



Opportunities for Research and Extension at **Desert REC**

Located on 255 acres of southern low desert, Desert Research and Extension Center (DREC) is focused on advancing irrigated desert agriculture, livestock environmental and feedlot management, and pest management. It is also home to the FARMSMART agricultural education program, reaching approximately 7,800 students annually.

Center focus

DREC research is focused on vegetable crop breeding and culture, soil salinity, improved varieties of grain and forage crops, emerging bio-energy crops, feedlot cattle studies, and control of insects and pests. Research stresses the development of optimal irrigation-fertilization strategies for desert conditions. Because of its winter climate, it is a major germplasm testing point for a variety of crops.

The DREC Commitment

DREC commits to the viability of long-term research projects. The constraints that might be imposed by a commercial grower or landowner are not present. UC ANR underwrites a significant portion of the cost of conducting research at the Center. On-site staff and conference facilities simplify hosting extension activities.

Support for Research, Extension and Education

DREC provides the following to researchers:

- Two on-site Staff Research Associates
- Agriculture and animal technicians
- Farm and physical plant mechanics
- Numerous seasonal farm employees

Facilities and Services

- Research: plant and soil processing lab; chemistry wet lab; two walk-in coolers; growth chamber; grinding room; greenhouses; lath house; high-pressure, filtered irrigation system; research feedlot cattle facility (106 pens for 700 cattle, metabolism barn, feedmill, specialized milling operations machinery); CIMIS weather station; dormitory facilities available for visiting researchers; high-speed connectivity
- Extension and outreach facilities: 149-seat conference room with small kitchen, 49-seat meeting room

Timelines and application forms for conducting research can be found at <http://ucanr.edu/recforms>. To visit the Desert Research and Extension Center, please call (760) 356-3060.



University of California

Agriculture and Natural Resources ■ **Research and Extension Center System**



Desert RESEARCH & EXTENSION CENTER

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Superintendent: Fernando Miramontes
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<http://ucanr.edu/sites/desertresearch/>

DREC at a glance

255 acres

Interior desert valley; flat alluvial plain; 60 feet below sea level

Climate

Annual Precipitation: <3 "

Summer max. mean temp.: 92.2°F

Winter min. mean temp.: 53.6°F

Soil series

Imperial, very deep, moderately well drained; Meoland, very deep, moderately well drained stratified; Rositas, very deep, somewhat excessively drained

Water storage and irrigation

Five acre on-site reservoir for water storage and irrigation

Recent research topics from the Desert REC:

Water management and irrigation efficiency through automation

Research underway at DREC focuses on maximizing irrigation efficiency. The speed of water flow across fields is measured and irrigation gates optimized to meet arid Imperial Valley conditions.

Melon breeding and disease management

A collaboration between DREC and USDA-ARS is evaluating melon varieties with resistance to whitefly and to the viruses they can carry.

Heat tolerance in lettuce and spinach

Research has been carried out across the Central Valley, coastal areas, and Imperial Valley at DREC to develop drought-tolerant lettuce and spinach germplasm.

"The benefits of working at a REC are a) complete control of small plots, b) good management, c) reasonable prices. We have excellent communications with the people at the RECs and can get reliable, repeatable results, essential when working on genetics."

— Phil Simon, Research Geneticist, USDA/University of Wisconsin

"DREC provides a unique environment for conducting irrigation and water management research in the low desert region of California. Irrigation research at DREC has given us the ability to test a number of water conservation practices and techniques before they are implemented on the commercial scale."

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

"The RECs are a vital part in my program as a UC farm advisor. For the past 8 years I have used the Desert REC for the evaluation of new carrot breeding lines from USDA. I can do research and demonstration plots at RECs that would be otherwise impossible to do in a grower's field."

—Joe Nunez, Vegetable/Plant Pathology Advisor, UC Cooperative Extension

