



Cattle Producer's Handbook

Range and Pasture Section

500

Developing Management Strategies for Rangeland Grazing

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Rangelands in the western states are complex ecosystems that are dynamic, diverse, and unpredictable. To thrive as a beef cattle producer on these complex landscapes, it is necessary to implement creative, adaptive strategies for grazing that help you accomplish your goals.

For a producer to attain management goals it is necessary to use management strategies that adapt to the diverse and evolving rangeland landscape. Fixed strategies are destined to fail so a producer needs to make strategic and adaptive management decisions based on available information and prior experience. Important factors to consider include animal health, animal performance and condition, ranch economics, weather, previous grazing activities, range condition, and the physiologic state of rangeland plants. The focus here is on the unique interdependence between rangeland ecosystems and beef cattle.

Western U.S. Rangelands

The western U.S. has 12 rangeland types with economic importance (Table 1). Among these rangeland types is a high degree of variation in topography, precipitation, and plant communities. The same degree of variation extends within the same rangeland ecosystem as a myriad of soil types affect both plant communities and plant production.

To promote healthy rangelands, a producer needs to continually gather information to manage rangelands for the health of the greater landscape instead of isolated pastures. Cataloging the status of livestock and natural resources, combined with prior management experience, will allow you to implement a dynamic management strategy. Here are some general concepts that will help you graze rangelands in a sustainable and healthy manner.

Basic Rangeland Grazing Concepts

Rangeland plant communities and animals depend on each other. Because of this interdependent relationship, it is important to understand plant community dynamics, as well as how those plants respond to grazing.

Overgrazing is the repetitive selection of the most palatable plants. It is a process whereby animals can eventually alter plant communities and damage the rangeland ecosystem (Reed et al. 1999). The negative effects of overgrazing can range from portions of a pasture all the way to the entire landscape.

Healthy plant communities contribute to healthy beef cattle. Therefore, identify and manage for desirable plant species. Do so by providing recovery or rest periods that allow these desirable plants to regrow.

Plant communities on the landscape are dynamic and respond to grazing. For example, grazing frequency, intensity, time of year, and the length of grazing can influence plant communities. Over time, the dietary selection and plant preferences of beef cattle can change plant communities, so manage grazing to achieve both animal and plant needs while protecting soil resources.

The nutritive value of plants exhibit a high degree of variation throughout the year. For instance, grasses are more nutritious when they are actively growing compared to when they are dormant. Determine if the forage your cattle are grazing meet their nutrient requirements by assessing cow body condition scores (see 720), calf weight gains, and by submitting fecal samples to a laboratory that can provide you a nutritional balance report based on the sample. If the requirements of your beef cattle exceed the nutritive value of the available forage, those animals must be supplemented with the appropriate nutrients to optimize gains.