Range Beef Cow Symposium XX

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Monitoring Grazing Lands

by Troy Smith

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— Charged with telling Thursday's Range
Beef Cow Symposium audience about the
"how, why, when and what?" of monitoring
grazing lands, Colorado State University
rangeland specialist Paul Meiman said
ranchers first needed to understand what
grazing lands monitoring is.

"Monitoring is the orderly collection, analysis and interpretation of information and data used to make short- and long-term management decisions. It's trouble-shooting your system to see if things are working," Meiman said. "But it's more than just collection of information."

The information and data collected as part of a monitoring effort must be put to use to support management decisions. Meiman says that requires analysis and interpretation relative to management objectives. Monitoring serves little purpose in the absence of management objectives.

According to Meiman, the reason why ranchers should monitor grazing lands is to test their management decisions. It's not about proving that certain management decisions were right. Rather it's about finding out if they are bringing the operation closer to management objectives, and whether management practices could be changed for the better.

Steps toward initiating a monitoring system start with identifying objectives for the land, such as increasing plant cover

or increasing the abundance of desirable plants while reducing that of less-desirable species. For example, a rancher might want to increase perennial grass cover on his range by 20%-40% during the next 10 years. Owners of private land can find help to set realistic objectives by consulting with natural resource specialists. On public lands, objectives will be influenced by the government land management agencies.

"Once objectives have been identified, consideration can be given to the types of information and data that need to be collected, when they should be collected and where monitoring should occur," Meiman said. "If the objective were to increase cover of perennial grasses over the next 10 years, the monitoring program must include measurement of perennial grass cover."

Monitoring influences short- and longterm decisions. Short-term monitoring often focuses on factors influencing plant growth during a given year. Long-term monitoring focuses on trends, or how plants have responded to factors over a period of years. Consideration of short- and long-term information, together, provides opportunity to detect changes in grazing lands and identify the effectiveness of management.

Meiman says it is often impossible to measure all of the land, so smaller monitoring locations must be identified. "Representative" areas are chosen to represent a larger unit. A "key" area is one that is monitored because its management might be slightly different than those that surround it. "Critical" areas are those so different from the larger unit that special management is required.

"Monitoring is a process that does require time, but the potential benefits are great," Meiman said. Most individuals who have implemented monitoring programs feel the investment of time has been well worth it. Many of these folks agree that the best time to start monitoring was 10 years ago, but believe the second-best time is right now."

Range Beef Cow Symposium XX was hosted by the Cooperative extension services and animal science departments of Colorado State University, South Dakota State University, the University of Wyoming and the University of Nebraska at the Larimer County Fairgrounds and Events Complex Dec. 11-13. Additional coverage of the symposium is available at www.rangebeefcow.com.

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