



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

Located on more than 5,300 acres of oak woodland, grassland, chaparral, and riparian environments just south of Ukiah within the Russian River watershed, Hopland Research and Extension Center's (HREC) diversity of soils, plant and animal communities, and environments is typical of the Coast Range in northwestern California. Half of the 20 oak species native to California are found at Hopland.

Center focus

HREC research is focused on finding better ways to manage natural resources and conduct sustainable agricultural practices in animal and veterinary science, entomology, plant ecology, public health, range management, watershed management, and wildlife biology.

The HREC Commitment

HREC commits to the viability of long-term research projects. The constraints that might be imposed by a commercial grower or landowner are not present. Extensive databases spanning over 60 years add value to research. 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

HREC provides the following to researchers:

- Agricultural technicians
- Staff expertise in livestock (sheep) and natural resources
- IGIS lab staff can advise and assist with spatial data collection, management, and analysis

Facilities and Services

- Research: wet lab with prep room, greenhouse, 72-tank soil lysimeter, six barns, sheep scale, extensive herbarium collection, 20-bed bunkhouse with kitchen and laundry, high-speed connectivity; research flock of 600–800 breeding ewes; IGIS Lab
- Extension and outreach facilities: The Rod Shippey Hall is a new, state-of-the-art conference and field lab facility for groups up to 215

Research requests for land, labor and facilities are screened by a research advisory committee. For more information about conducting research at HREC, visit <http://ucanr.edu/recforms> or call (707) 744-1424.



University of California

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

Recent research topics from the Hopland REC:

Malaria in western fence lizards

Malaria parasites infect a broad range of vertebrates, including mammals (four species infect humans), birds and reptiles. Studies at HREC have investigated the parasite-host system of a malaria parasite of the Western fence lizard and its vector, a sand fly, to understand the ecology and evolution of the parasite and relate them to the evolution of parasite virulence.

Predicting disease risk using a model from a mixed grassland ecosystem

A team of researchers is monitoring the spread of a disease vectored by aphids to various assemblages of wild grass species. Field plot data are used to model what factors would be most likely to result in an epidemic.

Non-native mosquitofish and aquatic food webs

The effects of introduced mosquitofish on aquatic food webs have been researched and monitored at HREC. This will inform wetland management practices on mosquito control.

Behavioral research on American kestrels

Data on the morphological and behavioral differences between male kestrels of different plumage patterns have been collected to provide a better understanding of plumage variability in all birds of prey.



Hopland RESEARCH & EXTENSION CENTER

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<http://ucanr.edu/sites/hopland/>

Hopland REC at a glance

5,338 acres

Soil series

17 soil series identified, part of the Franciscan formation

Climate

Mediterranean

Annual Mean Precipitation:

37" at the 800-ft elevation level

Summer mean max. temp.: 91°F Winter
mean min. temp.: 56°F

"[HREC has] enabled me to undertake innovative and ambitious projects that would not be feasible elsewhere. [HREC staff] bring 'eyes on the ground,' monitoring and sampling when my research team can't be there, and alert us to potential problems and also potentially exciting, unexpected results."

—Dr. Valerie Eviner, Plant Sciences, UC Davis

"I have had the privilege and pleasure of conducting research on ectoparasites at the Hopland Research and Extension Center for more than 40 years. The opportunity to carry out field studies at the HREC has been one of the highlights of my career."

—Dr. Robert Lane, Emeritus Professor of Entomology, UC Berkeley

"My projects were embraced as important and integral parts of the function of the center. I have the peace of mind that in addition to people in my lab, the center's staff keep a watchful eye on my plots. These people have a lot of experience in science and field experiments, and know the local landscape very well."

—Dr. Emilio Laca, Plant Sciences, UC Davis

