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University of California Cooperative Extension

Grape Notes

San Luis Obispo & Santa Barbara Counties



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Online Frost Protection Training Units

Narrated online Frost Protection Training Units are now available at no charge through the UC Cooperative Extension. These presentations cover the topics of passive frost protection, active frost protection with both wind and water, and methods of measuring temperature. All of the Training Units are available in both English and Spanish.

Frost damage remains one of the most economically important considerations for grape production in many areas of California. As the severe damage of the 2008 season indicated, the losses of crop production and value can be very significant when frosts occur and insufficient protection measures are in place.

To help growers prepare for and respond to future frost events, the UC Cooperative Extension has prepared a series of narrated online Frost Protection Training Units which cover a broad range of fundamental frost protection topics. All Training Units are available in both English and Spanish. To view the Training Units, one needs a computer with internet access and audio capability to hear the narration.

The training unit titled “Passive Frost Protection” discusses the basic definition and types of frosts, how

frosts relate to atmospheric conditions, and the preventative measures that are carried out *prior* to a frost event to avoid or minimize damage. The training units “Active Frost Protection: Water” and “Active Frost Protection: Wind Machines” discuss the energy and labor intensive processes carried out during a frost event using these active methods. The final training unit, “Methods of Measuring Temperature”, provides instructions for measuring various types of temperatures important to frost monitoring and describes some of the types of frost alarm systems available to growers. You can access all of these Frost Protection Training Units at the following website:

http://cesanluisobispo.ucdavis.edu/Viticulture/Frost_Protection/

Upcoming meetings:

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KEY ELEMENTS TO SPRINKLER USE

- Produce heat from freezing water
- Must add more energy from freezing than lost to evaporation
- Start and stop based on wet-bulb temperature

Photo: Rick Snyder

University of California Agriculture and Natural Resources

00:00 / 00:21

Active Frost Protection with Water

Outline	Thumb	Notes	Search
Slide Title			Duration
ACTIVE FROST PROT...			00:39
INTRODUCTION TO A...			00:59
TYPES OF ACTIVE FR...			00:24
SPRINKLERS			00:49
▶ KEY ELEMENTS TO SP...			00:21
ENERGY EXCHANGE			01:46
STARTING AND STOP...			02:05
STARTING AND STOP...			00:54
OVER-PLANT CONVEN...			01:45
LOW-VOLUME (TARGE...			00:30
SPRINKLERS			01:20
SPRINKLER APPLICAT...			01:25
APPLICATION RATES ...			00:55
RIME ICE AND THE LI...			01:12
UNDER-TREE CONVEN...			01:00
UNDER-TREE SPRINK...			01:31
UNDER-PLANT MICRO...			00:53
SURFACE IRRIGATION			00:44
FLOOD IRRIGATION			01:15
FURROW IRRIGATION			00:36
FOGGERS			01:09
SUMMARY			00:44
REFERENCES			00:05

28 Minutes 11 Seconds Remaining

Sample page from the “Active Frost Protection: Water” Training Unit.

University of California Agriculture and Natural Resources

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for California*

About the UC Cooperative Extension

The University of California's Cooperative Extension offices are local problem-solving centers. More than 400 campus-based specialists and county-based farm, home, and youth advisors work as teams to bring the University's research-based information to Californians. UCCE is a full partnership of federal, state, county, and private resources linked in applied research and educational outreach. UCCE tailors its programs to meet local needs. UCCE's many teaching tools include meetings, conferences, workshops, demonstrations, field days, video programs, newsletters and manuals.

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You can view or subscribe to this free online newsletter at the following website:

<http://ucanr.org/grapenotes>

Pump efficiency, chemigation, and backflow prevention workshops

Dates:

April 6, 2011 - Paso Robles

April 7, 2011 - Santa Maria

Time:

9:00 - 11:00

Locations:

Paso Robles: J. Lohr Wine Center, 6169 Airport Road ([map](#))

Santa Maria: Mar Vista Berry on Bonita Lateral Road, across from Frontier cooler, just east of Bonita School Road ([map](#))

Presenter:

Bill Green, CSU Fresno Center for Irrigation Technology

Workshop topics:

PG&E's Advanced Pump Efficiency Program (APEP)

Program description and eligibility, how to save energy moving water, pump efficiency demonstration

Chemigation / groundwater protection (CDPR)

History of groundwater regulations, California requirements to chemigate, water source protection, shutting down the chemigation system, preventing backflow, chemigation equipment and demonstration, County restrictions on fertigation

This course has been approved for 1.0 hours of DPR Continuing Education Credits and RWQCB Ag Waiver credits

To attend this meeting, please register online at the link below. There is no cost to attend. You may also register by phone at 805-781-5940. These are outdoor demonstrations with active irrigation equipment; please bring suitable clothing. Refreshments will be provided.

<http://ucanr.org/chemigation>