AN OVERVIEW OF RESEARCH AT THE GRAZINGLAND RESEARCH LABORATORY, EL RENO, OK

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SUMMARY

The USDA, Agricultural Research Service has operated the Grazinglands Research Laboratory (GRL) at El Reno, Ok, since 1948. The GRL's mission is to provide technology and management strategies which increase profitability of forage and livestock production while reducing economic risk and minimizing environmental impacts. The laboratory focuses on the stocker calf component of the U.S. beef cattle industry. Five research teams reflect specialties in forage genetics and management, livestock genetics and nutrition, climate variability and seasonal forecasts, water resources and remote sensing, and small farms research. Research objectives of the 15 scientists and 35 support personnel include: developing new forage grasses and better management of existing forages; developing beef finishing systems that utilize more forage in the diet; adapting NOAA's seasonal climate forecasts into risk-based decision and management tools; utilizing long-term climatic and hydrologic data bases to assess water resources; developing new technology to monitor soil water and forage characteristics; defining and mitigating adverse effects of livestock grazing on soil and water quality, and addressing forage production problems unique to small marginal farms. The facilities at GRL include state-of-theart livestock handling facilities, chemical laboratories, experimental herds of cattle and sheep, 200 acres of irrigated alfalfa, 900 acres of wheat, 2000 acres of improved grasses, and 3000 acres of native tallgrass prairie.