

# Irrigation and Water Resources Research and Extension Program

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Tehama, Glenn, Colusa, and Shasta Counties



# Program focus

## On-farm water management tools and practices

- Sustain profitable farming
- Efficient water and energy use
- Protection of surface and groundwater quality

## Water resources management

- Region, county, and sub-basins within county
- Education

# 2013 Applied Research

- ▶ Almond responses to varying levels of irrigation
- ▶ Funded by Almond Board of California, 2013 – 2017
- ▶ Assess regional differences. Kern, Merced, and Tehama Counties



# 2013 Applied Research

- ▶ Water use by walnut and French prune
- ▶ Funded by DWR and various private donors
- ▶ Understand regional and crop differences
- ▶ Confirm NSV estimates used in planning and provided as technical assistance to growers



# 2013 Applied Research

- ▶ Early detection of crop water stress
- ▶ Various private donors and in the past California Walnut Research Board
- ▶ Detect and precisely rate crop stress in almond, olive, prune and walnut
- ▶ Develop management tools as technical assistance to growers



# Other applied research

- ▶ Evaluation of nitrogen fertilizer practices in walnut
- ▶ Water use efficiency in irrigated pasture
- ▶ Demonstration of variable rate irrigation design and management concepts

# 2013 Farm Cooperators

- ▶ Call Farming, Los Molinos
- ▶ Esteve Farming, Corning
- ▶ Crain Walnut, Los Molinos
- ▶ Deseret Farming Company, Vina and Chico
- ▶ Lassen Land Company, Orland
- ▶ Sohrakoff Farming, Dairyville
- ▶ Sierra Foothills Research and Extension Center, Marysville
- ▶ Vaca Creek Ranch, Palo Cedro

# Education and outreach

- Meetings, field days, farm calls
- Phone and email communication, web access
- Trade magazines, newsletters, and newspapers



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**JANUARY 2013**  
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**Antelope Area Groundwater Sub-basin Information**

Since the early 1990's attention to groundwater resources in Tehama County has increased. Emphasis has been on improving our overall understanding of the resource and improving upon our overall ability to manage and sustain groundwater resources over the long term. In 1992, a groundwater ordinance was adopted into County Code to protect against groundwater mining and to oversee groundwater exports. A county-wide groundwater management plan was also adopted in 1996 and is still being implemented today. Currently an update to the plan is in progress and should be in place in 2013. This Plan is founded on voluntary cooperation of various local water interests in the County and focuses on monitoring and education to understand the groundwater resources in Tehama County. As part of the monitoring, the valley floor of Tehama County has been divided into 12 different groundwater sub-basins based upon unique hydrology, geology, land uses, and population. This article has been prepared in a joint effort by the Tehama County Flood Control and Water Conservation District, the Tehama County AB 3030 Coordinated Groundwater Management Plan Technical Advisory Committee, the California Department of Water Resources, and the University of California Cooperative Extension. It summarizes information specific to the Antelope Area Groundwater Sub-basin. Similar articles may be developed and distributed for other groundwater sub-basins in Tehama County.

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**July 2013**    Page 3  
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**SACRAMENTO VALLEY REGIONAL WALNUT NEWSLETTER**

**IN THIS ISSUE:**

- Irrigation Management Tools for Developing Walnut Trees
- Husk Fly Trap Study
- Howard Nut Drop
- Ethephon Use Considerations in the Sacramento Valley

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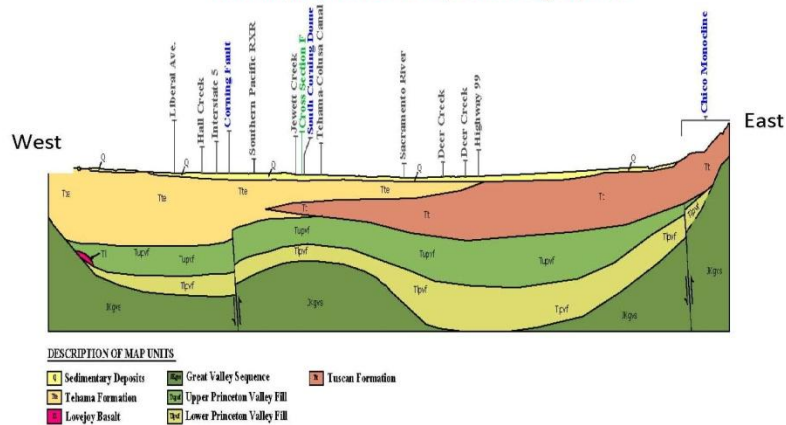
# Public service

## Support other agencies

### Tehama County Flood Control And Water Conservation District

### Coordinated AB 3030 Groundwater Management Plan

Generalized Geologic Cross-section Across Sacramento River Valley (looking north towards Red Bluff, CA) Source: DWR, Northern Region, 2011.



## Committee service

- ▶ Glenn County Technical Advisory Committee
- ▶ Tehama County Mobile Irrigation Lab
- ▶ Tehama County AB-3030
- ▶ Others

# Thank You!

