

Description of CD Support Materials for Video

The contents of this CD will help you implement practices highlighted in the video ***Saving Money and Improving Landscapes: The Economics of Using Animal Behavior***. It contains a series of folders, which complement each video segment. Each folder contains: 1) a pdf file with additional information on each practice and 2) a resources folder with: a) fact sheets, b) publications, c) examples, and d) worksheets and tables to help you or producers decide the cost-effectiveness of each practice. Below are more details about the contents of this CD.

You may use any of the materials on this CD to make handouts, slide shows, etc. Much of the material on this CD was obtained from other universities or institutions, please give them appropriate credit. Also credit Utah State University Extension and *especially* Western SARE (WSARE) for this video and information packet.

These videos focus on the economics of changing the behavior of livestock and the people who raise them. A rudimentary understanding of how animals learn about foods and locations will help you understand and implement these practices. The first folder contains three two-page facts sheets on basic behavioral principles:

Behavior Principles: contains three facts sheets: 1) Behavior depends on consequences; 2) How animals learn about foods and locations; and 3) How experience changes the structure and function of the body.

The next section focuses on finishing bison by letting them chose their own diets. Research and examples on bison feeding and choice are limited but offering food choice is likely beneficial to all animals. For the bison operations that belong to Turner Enterprises, offering choice is saving them millions.

Choice:

1. Benefits of choice

2. Resources:

- a. **Fact Sheets:** 1) Ignoring variation and 2) Does variety matter
- b. **Publications:** 1) Benefits of choice and 2) Feeding bison
- c. **Worksheets and Tables:** 1) Feed cost calculator. Compares the cost of nutrients in feed including feed, transportation, storage, waste and feeding costs (University of Nebraska); 2) Nutritional value of feeds; 3) Understanding feed analysis (University of Nebraska); and 4) What does that nutrient cost? Compares the cost of nutrients in different feeds (Utah State University & WSARE)

Low moisture block (LMB)

1. Extending the grazing season with LMB

2. Resources:

- a. ***Do I need to supplement?*** 1) Body condition scoring (North Carolina State University); 2) Estimating forage production (Montana State University); and 3) Nutrient requirements of beef cattle.
- b. ***Fact sheet:*** Supplementing with LMB
- c. ***Is my forage too low in nutrients?*** 1) Nutrients in range forage and hay; 2) Nutrients in straw; and 3) Understanding feed analysis (University of Nebraska).
- d. ***Publications*** about LMB
- e. ***Worksheets:*** 1) Compares costs of LMB vs. feeding hay; 2) Compares costs of nutrients from different LMB and determines the level of a specific nutrient LMB must provide to meet cattle nutritional needs on rangeland (Utah State University & WSARE); 3) Pricing nutrients

The section on low-stress livestock handling or herding contains no scientific studies. To our knowledge none exist due to: 1) the large scale required to test its effectiveness, 2) the variation in abilities of herders to move and place livestock, and 3) scientific protocols are often too rigid to evaluate certain management practices. An abundance of anecdotal information exists and is presented in this folder.

Herding and Handling:

1. Herding and Handling

2. Resources:

- a. ***Benefits of Herding:*** 1) Good examples; and 2) A bad example.
- b. ***Cattle handling:*** 1) Cattle handling tips; 2) Paper on how animal-human interactions affect productivity; 3) How herding changes cattle behavior; and 4) What make a good cattle handler.
- c. ***Fact sheet:*** Moving cattle out of riparian areas and onto uplands
- d. ***Riparian grazing:*** more information on grazing riparian areas.
- e. ***Steve Cote – Stockmanship:*** book on low-stress herding and handling

Training cows to eat weeds:

1. Economics of teaching cows to eat weeds

2. Resources:

- a. ***Fact sheets:*** 1) How animals mix diets; 2) Why animals eat plants that contain toxins; 3) Why animals eat poisonous plants; 4) Introducing animals to new foods; 5) Using livestock to improve biodiversity; 6) Mother knows best.
- b. ***Publications:*** 1) Effect of grazing on weeds, 2) Questions the value of herbicides to fight weeds; and 3) Nutritional value of weeds.