

## What can California, Israel and Australia learn from each other about drought?

*International group of drought management experts to meet Jan. 12-13 in Modesto*

Drought management experts from Israel and Australia will join U.S. scientists and UC Cooperative Extension in California for a workshop in Modesto on Jan. 12 and 13. Growers, crop consultants, irrigation practitioners, state agency members and others are invited to participate.

"California, Israel and Australia have all faced recurring drought conditions of varying severity and duration," said James Ayars, USDA Agricultural Research Service irrigation engineer and agronomist in Parlier, Calif., who organized this prestigious gathering of irrigation expertise. "In view of more frequent and more severe recurring droughts in the years to come, it makes sense for us to pool our knowledge and plan more strategically for the future."

Over the past 20 years, USDA and UC scientists have developed several new approaches to help growers adapt to using water more efficiently. Several UC Davis, UC Cooperative Extension and California Department of Water Resources scientists will join other key researchers from Israel and Australia for this workshop sponsored by the USDA Agricultural Research Service, UC Agriculture and Natural Resources (UC ANR), UC Institute for Water Resources and the Israel Agricultural Research Organization.

"We hope to share expertise gained from experiences in our respective countries and learn new approaches for growing crops with limited water supply and poor quality water under the prospect of increased climate variability and change," said Daniele Zaccaria, UC ANR Cooperative Extension specialist in agricultural water management in the Department of Land, Air and Water Resources at UC Davis and one of the event organizers. "Although Australia and Israel have very different climatic and socioeconomic conditions, there may be drought management strategies and policies that we can adapt to address issues in California."

The workshop will include breakout sessions to discuss water management strategies for specific crops including grapes, almonds, pistachios, walnuts, citrus and avocados. Registration is \$80 and includes lunch for both days. Dec. 18 is the deadline for early registration. After Dec. 18, registration is \$120 until Jan. 1, 2016, and \$150 after Jan. 1. There will be no on-site registration. Certified crop advisors can earn continuing education units: Soil & Water Management 12.0 CEU and Crop Management 0.5 CEU. Agenda attached. To register, please visit <http://www.droughtmgt.com>. Lodging is available next to the Modesto Centre Plaza at the Double Tree Hotel at 1150 9th Street in Modesto.

### **ADDITIONAL DROUGHT RESOURCES**

#### **Insights: Water and Drought Online Seminar Series**

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[http://ciwr.ucanr.edu/California\\_Drought\\_Expertise/Insights\\_Water\\_and\\_Drought\\_Online\\_Seminar\\_Series/](http://ciwr.ucanr.edu/California_Drought_Expertise/Insights_Water_and_Drought_Online_Seminar_Series/)

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United States Department of Agriculture

**Agricultural Research Service**

# PROVEN SOLUTIONS TO DROUGHT STRESS

WATER MANAGEMENT STRATEGIES FOR PERENNIAL CROPS WITH LIMITED AND IMPAIRED WATER SUPPLIES

[Jan 12-13] : [Water] : [Modesto, CA]

Are you ready to learn about water conservation?

**TAKING PLACE**

**Jan 12-13 2016**

1150 Ninth Street  
Modesto, CA, 93901



Learn from world leaders in water management

This workshop is the result of a partnership among the United State Department of Agriculture, Agricultural Research Service; the California Institute for Water Resources, a unit of the University of California, Division of Agriculture and Natural Resources; and Israel Ministry of Agriculture-Agricultural Research Organization.

*Modesto Centre Plaza,  
1150 9th Street, Modesto, CA*

Are you a Certified Crop Advisor?

Be sure to sign the Continuing Education Unit sheet at this event to earn:

**Soil & Water Management 12.0 CEU**

**Crop Management 0.5 CEU**

***REGISTER TODAY! Space Limited to 300***

***REGISTRATION by January 1—\$120***

***EARLY BIRD Register by December 18—\$80***

***LATE REGISTRATION after January 1—\$150***

***www.droughtmgt.com***

***Want to be a Sponsor?***

***Connect with Growers!***

***Contact:***

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# Water Management Strategies for Perennial Crops with Limited and Impaired Water Supplies

## AGENDA

### Tuesday, 12 January 2016

8:30 AM	9:00 AM	REGISTRATION
<b>9:00 AM</b>	<b>5:15 PM</b>	<b>Day 1: Understanding irrigation water management</b>
9:00 AM	9:15 AM	Welcomes (ARS, ARO, UC)
<b>9:15 AM</b>	<b>10:45 AM</b>	<b>I. California Response to Drought</b>
9:15 AM	9:30 AM	Overview on the 2013-2015 Drought in California and coordinated effort by the UC. Doug Parker
9:30 AM	9:45 AM	El Nino Forecast for California and possible impacts on irrigated agriculture: is the drought over? Michael Anderson
<b>9:45 AM</b>	<b>11:15 AM</b>	<b>II. Technology of Water Management</b>
9:45 AM	10:15 AM	Soil water sensing. Dan Munk
10:15 AM	10:45 AM	ETc estimates - Weather stations (CIMIS), surface renewal. Rick Snyder
<b>10:45 AM</b>	<b>11:00 AM</b>	<b>BREAK</b>
11:00 AM	11:30 AM	Salinity measurement - Dennis Corwin
11:30 AM	12:00 PM	Consideration in selecting water stress indicators. Amos Noar
12:00 PM	12:30 PM	Precision water and fertility management of perennial crops during deficit irrigation. Victor Alchanati
<b>12:30 PM</b>	<b>1:30 PM</b>	<b>LUNCH</b>
<b>1:30 PM</b>	<b>3:30 PM</b>	<b>III. Alternative Water Supplies</b>
1:30 PM	2:00 PM	Irrigation with recycled and desalinated water. Uri Yermiyahu
2:00 PM	2:30 PM	Effects of long term irrigation with poor quality water on the soil, California experience. Don Suarez
2:30 PM	3:00 PM	Effects of long term irrigation with poor quality water on the soil, Israeli experience. Guy Levy
3:00 PM	3:30 PM	The challenge of sustainable irrigation with water high in salts: lessons from dates, olives and grapevines. Alon Ben Gal
<b>3:30 PM</b>	<b>3:45 PM</b>	<b>BREAK</b>
<b>3:45 PM</b>	<b>5:15 PM</b>	<b>IV. Water Management Strategies During Drought</b>
3:45 PM	4:15 PM	Australian Experience. Ian Goodwin
4:15 PM	4:45 PM	Irrigation planning/budgeting - ETo forecasting, Deficit irrigation concepts, crop and irrigation variability. John Hornbuckle
4:45 PM	5:15 PM	Cultivation under protective structures to save water. Shabtai Cohen
<b>5:15 PM</b>	<b>5:15 PM</b>	<b>ADJOURN</b>
<b>5:15 PM</b>	<b>7:30 PM</b>	<b>RECEPTION</b>

# Water Management Strategies for Perennial Crops with Limited and Impaired Water Supplies

## AGENDA

### Wednesday, 13 January 2016

8:00 AM		3:15 PM	Day 2: Water Management for Individual Crops and Grower Experiences
8:00 AM	10:00 AM	<b>V. Technology Demonstrations</b>	
8:00 AM	8:30 AM	Irrigation scheduling - Australian experience - IrriSAT approach. John Hornbuckle	
8:30 AM	9:00 AM	Determining stem and LWP potential with pressure chambers. Ken Shackel	
9:00 AM	9:30 AM	Irrigation system evaluation. Brian Hockett	
9:30 AM	10:00 AM	Salinity mapping for water management. Florence Cassel	
10:00 AM	10:30 AM	<b>BREAK</b>	
10:30 AM		3:15 PM	<b>Concurrent Breakout Sessions:</b>
			<b>I. Citrus/Avocado, Olives Fruit</b>
			<b>II. Grapes</b>
			<b>III. Deciduous Nut Crops</b>
10:30 AM	11:15 AM	I. Citrus - Israeli experience: Long term effects of deficit irrigation, salinity, and rootstocks on orchard productivity. Eran Raveh	
10:30 AM	11:15 AM	II. Grapes - Table and Wine Grape Irrigation Scheduling - Table Grape Irrigation. Larry Williams	
10:30 AM	11:15 AM	III. Deciduous Nut Crops - Irrigation and Crop Load Interactions. Amos Naor	
11:15 AM	12:00 PM	I. Olive - Israeli experience: Intensive cultivation under limited water availability. Arnon Dag	
11:15 AM	12:00 PM	II. Grapes - Wine Grapes Irrigation - Coastal Vineyards. Mark Battany	
11:15 AM	12:00 PM	III. Deciduous Nut Crops - Almond Irrigation - Israeli experience. Fathi Abd Elhadi	
12:00 PM	1:00 PM	<b>LUNCH</b>	
1:00 PM	1:45 PM	I. Avocado - Israeli experience. Anat Levingrat	
1:00 PM	1:45 PM	II. Grapes - Wine Grapes Irrigation: San Joaquin Valley. Kaan Kurtural	
1:00 PM	1:30 PM	III. Deciduous Nut Crops - California Experience. David Doll	
1:30 PM	2:00 PM	III. Deciduous Nut Crops - Pistachios Irrigation. Blake Sanden	
1:45 PM	2:30 PM	I. Subtropical Crops - California experience. Ben Faber	
2:00 PM	2:30 PM	III. Deciduous Nut Crops - Walnut Irrigation. Alan Fulton	
2:30 PM	3:15 PM	I, II, III Grower Panels	
3:15 PM	3:30 PM	<b>VI. Concluding Remarks</b>	