

# Beefing Up the Winter Range.

## The J. C. Smith Ranch:

### A Demonstration of a Year-Round Grazing System

A. E. (Gene) Gade and Kendall L. Johnson

#### TO FEED OR NOT TO FEED...

Winters in the Intermountain West are often long and severe, and present real problems to most livestock ranchers. Both operating costs and livestock losses during this period can be very high while incomes are low or non-existent. How to efficiently sustain the herd through this difficult period is one of the central problems of cattle ranching in this region.

In order to maintain their cattle most ranchers rely on production of hay on their own lands in summer and the feeding of this hay in the winter. These practices usually entail irrigation, large expenditures for machines and energy, and much labor in both summer and winter. At present, crop production accounts for up to 65% of total beef production costs. And the costs of water, energy, labor, and machines are likely to increase in the future.

J. C. Smith, a northern Utah rancher, has demonstrated an effective method of dealing with these problems. He has freed himself from much of the high cost of haying and feeding by developing a year-round grazing system for his herd.

The features of Smith's operation which will be emphasized here are:

- a. the effective use of two major seasonal grazing units,
- b. the efforts to improve and maintain high quality winter forage for cattle, and
- c. the resulting success in minimizing the haying and feeding aspects of cattle ranching while remaining economically competitive.

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#### J. C. SMITH

The son of a dairy farmer from Beaver, Utah, J. C. Smith got his start in the beef cattle business with an FHA loan in 1942. In the fall of 1948, he moved to a ranch at Grays Lake, Idaho. He began purchase of the Snowville unit in the mid-1960's.

Smith's philosophy of "let the cows do everything they can for themselves" has led directly to the innovative and successful grazing scheme detailed here. He notes with a twinkle that his style of ranching also gives him time to pursue other activities such as his hobby of collecting Indian artifacts.

Though he is not formally trained in range or animal science, years of astute observation, asking questions and listening to answers, reading and thinking have made him an outstanding manager. He was honored as Utah Rancher of the Year in 1978 by the Utah Section of the Society for Range Management.

#### THE J. C. SMITH RANCH

During the summer and autumn, J. C. Smith's ranching activities are centered in the Grays Lake area of Idaho (Fig. 1) where he owns 2,000 acres of meadow land and utilizes two small grazing permits. The Grays Lake unit is located in high country (6,400 feet) where the winters are too long, cold and snowy to permit grazing during winter and spring. For nearly twenty years, Smith struggled with the requisite haying and feeding demanded by that beautiful but rigorous environment.

In 1966, Smith began purchasing a second unit to serve as winter range for his cow-calf and yearling operation. This unit is composed of 6,650 acres of private land located about 15 miles west of Snowville, in Box Elder County, Utah.

<sup>1</sup> This information is also published under the same title as a brochure available from the Cooperative Extension Service, Utah State University, Logan.

## The Snowville Unit

The Snowville unit is ideal for winter range. Elevation ranges from 4,800 to 5,200 feet. Annual precipitation is 9-11 inches, with snow cover averaging 6-8 inches. The winters on the unit are cold, but not usually beyond the tolerances of cattle. About 5,862 acres of this land are classified by the Soil Conservation Service as a semi-desert loam site, characterized by low, rolling hills, gullies and benches, with slopes of less than 10%. The remaining 844 acres of the unit are classified as a mixed semi-desert and alkali mixed range site. The terrain there is nearly flat with fine textured soils.

## Range Improvements

J. C. Smith has made a very successful effort to improve forage production for cattle on his winter rangelands.

About half of the total acreage has been seeded to a nearly pure stand of crested wheatgrass (Fig. 2). Most of this portion was marginal cropland which had been in the soil bank before Smith bought it. Now it has a carrying capacity of about 0.45 animal unit months per acre in most years.

Another fourth of the land supports native vegetation, but has been improved as grazing land by a combination of raiiling, chaining, and spraying to control sagebrush (Fig. 3). Some seeding of native species has been done. Bluebunch wheatgrass is by far the most abundant forage species on these sites. Bottlebrush squirreltail is locally abundant. The carrying capacity on this improved native vegetation averages 0.30 aums per acre.

The remaining land, slightly over one fourth of the total, has been left unimproved, with native vegetation intact. This land is about half sagebrush semi-desert (mainly basin big sagebrush, bluebunch wheatgrass, and Indian ricegrass) and half alkali flats where Great Basin wildrye, greasewood, and shadscale are the plant dominants. The grazing capacity on this land varies from 0.35 aums to 0.47 aums per acre, depending upon the vegetative mix.

Smith has purposely left these areas unimproved and interspersed with the improved types because they provide shelter and food during severe storms,

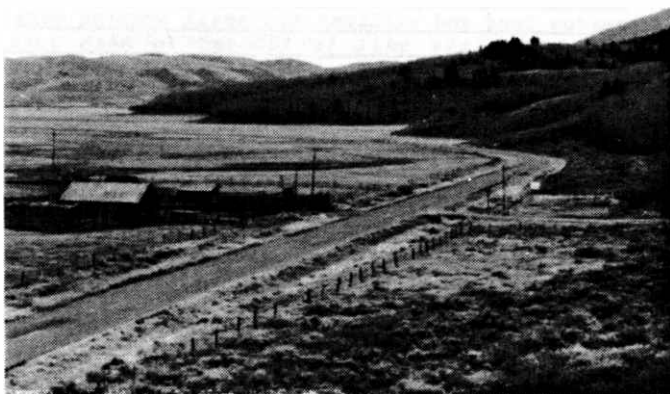


Figure 1.--Grays Lake summer range.

and good calving grounds. In addition, some of the native forb and shrub species provide protein, vitamins, and minerals which are not as available in the dormant grasses.

## THE MANAGEMENT PROGRAM

Contingency plans for weather conditions prohibiting grazing are a part of Smith's management program. Prior to each grazing season at Snowville, emergency hay is stored on the unit or firm arrangements are made to purchase hay. Initially Smith stored hay, but found it so little used that he changed his contingency plan to as-needed purchases.

All of Smith's cows and first calf heifers are trucked from the Idaho summer range to spend the period between December 1 and June 1 on the Snowville unit. The area is divided into fenced sub-units with salt and water located to control livestock distribution (Figs. 4 and 5).

These cattle are grazed all winter except under exceptionally severe weather conditions. By 1983, had had been fed only twice in the preceding 16 years, in the severe winters of 1974 and 1982. The total amount of time the livestock were fed amounted to only 12 weeks during the entire period.<sup>2</sup> Occasionally, alfalfa pellets containing chlorotetracycline are used to combat anaplasmosis problems if ticks are abundant. Also, a salt-mineral mix containing phosphorus and magnesium oxide is used to control grass tetany where cattle are grazing young, growing grasses.

Only the weaner calves (about 280 head) and 13 Angus bulls are fed hay during the winter. This limited feeding is contracted out to ranches near Snowville from November 20 to April 10. The animals are then turned out on leased pasture until June 10.

All of the native range types are rated as being in excellent condition. One of the probable reasons

<sup>2</sup> In the severe winter of 1983, Smith chose to sell the herd rather than feed. He was not forced to do so, but simply chose another management alternative under the contingency plan.



Figure 2.--Snowville range, crested wheatgrass.



Figure 3.--Snowville, improved native range.



Figure 4.--Arrival at winter range.

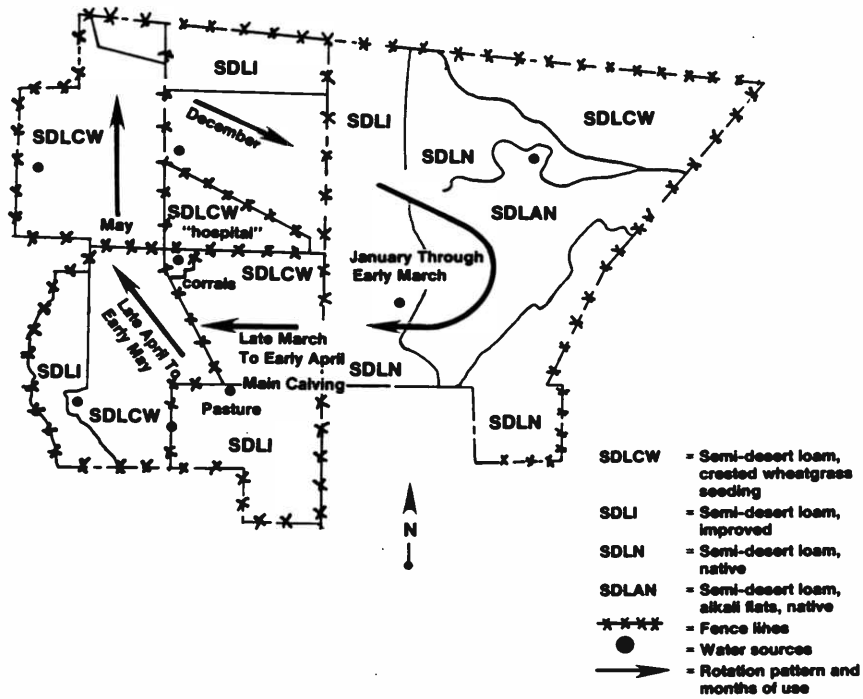


Figure 5.--Land types, fencing, water developments and use patterns.

for this is that rancher Smith is very conservative in his stocking rates. For example, he stocks about 340 animal units on land which normally produces enough forage to support about 440 animals. His rationale is that variability in precipitation and forage production on a semi-desert site can be extreme in different years. Such stocking rates should provide stability (in terms of economics and numbers of animals) during drought years and still insure the health and vigor of the valuable forage plants (Fig. 6).

The milder winter at Snowville and the dispersal of animals on dry range also means that there is much better sanitation than existed in the spring snows at Grays Lake. Smith now adjusts his breeding program so that calves will be born after March 15, which allows them to avoid most spring storms. In short, this means less medication, less work and fewer losses.

#### THE PAYOFF

The management practices outlined here eventually translate into some impressive statistics and, of course, dollars. For example, Smith's ranch normally produces about a 93% calf crop at weaning time. His calves usually weigh 450-500 pounds when they are weaned, about November 15. Non-replacement heifers weigh an average of 780 pounds when they are sold in August. Yearling steers are marketed in October when they average over 900 pounds. Smith normally sells about 140 steers and 80 heifers each year. About 60 mature cows are culled and marketed either at calving or weaning time.

J. C. Smith has developed a year-round grazing system which clearly works for him. It accomplishes the goal of minimizing haying and feeding and the high costs and labor that attend them. It is a system which could and probably should be adapted to work for other ranchers in the Intermountain region. In it may lie much of the means to profitable livestock ranching in the late years of the twentieth century.

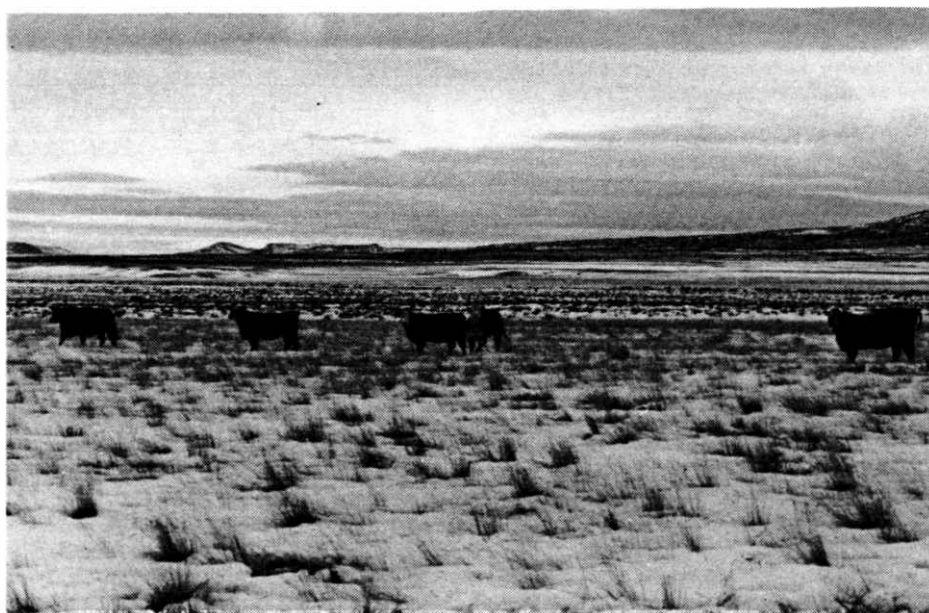


Figure 6.—Snowville, a successful winter grazing scheme.

In: Johnson, K. L. (ed.). 1986. Crested wheatgrass: its values, problems and myths; symposium proceedings. Utah State Univ., Logan.