Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Write Methodology to Determine the Long-Term Effectiveness of the 2004 Cattle Behavior Modification Project to Manage Noxious Weeds and for Training of Additional Cattle at Grant-Kohrs Ranch NHS, and Provide Background Information for Future Management of Cattle for Weed Control

Type of Project: Technical Assistance
Discipline: Natural Resources
Funding Agency: National Park Service
Other Partners/Cooperators: Utah State University
Effective Dates: 7/1/2008 – 12/31/2020
Funding Amount: $5,000

Investigators and Agency Representative:
NPS Contact: Christine Ford,Integrated Resources Program Manager, Grant-Kohrs Ranch NHS, 266 Warren Lane, Deer Lodge, MT 59722; 406-846-2070 x242; 406-846-3962 fax; chris_ford@nps.gov

Investigator: Ben Baldwin, Utah State University , Department of Environment and Society, Room NR334; Logan, Utah 84322-1400;ben.baldwin@usu.edu
Researcher: Kathy Voth; kvoth@livestockforlandscapes.com;970-663-6569

Project Abstract: During the summer of 2004, behavior modification was effectively used as a tool to teach a herd of 20 young cattle to eat three noxious weeds people commonly believe cows will not eat: Canada thistle, Leafy spurge, and Spotted knapweed. Animals were trained in dry lot over a two-week period. They continued to eat the target weeds in trial pastures for one month and then when placed with the main herd. In June and in August 2005, the original project herd and their offspring were monitored. We found that the young did learn to eat the three weeds from their mothers.

To address the question about how successful the project continues to be, the project's original researcher, Kathy Voth, will develop a monitoring plan to be implemented by Grant-Kohrs Ranch staff to verify that the project herd and their offspring continue to include the target weeds in their diets. The plan will also provide a methodology for training noxious weed eating habits to additional cattle through close proximity and some background in how to manage animals for vegetation control.

The information gathered in this project is critical to validate management's plan to train all their cattle to eat weeds. As stated in the Superintendent's 2007 Centennial Initiative Strategy "All of the park's cattle will be 'educated' animals trained to eat noxious weed and managed to stop invasive plant growth." This project will also provide information critical for use in the 2008-2009 Invasive Weed Management Plan/Environmental Assessment currently being developed.

Outcomes with Completion Dates:
Task One: The researcher will research and write draft management plan of methodology for monitoring the success of previous trained cattle and their offspring, as well as training of additional animals by the original herd. Two hard copies and one electronic copy of the draft will be provided to the park

Task Two: The researcher will incorporate park review comments and provide final report from Task One. Two hard copies and one electronic copy of the final plan will be provided to the park.

SCHEDULE
Task One: January 31, 2009
Task Two: August 31, 2009

USU FINAL PRODUCTS

- Written final plan on methodology for monitoring the success of previous trained cattle and their offspring, as well as training of additional animals by the original herd. Two hard copies.
- Written documents will be in Microsoft Word or Adobe PDF. One electronic copy to GRKO and one to the RM-CESU.
- All associated research materials including photography, research notes, data, bibliography, etc. any photographs will be TIF or JPG format and printed with photo log sheet, data will be in Microsoft Excel or Access, and/or geospatial data will be in ArcView or ArcMap format.

Keywords: Grant-Kohrs Ranch NHS, Utah State University, Cattle Management, Weed Control, Invasive Weed Management Plan/Environmental Assessment