Mission

The USDA-ARS Center for Agricultural Resources Research (CARR) is home to the *Rangeland Resources and Systems Research Unit.* The Unit's mission is to develop and transfer science-based management strategies to improve resiliency, reduce risk, and provide ecosystem goods and services from semiarid rangelands.

♦ The Unit operates premier working ranches:

 ♦ The 15,000 ac *Central Plains Experimental Range "CPER" near Nunn, CO (est. 1937),* where ARS leads stakeholder-driven, adaptive management research on shortgrass steppe with Crow Valley Livestock Cooperative, Inc., Colorado State Univ., and Univ. of Wyoming.

 ♦ The 2,700 ac *High Plains Grasslands Research "Happy Grass" Station near Cheyenne, WY (est. 1928),* where ARS evaluates flexible stocking rates and adaptive rangeland management on a northern mixed-grass prairie with Univ. of Wyoming and local ranchers.

♦ The Unit also leads the *USDA Northern Plains Climate Hub* to support robust, healthy ag. production and natural resources under increasing weather variability.

♦ The Unit also maintains the *Wind Erosion Prediction System, Root Zone Water Quality Model*, and other natural resource decision-support and modeling tools.

Did You Know...??

♦ *The Central Plains Experimental Range hosts the longest active experiment (est. 1939) addressing grazing intensity on semi-arid rangelands.*

♦ *The Stocking Rate grazing study at the High Plains Grasslands Research Station has the most extensive soil sampling data in semi-arid rangelands (est. 1982).*

♦ *The Unit is a key partner in several regional and national research initiatives addressing rangeland production and conservation:*

 ♦ Thunder Basin Research Initiative in northeastern Wyoming with the Univ. of Wyoming, Thunder Basin Grasslands Prairie Ecosystem Association, and Forest Service.

 ♦ Long-Term Agroecosystem Research (LTAR) network of 18 sites working to answer: How can U.S. agriculture be intensified in a sustainable manner?

 ♦ USDA-ARS Grand Challenge Areas focusing on Vesicular Stomatitis Virus (VSV) and Beef Production.

♦ *The Wind Erosion Prediction System has been used on >35 million ac* to assist land managers in controlling wind erosion, establishing conservation plans, and determining wind erosion susceptibility.

♦ *The Root Zone Water Quality Model is used in >50 countries* to evaluate management effects on production and the environment.

Leading the Nation in research to ensure the security and future use of genetic, natural , and agricultural resources.

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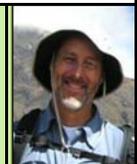lauren.porensky@usda.gov

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