

# CROP CURRENTS

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## JANUARY 2015

- The Weather Report
- UC Fertilizer Guidelines
- Nitrogen Management Training for CCAs
- Soil Nutrient Management Forum for Grape Growers
- Jan 16 - Young Almond & Walnut Orchard Workshop
- Jan 27 - CA Cherry Research Review
- Jan 29 - NSJV Processing Tomato Production Meeting
- Feb 3 - Lodi Grape Day
- Feb 4 - BALT Easement Seminar & Luncheon
- Other Meetings & Events
- CA State Fair Scholarships available
- Useful UC Websites

## THE WEATHER REPORT

**Rainfall:** We've had higher than average rainfall in October and November but the torrents slowed in December and we ended that month with slightly less than average rainfall. Nevertheless we are in good shape. We have received 180% of normal rainfall to date in Brentwood and 110% of normal in Pleasanton. Our soils profiles are moist enough that perennial crops should be better able to withstand frost and there should not be concern about damage from oil sprays due to dry soils.

**Winter Chill.** We had a warm December and have not accumulated as much winter chill as we would like for our tree crops. However, it is not quite as bad as it might seem by looking at the on line chill accumulation from the Brentwood CIMIS station. The temperature sensor at the Brentwood station malfunctioned in early December and missed recording about 85 chill hours (or 10 chill portions). It has since been replaced and I have added those corrections to the charts below.

CUMULATIVE RAINFALL (inches)				
	BRENTWOOD		PLEASANTON	
MONTH	2014 – 2015	28 Year Average	2014 – 2015	10 Year Average
Oct	<b>4.3</b>	0.7	<b>3.1</b>	1.2
Nov	<b>6.1</b>	1.9	<b>5.8</b>	2.9
Dec	<b>8.1</b>	4.4	<b>7.1</b>	6.4
Jan		7.2		8.8
Feb		9.9		11.1
Mar		11.4		14.1
Apr		12.2		15.5
May		12.8		16.2
Jun		12.9		16.6
Jul		12.9		16.7
Aug		12.9		16.7
Sept		13.1		16.8

Traditionally we like to see close to 500 hours of chill (hours below 45°F) by the end of December in order for the higher chill orchard crops (apricots, cherries, apples, pears) to properly mature their buds and set a good crop with a compact bloom. This traditional method has worked well under the rainy, foggy, and overcast winters that used to be typical for us in the past. In more recent years, we have had less fog and more warm, bright, sunny days in the winter which can negate or reverse the chill accumulation. Our old model doesn't take this into account even though we know that it can influence chill.

In the 1990's, Dr. Ammon Erez and other researchers developed a more complex chill accumulation model to account for the negating effects of fluctuating winter. It is called the Dynamic Model and calculates the chill in units called "Chill Portions".

This model has been most thoroughly tested in California cherries to help determine when sufficient chill has accumulated *to be able to successfully apply rest breaking sprays*. However, we haven't collected the data that indicates how many chill portions are required for cherries (or most other tree crops) to satisfy their complete winter "rest" requirement.

So I include the Chill Portions calculations below only as an interesting comparison. You'll see that the Chill Portions better reflect the chill "negation" that we experienced last year resulting in a straggly bloom and poor set in some crops even though the Chill Hours seemed sufficient.

It looks like we may be in for another poor chill year. If so, a **dormant oil spray** at rates that we typically use to control pests, might be good insurance to help offset the effects of low chill in our tree crops. Oil is not the most effective rest breaking agent but it is safe and cheap and also provides pest control. Cherries are the only crop that we grow here that can tolerate harsher rest breaking agents but these must be applied at the right time and rate and weather to avoid phytotoxicity. Call me for details.

You can keep up with the chill accumulations on line at: <http://fruitsandnuts.ucdavis.edu/>. Remember to add 85 chill hours (or 10 chill portions) to the online figures for Brentwood to account for the lost hours in December.

BRENTWOOD CHILL PORTIONS (The Dynamic Model)						
MONTH	2014-2015	2013-2014	2012-2013	2011-2012	2010-2011	13 year Average
Oct	0	1	1	1	2	1.5
Nov	11	11	12	19	16	14
Dec	28	31	33	42	37	36
Jan	(34)*	46	56	62	60	59
Feb		57	74	79	78	77

\*Through January 8

## UC FERTILIZER GUIDELINES HELP WITH MANAGEMENT PLANS

New water quality regulations require all growers to fill out **Farm Evaluation Plans** (due April 1, 2015) as well as **Nitrogen Management Plans** (due June 15<sup>th</sup>, 2015) this season. Our local Water Quality Coalition group (the San Joaquin County & Delta Water Quality Coalition) will be coordinating this effort for their members, providing templates for the reports and summarizing and submitting required documents to the Regional Water Quality Control Board.

In order to help growers fine tune their fertility programs and complete their Nitrogen Management Plans, the University of California has partnered with the CDFA's Fertilizer Research and Education Program to make research based fertility information more available to growers. Dr. Daniel Geissler, our new UC Cooperative Extension Soil Specialist, has been working on an interactive series of **Fertilization Guidelines** for the major crops grown in California. He has completed guidelines for the following crops and more are on the way:

- |             |                      |
|-------------|----------------------|
| Alfalfa     | Lettuce              |
| Almonds     | Pistachio            |
| Broccoli    | Rice                 |
| Cauliflower | Strawberries         |
| Corn        | Tomatoes, processing |
| Cotton      | Walnuts              |
| Grapevines  | Wheat                |

You can find them on line at:

<http://apps.cdffa.ca.gov/frep/docs/Guidelines.html>

PLEASANTON CHILL UNITS (hours below 45 F)						
MONTH	2014-2015	2013-2014	2012-2013	2011-2012	2010-2011	10 year Average
Nov	113	206	132	182	254	170
Dec	219	658	416	558	548	486
Jan	(347)*	972	809	855	936	816
Feb		1113	1097	1056	1217	991

\*Through January 8

BRENTWOOD CHILL UNITS (hours below 45 F)						
MONTH	2014-2015	2013-2014	2012-2013	2011-2012	2010-2011	28 year Average
Nov	80	130	95	162	159	117
Dec	203	551	355	559	287	419
Jan	(280)*	816	769	907	685	733
Feb		921	998	1066	966	884

\*Through January 8;

## **NITROGEN MANAGEMENT TRAINING FOR CA CERTIFIED CROP ADVISERS**

The University of California Agriculture and Natural Resources (UC ANR) is joining with the California Department of Food & Agriculture (CDFA) FREP once again to offer nitrogen management certification training to California Certified Crop Advisors (CCAs) in 2015. The training is available to CCAs who did not get certified in 2014.

The goal of the Nitrogen Management Training Program is to facilitate CCAs' understanding of sound nitrogen management practices and increase their ability to make informed recommendations to growers, thereby improving environmental performance relative to nitrogen management for crop production.

The curriculum will address the management of nitrates from plant nutrients to reduce unintentional emissions in waters throughout the state. The training will cover 1 1/2 days. The first day is a general session focused on identifying the key objectives, nitrogen cycle in crop production systems, nitrogen sources, irrigation & nitrogen management, nitrogen budgeting and future resources. The second morning will have concurrent sessions with emphasis on annual and permanent crops and will include nitrogen planning practices. To be certified, you must attend both days of training.

Registrations will be processed through the CAPCA Ed website at <https://capcaed.com/>. Registration is online only. No on-site registration will be available. The registration fee is \$160. The training will be offered at the following three locations in 2015:

**Fresno – Jan. 13-14, 2015**

**San Luis Obispo – Feb. 24-25, 2015**

**Sacramento – March 10-11, 2015**

For more information, contact the CDFA Fertilizer Research and Education Program at (916) 900-5022 or [frep@cdfa.ca.gov](mailto:frep@cdfa.ca.gov).

## **DROUGHT-FOCUSED SOIL NUTRIENT MANAGEMENT FORUM FOR WINE GRAPE GROWERS**

Wine grape growers are invited to participate in an online forum to discuss vineyard nutrient management in limited water conditions. The free forum, which will run Jan. 12 through Jan. 23, is hosted by the University of California Sustainable Agriculture Research & Education Program (UC SAREP), FarmsReach and Sustainable Conservation.

Farmers and UC Cooperative Extension advisors from different regions will answer questions and share resources throughout the discussion. Participants can post a question in the forum and receive an e-mail when there is a reply.

To participate in the forum, sign up for free at <http://ucanr.edu/onlineforum>.

Kicking off on Jan. 12, the Nutrient Management Solutions online discussion forum will offer the agriculture community:

- Online videos and Q&A with farmers and advisors on nutrient management and soil fertility issues, with a special focus on wine grapes.
- Online discussions via the FarmsReach website, moderated by series presenters.
- A new "Soil Nutrient Management Toolkit" on the FarmsReach site, with selected practical resources and fact sheets for farmers of all crop and product types.

This online series is part of the [Solution Center for Nutrient Management](#)—a growing resource for nutrient management research and information, created by UC SAREP.

For more information, contact Aubrey White, UC SAREP communication coordinator, at [abwhite@ucdavis.edu](mailto:abwhite@ucdavis.edu) or (530) 752-5299.

## **YOUNG ALMOND & WALNUT ORCHARD WORKSHOP:**

*- Getting the first 5 years right -*

Friday, **January 16, 2015**

8:30 am – noon

Woodland Community & Senior Center  
2001 East Street, Woodland

*Sponsor: UC Cooperative Extension -Yolo Co.*

### **Weed management for young orchards**

*Brad Hanson, UCCE Weed Specialist*

### **Pruning & training young walnuts**

*Bruce Lampinen, UCCE Almond/Walnut Specialist*

### **Nutrient management for young almonds**

*David Doll, UCCE Farm Advisor, Merced Co.*

### **Nutrient management for young walnuts**

*Katherine Pope, UCCE Farm Advisor, Yolo Co.*

### **Irrigation management for young orchards**

*Allan Fulton, UCCE Irrigation Advisor, Tehama Co.*

## **Brentwood Agricultural Land Trust's Easement Seminar & Luncheon**

Wednesday, *February 4, 2015*

11:30 a.m. - 1 p.m.

CAPS Oak Street Bar & Grill  
144 Oak Street, Brentwood

This informational gathering is for property owners and their representatives, real estate professionals, public agency representatives and BALT supporters who are interested in learning about BALT's agricultural conservation easement program.

*James L. Leet*, attorney at law, of Boutin Jones, Inc. is nationally recognized in conservation tax law. He will be the guest speaker and expert on hand to answer your questions and discuss:

- Agricultural conservation easements
- Tax benefits of conservation easements

### **RSVP by February 1:**

Online: [www.brentwoodaglandtrust.org](http://www.brentwoodaglandtrust.org)

E-mail: [events@brentwoodaglandtrust.org](mailto:events@brentwoodaglandtrust.org)

Phone: 925.634.6738

## **CA CHERRY RESEARCH REVIEW**

Tuesday, **January 27, 2015**

10:00 am – 3:00 pm

San Joaquin County Agricultural Center  
2101 E. Earhart Avenue, Stockton, CA 95206

*Sponsored by:*

University of California Cooperative Extension (UCCE)  
& California Cherry Board (CCB)

### **10 am –Welcome**

*Joe Grant, UCCE Advisor, San Joaquin Co.*

### **Control of cherry fungal canker diseases**

*Dr. Doug Gubler, UC Davis*

### **Evaluation of Spirotetramat as a post-plant nematicide in sweet cherry**

*David Haviland, UCCE Entomology Advisor, Kern Co.*

### **Spotted Wing Drosophila SCRI Project: Summary of key information and promising management techniques**

*Dr. Vaughn Walton, Oregon State University*

### **California Cherry Board ongoing project update**

*CCB Research Committee*

### **Lunch (courtesy of CCB)**

**CCB's self-assessment workbook for  
sustainable cherry production**

*Cliff Ohmart, SureHarvest*

### **Investigating biological controls to suppress SWD**

*Dr. Kent Daane, UC Berkeley*

### **Management of cherry foliar and fruit diseases**

*Dr. Jim Adaskaveg, UC Riverside*

### **Optimizing postharvest methyl bromide treatments to control spotted wing drosophila in sweet cherries**

*Dr. Spencer Walse, USDA-ARS, Parlier, CA*

### **Phytosanitary irradiation using a cabinet X-ray tube machine**

*Dr. Peter Follett, USDA-ARS, Hilo, HI*

### **3:10 Adjourn**

3.5 hours of PCA Continuing Education Credit pending

University of California  
Cooperative Extension's  
**NO. SAN JOAQUIN VALLEY  
PROCESSING TOMATO  
PRODUCTION MEETING**

Thursday, **January 29**, 2015  
7:30 – 11:00 am  
Double Tree Hotel  
1150 9<sup>th</sup> St., Modesto, CA 95354

7:30 **Registration & refreshments**

8:00 **Weed control, plantback, and crop phyto concerns with tomato herbicides**  
*Scott Stoddard, UCCE Farm Advisor Merced Co.*

**Evaluation of composted poultry manure & potassium**  
*Gene Miyao, UCCE Farm Advisor, Yolo Co.*

**Evaluation of nematicides for root knot nematode control in tomatoes**  
*Joe Nunez, UCCE Farm Advisor, Kern Co.*

**Stink bug management update**  
*Tom Turnini, UCCE Farm Advisor, Fresno Co.*

**Update on Fusarium diseases of tomato**  
*Mike Davis, UCCE Plant Pathology Specialist, UCD*

**Salinity Management**  
*Brenna Aegerter, UCCE Farm Advisor, San Joaquin Co.*

**Exploring the potential for sensor-based fertigation scheduling in sub-surface drip irrigated tomatoes**  
*Mark Lundy, UCCE Farm Advisor, Colusa Co.*

**After 15 years of cover cropping and reduced tillage – how have soil properties changed?**  
*Jeff Mitchell, UCCE Cropping System Specialist, UCD*

11:00 **Adjourn**

Continuing Education Hours:

CA Certified Crop Advisor – 3 hours approved  
CA Dept of Pesticide Regulation – pending

**63<sup>rd</sup> LODI GRAPE DAY**

Tuesday, **February 3**, 2015  
7:30 am ~ 1:00 pm  
Hutchins Street Square  
125 So. Hutchins Street, Lodi, CA 95240

*Sponsored by:*  
University of California Cooperative Extension  
& Lodi Chamber of Commerce

7:30 **Registration & Coffee**

8:00 **Weed Control Options and Strategies from Local Research**  
*Mick Canevari, UCCE Farm Advisor Emeritus, San Joaquin County*

**ILRP Update: Grower Reporting Requirements for Surface and Ground Water Monitoring Program**  
*Mike Wackman, Executive Director, San Joaquin County-Delta Water Coalition*

**Effective Management of Grapevine Trunk Diseases**  
*Dr. Doug Gubler, UCCE Plant Pathologist, UC Davis*

**A Long and Winding Road - The Story of Red Leaf Viruses in California**  
*Dr. Deborah Golino, Director, Foundation Plant Services, UC Davis*

**Rootstock Research for Current and Future Options**  
*Dr. Andy Walker, Viticulture & Enology, UC Davis*

**Sensory Evaluation**

12:00 **Lunch**  
(tickets \$25.00/person – available at the door)  
**Luncheon Speaker:** *Michael Phillips, Michael David Winery, Co-Owner & CEO*

Continuing Education Hours:

- CA Certified Crop Advisor - 3.5 hours approved
- CA Dept of Pesticide Regulation - 3.5 hours pending

## OTHER MEETINGS

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January 21-24

### **35<sup>TH</sup> ECOFARM CONFERENCE**

Asilomar, Pacific Grove

Registration: variable options: \$65 to \$505

[ecofarm@planitnow.com](mailto:ecofarm@planitnow.com)

240-552-9195

January 27-29

### **UNIFIED WINE & GRAPE SYMPOSIUM**

Sacramento Convention Center

Sacramento, CA

Registration: variable \$ options

[www.unifiedsymposium.org](http://www.unifiedsymposium.org)

888-559-9530

February 3

### **63<sup>RD</sup> ANNUAL LODI GRAPE DAY**

7:30am – 1:00pm

Hutchins Street Square

125 So. Hutchins St, Lodi 95240

Contact: Paul Verdegaal 209-953-6119

[psverdegaal@ucanr.edu](mailto:psverdegaal@ucanr.edu)

February 3-5

### **COLUSA FARM SHOW**

Colusa County Fairgrounds

1303 10<sup>th</sup> St (Hwy 20), Colusa, CA 95932

Free admission & parking

<http://www.colusafarmshow.com>

February 9

### **CURRENT WINE & WINEGRAPE RESEARCH**

9 am – 5:30 pm

UC Davis Conference Center

550 Alumni Lane, Davis, CA

Registration: \$49

[www.extension.ucdavis.edu/wine](http://www.extension.ucdavis.edu/wine)

800-752-0881

February 10-12

### **WORLD AG EXPO**

International Agri-Center

4500 South Laspina Street, Tulare, CA

Fee: \$15 at the gate, children 12 and under, free

<http://www.worldagexpo.com>

February 12

### **CURRENT ISSUES IN VINEYARD SOIL MANAGEMENT**

UC Davis

Registration: \$200 (or both “Current Issues” classes - Feb 12 & 13<sup>th</sup> - for \$300); [yensource@ucdavis.edu](mailto:yensource@ucdavis.edu)

February 13

### **CURRENT ISSUES: CHANGING WATER REGULATIONS & IMPACTS ON VINEYARDS & WINERIES**

UC Davis

Registration: \$200 (or both “Current Issues” classes - Feb 12 & 13<sup>th</sup> - for \$300); [yensource@ucdavis.edu](mailto:yensource@ucdavis.edu)

February 18

### **UCCE SONOMA GRAPE DAY**

7 am Breakfast & sign in

8-noon Program

Wells Fargo Center for the Arts

50 Mark West Springs Rd, Santa Rosa, CA

Cost: \$35 (before 2/17); \$45 at the door

<http://cesonoma.ucanr.edu/viticulture717/>

or 707-565-2621

March 7-10

### **CA SMALL FARM CONFERENCE**

San Diego

Registration: variable options \$65-\$350; scholarships available

<http://www.californiafarmconference.com/>

March 12

### **QUAD COUNTY WALNUT INSTITUTE**

UC Cooperative Extension Offices

Crows Landing Rd & Service Rd, Modesto, CA

FREE

For more information:

Janet Caprile, [jlcaprile@ucdavis.edu](mailto:jlcaprile@ucdavis.edu) or 925-646-6129

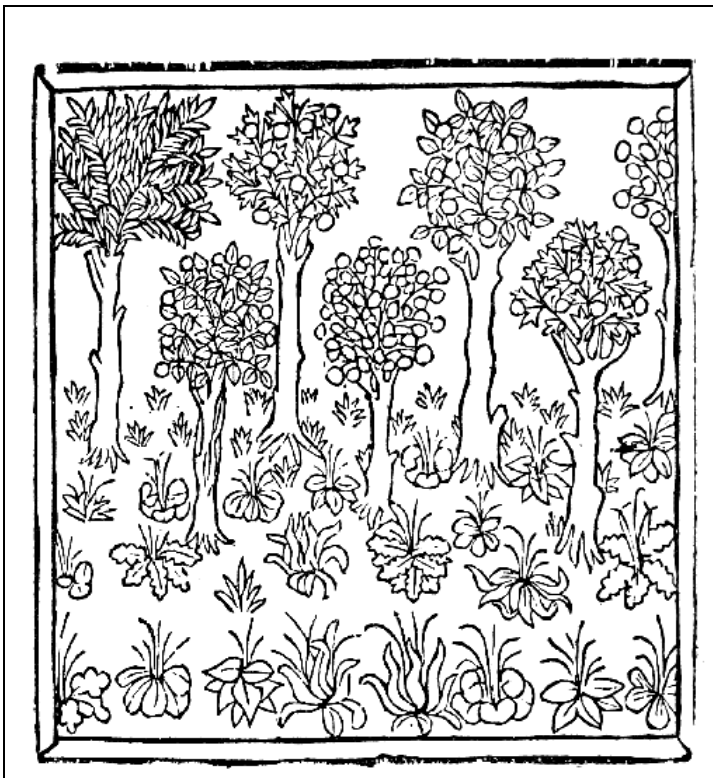
Kathy Kelly-Anderson, [kmkelley@ucanr.edu](mailto:kmkelley@ucanr.edu) or (209) 525-6800

## FRIENDS OF THE CA STATE FAIR SCHOLARSHIP PROGRAM

Friends of the California State Fair are offering scholarships for the 2015-2016 academic school year. A total of 27 scholarships will be awarded this year ranging from \$500 to \$1000 in the areas of agriculture, animal science, arts, business, culinary, education, enology, event planning, fair industry, international studies, teaching credential program, viticulture, and past exhibitors to the California State Fair.

Only California students who will be attending California Colleges or Universities are eligible to apply. Applicants will be evaluated on the basis of personal commitment, goals established for their chosen field, leadership potential and civic accomplishments. All applicants are also eligible for the Ironstone Concours d'Elegance \$5,000 outstanding candidate scholarship.

Applications are available online at [www.CAstatefair.org](http://www.CAstatefair.org) and need to be submitted by Thursday, March 5, 2015. Applications and inquiries should be sent to [scholarship@calexpo.com](mailto:scholarship@calexpo.com).



## USEFUL UC WEBSITES

### UC Fruit and Nut Research & Information Center

<http://fruitsandnuts.ucdavis.edu>

- Crop Information
- Chill unit accumulation
- Irrigation, nutrition, water quality information

### UC Vegetable Research & Information Center

<http://vric.ucdavis.edu>

- Crop & production information
- Good Agricultural Practices & Food Safety

### UC Agronomy Research & Information Center

<http://agric.ucdavis.edu/>

- Crop information – alfalfa, grains, specialty crops

### UC IPM Program

<http://ipm.ucdavis.edu>

- Pest Management Guidelines
- Weather data & chill unit accumulation
- Degree day models & interactive tools
- Pest photo gallery

### UC Weed Research & Information Center

<http://wric.ucdavis.edu>

- Weed ID & photo gallery
- Herbicide efficacy guidelines
- Poisonous plant information

### UC Postharvest Technology

<http://postharvest.ucdavis.edu>

- Produce Facts (postharvest handling guidelines for over 100 individual commodities)
- Post harvest resources directory

### UCD Agriculture & Resource Economics

<http://coststudies.ucdavis.edu>

- Cost of Production studies

### UC Sustainable Agriculture Research & Education Program

<http://sarep.ucdavis.edu>

- Cover crop database
- Organic farming information/links

### UC Small Farm Center

<http://www.sfc.ucdavis.edu>

- Agritourism
- Specialty crops
- Direct marketing

### UC Integrated Viticulture

<http://iv.ucdavis.edu>

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TIME SENSITIVE MATERIAL

UCCE – CONTRA COSTA COUNTY  
75 SANTA BARBARA RD, 2<sup>ND</sup> FLOOR  
PLEASANT HILL, CA 94523-4215