

Public Value in the West

An initiative of the Western Extension Directors Association

Reducing the economic, environmental and social costs of climate variability in the West



Relevance

The USDA has identified the increasing risks such as wildfires, invasive pests, devastating floods and crippling droughts that result from climate variation. All of these risk factors are pervasive in the West. From dependence on limited water resources in the Southwest and the Great Basin, to vulnerabilities to wildfires and flooding in Alaska, the West is particularly sensitive to climate variability.

Extension's Response

Extension plays an important role in program delivery, partnership development, risk and vulnerability assessments, interpretation of forecasts and information for adaptation planning, and outreach and engagement to farmers, ranchers, forest landowners, and communities impacted by climate variability. Extension is at the forefront of risk management education focused on wildfires and floods. Extension coordinates local, state and federal action to minimize risks to life and property through programs such as *Living with Fire* and *Living with Floods*.

(your University) Extension, U.S. Department of Agriculture and Colorado counties cooperating.

Extension programs are available to all without discrimination. April, 2015

From its inception in 1914 Extension has successfully translated science and research into information and action strategies for farmers, ranchers, foresters, communities and individual citizens to adjust and adapt their resource management to changes in environmental, social and economic conditions. From assisting farmers to combat invasive pests such as the Boll weevil infestations early in the last century to confronting major droughts such as the Dust Bowl in the 1930's and the major droughts of the 1950's and 1980's Extension has been the key to sustaining agriculture, communities and economies in times of hardship and change.

Today, Extension programs focus on bringing climate science research and applications to the people of the West. Cooperative Extension professionals work to develop and coordinate outreach and engagement activities and applied research between the climate research organizations and individuals and communities confronting the impacts of climate variability.

Results

Utilizing research based knowledge from plant, soil, animal, water and climate science, and involving partners such as the USDA Risk Management Agency, Extension educators in the West work with farmers and ranchers on crop and livestock strategies to mitigate potential economic damages from climate variability and to improve productivity where changing environmental conditions may present an opportunity to manage for longer growing seasons and increased CO₂ concentrations as well as optimize any potential productivity increases that may be associated with changing climate conditions.

These Extension efforts improve the sustainability of the agricultural base which is vital to state, regional and local economies. In California, for example, every dollar of value added—labor and property income and indirect business taxes—in farming and agricultural related industries generates an additional \$1.27 in the state economy.

Extension horticulturalists in the West work with home owners and the landscape industry to utilize drought resistant and water efficient

plants and the latest in efficient irrigation technologies leading to reduced infrastructure costs and stronger local and regional economies. For instance a recent Utah study demonstrated tradeoffs in costs and required inputs for a predominately cool-season turf grass landscape typical for Salt Lake City and other high desert, intermountain western United States cities and potential modifications to that typical landscape. The results highlighted strategies water conservation programs can use to encourage property owners to install and adopt water-conserving landscape features and practices.

Living with Fire and Living with Floods, and similar programs, are comprehensive, multi-agency programs coordinated by Extension and aimed at teaching residents of the West how to live more safely in high fire and high flood hazard environments. As climate variability leads to more wildfires and floods these programs protect local economies in the rural and Wildland-urban interface areas. These Extension efforts reduce governmental cost to aid victims and restore local infrastructures.



Contact Information

Agricultural Issues Center
University of California
One Shields Avenue
Davis, CA 95616
agissues@ucdavis.edu

By the Numbers

The Bottom Line

For every 100 jobs in agriculture, including the food industry, there are 94 additional jobs created