

The Progressive Rancher

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Grazing After Fire on Public Lands?

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Wildland fires have had major impacts on grazing in the West, and once again this year in Nevada. For public land management agencies, standard practice is to delay grazing on burned areas for a minimum of 2 years, and apply fire rehabilitation practices (seed).

The 2-year grazing moratorium has not been validated by research.

In 1999 a fire burned the Gund Ranch's (University of Nevada Reno's College of Agriculture, Biotechnology and Natural Resources research ranch)

allotment. A study was initiated to look at some of the effects of grazing after a fire. Study objectives were to investigate seeding and not seeding and grazing and not grazing immediately after a fire. The study area was located on a fire-impacted BLM allotment in central Nevada and was divided into 4 large blocks. Treatments were imposed in a 2 X 2 X 2 factorial design, with factors being seeded or unseeded and grazed or ungrazed by year. Grazing treatments were implemented in year 2000, without the pastures being rested, after collection of baseline data. The grazing was carefully controlled with a



reduced stocking rate and riders insured animals were properly distributed. Post treatment data was collected in 2001 and 2002. Baseline data indicated no difference between the four treatment areas. Fifty-three species of plants occurred in the area after the burn and 40 species in 2002. For the 2001-2002 analyses, total grass and shrub cover and density were not different. Forb cover was not different. Grazed and ungrazed treatments differed in forb density (grazed treatment lower, $P = 0.04$). Forb density was lower in 2001 than 2002 ($P = 0.09$) and lower

in unseeded treatments, although no forbs were included in the rehabilitation seed mix. Cheatgrass density was less in 2001 than 2002 ($P = 0.03$). Mean species richness decreased from 2001 to 2002 and greater in the unseeded treatment (greater, $p=0.04$). Diversity index values and percent similarity indicated no differences. There was no measurable positive or negative effect from grazing, with few differences among treatment combinations. Results from this study indicate that carefully controlled and limited grazing under these particular circumstances was successful.

In this study, grazing neither inhibited post-fire recovery nor enhanced it, and aerial seeding was ineffective. Results indicated that each allotment should be individually evaluated for appropriateness of grazing and seeding after fire, and that blanket recommendations are inappropriate. It is also important to emphasize that grazing protocols were strict and closely followed. Grazing on burned areas immediately after fire should be allowed only with carefully planned protocols.

This paper does not say grazing after fire is OK. All it says is that it might be a possibility and that will have to be worked out between permittee and range con. Even if grazing is possible it will not be business as usual and the grazing will be tightly controlled and limited compared to normal circumstances. Chances are good that it will not be known (due to variable winter precipitation) until just shortly before the grazing season that it will be possible to graze. Permittees on burned areas should plan on alternate grazing resources under any circumstances, even if some grazing is allowed.

For range livestock production questions please feel free to contact me (775-784-1624 or bbruce@unr.nevada.edu) or you local Extension Educator.

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