

Minimize the Effects of Drought on Your Irrigated Cropland



The most commonly prescribed practices for protecting irrigated cropland from drought:



Irrigation System Improvement

Evaluating irrigation systems, improving management of existing systems, replacing poorly performing components or converting to pressurized irrigation systems will improve the uniformity of water application. It takes less water to irrigate when the irrigation is uniform.



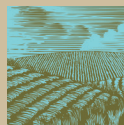
Vegetative Practices & Mulching

Growing certain crops, either interplanted in or in sequence with production crops can increase infiltration and retention of valuable rainfall and reduce evaporation loss from the soil surface. Mulching by covering the soil surface with wood chips, straw or other plant materials can also reduce water loss to evaporation.



Irrigation Scheduling

Irrigating at the optimum time and applying the amount the soil can hold minimizes undesirable water loss below the root zone of the crop. Good scheduling or “Irrigation Water Management” will help stretch limited water supplies.



Residue & Tillage Management

Modifying tillage to retain residues from a previous crop left on the soil surface can help reduce water loss to evaporation.

USDA-NRCS Drought Assistance

Drought 2014

Conservation Assistance to California Farmers & Ranchers

Introduction

California has seen many droughts come and go, but 2014 is creating especially dire conditions for the State's farmers and ranchers. Historic low precipitation in 2013, preceded by below normal precipitation in 2012, left most state reservoirs at between 6% storage in the Southern Sierra to 36% storage in Shasta. On Jan. 17, 2014, Governor Edmund Brown Jr. declared a drought emergency. On Jan. 31, the State Water Project cut water deliveries to all 29 public water agencies to zero for 2014.

Financial & Technical Assistance

\$30 million is being made available through USDA's Natural Resources Conservation Service (NRCS) to help drought-impacted farmers and ranchers. NRCS can help with conservation practices that have proven helpful in past droughts, such as 2009.

NRCS conservationists can help farmers and ranchers understand what options exist for their particular water situation, soil type and production goals and develop a plan to get through the drought. There is \$25 million available to help farmers and ranchers pay for many of these practices through the Environmental Quality Incentives Program (EQIP). Reimbursement rates typically cover about half the cost of the practice. Additionally \$5 million will be made available for erosion control through the Emergency Watershed Protection (EWP) Program.

Three Priorities

1. Protecting soils made vulnerable due to water cut backs.
2. Protecting drought-impacted rangeland.
3. Stretching every drop of irrigation water using improved hardware and management.

Save the Soil

Farmers without access to adequate water to produce a crop may find themselves thrust from a water crisis to a dust crisis. Options for protecting fields vulnerable to wind erosion include cover crops, surface roughening, residue management, converting to crops that use less water, mulching, or other practices.

Some of this critical erosion protection work will also be done through the Emergency Watershed Protection (EWP) program. Working with a local sponsor, the EWP program will facilitate many of the same soil protection practices accomplished through EQIP, but using the accelerated procedures available through EWP's disaster provisions.

Conserving Rangeland

Ranching without rain is really tough. For some ranchers managing the livestock to take advantage of available grass while protecting areas from overuse, may be made easier with tools such as livestock watering systems, piping, troughs, and fencing. NRCS and the rancher develop grazing management plans to document the decisions needed to make the best use of what forage remains on the ranch.

Stretching Every Drop

Farmers who have access to water and want to make every drop count, should develop irrigation water management plans with their NRCS conservationists or other consultants. Assistance to improve irrigation systems is available to help farmers working to produce a crop with a smaller allocation of water. These projects will be medium or low priority after approving projects needed to protect bare soil.

Finding a Conservationist

NRCS has offices in 55 of California's counties. All are taking drought applications. Locate your office at <http://offices.sc.egov.usda.gov/locator/app?state=CA>.

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