

# **EFFECTS OF EARLY SPRING GRAZING OF RANGELANDS USED IN WINTER GRAZING PROGRAMS IN THE NORTHERN GREAT BASIN**

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Winter grazing is a grazing management plan currently receiving a great deal of interest at the Eastern Oregon Agricultural Research Center. This alternative management plan may be economical and beneficial to range condition, as well as reducing conflicts over multiple use of public rangelands. With the possible exception of the winter environment, nutrition is the most critical factor in winter grazing. Previous research efforts have focused on supplementation strategies to improve animal performance on winter range. The potential may exist to improve the quality of winter forage available. Early spring grazing, or "preconditioning", involves grazing pastures utilized for winter grazing in the spring, rather than deferring grazing throughout the growing season. Preconditioning the forage may allow it to remain in a more vegetative state, thereby improving the quality of the diet. However, this may also reduce the amount of forage available to the animals, especially during dry years. Therefore, the objectives of this study were: 1) determine the effects of preconditioning on the quality of winter forage, and 2) determine the effects of preconditioning on the amount of forage available for winter grazing.

When completed, this study will cover two years (1992 and 1993); results from 1992 will be reported here. In early to mid-March of 1992, five 100 x 165 ft sites were selected in a 1,000 acre, native range pasture on the Northern Great Basin Experimental Range, and fenced off using electric fencing. Cow-calf pairs were turned onto the range and remained until mid-April, removing approximately 75 AUM's of forage. Following animal removal, no further grazing occurred in this pasture until the sites were sampled in early November. This pasture was utilized in a winter grazing study this past winter, and will be again in 1993-94. Prior to the introduction of the 31 head involved in the winter grazing study, fences were lowered at each site to allow animals access to the inside of the sites. Growing season precipitation totalled 9.1 in which is approximately 90 percent of the long-term average. This precipitation pattern has held for the past seven years, with below-average precipitation occurring each of those years. Temperatures in late winter and early spring were mild, which caused forage to begin spring growth earlier than normal. However, low levels of precipitation at this time caused plants to cease growth and become dormant by mid-May. In early November (following the first hard freeze, which terminated any plant growth activity), total forage production was estimated by clipping 20 randomly selected 3.3 ft.<sup>2</sup> plots on both the inside (ungrazed) and the outside (grazed) of each site. Immediately following clipping, five esophageally fistulated steers were used to obtain diet quality samples. Steers grazed first inside, then outside of each site. Total forage production was lower in grazed sites, compared to sites where grazing was excluded. However, diet quality was not enhanced by preconditioning. We concluded from this year's data that preconditioning winter range forage reduces the amount of forage available for winter grazing, with no improvement in diet quality.

The second year's (1993) study is just getting started. Cow-calf pairs have recently been taken to the pasture, and the preconditioning has begun. All techniques and procedures will remain the same for this year, the only possible difference being the sampling time next fall. If a hard freeze occurs in mid-to late October, sampling will be done then. This year should provide an interesting contrast to last year, since precipitation levels will be higher. We should have the final results from this study by December of 1993.