Responding to California’s Drought

As we enter 2014 in the midst of historic drought, California’s academic institutions serve as a tremendous resource in offering everything from near-term management advice to farmers and ranchers to the innovative work being carried out by researchers on a vast array of issues from drought resistant crops to snow sensors to climate change.

The California academic community has responded quickly with workshops, research, and expertise, and we have developed a new web portal to bring the resources of our universities and colleges to a broad range of communities.

*For up-to-the-minute drought resources and expertise, please visit us at [ucanr.edu/drought](http://ucanr.edu/drought) and follow us on Twitter [@ucanrwater](https://twitter.com/ucanrwater).*

Getting Results

This year we have initiated five new projects on a range of timely topics including hydraulic fracturing, alfalfa yields, impacts of drought on salmon, chromium in drinking water, and integrated regional water management.

We are able to leverage federal support by securing non-federal dollars at a ratio of 5 to 1, far exceeding the 2 to 1 match required for Water Resources Research Act of 1964.

In addition to leveraging funds, we are also able to leverage our program to facilitate large, collaborative projects with multiple partners including the California Departments of Food and Agriculture, and Water Resources.

Fulfilling Our Mission

“As California faces its worst drought in decades, 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

Project Spotlight: Managing Nitrogen

In 2012, the report “Addressing Nitrate in California’s Drinking Water” was released by University of California, Davis researchers after being commissioned by the California State Water Resources Control Board. The researchers reported that one in 10 people living in California’s most productive agricultural areas is at risk of exposure to harmful levels of nitrate in their drinking water.

One of key findings of the report was that 90 percent of the nitrate leached to groundwater came from agricultural fertilizers and animal manure applied to cropland. The report also noted reducing nitrate in groundwater is possible through improved fertilizer and water management.

In response, the California Department of Food and Agriculture’s Fertilizer Research and Education Program approached our institute to coordinate work within the University of California Agriculture and Natural Resources (UC ANR) program, which has a long history working on nitrogen issues in the state, on a training program helping growers develop efficient nitrogen management practices.

The training curriculum has been developed by a core group of UC ANR faculty, specialists, and advisors. The training focuses broadly on nitrogen management, and includes modules on the nitrogen cycle and nitrogen sources in crop production, such as irrigation water. Presentations, videos, and links to further resources will be available on our website in the spring.

Efficient nitrogen management is a long-term issue for the environment and agriculture in California, and we are working in concert with others to provide to solutions.
California Drought Resources

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These pages are being continuously updated as we work to bring the resources of the state’s universities and colleges to a broad range of communities.

- Drought-related events
- Drought information and resources
- Drought experts list
- Media coverage featuring our experts
- Story highlights

Follow us on Twitter @ucanrwater for drought-related news and updates.

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Please note: These pages are a work in progress. Please contact faith.lee@ucop.edu for further information on specific topics, or if you are a UC expert who would like to be added.