



# Chihuahuan Desert Rangeland Research Center

Our mission is to conduct educational, demonstrative, and experimental development with livestock, grazing methods, and range forage, including investigating the sustainability and management of natural resources and environmental ecosystems.



NMSU courtesy photo

## Selected Outcomes

- Developed Brangus cattle that are adapted to desert conditions and have excellent performance under a harsh and arid climate. These cattle are available to producers as seedstock.
- Demonstrated that light to conservative stocking levels can result in greater livestock performance and improved ecological conditions compared to moderate stocking levels.
- Found that, after 35 years comparing a three-pasture seasonal grazing system to continuous grazing, there were no differences in long-term vegetative conditions.
- Documented that adjustments in stocking rate to varying levels of precipitation is a critical component of sustainable grazing in the Chihuahuan Desert.

- Identified the value of controlling honey mesquite as part of restoration efforts in degraded rangelands in the Chihuahuan Desert.
- Verified that cattle with experience in the Chihuahuan Desert are more efficient and sustainable foragers than naïve cattle.

## Ongoing and Future Research

- Examine the role of genotype on the grazing behavior and adaptability of cattle in arid conditions.
- Develop new approaches for restoring degraded rangelands in the Chihuahuan Desert.
- Evaluate the role of stocking rate on the long-term sustainability of grazing in arid rangelands.
- Examine the hydrology and seasonal changes in water table levels along a bosque area of the Rio Grande.
- Develop management strategies for ranchers in the arid Southwest to respond to drought and other predicted impacts of climate change.

## Partners

- Jornada Long Term Ecological Research project (Jornada LTER)
  - Established in 1982 and one of more than 25 long-term ecological research sites funded by the National Science Foundation.
  - Studies the causes and consequences of desertification and the invasion of shrubs into grasslands.
- USDA-ARS Jornada Experimental Range (JER)
  - Collaborate on sustainable livestock grazing and ecological research.

## New Mexico State University - Agricultural Experiment Station System

Chihuahuan Desert Rangeland Research Center

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