



# California Institute for Water Resources

Developing research based solutions to water-related challenges



Extremely low water levels at Folsom Lake, one of California's key reservoirs.

California Department of Water Resources

*“Water supply and quality for agricultural, urban and environmental systems has become one of our biggest challenges. UC’s California Institute for Water Resources is vital to integrating California’s research, extension and education programs to help mitigate the current problem and develop practical long-term solutions.”*

—Secretary Karen Ross, California Department of Food and Agriculture  
—Secretary John Laird, California Natural Resources Agency

## Drought Resources

Since 1990, with help from UC faculty, Cooperative Extension advisors and specialists, per-capita water use in California has dropped by 23 percent, and, for some crops, growers have increased water use efficiency by over 50 percent. Through research events, seminars, workshops and compilations of best practices, CIWR is helping bring UC resources to California’s farmers, ranchers, homeowners and others to deal with historic drought. Visit our drought site to keep up-to-date: [ucanr.edu/drought](http://ucanr.edu/drought) and follow us on Twitter @ucanrwater



Sierra Foothills Drought Summit

## Reducing Nitrates in Groundwater



Recent studies have shown that 90 percent of the nitrate leached to groundwater comes from agricultural fertilizers and animal manure applied to cropland. CIWR worked with UC ANR Cooperative Extension specialists and advisors to develop a training curriculum of best practices and has conducted a series of two-day training programs for Certified Crop Advisors (CCAs) throughout California. This training will help CCAs advise growers on the development and implementation of efficient nitrogen management practices.

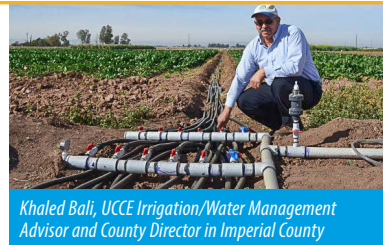
## Research for the Future

In collaboration with CIWR, UC academics provide solutions that address water-related issues in California. Projects include:

- Enhancing groundwater recharge.
- Balancing species, ecosystem, and water resource needs during drought.
- Developing models to utilize Integrated Regional Water Management solutions in disadvantaged communities.
- Improving crop water productivity through innovative irrigation management.
- Evaluating trade-offs between different types of forest management, fires and their impacts on water resources.



In addition to the projects mentioned above, CIWR continues to seek answers in rangeland management, landscape design and landscape irrigation efficiency, recycling and reuse of water, desalination, storm water capture and stream and snowpack monitoring. This research is vital to protecting California’s water supply.



Khaled Bali, UCCE Irrigation/Water Management Advisor and County Director in Imperial County

## Your local UC ANR Team

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University of California  
Agriculture and Natural Resources



# UC Division of Agriculture and Natural Resources



*“UC ANR offers local expertise with a practical mindset and applied research. They are people who can look directly at a problem and work together with the community and campus-based experts on a solution.”*

—Don Bransford  
President, Bransford Farms

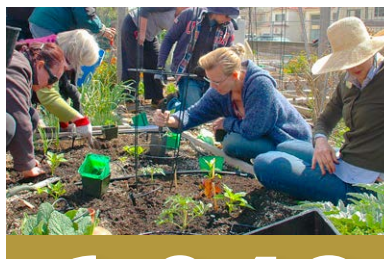


In **58** UC  
California Counties  
**UC CE**

**320**  
UCCE Advisors and Specialists  
living and working in  
local communities



**9** RECS  
Research and  
Extension Centers



**700**  
UC campus-based  
Agricultural  
Researchers  
(AES)

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—Secretary Karen Ross, California  
Department of Food and Agriculture  
Secretary John Laird, California  
Natural Resources Agency

**6,048**  
active UC Volunteer  
Master Gardeners



**4-H Youth**  
**5x** more likely to graduate from college

**Girls are**  
**3x** more likely to plan to pursue careers in science

**222,000**  
low-income, high risk adults and youth receiving  
**nutrition education** through UC ANR  
programs — And we need to do more



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Statewide Program  
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UC Master Food Preserver Program  
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