

Science as our Guide

Research-based Strategies

» California dairy farmers continue to work closely with regulators and scientific researchers to better understand air and water quality issues and to develop science-based management strategies for a better environment.

Historic research recently completed by the University of California and California State University has put our state at the forefront of knowledge on livestock emissions and sustainable dairy management. Working with state and local air quality regulators, the dairy industry provided critical funding for this research and for ongoing efforts being conducted at dairies in California as part of national research efforts.

California dairy families have also recently provided funding for important groundwater monitoring research to identify improved groundwater protection strategies. This research will prove critical as recently adopted comprehensive water quality protections continue to be implemented.



A researcher from California State University, Fresno uses “flux chambers” to measure emissions from the surface of a dairy corral, while cows look on from the shade of a nearby barn. The sensitive instruments gather samples that can be evaluated at a laboratory. The information is vital for developing effective management practices to minimize environmental impacts.



Dr. Thomas Harter, a hydrogeologist from the University of California at Davis, is leading ground-water research studies on Central Valley dairies, in collaboration with government agencies and dairy organizations.



UC Davis' Dr. Frank Mitloehner earned worldwide recognition for his work on cow emissions, using tent-like cow housing dubbed as “bovine bubbles” (bottom right). Top right, cows participate in an environmental chamber study.