

# Salinity/Drainage Annual Project Progress Report 2004/2005



UC Center for Water Resources

This publication is a continuation of the Salinity/Drainage Program Annual Report series. It is published by the DIRECTOR'S OFFICE of the UC CENTER FOR WATER RESOURCES. The Center sponsors projects in salinity and drainage and related research within the state of California with funds provided by various state and federal agencies and private industry. Copies of this and other reports published by the Center may be downloaded from:

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UNIVERSITY OF CALIFORNIA  
RIVERSIDE, CA 92521-0436  
ATTENTION: PUBLICATIONS  
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# FOREWORD

The UC Salinity/Drainage Program was initiated in 1985 to develop, interpret, and disseminate research knowledge addressing critical agricultural and environmental problems of salinity, drainage, and toxic trace elements in the West Side of the San Joaquin Valley in California. The Water Resources Center and the Salinity/Drainage Program were administratively combined with the UC Center for Water Resources in 1993.

A major function of the UC Salinity/Drainage Program is to support research and extension activities that will contribute to developing optimal management strategies to cope with salinity/drainage/toxics problems in the western San Joaquin Valley. Funded research projects must be both relevant and scientifically sound. An external advisory committee evaluates the merits of all proposals. Appreciation is expressed to all the individuals that devoted time and made valuable contributions to the selection of the research to be supported.

This publication reports the research findings of projects funded by the Salinity/Drainage Program in 2004-2005.



## **Membrane Desalination of Agricultural Drainage Water: Water Recovery Enhancement and Brine Minimization**

### **Principal Investigator**

Yoram Cohen  
Department of Chemical Engineering  
University of California, Los Angeles  
Los Angeles, CA 90095  
Phone: (310) 825-8766; Fax: (310) 206-4107  
Email: [Yoram@ucla.edu](mailto:Yoram@ucla.edu);  
<http://www.watercenter.ucla.edu>  
<http://www.polysep.ucla.edu>



















































**Removal of Selenium from River Water in Organic Carbon  
Coated Sand Columns by *Enterobacter taylorae* Isolated from  
a Rice Straw Bioreactor**

**Project Investigators**

William T. Frankenberger, Jr.  
Department of Environmental Sciences  
University of California, Riverside  
Riverside, CA 92521  
Phone: (951) 827-3405, E-mail: [william.frankenberger@ucr.edu](mailto:william.frankenberger@ucr.edu)

Yiqiang Zhang  
Department of Environmental Sciences  
University of California, Riverside  
Riverside, CA 92521  
Phone: (951) 827-5218, E-mail: [yqzhang@ucr.edu](mailto:yqzhang@ucr.edu)















































## Regulated Deficit Irrigation of Alfalfa

### Project Investigators

Blaine Hanson  
Department of Land, Air, and Water Resources  
University of California, Davis  
One Shields Ave., Davis, CA 95616.  
Phone: 530-752-1130; FAX: 530-752-5262  
Email: [brhanson@ucdavis.edu](mailto:brhanson@ucdavis.edu)

Dan Putnam  
Department of Plant Science  
University of California, Davis  
One Shields Ave., Davis, CA 95616  
Phone: 530-752-8982; FAX: 530-752-4361  
Email: [dhputnam@ucdavis.edu](mailto:dhputnam@ucdavis.edu).  
Website: <http://alfalfa.ucdavis.edu>















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## Large-Scale Utilization of Saline Groundwater for Development and Irrigation of Pistachios Interplanted with Cotton

### Project Investigators

Blake Sanden  
Irrigation and Agronomy Advisor, UCCE Kern County  
1031 S. Mt. Vernon Ave.  
Bakersfield, CA 93307

Phone: (661) 868-6218; Fax: (661) 868-6208; E-mail: [blsanden@ucdavis.edu](mailto:blsanden@ucdavis.edu)  
<http://cekern.ucdavis.edu>

Louise Ferguson  
UCCE Pomology Specialist, Kearney Ag. Center  
9240 S. Riverbend Ave.  
Parlier CA, 93648

Phone: (559) 646-6541; Fax: (559) 646-6593; E-mail: [louise@uckac.edu](mailto:louise@uckac.edu)  
<http://pom.ucdavis.edu/>

Craig Kallsen  
Subtropical Crops and Pistachio Advisor, UCCE Kern County

Phone: (661) 868-6218; Fax: (661) 868-6208; E-mail: [cekallsen@ucdavis.edu](mailto:cekallsen@ucdavis.edu)

Brian Marsh

Agronomy Farm Advisor, UCCE Kern County

Phone: (661) 868-6218; Fax: (661) 868-6208; E-mail: [brmarsh@ucdavis.edu](mailto:brmarsh@ucdavis.edu)  
[http://danrec.ucdavis.edu/shafter/home\\_page.html](http://danrec.ucdavis.edu/shafter/home_page.html)

Bob Hutmacher

UCCE/AES Cotton Specialist, Shafter Research & Extension Center  
17053 Shafter Ave.  
Shafter CA, 93263

Phone: (661) 746-8020; Fax: (661) 746-1619; E-mail: [rbhutmacher@ucdavis.edu](mailto:rbhutmacher@ucdavis.edu)  
[http://danrec.ucdavis.edu/shafter/home\\_page.html](http://danrec.ucdavis.edu/shafter/home_page.html)

### Special Collaboration, ECa Survey

Dennis Corwin

Soil & Environmental Scientist USDA George E. Brown, Jr. Salinity Laboratory  
450 West Big Springs Road  
Riverside, CA 92507-4617

Phone: 909-369-4819; Fax: 909-342-4962; E-mail: [dcorwin@ussl.ars.usda.gov](mailto:dcorwin@ussl.ars.usda.gov)  
<http://www.ussl.ars.usda.gov/>

### Research Staff

Michael Mauro, Lab Assistant II





































## **Mechanisms of Arsenic Accumulation and Biogeochemistry in Evaporation Ponds**

### **Principal Investigators**

Kenneth K. Tanji  
Department of Land, Air and Water Resources  
University of California, Davis  
Phone: (530) 752-6540; Fax: (530) 752-5262,  
E-mail: [kktanji@ucdavis.edu](mailto:kktanji@ucdavis.edu)

Suduan Gao  
USDA-ARS, Water Management Research Unit  
Parlier, CA 93648  
Phone: (559) 596-2870; Fax: (559) 596-2851  
E-mail: [sgao@fresno.ars.usda.gov](mailto:sgao@fresno.ars.usda.gov)

### **Collaborator**

Douglas Davis, Manager  
Tulare Lake Drainage District  
Corcoran, CA 93212

### **Research Staff**

Ji-hun Ryu, Postdoctoral Research Associate  
Department of Land, Air and Water Resources  
University of California, Davis

























