

# Higher Federal Grazing Fees— Impacts on Utah Ranches

John P. Workman

## Proposed Federal Grazing Fee Increases

On August 9, 1993, the Bureau of Land Management (BLM) and the U.S. Forest Service (USFS) announced a plan to increase grazing fees by 130% over the next three years from \$1.86 per AUM for 1993 to \$4.28 per AUM for 1996 (Secretary of the Interior, 1993). Numerous recent stories in the media have described anticipated effects of the grazing fee increases. This paper will focus on the impacts of the higher federal grazing fees on a typical family-sized Utah ranch.

## The Typical Utah Ranch

Data from 96 Utah cow-calf ranches with between 100 and 300 brood cows were used to construct a profile of a 1990 typical Utah ranch (Evans 1992, Workman and Evans 1994). The typical ranch ran 196 brood cows. The cow herd replacement rate was 14% and replacement heifers were bred at 14 months of age to calve as 2-year olds. The cow to bull ratio was 27:1 and calf crop (calves weaned divided by cows in the calving herd) was 77%. Of the 150 calves weaned, 36 (24%) were retained for sale as yearlings.

Typical private land holdings, carrying capacities, and grazing leases are shown in Table 1. Together USFS and

**Table 1. Typical Utah ranch private land holdings, carrying capacities, and grazing leases, 1990.<sup>1</sup>**

Land holdings	Size (ac)	Carrying capacity (AUMs)
Desert range	30	3
Native foothill	1332	180
Low meadow pasture	111	264
Foothill crested wheatgrass	546	298
Irrigated alfalfa hay	101	987
Irrigated grass hay	15	90
Irrigated barley	32	199
Dryland wheat	47	147
Crop aftermath	195	303
Grazing leases		
U.S. Forest Service		415
Bureau of Land Management		707
State of Utah		11
Private	1836	248
Total		3852

<sup>1</sup>From Evans and Workman (1994).

Author is professor, Range Science Department, Utah State University, Logan 84322-5230.

Supported by the Utah Agricultural Experiment Station, Utah State University, Logan 84322-4845. Approved as journal paper 4517.

BLM grazing permits provide almost one-third (29%) of total ranch forage and feed.

Table 2 provides an income statement for the typical ranch. At the 1990 federal grazing fee of \$1.81 per AUM, the 1,122 AUMs (415 USFS and 707 BLM) of federal forage cost \$2,031 or about 4% of the \$54,791 total variable cash costs. This 4% might appear unimportant to the overall ranch operation. However, it exceeded the net ranch income of only \$1,983.

**Table 2. Ranch income statement for a typical Utah ranch (196 brood cows), 1990<sup>1</sup>.**

Item	Dollars
Annual cash returns	
Livestock <sup>2</sup> :	65,022
Crops:	6,312
Total	71,334
Annual variable cash costs	-54,791
Net variable cash ranch income	16,543
Property taxes	- 3,189
Net cash ranch income	13,354
Depreciation	-11,371
Net ranch income	1,983

<sup>1</sup>From Workman and Evans (1993).

<sup>2</sup>Death loss removed.

## Impacts on the Typical Ranch

The announced grazing fee hike would increase annual federal grazing fee costs for the typical ranch from \$2,031 for 1990 ((415 AUMs + 707 AUMs) \* \$1.81) to \$4,802 ((415 AUMs + 707 AUMs) \* \$4.28) for 1996. The \$4,802 in grazing fees will represent about 8% of the projected \$57,562 total variable costs (\$54,791 + (\$4,802 - \$2,031)). More importantly, the grazing fee hike, by itself, will reduce net ranch income from \$1,983 to a *negative* \$788 (\$1,983 - (\$4,802 - \$2,031)).

## The Biggest Impact

The largest impact of the grazing fee hike will be the loss of the capital value of grazing permits. Two facts give rise to grazing permit capital values. First, acquiring a federal grazing permit involves buying it from a rancher who already has one (in combination with livestock and/or private land). By the mid-1960's more than 85% of BLM and USFS permits had already changed hands by private sale (Nielsen and Workman 1971). Second, recent

one-time capital purchases of required permits from other ranchers were based on the assumption that purchasers were buying the right to *annually* lease forage worth \$3 to \$5 per AUM (Secretary of the Interior 1993) at the federal grazing fee of about \$2 per AUM. Although the federal government does not officially recognize the permittee's investment in the permit, federal agencies implicitly acknowledge permit purchases when they routinely approve new grazing permits based on transfers of dependent livestock or "base property" (dependent private land) between ranchers (Workman 1988).

Utah ranchers who purchased federal grazing permits in, say, 1990 thought they were buying the right to lease federal range forage worth \$4.28 per AUM (Secretary of the Interior 1993) at the federal grazing fee of \$1.81 per AUM. The capital value of a grazing permit (and the amount a rational investor would be willing to pay to acquire one) may be calculated as the capitalized value of the expected annual federal forage cost savings (Workman 1988):  $\$4.28 - \$1.81 = \$2.47$  per AUM. Capitalized at a risk-included real interest rate of 6% (4% real rate plus 2% risk) the permit value is  $\frac{\$2.47}{.06} = \$41.17$  per AUM. This is very close to the \$42.47 per AUM capital value for Utah federal grazing permits estimated by Rowan and Workman (1992).

When the federal grazing fee is increased to the full forage value of \$4.28, a grazing permit that was purchased for \$41.17 per AUM will offer no economic advantage (forage cost will equal forage value) and permit value will drop to zero. For the typical Utah ranch (Table 1) this will immediately reduce ranch equity (owned ranch capital) and ranch loan value (borrowing power) by \$46,189 ((415 AUMs + 707 AUMs) \* \$41.17).

It should be noted that when grazing permit capital values are recognized, the *current* total costs per AUM of public and private forage are equal. The \$4.28 per AUM forage value reported by the Secretary of the Interior (1993) was based on value (grazing fees) of private forage. If interest on investment in the grazing permit, calculated at 6% (.06 \* \$41.17 = \$2.47), is added to the 1990 federal grazing fee (\$1.81), the total cost per federal AUM of \$4.28 is identical to the private forage cost.

It should also be noted that when the planned federal

grazing fee hike takes full effect, total costs per AUM of public and private forage for the typical Utah Ranch will still both equal \$4.28. The increase in federal grazing fees will decrease both the capital value of the permit and interest on permit investment. When the federal fee reaches \$4.28, both permit value and interest on permit investment will drop to zero, leaving total costs of public and private forage equal at \$4.28. Of course by then the typical Utah ranch will have lost the entire \$46,189 federal permit capital value. As stated before in *Rangelands* (Workman 1988), the main source of controversy surrounding grazing fees is the federal government's refusal to formally recognize the capital value of federal grazing permits and the associated costs of interests on permit investment.

### Summary

The Secretary of Interior (1993) has announced a plan to increase federal grazing fees from the current \$1.86 to \$4.28 per AUM by 1996. For the typical family-sized Utah ranch (196 brood cows), the grazing fee hike will increase variable operating costs by \$2,771 and, more importantly, will reduce annual net ranch income from \$1,983 to a *negative* \$788. The most important impact on the typical Utah ranch will be the loss of \$46,189 in capital value of federal permits. The main source of controversy involves the federal government's refusal to formally recognize the capital value of federal permits.

### Literature Cited

- Evans, S.G. 1992.** Optimization of ranch management alternatives in Utah. Ph.D. Diss., Utah State Univ., Logan.
- Evans, S.G., and J.P. Workman. 1994.** Optimization of range improvements on sagebrush and pinyon-juniper sites. *J. Range Manage.* 47:(in press).
- Nielsen, D.B., and J.P. Workman. 1971.** The importance of renewable grazing resources on federal lands in the 11 western states. *Utah Agr. Exp. Sta. Circ.* 155.
- Rowan, R.C., and J.P. Workman. 1992.** Factors affecting Utah ranch prices. *J. Range Manage.* 45(3):263-266.
- Secretary of the Interior. 1993.** Rangeland Reform '94. U.S. Department of Interior, August, 1993.
- Workman, J.P., and S.G. Evans. 1993.** Utah ranches—an economic snapshot. *Rangelands* 15:253-255.
- Workman, J.P. 1988.** Federal grazing fees: a controversy that won't go away. *Rangelands* 10(3):128-130.