

Chihuahuan Desert Rangeland Research Center

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College of Agricultural, Consumer
and Environmental Sciences



New Mexico State University operates the Chihuahuan Desert Rangeland Research Center to protect and ensure availability of its resources for teaching, research, and extension endeavors that benefit the citizens of New Mexico as originally declared by Congress in 1927. The Chihuahuan Desert Rangeland Research Center conducts educational, demonstrative, and experimental development with livestock, grazing methods, and range forage, including investigation of the sustainability and management of natural resources and environmental ecosystems.



IN COLLABORATION

Teachers, researchers, and students from across campus benefit from the CDRRC center. The Department of Animal and Range Sciences oversees the facility with help from a steering committee of scientists from the College of Agriculture and Home Economics and the College of Arts and Sciences.

Current research efforts include:

- Evaluating continuous and seasonal grazing strategies at different intensities to determine effects on livestock performance as well as plant cover and composition.
- Determining the influence of range conditions on wildlife populations.
- Study of interactions of plant species.
- Assessing competition and other interactions between common plant species.
- Ascertaining the role of small herbivores in a desert environment.



Numerous **lizard and snake species** also inhabit these lands.



Several bird species **migrate throughout the area**, but a large number also **live and nest on the rangeland**.



The plains area, once dominated by black grama, today has been **invaded by mesquite stands**, which are interspersed with **snakeweed** and many species of **grasses and forbs**.



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ACES Pillars for Economic and Community Development

Food and Fiber Production
and Marketing

Water Use and Conservation

Family Development and
Health of New Mexicans

Environmental Stewardship

Foundational Education and Training

The College of Agricultural, Consumer and Environmental Sciences is an engine for economic and community development in New Mexico, improving the lives of New Mexicans through academic, research, and Extension programs. New Mexico State University is an affirmative action/equal opportunity employer and educator. NMSU and the U.S. Department of Agriculture cooperating.

2019 IMPACTS

Research garnered from long-term plots has greatly impacted our understanding of desert rangeland grazing ecology; many of the findings derived from studies at the CDRRC have influenced federal policies in the BLM and Forest Service.

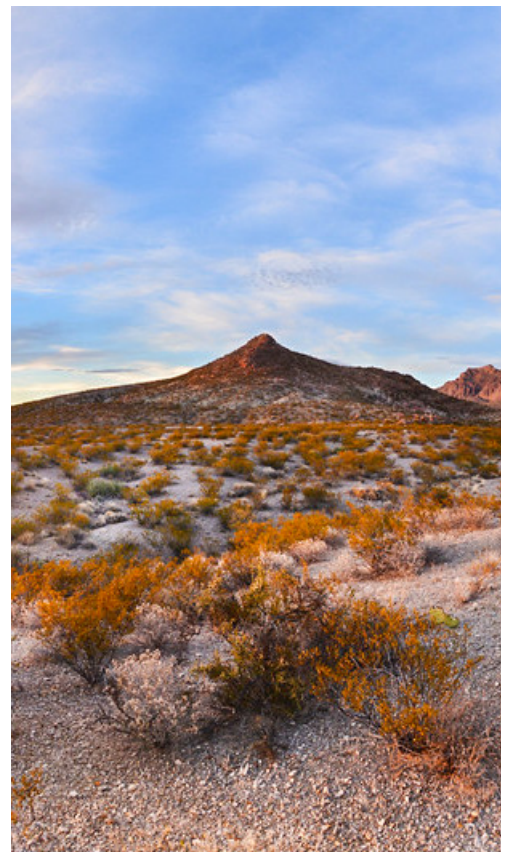
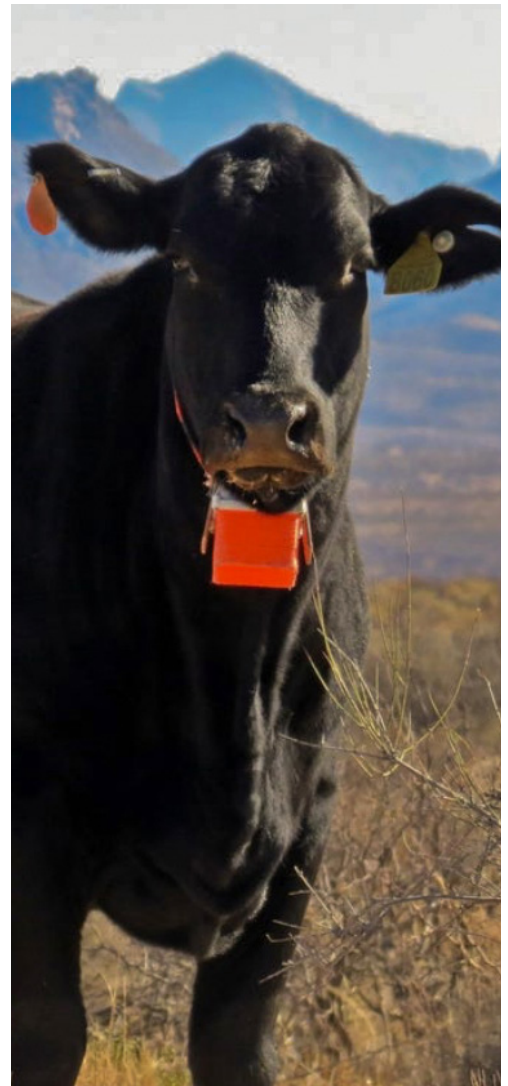
Through testing unique seed mixes and application techniques as well as habitat modification efforts, we can better assess the efficacy of rangeland restoration in drylands systems both locally and more broadly.

An adaptation strategy that is gaining momentum among a growing number of ranchers in the SW United States involves raising drought-adapted indigenous low-input beef cattle biotypes. The Raramuri Criollo (RC) cattle from Chihuahua's Copper Canyon in Mexico is one such biotype that has exhibited intriguing foraging behavior traits.

ONGOING RESEARCH

Studies from the CDRRC and neighboring Jornada Experimental Range (JER) have shown that Chihuahuan Desert forages are in an apparent climate change-driven decline. This new long-term study will allow us to test this hypothesis and monitor critical vegetation and soil variables in relation to cattle breed.

Beef production in the desert SW needs to adapt to this evolving scenario if ranching is to remain viable. The feasibility of raising desert-adapted Criollo cattle is one alternative being researched.



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