swellings, are concave, densely lined, felty masses of oversized leaf hairs in which the mite populations develop.

As the population increases, some mites move to new areas or to other leaves and form new erinea. From mid-August to leaf drop, there is a movement from the erinea back to the overwintering site underneath the bud scales. Grape erineum mites are easily managed with an early season application of sulfur used to control powdery mildew.

Figure 1. Blisters on the top surface of the leaf caused by erineum mites.

# Money Available to Off-Set the Cost of Grape Stake Disposal

Have you recently removed an old vineyard that had treated grape stakes and now have piles sitting on your property and don't know how to get rid of them? The Natural Resources Conservation Service (NRCS) is offering financial assistance to California grape growers to help properly dispose of chemically-treated wooden stakes. Treated grape stakes are typically treated with preserving chemicals that protect the wood from insect attack and fungal decay. Chemicals added to preserve wood and known to be toxic or carcinogenic include arsenic, chromium, copper, creosote, and pentachlorophenol. Burning treated grape stakes is prohibited by law. The California Department of Toxic Substance Control requires that chemically-treated wood be disposed of in an approved landfill. Landfills that accept chemically-treated wood can be found at: http://www.dtsc.ca.gov/HazardousWaste/upload/TWW_Confirmed_Landfill_List.pdf.
There are five approved landfills located in the southern San Joaquin Valley.

PROGRAM GUIDELINES:

California growers must meet eligibility requirements to qualify for payments.

- Chemically treated wood stakes used as crop support structures are eligible.
- Payments apply to the proper loading, transportation, and disposal of chemically-treated wood stakes.
- The priority is given to existing piles or stacks of chemically-treated wood stakes and to those growers that have switched to other types of materials for support systems.
- Disposal must be at DTSC approved landfills (see above link).
- All applicable permits must be procured by the grower prior to disposal.
- The minimum contract length is two years. Payment assistance is available one time per site location.
- Payment rate is $125 per acre, based on 1.5 tons of treated wooden stakes per acre and a maximum of 310 tons per contract.

For more information about the Environmental Quality Incentives Program, please contact your local USDA Service Center, listed in the government section of the phone book under U.S. Department of Agriculture. Information is also available on the internet at: www.ca.nrcs.usda.gov.

ftp://ftp-fc.sc.egov.usda.gov/CA/programs/EQIP/2009/2009-AQ-Treated-Stake-Fact-Sheet.pdf

# University of California
# Kearney Agricultural Center
# Grape Day 2009

**UC Kearney Agricultural Center**
**9240 South Riverbend Avenue**
**(SE Corner of Riverbend and Manning Avenues)**
**Parlier, California**

**Tuesday, August 11, 2009**
**7:00 a.m. - 12:00 p.m.**

***$10 Includes meeting, proceeding and refreshments***

| | |
|---|---|
| 7:00am | Registration and refreshments |
| 7:30am | Welcome, meeting announcements and groups organized |

Tram Field Tour

| | |
|---|---|
| 8:00am | Dong Wang—Soil fumigants for vineyards |
| 8:30am | Andrew McElrone and Larry Williams—Heat pulse sensors for monitoring grapevine water use |
| 9:00am | Jim Wolpert—New wine grape varieties for the San Joaquin Valley |
| 9:30am | Kurt Hembree and Stephen Vasquez—Post-emergent herbicide management in vineyards |
| 10:00am | Peter Cousins—Breeding and evaluating improved root-knot nematode resistant rootstocks |

Seminars

| | |
|---|---|
| 10:30am | Mike McKenry—Movento; more than an insecticide |
| 11:00am | Doug Gubler—New findings in grapevine powdery mildew management |
| 11:30am | Roger Baldwin—Comparing multiple approaches for controlling pocket gophers in vineyards |
| 12:00pm | Matthew Fidelibus—Grape maturity affects yield, quality, and sensory properties of DOV raisins |

CCA and PCA Continuing Education units have been requested

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**Fill out and mail registration form**

**Company:** _____ **Phone:** _____

**Address:** _____ **City:** _____ **Zip:** _____

**Attendee(s) Names:**

_____ _____

_____ _____

_____ _____

Checks Payable to: **UC Regents**
Mail payment and registration to:
KAC Grape Day, 1720 S. Maple Avenue
Fresno, CA 93702

**Fee includes meeting and proceedings: $10.00**

**Meeting and Proceedings:_____ X $10.00/person = $_____**
**Check Number:_____ Amount enclosed $_____**

# Calendar of Events

## Local Meetings and Events

***UC Grape Day***
August 11, 2009
7:00 a.m.—12:00 pm
Kearney Agricultural Center
9240 S. Riverbend Ave.
Parlier, CA 93648
Contact: Matthew Fidelibus at (559) 646-6500
*See form page 8.*

***Grapevine Canopy Management Symposium***
July 16, 2009
8:00 a.m.— 5:00 p.m.
Freeborn Hall
Davis, CA
See page 4.

## U.C. Davis University Extension Meetings

***(800) 752-0881***

***Winegrapes: Identification and Use***
August 10-11, 2009
8:30 a.m.— 4:00 p.m.
Plum, DANR Building, 1 Hopkins Rd.
Davis, CA
Instructor: Andrew Walker
Section: 091VIT216

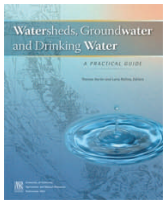
***Rootstock Workshop: Identification and Use***
August 12, 2009
8:30 a.m.— 4:00 p.m.
Plum, DANR Building, 1 Hopkins Rd.
Davis, CA
Instructor: Andrew Walker
Section: 091VIT217

***Introduction to Wine Analysis: Small Scale***
September 12, 2009
8:00 a.m. — 6:00 p.m.
1127 North, Robert Mondavi Institute for Wine and Food
Davis, CA
Instructor: Michael Ramsey
Section: 09VIT223

# Publications from the University of California


***Pesticide Safety: A Reference Manual for Private Applicators***
ANR Publication 3383
Price - $7.00 + tax and shipping

Updated in 2006, this manual covers information essential for anyone using pesticides on California farms, including growers, managers and employees. The manual covers pesticide labels, worker safety (handlers and fieldworkers), how to mix and apply pesticides, calibration, the hazards of pesticide use including heat related illness, and pesticide




***Watersheds, Groundwater and Drinking Water: A Practical Guide***
ANR Publication 3497
Price - $40.00 + tax and shipping

This handy guide is a "must-have" for environmental scientists, water technicians, educators, and students. Water shed and groundwater hydrology fundamentals are discussed.

**Order Form**

| Publication | Qty. | Price | Subtotal |
|---|---|---|---|
| Pesticide Safety | | $ 7.00 | |
| Watersheds Guide | | $ 40.00 | |

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Produced by U. C. Cooperative Extension Farm Advisor Stephen J. Vasquez. Contact me for further article information, or to be added to the mailing list.

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*In This Issue:*



For special assistance regarding our programs, please contact us.