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Journal of Extension

February 2009 Volume 47 Number 1 Article Number 1IAW4

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Lost Rivers Grazing Academy: Building Sustainability in Livestock Production

K. Scott Jensen Associate Professor & Extension Educator Owyhee County Marsing, Idaho University of Idaho scotti@uidaho.edu

Charles Cheyney

Professor & Extension Educator Butte County Arco, Idazo University of Idaho <u>ccheyney@uidaho.edu</u>

James Hawkins

Professor Professor & Extension Educator Custer County Challis, Idaho <u>jhawkins@uidaho.edu</u>

C. Wilson Gray

Professor, Extension Ag Economist Agricultural Economics & Rural Sociology Department Twin Falls, Idaho University of Idaho wgray@uidaho.edu

Glenn Shewmaker

Associate Professor, Extension Forage Specialist Plant, Soils, Entomological Sciences Department Twin Falls, Idaho University of Idaho gshew@uidaho.edu

Shannon Williams Associate Professor, Extension Educator Lemhi County Lost Rivers Grazing Academy: Building Sustainability in Livestock Production

Salmon, Idaho University of Idaho shannonw@uidaho.edu

Thomas Griggs Formerly Assistant Professor, Extension Agronomy Specialist Utah State University Logan Utah

> James R. Gerrish American Grazing Lands Services, LLC May, Idaho jrgerrish@custertel.net

Abstract: The Lost Rivers Grazing Academy (LRGA) was developed to improve the sustainability of livestock grazing operations. A mixture of classroom and hands-on instruction provides participants with training in Management-intensive Grazing, a goal-driven, flexible method of managing grazing for improved sustainability. Increased efficiency has also helped these producers to reduce winter feed costs, leading to greater economic stability. The LRGA uses a variety of teaching techniques to facilitate learning. These techniques include traditional classroom instruction, experiential learning, games, and simulations.

Introduction

Feed is the greatest expense in raising livestock. Feed often accounts for more than 50% of the total cost of production on a cow-calf operation (Lawrence & Strohbehn, 1999). In 2005, it was reported (Cattle-Fax, 2005) that total annual cow costs in the northwest region of the United States were \$379 per head. These costs have increased each of the past several years due largely to rising feed prices.

Grazing standing forage during both the growing and non-growing seasons is the least expensive livestock feed option. This option is often limited by pasture forage production and management. Poorly managed pastures have reduced productivity and low harvesting efficiency.

Cattle typically graze pastures during the growing season. Mechanically harvested and fed, hay and silage are used for feed during the non-growing season. The paradigm of grazing animals when pastures are green and feeding harvested feeds during the non-growing season is securely ingrained in many livestock producers.

The Lost Rivers Grazing Academy (LRGA) was developed to provide training in Management-intensive Grazing (MiG) and improve the sustainability of livestock operations. It employs the use of classroom teaching combined with experiential learning activities that enhance the learning process (Richardson, 1994).

Purpose and Activities

The LRGA is an intensive 4-day workshop providing participants with a unique combination of classroom and "hands on" instruction. It is a collaborative effort between University of Idaho Extension, Utah State University Extension, and American Grazing Lands Services. The objectives of the educational program are:

1. Introduce livestock operators to an alternative paradigm for livestock production using MiG.

- 2. Provide operators with an opportunity to practice MiG in a supervised and synergistic environment.
- 3. Improve the quality of life for operators by improving profitability, reducing costs, reducing labor input, and by changing the quality of work to make it less stressful.

Program Methods

The 4-day workshop includes topics such as nutrient cycling, irrigation, succession, power fencing, low-stress livestock handling, estimating and allocating forage, designing grazing systems, extending the grazing season, grazing economics, and animal health topics.

It begins with a discussion about paradigms. Students learn how paradigms restrict our thought process and why MiG requires a different paradigm. Later, participants are divided into teams that work together on all assignments. The assignments include fencing-related competitions, grazing assignments, and ranch planning exercises. DeBord (1989) reported that games and simulations designed to compliment and reinforce the principles taught enhance the learning process. This technique is utilized in the LRGA.

The games include Mystery Theatre, which is a modified version of charades using grazing topics and Lost Rivers Grazing Academy Jeopardy. The Jeopardy[™] game involves the use of a modified PowerPoint[™] presentation that represents a Jeopardy game board with questions related to LRGA topics. This has proven to be a valuable teaching tool to review the topics covered over the previous 3 days.

Throughout the LRGA, participants are given an assignment or activity followed by the actual lesson and discussion. Learning takes place as participants use critical thinking skills to solve the problem at hand. This format takes advantage of each producer's experience, and channels thought processes in new directions. The synergy of team work and "real-world" practice is the most valuable learning experience of the LRGA.

Program Evaluation and Findings

Pre- and post-testing at each LRGA indicates increased understanding of the concepts presented. In 2005, past participants were contacted by mail and asked to complete a survey. Of the 103 mailed surveys, 48 were returned for 47% response rate. Producers were questioned about changes implemented since attending the LRGA. Responses indicated an increase in the number of animals grazed as well as the number of acres now under a managed grazing system. The number of days grazed increased on average by 29 days. Table 1 shows the actual number comparisons between pre- and post- LRGA management. Respondents also reported 1) decreased weed pressure, 2) stable or declining fertilizer costs, 3) decreased animal health costs and 4) decreased winter feeding costs.

	Pre LRGA	Post LRGA	Difference
Animal Numbers (head)	12,002	13,891	+1,889
Acres under Managed Grazing	22,666	23,086	+420

Table 1.				
LRGA Participants' Survey Response	es			

Average Grazing Days/producer	182	211	+29
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Salmon, Idaho area rancher Joe Miller described the impact of the LRGA to his operation. "After years of declining equity, I was forced to change how I managed my operation. I have implemented many of the principles I learned at the LRGA and have cut my hay needs for the ranch by over 65% while maintaining the productivity of my cattle." He has reduced his debt by \$300,000 in 5 years and is now profitable.

The most significant challenges for producers include: 1) willingness to commit to the time away (4-6 straight days) from their individual operations, and 2) the courage to try something different. In our opinion, pressure from neighboring producers often causes new MiG graziers to abandon efforts to change management.

Regarding the first challenge, considerable effort has been expended in marketing the potential financial value of the course. Reduced winter feeding costs are one of the financial benefits of adopting a MiG system.

Overcoming the second challenge was accomplished by the addition of closing remarks from a local rancher who attended the LRGA multiple times (eight to date) and by creating a network of LRGA participants. This rancher shares his experiences and the rewards of changing management to a more intensively managed grazing system. A more recent addition to the LRGA effort includes conducting local pasture walks. This provides producers with the opportunity to see the actual implementation of MiG systems.

Conclusions

Producers from 12 states and Canada have participated in the LRGA. These include representatives from all sizes of farming and ranching operations in the Western U.S. The opportunities for experiential learning combined with the use of games and simulations greatly enhance the learning process for participants. Most participants report reduced expenses and improved revenue resulting in greater economic sustainability by implementing MiG principles. As participants implement MiG principles, many return to take the LRGA again to review the concepts and experience the new learning environment that occurs with every class. This contributes to an increase in the economic and ecological sustainability of their businesses.

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