



THE UNIVERSITY OF ARIZONA

**Cooperative Extension**

COLLEGE OF AGRICULTURE AND LIFE SCIENCES

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**Permittees and agency employees valued monitoring for the same reasons: to know if the condition of the range is improving or not, and to determine if management objectives are being met.**

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## Next Steps

The information gathered through this survey is being used to help the Range Monitoring Program provide the information, training and assistance that is most needed and wanted. The results indicate that demand for the Extension monitoring program already exceeds the program's capacity to deliver services. When new resources become available, Cooperative Extension plans the following activities:



- Increase outreach to general public, new ranchers, and small tract landowners.
- Expand the educational program to address more topics, such as biodiversity, habitat, and riparian issues.
- Integrate monitoring with management decisions on the ground.
- Develop a monitoring certification program.

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**For more information about how to monitor rangelands, see: [rangelandswest.org/az/monitoring.html](http://rangelandswest.org/az/monitoring.html)**

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**For information on other Cooperative Extension programs, see: [cals.arizona.edu/extension](http://cals.arizona.edu/extension)**

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OUR NATURAL RESOURCES*



## COOPERATIVE EXTENSION RANGELAND MONITORING PROGRAM



## Overview

Arizona has about 62 million acres of rangeland. Rangeland is land with grasses, forbs, and shrubs that support grazing animals, such as cattle, elk, deer, and antelope. In Arizona, rangelands include private land as well as lands managed by state and federal agencies, including the U.S. Forest Service, Bureau of Land Management, and the Arizona State Land Department.



Rangelands are important for many reasons. They are important to Arizona residents for open space, recreation, wildlife habitat, clean water, and many other amenities. They are used, through leases and permits, for forage by the range livestock industry. This industry is important to Arizona's economy. In 2000, cattle and calves were the number one agricultural commodity, valued at \$621,331,000 (USDA Economic Research Service).

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**Monitoring techniques range from simple photographs, taken over time, to complex soil and vegetation analysis schemes designed to track changes in the ecosystem.**

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## Range Monitoring in Arizona — a 30-year Program

The Cooperative Extension Rangeland Monitoring Program has been active in Arizona since 1970. UA Cooperative Extension agents and specialists provide hands-on training to ranchers and agency personnel. They teach workshops, write publications, and provide technical assistance. Participants learn how to measure and record changes in vegetation, soil, and other natural resource attributes over time. This helps ranchers and agencies develop good management and stewardship practices on the land.



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**Permittees who monitor are more likely to implement other beneficial rangeland management practices.**

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## Why Rangeland Monitoring is Important

There are competing demands for uses of rangelands. These demands will continue to increase as Arizona's urban population continues to rapidly expand. These state and federal lands are held in trust or publicly held and therefore accountable to the concerns of Arizona and U.S. residents.



Concerns and legislation about public land grazing, clean water and endangered species require that ranchers and agency personnel carefully monitor the effects of livestock grazing on these lands. The ranching industry in Arizona understands the importance of wise stewardship for future generations; this industry is dependent on access to and use of public lands.

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**Other top reasons for monitoring shared by both groups related to making specific management decisions:  
when and where to move livestock and  
when to increase or decrease herd size.**

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## Does It Work?

A recent Evaluation Report on Rangeland Monitoring (M. Fernandez-Gimenez, 2003) clearly documented the positive efforts of Extension's rangeland monitoring program and strongly supported its continuation and expansion. The evaluation included ranchers and agency personnel in five counties with active programs. According to the survey, Extension enjoys a high degree of credibility among both agencies and permittees, and is viewed as objective and unbiased most of the time. Extension clientele stressed the need for continued and expanded technical assistance and educational programs. It also emphasized that Cooperative Extension, ranchers and land management agencies need to work together in the development of management plans and grazing permit renewals.