



## *Opportunities for Research and Extension at* **Sierra Foothill REC**

Located on over 5,700 acres of dry annual rangeland, irrigated pasture, oak woodlands, and riparian corridors along the Yuba River, Sierra Foothill Research and Extension Center (SFREC) is representative of several million acres of California foothill rangelands.

### **Center focus**

SFREC is a center for research, outreach education, and teaching related to the management, stewardship, and function of Mediterranean woodland ecosystems.

### **The SFREC Commitment**

SFREC 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**

- Skilled agricultural technicians
- Fabricators and equipment operators
- On-site staff research associate
- Staff expertise in range beef cattle and natural resources

### **Facilities and Services**

- 5,721 acres (160 acres of irrigated pasture, 270 acres of long-term ungrazed oak woodland, 200 acres of control-burned rangeland annually)
- 220–2,020 ft. above sea level (rolling to steeper sloping terrain)
- Mediterranean climate
- Research: laboratory; shops; cattle herd – both cow/calf and stocker operations; herbarium; 13-bed dormitory; CIMIS weather station; high-speed connectivity
- 20- and 125-seat meeting rooms with wireless access; Porter Creek Nature Trail and the Yuba River Education Pavilion
- Access to the Yuba River, six small permanent streams and extensive riparian vegetation

Research requests for land, labor and facilities are screened by a research advisory committee. For more information about conducting research at SFREC, visit <http://ucanr.edu/recforms> or call (530) 639-8800.



**University of California**

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

# Recent research topics from the Sierra Foothills REC:

## Vaccine for Epizootic Bovine Abortion (EBA)

EBA is a tick-borne bacterial disease that causes cows to abort their fetuses in western foothill rangeland, costing ranchers some \$3 million per year. Research conducted at SFREC is working to develop a vaccine to avert these losses.

## Sustaining Water Quality in Rangeland

A team from UC Davis has been evaluating the transport and movement of pharmaceuticals and growth steroids for cattle to develop recommendations to mitigate the effects of these pollutants through streams.

## Adaptive grazing management

A major stakeholder-prescribed collaborative project to improve economic and ecological sustainability of grazing on rangeland is underway at SFREC.

## Black rails in a foothill landscape

Black rails are small birds typically found in coastal wetlands that were recently discovered to be living at SFREC. UC Berkeley researchers have been studying the metapopulation dynamics of this species at the newly discovered inland location.

## Sierra Foothills RESEARCH & EXTENSION CENTER

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Director: Jeremy James  
Superintendent: Dustin Flavell  
Office Manager: Chris Feddersen

<http://www.ucanr.edu/sites/sfrec>

### SFREC at a glance

5,721 acres

#### Climate

Mediterranean

Annual mean precipitation 28"

Summer max. mean temp. 90°F

Winter min. mean temp. 40°F

#### Soil series

Auburn, Sobrante, Las Posas, Argonaut  
and Wyman

#### Long-term Databases

Weather, grazing, forage production

#### Wildlife

145 bird, 12 reptile, 4 amphibian,  
and 35 mammal species

*"Although Advisors have clientele farms and ranches on which to conduct applied research, the RECs offer sites that researchers can rely on for land ownership stability to conduct long-term research. There also is the ability to bring federal and state regulators on RECs to discuss aspects of different agricultural management practices and their potential impacts on the environment, when most private landowners do not feel comfortable opening their operations for these field educational discussions."*

—Glenn Nader, UCCE Livestock & Natural Resources Advisor, Sutter-Yuba Counties

*"SFREC is one of the jewels of the UC system. It is a beautiful place, with managed and pristine ecosystems, resourceful staff to support research and outreach, and wonderful soils. It's the perfect natural laboratory."*

—Anthony O'Geen, UCCE Soil Resource Specialist, UC Davis

*"The SFREC is a great learning resource and the staff was extremely helpful in making our Vegetation Analysis and Health field trip a success."*

—Ed Vasquez, Department of Forestry and Wildland Resources, Humboldt State University

