



Tree and Vine Newsletter



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July 2008

GRAPE POWDERY MILDEW FIELD DAY Wednesday, August 6, 2008, 10:00 a.m. Herzog Ranch

Dr. Doug Gubler, Extension Plant Pathologist, UC Davis conducts annual trials in Sacramento County to evaluate new fungicides for control of powdery mildew on grapes. We are pleased to be able to extend an invitation to anyone interested to attend the upcoming field day at Herzog ranch.

Please RSVP (number of people attending) via email or phone if you plan to attend so we can make sure there will be enough handouts as well as lunches after the event.

This year at the trial disease onset was fairly late, but powdery mildew is present in sufficient amounts to see effects of the materials being tested. Applications ended July 14, and final disease rating will be done July 23.

This field day is an opportunity to view the trials and associate with others interested in mildew control. Dr. Gubler will distribute a preliminary report of the trial results at this time. Lunch will be served at about noon. A final report will be posted on the following web site later in 2008 at <http://plantpathology.ucdavis.edu/ext/index.htm>.

Directions to the Herzog Ranch:

From Sacramento, take Interstate 5 south and exit west on Hood Franklin Road. Go through the small town of Hood and turn left at Highway 160. Follow this road for perhaps 2 miles as it winds along the east bank of the Sacramento River. Turn left at Lambert Road. After a few meanders, you will turn right onto Herzog Road and will be heading south. After about 1/2 mile you will turn left onto a dirt road immediately following a house. A sign indicating a "Private Hunting/Fishing Club" will greet you. Follow this road up to the top of the levee and keep to the left. You will turn towards the north and find Snodgrass Slough on your left and the experimental vineyard area just ahead. A grassy picnic area is found on the east side of Snodgrass Slough.

For more details contact:

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OVERVIEW OF THE USE OF WEATHER DATA FOR DETERMINING HEAT SUMMATION FOR CLASSIFICATION OF GRAPEVINE CLIMATE REGIONS OF CALIFORNIA

By Jenny Broome, Area Plant Pathologist

Based on discussions I had with some grape growers at our February 2008 meeting I have compiled information on climate conditions from several public weather stations near the Clarksburg District. The District includes land in Yolo, Solano and Sacramento Counties and over 7,000 acres are planted to over 25 varieties of grapes, of which the most popular varieties are Chardonnay, Chenin Blanc, Merlot, Petite Sirah, and Sauvignon Blanc. Growers sell wine grapes to over 20 wineries.

If there is interest and growers with private weather stations willing to share their weather data, I could run data from additional sites and add additional years to the public weather station analyses.

METHODS

To determine the heat summation units above 50° F for several weather stations in the Clarksburg area, I used the method outlined by Kliewer et al. 1974 and originally developed by Amerine and Winkler (1944). Kliewer provides a table like the one below that shows the degree day range and example locations around California.

Viti-cultural Region	Degree Day Range (F)	Example Locations and Counties in California
I	Less than 2,500	Bonny Doon, Santa Cruz; Anderson Valley HS, Mendocino
II	2,501-3,000	Napa, Napa; Santa Clara, Santa Clara
III	3,001-3,500	Sonoma, Sonoma; Placerville, El Dorado
IV	3,501-4000	Vacaville, Solano; Davis, Yolo; Lodi, San Joaquin
V	4,001 and more	Stockton, San Joaquin; Fresno, Fresno.

I used the on-line UC IPM degree day calculator <http://www.ipm.ucdavis.edu/WEATHER/ddretrieve.html> and chose the single sine with horizontal cutoff method of degree-day calculation. This method is the most commonly one used in California and recommended by UC IPM.

I used public weather stations in Sacramento and Solano Counties for the weather data, see <http://www.ipm.ucdavis.edu/WEATHER/SITES/sacramento.html> <http://www.ipm.ucdavis.edu/WEATHER/SITES/solano.html>

RESULTS

1. Russell Road, Sacramento County, weather station maintained by UC IPM and UCCE Sacramento County from April 1, 2007 to October 31, 2007, **3,610 degree days** had accumulated, which puts it in region IV (3,501-4,000).
2. Twitchell Island, Sacramento County, weather station April 1, 2007 through October 31, 2007, **3,639 degree days** accumulated, which puts it in Region IV (3,501-4,000)
3. Hastings Tract, CIMIS station in Solano County, from April 1, 2007 through October 31, 2007, **3,647 degree days** accumulated, which puts it in region IV (3,501-4,000).

For comparison, nearby Suisun Valley in Solano County in 2007 between the same dates had **3,395 degree days** accumulate, which means it falls in region III (3,001-3,500).

What is also considered important is the number of degree days over 70° F, as this can influence quality, with too many degree days above 70° F considered detrimental to quality, districts like Fresno have been reported to have 913, Lodi 311 degree days above 70° F, and St. Helena 31.

1. Russell Road, above 70° F, had 857 degree days accumulate.
2. Twitchell Island, above 70° F, had 736 degree days accumulate.
3. Hastings Tract, above 70° F, had 780 degree days accumulate.

I also understand that some wineries are keeping track of hours of temperatures between 70° and 90° F as well as number of days with maximums above 90° F, or in some cases number of days above 95° or even 100° F. Some wineries have given simple data loggers to growers in "representative" locations and/or areas of interest and are then conducting an end of season analysis of the temperature data.

REFERENCES:

Winkler A.J., J.C. Cook, W.M. Kliewer, and L.A. Lider 1974. General Viticulture. University of California Press, Berkeley, CA. pp.710.

Amerine M.A. and A.J. Winkler 1944. Composition and Quality of musts and wines of California grapes. *Hilgardia*, 15: 493-675.

University of California IPM web site, information about degree day models, <http://www.ipm.ucdavis.edu/WEATHER/ddconcepts.html>

UPCOMING EVENTS

Title: CURRENT ISSUES IN VINEYARD HEALTH
Date: 13-Nov-08
Contact: Student Services staff is available M-F, 8:00 a.m. – 5:00 p.m.
Phone: (800) 752-0881 from Davis or Woodland (530) 757-8777
Time: 9:00 a.m. – 4:00 p.m.
Location: Da Vinci Building
Address: 1632 Da Vinci Court, Davis, CA

Description: This UC Davis Extension course is taught by guest instructors who are chosen for their involvement in developing solutions to the problems of grape pests and diseases. The goal of these lectures is to provide up-to-date management information on current selected topics. On this year's program: Dr. Andy Walker, Department of Viticulture and Enology, UC Davis, will lecture on "Breeding Grapevines for Pierce's Disease Resistance;" Mark Battany, UCCE Viticulture Advisor, University of California Cooperative Extension San Luis Obispo and Santa Barbara Counties, will present the latest information on diverse problems seen in Syrah vines in both California and other places in the world in a "Summary of Syrah Vine Health Problems;" and Dr. Jenny Broome, Area Plant Pathologist, UCCE Sacramento, Yolo and Solano Counties, will explain "Integrated Grapevine Disease Management of Powdery Mildew and Botrytis Bunch Rot Diseases.

This year the course will include a full afternoon of lectures about mealybugs and the grapevine leafroll viruses that can be spread by mealybugs. New research suggests that leafroll disease has become a far more serious problem in California vineyards than previously recognized. The disease was assumed to be largely graft-transmitted under California conditions. Unfortunately, this situation seems to have changed. In the face of what may be an epidemic wave of leafroll spread, three lectures will provide up to date information about this important issue: Dr. Kent Daane, UC Berkeley, will discuss the biology of mealybugs in California and their control, Dr. Rodrigo Almeida will explain their role in spreading leafroll viruses; and Dr. Deborah Golino, Plant Pathology Specialist, UC Davis, will explain why this disease is so important to grape grower today and what they can do to reduce its damage in vineyards.

Fee: \$190.00 Includes course materials and lunch

Title: ROOTSTOCK WORKSHOP – IDENTIFICATION AND USE
Date: 13-Aug-08
Contact: Student Services staff is available M-F, 8:00 a.m. – 5:00 p.m.
Phone: (800) 752-0881, from Davis or Woodland (530) 757-8777
Time: 8:30 a.m. – 4:00 p.m.
Location: Plum Room, DANR Building, UC Davis, CA
Address: One Hopkins Road, UC Davis

Description: Designed for the viticulturist, nursery employee or winery field person, this workshop introduces 20 of the most important rootstocks. Learn ways to identify these varieties in the field. Combining lecture with field demonstrations, the program includes identification, origin and history of each rootstock. It will also include a discussion of rootstock breeding and new DNA-based identification techniques. Since field demonstrations are included, please dress appropriately. Space is limited. Early enrollment is encouraged.

Instructor: Andrew Walker, Ph.D., is a professor with the Department of Viticulture and Enology, UC Davis.

Fee: \$210.00 includes course materials and box lunch

Section: 081VIT221