

SOME CHARACTERISTICS OF GRANT AND HARNEY COUNTY
BEEF CATTLE RANCHES DEPENDENT ON FEDERAL GRAZING

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Range forage from publicly owned rangelands is believed to play a critical role in maintaining a viable range beef cattle industry. Lands managed by the Bureau of Land Management and U.S. Forest Service historically provide spring, summer and fall grazing to complement privately owned rangelands and hayland. Little is known quantitatively about the beef cattle operations dependent, at least to some extent, upon grazing publicly owned rangelands.

In 1981 a study was initiated to determine and evaluate characteristics of the range beef cattle industry in eastern Oregon with emphasis on dependence on publicly owned rangelands. The study is jointly conducted by the Departments of Rangeland Resources and Agricultural and Resource Economics with financial support from the Bureau of Land Management, U.S. Forest Service, and Oregon Cattle-men's Association.

METHODS

Direct interview techniques were used to obtain data from beef cattle operators. Ranchers were randomly selected for interview based upon rancher population lists developed with the assistance of local extension agents, the BLM, and U.S. Forest Service personnel. Ranches were stratified into herd size categories and a statistically sufficient sample of operators then contacted from each category. Interview data were tabulated and weighted to reflect information for all dependent ranchers as well as herd size categories. Data are for calendar year 1980 and are confidential as to source.

RESULTS

Grant County contains 2.9 million acres with 53.7% in national forest and 6% managed by the BLM. Harney County is 6.5 million acres with 66% managed by the BLM and 7% by the U.S. Forest Service. A relatively high percent of the beef operators in both counties rely on either Bureau of Land Management or U.S. Forest Service for at least a portion of the forage supply (Table 1). Overall, 51.2% of the operations in Grant County are dependent, but in Harney County this figure is 61.2%. Additionally, average dependent herd size is 274 brood cows, including replacement heifers for Grant County, but it is 351 for Harney County.

Table 1. Beef Cattle Herd Size and Proportion of Operations with Federal Grazing Privileges in Grant and Harney Counties, Oregon. 1980.

Herd Size	Avg. No. Cows		No. of Operations		% with Federal Permits	
	Grant	Harney	Grant	Harney	Grant	Harney
0-99	45	37	93	81	50	25
100-199	190	143	64	36	52	69
200-449	314	316	52	52	52	87
450-749	611	574	25	36	52	83
750-999	850	844	6	4	50	100
Over 1000	1553	1475	10	15	50	93

The proportion of operations which primarily sell calves, yearlings or a mixture of calves and yearlings is quite variable across herd sizes and by county (Table 2). No consistent pattern of operation emerges. Grant County operations tend toward selling calves predominantly. In Harney County, excepting herds of less than 200 cows, operators sell mostly yearlings or a mixture of calves and yearlings.

Table 2. Predominant Sales Practices of Grant and Harney County Ranchers Dependent on Federal Grazing. 1980.

Herd Size (cows)	Calves Only		Yearlings Only		Mix Calves/Yearlings	
	Grant	Harney	Grant	Harney	Grant	Harney
	Percent of Ranch Operations					
0-99	33	57	17	14	50	--
100-199	60	70	10	30	30	--
200-449	67	40	25	20	8	40
450-749	60	20	20	40	20	40
750-999	1/	--	1/	50	1/	50
Over 1000	1/	20	1/	60	1/	20

1/ Sample too small.

Calving percentages based on the number of calves weaned and the number of brood cows and replacement heifers in the cattle inventory that same year are variable (Table 3). Slightly higher numbers of calves per hundred breeding females were weaned from Grant County ranches. In Grant County, some 68% of the respondents indicated they were building herd numbers; whereas, in Harney County only 33% responded in that vein. Relatively more Harney County ranchers are dependent on Bureau of Land Management forage supplies (Table 1). This could explain the lower tendency to build herd numbers. Because more Grant County operators were increasing herd size, the calculated calving percentage would be somewhat less than it really would be (relatively more replacement heifers in the inventory as compared to calves weaned that year). This may account for the tendency for more Grant County operators to sell calves than yearlings (Table 2), since there would be relatively more calves weaned and available for sale per hundred cows.

Table 3. Proportion of Calves Weaned in Relation to Number of Breeding Females on Grant and Harney County Ranches Dependent on Federal Grazing. 1980.

	Herd Sizes						Average
	0-99	100-199	200-449	450-749	750-999	Over 1000	
	Percent						
Grant	61.7	75.3	84.0	81.4	61.2	77.7	77.5
Harney	91.4	82.2	68.8	77.6	75.9	69.2	72.9

How forage is used is a major and important characteristic of the dependent cattle industry. Yearling cattle, excluding replacements, used 15-20% and 20-25% of the total forage on Harney and Grant County operations, respectively. More forage was used by yearlings as herd size increased.

The seasonal use of forage is rather different in the two counties. Privately owned rangeland provides relatively more of the overall forage used in Grant than in Harney County (Tables 4 and 5). But for June through September, the forage grazed on the national forests for Grant County ranches is especially important (Table 4). Except for the over 750 cow size class, which was 79% dependent upon national forest forage in June-September, all other herd sizes only varied from 33 to 45% dependency on national forest forage. Conversely, forage from the Bureau of Land Management is extremely important in April-June for Harney County operations (Table 5). Between 55 and 61% of the April-June forage for ranches of 100 to 750 cows comes from the BLM alone. For ranches less than 100 cows, 30% comes from the BLM, but almost 40% comes from the BLM for ranches over 750 cows. Irrigated pastures provide roughly the same proportion of forage in both counties.

Table 4. Seasonal Source of Forage for Federally-Dependent Beef Cattle Operations in Grant County, Oregon. 1980.

	April	May	June	July- Sept.	Oct.- Nov.	Dec.- March
	----- Percent -----					
Private Range	39.5	85.2	45.1	39.3	53.5	3.8
BLM	11.2	7.9	8.2	3.9	2.9	1.3
Forest Service	—	2.1	40.0	44.9	11.0	0.3
Irrigated Pasture	0.9	1.9	5.5	7.7	6.8	0.1
Aftermath	—	1.3	1.2	4.2	20.4	2.6
Hay	48.4	1.6	—	—	5.4	91.8

Table 5. Seasonal Source of Forage for Federally-Dependent Beef Cattle Operations in Harney County, Oregon. 1980.

	April	May	June	July- Sept.	Oct.- Nov.	Dec.- March
	----- Percent -----					
Private Range	21.3	31.3	34.5	37.3	27.1	5.7
BLM	49.5	57.0	42.2	30.9	2.8	5.1
Forest Service	—	1.0	14.6	12.2	.5	—
Irrigated Pasture	3.4	6.0	7.0	7.7	7.1	2.4
Aftermath	2.8	3.2	1.8	11.3	54.5	8.6
Malheur Refuge	—	—	—	0.6	3.3	2.1
Hay	23.0	1.6	—	—	4.7	76.1

Relatively more of the December-March and of April feed supplies comes from hay for Grant than for Harney County operations. Winters tend to be more open and dry in Harney County. Early spring range forage appears to be somewhat more available for Harney County operators as indicated by the relatively smaller amount of hay needed in April. Operators in both counties raise over 80% of the hay regardless of herd size.

Table 6. Overall Dependency of Grant and Harney County Beef Operations on Bureau of Land Management and National Forest Forage. 1980.

	Grant Co.	Harney Co.
	Percent	
Private Rangeland	32.8	22.9
BLM	4.6	22.9
National Forest	15.9	4.5

SUMMARY

Both Bureau of Land Management and U.S. Forest Service forage provide significant proportions of feed needs for Harney and Grant County ranching (Table 6). Ranches in both counties are highly dependent upon range forage, whether grown on private or public land. In total, range forage provides approximately 50% of the year-round feed for Harney County dependent ranches. Of this, 46% comes from the BLM, 9% from the national forest, and 45% from privately owned rangeland. Range forage provides 53% of year-round feed in Grant County of which 9% comes from the BLM, 30% national forests, and 62% from privately owned rangeland.

31.8 2.4

18.4 1.8

11.8

Table 5. Seasonal Source of Forage for Federally-Dependent Beef Cattle Operations in Harney County, Oregon, 1980.

Month	April	May	June	July-Sept.	Oct.-Nov.	Dec.-March
Private Range	21.3	31.3	34.3	37.3	27.1	2.7
BLM	49.2	27.0	42.2	30.3	2.8	2.1
Forest Service	—	1.0	14.8	12.2	—	—
Unimproved Pastures	3.4	8.0	7.0	7.7	7.1	2.4
Hay	2.8	3.2	1.8	11.3	24.2	8.8
Other	—	—	—	0.8	2.3	2.1
Total	23.0	1.6	—	—	6.7	76.1