

Costs and Returns of Cattle Ranches and Other Agriculture in Owyhee County, Idaho

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Introduction

Public land ranchers are directly affected by the decisions and policies of federal and state land agencies. Grazing policy can impact ranchers in at least five general ways. First, the cost of grazing on public lands can increase. This is the obvious controversy about grazing fees and proposed grazing restrictions that would increase the non-fee cost of public land use. Second, policy restrictions can decrease the total number of Animal Unit Months (AUMs) of grazing that can be grazed on federal lands. With a "shortage" of public land AUMs, there may be a tendency to increase lease rates on private land grazing resources. Third, the seasonal availability of forage use allowed on public lands may change. Some allotments have traditionally been grazed by specific classes of livestock and changing these classes is a fourth way that land use policies affect public land ranchers.

A fifth policy impact is the uncertainty created when the future direction of grazing fees and land use policies is undefined for an extended period. This has been the situation since at least 1986 when the debate about grazing fees was renewed with the release of new grazing fee studies. A continual stream of new grazing fee and land use policy proposals followed. Future policies and the accessibility of public lands for grazing are uncertain as controversies over the management of public lands continue.

The common denominator for estimating the economic impacts of policy changes on public land ranchers is the cost and return structure of those ranches. Cost and return estimates have been done for many years by the western land grant university system. The University of Idaho began gathering and reporting this information for farms and ranches as part of a research project in the mid-1970's. Crop cost and return estimates were gathered for various regions of the state through face to face interviews with farmers. During the late 1970's and early 1980's

maintenance and updating of these budgetary files became a cooperative Extension function, utilizing the support and expertise of county and specialist faculty. The system currently supports updates for 79 crop enterprises and 26 livestock enterprises on an alternating year basis (i.e. livestock are updated in even-numbered years and crops in odd-numbered years). Detailed technical updates on all budgets are done at least once every 5 years through surveys and producer panels (Smathers, et al. 1997).

Background

The Bureau of Land Management (BLM) is currently preparing a Resource Management Plan (RMP) for the Owyhee Resource Area in southwestern Idaho. This RMP sets public policy for 1.3 million acres of public land for at least the next 10 years and decisions made under it will affect recreational users, ranchers, and others. The RMP is not without controversy. The Idaho Watershed Project and the Committee for Idaho's High Desert (groups representing environmental interests concerned about grazing) brought suit in U.S. District Court against the BLM in 1997 to force the complete closure of public lands to grazing until the completion of the RMP. The judge's decision (Winmill, 1998) did not halt grazing on the Owyhee Resource Area and in fact allowed livestock turnout in 1998. Yet, it mandated the completion of the RMP in a timely fashion. A key component relating to the completion of the RMP was the necessity to undertake an economic and social assessment of the county. The University of Idaho was contracted by the BLM and other parties to perform this analysis.

The University of Idaho study includes estimating ranch-level cost and returns, development of a regional Input-Output (I/O) model and an assessment of the social environment in the county. This paper reports on the development of ranch-level cost and return estimates and their potential use in assessing economic impacts from changes in BLM grazing policy.

Procedure

Ranch cost and return estimates were derived using a series of 4 producer panels in Owyhee County. Panel members were identified through the County Extension faculty and the local livestock association. Invitations were mailed with background material related to cost and return estimates prior to the scheduled meetings. Four sessions were held during May and June 1998 at Pleasant Valley School (near Jordan Valley, Oregon), Marsing, Bruneau and Three Creek. At the scheduled meetings, input was solicited about ranch resources (feed, labor, land, equipment), livestock classes, sale weights and numbers and operating procedures (veterinary program, marketing). This information was used to develop ranch budgets for "typical" ranch operations in each area in the county. The resulting ranch budgets initially developed from the sessions were returned by mail to individuals on the respective producer panels for review and modification. Final budgets were prepared during the fall of 1998.

Based upon input from the 4 groups, it was decided to prepare budgets for 4 different management scenarios. These included: a 300 head cow-calf operation, using federal, state and private rangeland resources and winter feeding (budget subsequently designated as Jordan); a 500 head cow-calf operation using federal, state and private rangeland resources and winter feeding (Marsing); and two separate budgets for a 500 head cow-calf operation, using federal, state and private rangelands, with winter grazing permits on federal lands (Bruneau and Three Creek). The smaller (300 head) operation was most prevalent on the west side of the county (Owyhee Resource Area). The larger operations were centered from the middle of the county (Owyhee and Bruneau Resource areas) through the eastern half of the county, with winter grazing permits most prevalent in the eastern third of the county (Bruneau and Jarbidge areas). The cost and return estimates for the 4 different management scenarios are presented in the Appendix.

Background

There are approximately 45,000 beef cows, or slightly less than 10 percent of Idaho's beef cow herd, in Owyhee County (USDA-NASS, 1998). It is uncertain how the cattle are distributed within the 3 BLM Resource Areas within the county. After a review of BLM resource area permittee lists, focus panel input, interviews conducted as part of the social survey and Census of Agriculture data, we developed the allocation of cattle numbers and ranches for the resource areas (Table 1).

Table 1. Estimates of number of ranches, beef cows and public land grazing use by resource area and budget category, Owyhee County, Idaho. 1998.

BLM Resource Area	Avg. Size	Ranches	Cows	AUM/cow	Est. AUMs	Permitted AUMs
1. Owyhee						
Jordan	280	25	7,000	6.99	48,930	
Jordan	350	12	4,200	6.99	29,358	
Marsing	450	8	3,600	5.184	18,662	
Bruneau	1000	2	2,000	9.072	18,144	
Total		47	16,800		115,094	115,144
2. Bruneau						
Bruneau	300	10	3,000	9.072	27,216	
Bruneau	500	14	7,000	9.072	63,504	
Bruneau	1000	3	3,000	9.072	27,216	
Marsing	400	3	1,200	5.184	6,221	
Total		30	14,200		124,157	124,528
3. Jarbidge						
3-Creek	500	10	5,000	5.86	29,300	
Bruneau	300	4	1,200	9.072	10,886	
Bruneau	500	7	3,500	9.072	31,752	
Bruneau	1000	4	4,000	9.072	36,288	
Total		25	13,700		108,226	108,796
4. County Total						
		102	44,700		347,478	348,468

Livestock budgets recommended for use in the analysis, along with average herd size, numbers of ranches, total number of cattle, AUMs of BLM grazing use and total AUMs of grazing are presented under each resource area name. The Owyhee Resource Area (ORA) includes 25 ranches with an average herd size of 280 cows. There are 7,000 head of cows in this size category in the ORA that consume an average of 6.99 AUMs per cow per year (see Jordan budget in Appendix A). Total BLM forage used by these 25 operations is 48,930 AUMs per year. There are also 12 ranches with slightly larger herd size (350 cows) using the Jordan Valley budget, 8 operations with an average herd size of 450 cows (Marsing) and 2 large operations (1,000 cows each) using the Bruneau budget. The last column in the table summarizes BLM's reported permitted grazing use for each resource area. Estimates of grazing use derived through the livestock budgets (Est. AUMs) are very similar to BLM's permitted grazing use (Permitted AUMs). Allocations of cattle and AUMs of livestock use for the other 2 resource areas are also included in this table. Based upon this allocation process and the budget used, total BLM grazing in the county is estimated to be about 347,500 AUMs per year that is consumed by 44,700 head of beef cows.

Historically, sheep grazing had significant impacts on the resources, culture, economy, and social setting in Owyhee County. However, Idaho sheep numbers have declined significantly since World War II. Over the past 50 + years, Idaho sheep have declined to slightly under 300,000 head from about 1.5 million head (USDA-NASS, various issues). Reviews of historical accounts and local literature indicate similar trends have taken place with sheep numbers in Owyhee County. It appears from various sources (Census of Agriculture, NASS, permit lists, etc.) that there are only 4 or 5 range sheep operations that graze in the county and

only one operation is based there. Due to concerns about disclosure sheep costs, and returns are not included in this analysis.

There are 3 known commercial feedlots in the county and a number of ranch-based backgrounding lots that provide marketing alternatives and flexibility to county cow-calf producers. Nearly all of the cattle fed in these commercial lots are under custom feeding arrangements, with the producers retaining ownership of the cattle during the feeding phase. There is also a large feedlot in Elmore County (with an Owyhee County address) that purchases cattle from ranches. Although ties from the cattle producers to these feedlots are extremely critical, no attempt is made to assess them in this document, other than the transactions estimated in the I/O phase of the study. Feedlot budgets are prepared by the University and could be adapted to analyze that phase of the beef production cycle. In addition, a long-term extension-research project exists that could be used to analyze the economics of retained ownership decisions by cow-calf producers (Momont, et al. 1994, 1998).

Marketing decisions by cow-calf producers are made at weaning (usually fall) and when cull animals are sold (various times during the year). If producers background or retain ownership, another set of decisions are made during the feeding phase (sell short yearlings in winter), return yearlings to grass in the spring and market as long yearlings, or to feed through slaughter (Marousek, et al. 1992). All of these decisions are based on the management and financial flexibility of the individual operation, as well as available feed resources. To capture some of this variation in individual operations, four "model" ranches were constructed for cost and return analysis.

Model Ranches

Jordan Valley

The model ranch developed through this producer panel is a 300-head cow-calf operation centered in southwestern Idaho. Calves are born in February and March of each year, run with the cows on rangeland through the fall and marketed as weaned calves in November. Weaning percentage (calves weaned divided by the number of bred cows wintered) is 87 percent and the calves weigh 440 pounds for the steers and 390 pounds for the heifers, at weaning in the fall. Cull cows weigh 1,000 pounds and are usually marketed in June (25 %) and December (75 %). Cull bulls weigh 1,800 pounds and are marketed in July. Cull replacement heifers weigh 800 pounds when sold in November.

Cow replacement rate is 20 percent per year, with 18 percent of the cow herd sold as cull animals and a 2 percent death loss. The ranch runs 17 bulls and maintains 6 head of saddle horses. This is a family operation that is supplemented by seasonal hired labor during the summer farming and irrigation season.

Cattle are turned out on rangeland in mid-April and graze a mixture of BLM and state rangeland through October 15, when they are moved back to private land resources (crop aftermath) for 2 months. Winter feeding of grass hay (cows) and alfalfa hay (replacement heifers) starts in mid-December and runs through calving and turnout back onto public range in April. Replacement heifer calves are supplemented with a corn/barley mixture during the winter feeding period (See tables 4 and 5). Cows are worked in the fall at weaning, checked for pregnancy, and treated with a pour-on. Vaccinations are done in April, prior to turnout. Replacement heifers follow nearly the same veterinary program, with pregnancy checking done earlier in the year. Bulls are vaccinated in the spring, and tested for fertility and health. Calves

are vaccinated at branding in the spring and again in November at weaning. Replacement heifer calves are vaccinated for brucellosis in November.

The ranch operates with 2 tractors, a 4X4 pickup, 2 ton truck, 4 wheel ATV and the usual complement of feed wagons, vet equipment, stock trailer and other items. For all budgets, ownership costs of equipment and vehicles are calculated based upon the average value over the life of the asset. In other words, it is assumed that the asset is used and at the mid-point of its useful life. Operating expenses of the vehicles and equipment are calculated based upon annual hours of usage. Insurance and tax assessments are based upon established rates and assumed values of the facilities and equipment.

Marsing

The model ranch developed through the producer panel in Marsing runs an average of 500 head of beef cows. Calves are born in February, March and April of each year, graze on rangeland in the spring through fall and are marketed as weaned calves in October and November. Weaning percentage is 88 percent and steer calves average 475 pounds and heifer calves average 422 pounds when sold. Cull bulls average 1,800 pounds when marketed in October. Cull cows weigh an average of 1,100 pounds when marketed in January and cull replacement heifers are sold in January at an average weight of 850 pounds.

Cow replacement rate is 17 percent per year (15 percent culled and 2 percent death loss). The ranch runs 25 bulls and 10 saddle horses. This is a family operation with 2 full-time employees and some additional seasonal labor during calving and winter feeding.

Cattle are turned out on public rangeland in mid-April and graze on federal and state lands through August. The cattle are moved to a mixture of private and state rangelands around September 1 where they graze until they are gathered and moved to the ranch, vaccinated and

checked for pregnancy status in early November. They graze crop aftermath until winter-feeding of hay starts in mid-December. Cows and replacement heifers are supplemented with a 20 percent protein mixture while on winter feed (see Marsing tables 4 and 5, Appendix A).

Veterinary care for calves include viral treatments and 8-way vaccinations given twice during the year and parasite treatments. Heifer calves are also vaccinated for bangs in the fall. Cows and replacement heifers are vaccinated for vibrio, leptospirosis and treated for parasites. Ten percent of the cows and all of the replacement heifers are checked for pregnancy status in the fall. Bulls are given the same veterinary treatments as the cow herd, with the exception of pregnancy checks and the addition of trich testing.

The ranch operates with 2 4X4 pickups, one stock truck, two 80 hp tractors, a feed wagon and a stock trailer.

Three Creek

The management scenario developed from the Three Creek producer panel involves a larger operation with more dependency on public land grazing resources. The ranch operates with a base herd of 500 cows, 25 bulls and 10 saddle horses. Most of the calves are born in March, but calving starts in February and stretches into April. Cattle are on federal range from mid-March through October when they are gathered, worked and placed on crop aftermath for November and December. Minimal feeding of hay takes in January through mid-March, while the cattle are on deeded, federal and state rangelands. Supplementation occurs in January through mid-October. Weaned steers and heifers average 415 pounds and 375 pounds, respectively, when marketed in November. Cull bulls average 1,600 pounds and are marketed in August. Cull cows have average weights of 1,100 pounds and are marketed in August and November. Replacement heifers that are culled in November and February, average 725 pounds.

The ranch operates with two 4X4 pickups, a stock truck, 2 tractors, a feed wagon, gooseneck trailer, a sedan and the usual complement of veterinary equipment and tack. It is a family operation, with two full-time hired employees and some part-time seasonal help.

Bruneau

The Bruneau panel recommended another management scenario involving a 500-cow operation. Although similar to the Three Creek budget, there are enough differences in production, management and thus, costs and returns, to warrant preparation of a separate budget. The bulk of the calves are born in February and March and are marketed in October. There is an 86 percent weaned calf crop, with steer calves averaging 485 pounds and heifers at 445 pounds when sold in October. Cull bulls weigh 1,800 pounds and cull cows average 1,100 pounds when both are marketed in July and October. Replacement heifers weigh an average of 850 pounds and are marketed in April and October.

Cattle are on rangeland nearly year-around. Public range permits run from mid-March through October, when cattle are gathered, worked and moved to crop aftermath for 2 months. During the winter months, cows are run on a mixture of deeded, federal and state rangeland and heifers are kept on hay fields or deeded range. Protein supplementation is undertaken from January through October. Cows are supplemented with alfalfa/grass hay during January through mid-March. Heifers are fed hay from November through mid-March.

Similar to the Three Creek budget, the ranch operates with two 4X4 pickups, 2 tractors, a stock truck, a stock trailer, two ATVs (4 wheelers) and a sedan. This is a family operation that employs 2 full-time employees and some seasonal part time help during calving and haying.

Cattle Prices

Cattle prices used in preparing the budgets were derived from the weekly Pacific Northwest Direct Sales database, available from USDA Livestock Market News. Prices for specific classes of animals (e.g. 400-450 pound medium frame steers) were averaged for each marketing month over the period of January, 1992 through May, 1998 and used in the respective budgets. The average prices used to develop cost and return estimates are presented in Table 2.

Table 2. Cattle prices used in Owyhee County, Idaho cost and return estimates.

Item	Price (\$/cwt)
Steer Calves (350-400 lbs)	\$89.79
Steer Calves (400-450 lbs)	\$88.36
Steer Calves (450-500 lbs)	\$85.12
Heifer Calves (350-400 lbs)	\$79.58
Heifer Calves (400-450 lbs)	\$77.04
Heifer Calves (450-500 lbs)	\$74.82
Replacement Heifers (650-700 lbs)	\$69.26
Replacement Heifers (700-750 lbs)	\$67.84
Replacement Heifers (750-800 lbs)	\$67.87
	\$40.14
Cull Cows (Utility)	

Results and Discussion

Jordan Valley

Table A1 presents a modified cash-operating budget for the Jordan Valley model ranch. The receipts and variable operating expenses sections of the budget show the sources and uses of cash generated by the business. Fixed expenses show the potential uses of cash for equipment replacement (capital recovery or depreciation), livestock investment, overhead and other items. In terms of receipts, the ranch sells 131 steer calves and 69 heifer calves each year, which amounts to 71 percent of the total gross receipts of \$102,000 (\$340/cow). Receipts from the sale

of cull cows, bulls and replacement heifers contribute 29 percent of the gross for the model ranch (\$30,000, or \$99/cow).

Operating expenses include feed, labor, veterinary expenses, interest and other miscellaneous expenses that vary with the level of production. Total operating expenses are \$85,000 (\$283/cow). Feed expenses associated with winter feed amount to nearly half of total operating costs (\$138/cow). Range, pasture and aftermath grazing account for another 13 percent of total operating expenses. Total feed expenses account for 60 percent of the variable operating expenses of this enterprise, with federal and state land grazing fees/leases being 4 percent of the total. Receipts over operating expense are nearly \$17,000 (\$56/cow). This amount remains to pay fixed costs associated with capital recovery (depreciation), taxes and insurance, overhead and other costs.

Ownership or fixed expenses do not vary with levels of production. These fixed expenses include items such as capital recovery (or, depreciation of fixed assets), property taxes, insurance and overhead. These non-cash expenses are faced by the operation whether the ranch produces cattle or not. Purchased breeding livestock, housing and improvements, machinery, equipment and vehicles are depreciable assets. An annual capital recovery cost can be assessed against them to allow for replacement of depreciable assets over time. Capital recovery values are based upon the initial values of the items and useful life of the assets. Insurance, taxes and overhead amounts were derived from individual ranch analyses conducted over the past 5 years in the University of Idaho FINPACK program (Hawkins, et al, 1993). The Idaho FINPACK program is an educational program on financial analysis that has resulted in a database of detailed individual farm and ranch financial statements. Total ownership expense amounts to \$61,000 (\$202/cow). Total expenses (direct operating and indirect ownership expenses) amount

to \$145,000 and returns to land, risk and management amount to -\$44,000 (-\$147/cow). Table A2 displays the investment summary used to develop these ranch budgets.

Table A3 presents a monthly summary of cash operating expenses and receipts. This table is based upon the information contained in Table A1, with allocations made relative to when sales and expenses occur. Although somewhat similar to a basic cash flow statement, it lacks information related to debt payments and inventory adjustments that would be included in a cash flow. This table does show the uneven flow of cash receipts and cash operating expenses (cash is generated only in July and November with the sale of livestock, while expenses vary from month to month) associated with a cattle operation. Months with negative net receipts indicate that expenses exceed receipts and the necessity to borrow operating capital to pay expenses. This table assumes that cash expenses are incurred when the resource is used in the production cycle. For example, the fees for federal range are incurred in April through November, when they may in fact be paid prior or subsequent to grazing, in one payment. Other feed expenses follow similar patterns, when actual purchases of hay or grain may occur only once or twice a year.

Table A4 presents the monthly feed requirements, by livestock class, for the model ranch. Winter feeding takes place from mid-December through mid-April. Federal and state range resources are grazed by the cows and calves, replacement heifers and bulls from mid-April through mid-October. Grazing of crop aftermath (hay meadows) occurs from mid-October through the start of winter feeding in mid-November. Feed used in this table is presented in terms of the units appropriate to the commodity (tons of hay, hundred weight of grain, AUMs of grazing, etc.). Table A5 converts all feeds used from a commodity basis (Table A4) to an AUM basis and may indicate potential shortages or surpluses during the year. In addition, this table

can be used to calculate dependency on federal and state forage resources. Total feed demanded by the livestock, converted to an AUM basis, amounts to 4,621 AUMs. Forage demanded by the livestock from federal and state resources (April through October) amount to 2239 AUMs. Thus, the dependency on federal and state forage is 48.4 percent, or nearly half of the total AUMs of livestock use are coming from federal and state land range resources (45 percent dependency on BLM). This table also forms the basis for developing ranch-level tools (budgeting, linear or dynamic programming models) for use in assessing the economic impacts of changes in the availability of feed resources, ranch management and marketing alternatives and others.

Although not covered in detail here, the budgets for the other 3 management scenarios are included in Appendix A. Dependency on BLM forage calculated from the forage balance table for each scenario was 34.7 percent for Marsing, 59.8 percent for Bruneau, 33.9 percent for Three Creek. Dependency on all public grazing was 39.8 percent for Marsing, 58 percent for Three Creek and not changed for Bruneau.

Crops and Dairy Budgets

Crop enterprise budgets for southwestern Idaho are developed and maintained by the University of Idaho. A review of Census of Agriculture and USDA-NASS data sources and contact with growers (Hamby, 1998), association and company representatives (Thornton, 1998; Idaho-Eastern Oregon Onion Committee, 1998; Schmitt, 1998), county Extension faculty (Bolz, 1998) resulted in a determination of which crops were grown in Owyhee County. Major crops included alfalfa hay, alfalfa seed, feed barley, potatoes, corn for grain, corn silage, dry beans, mint, onions, other hay, sugar beets and wheat. For these crops enterprise budgets were derived from existing University publications and costs and returns were allocated to the I/O sectors (as detailed below) based upon a five-year average of acreage in the county.

Dairy budgets are also developed and maintained by the University (Fiez, et al. 1991). In addition, contact with the University of Idaho Dairy Specialist (Fiez, 1998) provided access to the Dairy Herd Improvement Association (DHIA) database for use in allocating cattle numbers, livestock sales and milk production at the county level. Existing University budgets were used to allocated costs and returns to the I/O sectors, based upon DHIA records and knowledge of the Dairy Specialist on cattle numbers and milk production.

Additional Notes and Cautions

Time precluded the development of ranch-level economic models. However, we must raise a caution about the issue of fixed costs. The way the budget information was derived resulted in very realistic operating costs. However, each member of the panels operates a unique operation, with a unique set of fixed resources. If there is a weakness in this approach, it is in the area of fixed costs. This is particularly critical when, for example, the Bruneau budget is applied to herd sizes from 300 to 1,000 head. Fixed costs are “lumpy” but it is doubtful that the machinery complement for a 500 head operation will work for a 300 head operation and a 1,000 head operation. Work in this area continues.

Proposals to stop grazing at some date within the grazing season (July 15 was suggested in the Draft RMP; USDI-BLM, 1996) can be analyzed rather easily by starting with the Forage Balance Table (Tables A5, B5, C5, and D5 in Appendix A). In the analysis of this situation through budgeting or ranch-level models, the analyst (or model) must select an economically feasible alternative to grazing on public rangelands after July 15. Economic modeling and budgeting make one critical assumption related to ranch operation—that being that the ranch operator is a profit maximizer. A number of recent papers (Bartlett, et al., 1993; Torell, et al. 1994; Martin and Jeffries, 1966) have raised doubts about this assumption, particularly when

applied to western ranching. There appear to be a number of other factors affecting ranch decisions other than profit. Nonetheless, if we assume profit maximization, it is relatively easy to impose the July date on the forage resources. Replace the BLM forage with hay, leased pasture at some cost, include trucking, and measure the impacts on profitability from this action. This can be applied to the population of Owyhee graziers and the ranch-level impacts run through the I/O model to derive the total direct and indirect impacts.

Summary

Collecting and analyzing ranch-level costs and returns is an important tool in policy impact assessment. Other steps in the policy analysis process include regional, fiscal and social impact assessment. Impacts at the ranch level must be integrated with the regional and fiscal impacts and social assessments. This level of integration has not been done in prior efforts to address public policy impact analysis. Cost and return estimates were presented based upon information gathered through producer panels in Owyhee County, Idaho during the spring of 1998. Changes in public land livestock grazing (increases or decreases in AUMs of grazing) can easily be assessed at the ranch-level and included in regional, fiscal and social assessments. This approach is being used in the assessment of Owyhee County's economic and social structure.

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Appendix: Costs and Returns to Owyhee County Ranches

Jordan Valley

Table A1: Cow-Calf Operation, Summer on Federal and State Range, Winter on Harvested Feeds and Crop Aftermath.

	Weight Each	Unit	Total Number of Head or Units	Price or Cost/ Unit	Total Value	Value or Cost/head
1. Gross Receipts						
Steer calves	4.40	cwt	131	88.36	50,930.70	169.77
Heifer calves	3.90	cwt	69	79.58	21,414.98	71.38
Cull replacement heifer	8.00	cwt	5	67.87	2714.80	9.05
Aged bull	18.00	cwt	4	42.00	3024.00	10.08
Cull cows	11.00	cwt	54	40.14	23,843.16	79.48
Total Receipts					101927.64	\$339.76
2. Operating Costs						
Alfalfa hay		ton	71.09	70.00	4976.65	16.59
Feed barley		cwt	248.69	5.30	1318.03	4.39
Meadow hay		ton	486.39	60.00	2983.54	97.28
Protein supplement - 20%		cwt	552.00	8.75	4830.00	16.10
Federal range		AUM	2097.60	1.35	2831.76	9.44
State range		AUM	144.00	4.80	691.20	2.30
Crop aftermath		AUM	747.20	10.00	7472.00	24.91
Salt		lb.	6120.00	0.06	367.20	1.22
Checkoff/brand inspection		head	264.00	2.00	528.00	1.76
Commission		head	64.00	7.27	465.28	1.55
Freight/trucking		head	64.00	6.00	384.00	1.28
Veterinary Medicine		\$	4889.62	1.00	4889.62	16.30
Machinery (fuel, lubrication, repair)		\$	1851.46	1.00	1851.46	6.17
Vehicles (fuel, repair)		\$	5527.15	1.00	5527.15	18.42
Equipment (repair)		\$	641.94	1.00	641.94	2.14
Housing and Improvements (repair)		\$	1201.79	1.00	1201.79	4.01
Hired Labor		hour	480.00	6.75	3240.00	10.80
Owner Labor		hour	3000.00	4.00	12000.00	40.00
Interest on Operating Capital		\$	29758.48	0.09	2603.87	8.68
Total Operating Costs					85003.49	283.34
3. Income Above Operating Costs					16924.15	56.41
4. Ownership Costs						
Capital Recovery						
Purchased Livestock		\$	9965.23	1.00	9965.23	33.22
Housing and Improvements		\$	9677.72	1.00	9677.72	32.26
Machinery		\$	2370.16	1.00	2370.16	7.90
Equipment		\$	1776.91	1.00	1776.91	5.92
Vehicles		\$	9023.36	1.00	9023.36	30.08
Interest on Retained Livestock		\$	161,550.00	0.10	15,347.25	51.16
Taxes and Insurance		\$	1681.94	1.00	1681.94	5.61
Overhead		\$	11,000.00	1.00	11,000.00	36.67
Total Ownership Costs					60,842.58	202.81
5. Total Costs					145,846.07	486.15
6. Returns to Risk Management					-43,918.43	-146.39

Jordan Valley

TableA2: Investment Summary

	Purchase Price	Salvage/Cull Value	Livestock Share	Useful Life	Annual Taxes and Insurance	Annual Capital ¹ Recovery
Buildings, Improvements and Equipment						
Barn	12500.00	1250.00	100	30	110.00	1262.66
Fencing	63000.00	0.00	100	25	504.00	6675.44
Corral	10700.00	2675.00	100	30	107.00	1070.11
Water system	5900.00	0.00	100	20	47.20	669.51
Feed wagon	800.00	0.00	100	10	6.40	127.41
Squeeze	1800.00	180.00	100	10	15.84	275.11
Vet equipment	650.00	65.00	100	15	5.72	80.91
Salt mineral feeders	16.00	0.00	100	5	0.13	4.17
Gooseneck trailer	11550.00	1155.00	100	20	101.64	1289.32
Total	106916.00				897.93	\$11,454.63
Purchased Livestock						
Bulls	34000.00	10710.00	100	4		8285.40
Horses	12000.00	3600.00	100	10		1679.84
Total	46000.00					9965.23
Retained Livestock						
Cows	150000.00	120000.00	100			12825.00 ²
Replacement heifers	29500.00	23600.00	100			2522.25 ²
Total	179500.00					15347.25²
Machinery and Vehicles						
Tractor loader	35600.00	7100.00	20	30	68.32	714.48
Tractor - 80hp	30000.00	6000.00	55	30	158.40	1655.68
Pickup 4x4 3/4 ton	27500.00	3300.00	90	4	346.50	7078.88
Truck 2 ton	25400.00	5080.00	34	16	129.54	1021.01
4 wheeler	6000.00	500.00	100	10	81.25	923.46
Total	124500.00				784.01	11,393.52

¹ Annual capital recovery is the method of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.

² Interest on average investment

Jordan Valley

Table A3: Monthly Summary of Returns and Expenses

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Value
Production:													
Steer calves											50931		50931
Heifer calves											21415		21415
Cull replacement heifer											2715		2715
Aged bull							3024						3024
Cull cows							6182					17662	23843
Total Receipts	0	0	0	0	0	0	9206	0	0	0	75060	17662	101928
Operating Input													
Alfalfa hay	1280	1156	1280	620								640	4977
Feed barley	291	263	291	141							188	145	1318
Meadow hay	7860	7091	7014	3396								3822	29184
Protein supplement - 20%	1628										1575	1628	4830
Federal range				236	472	472	472	472	472	236			2832
State range				58	115	115	115	115	115	58			691
Crop aftermath										1868	3736	1868	7472
Salt	31	31	31	31	31	31	31	31	31	31	31	31	367
Checkoff/brand inspection							38				410	80	528
Commission							138				36	291	465
Freight/trucking							114				30	240	384
Veterinary Medicine				1493							3397		4890
Machinery													
(Fuel,Lube,Repair)	154	154	154	154	154	154	154	154	154	154	154	155	1851
Vehicles (Fuel and Repair)	460	460	460	460	460	460	460	460	460	460	460	463	5527
Equipment (Repair)	53	53	53	53	53	53	53	53	53	53	53	54	642
Housing, Improvements													
(Repair)	100	100	100	100	100	100	100	100	100	100	100	101	1202
Taxes and Insurance	1219					463							1682
Hired Labor						1080	1080	1080					3240
Total Costs	13077	9309	9384	6741	1386	2929	2756	2466	1386	2960	10171	9516	72082
Net Returns	-13077	-9309	-9384	-6741	-1386	-2929	6449	-2466	-1386	-2960	64890	8145	29846

Jordan Valley

Table A4: Monthly Feed Requirements

Feed	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alfalfa hay													
Replacement Heifers	ton	18	17	18	9	0	0	0	0	0	0	0	9
Feed barley													
Replacement Heifers	cwt	55	50	55	27	0	0	0	0	0	0	35	27
Meadow hay													
Cows	ton	116	105	102	50	0	0	0	0	0	0	0	56
Bulls	ton	12	11	12	6	0	0	0	0	0	0	0	6
Horses	ton	2	2	2	1	0	0	0	0	0	0	0	1
Protein supplement - 20%													
Cows	cwt	186	0	0	0	0	0	0	0	0	0	180	186
Federal range													
Cows	AUM	0	0	0	138	276	276	276	276	276	138	0	0
Replacement Heifers	AUM	0	0	0	24	47	47	47	47	47	24	0	0
Bulls	AUM	0	0	0	13	26	26	26	26	26	13	0	0
State range													
Cows	AUM	0	0	0	12	24	24	24	24	24	12	0	0
Crop aftermath													
Cows	AUM	0	0	0	0	0	0	0	0	0	150	300	150
Bulls	AUM	0	0	0	0	0	0	0	0	0	13	26	13
Replacement Heifers	AUM	0	0	0	0	0	0	0	0	0	24	47	24
Salt	lb	510	510	510	510	510	510	510	510	510	510	510	510

Jordan Valley

Table A5: Forage Balance (AUMs per month)

Feed	Units	AUM /unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alfalfa hay														
Replacement Heifers	ton	3.75	68.6	62.0	68.6	33.2								34.3
Feed barley														
Replacement Heifers	cwt	0.19	10.3	9.3	10.3	5.0							6.6	5.1
Meadow hay														
Cows	ton	2.50	291.0	262.5	255.8	123.8								141.0
Bulls	ton	2.50	30.7	27.7	30.7	14.9								15.3
Horses	ton	2.50	5.8	5.2	5.8	2.9								2.9
Protein Supplement 20%														
Cows	cwt	0.19	34.9										33.8	34.9
Federal range														
Cows	AUM	1.00				138.0	276.0	276.0	276.0	276.0	276.0	138.0		
Replacement Heifers	AUM	1.00				23.6	47.2	47.2	47.2	47.2	47.2	23.6		
Bulls	AUM	1.00				13.2	26.4	26.4	26.4	26.4	26.4	13.2		
State range														
Cows	AUM	1.00				12.0	24.0	24.0	24.0	24.0	24.0	12.0		
Crop aftermath														
Cows	AUM	1.00										150.0	300.0	150.0
Bulls	AUM	1.00										13.2	26.4	13.2
Replacement Heifers	AUM	1.00										23.6	47.2	23.6
Salt	lb	0.00												
Total AUMs			441.3	366.7	371.1	366.5	373.6	373.6	373.6	373.6	373.6	373.6	414.0	420.4

Marsing

**Table B1: Cow-Calf ---Summer on Federal Range Marsing Winter Feeding Necessary
500 Cows**

	Weight Each	Unit	Total Number of Head or Units	Price or Cost/ Unit	Total Value	Value or Cost/Head
1. Gross Receipts						
Steer calves	4.75	cwt	220	88.36	92336.20	184.67
Heifer calves	4.22	cwt	125	79.58	41978.45	83.96
Aged bull	18.00	cwt	6	42.00	4536.00	9.07
Cull cows	11.00	cwt	75	40.13	33107.25	66.21
Cull replacement heifer	8.50	cwt	10	67.87	5768.95	11.54
Total Receipts					177726.85	355.45
2. Operating Costs						
Alfalfa hay		ton	114.00	75.00	8550.00	17.10
Grass hay		ton	798.30	60.00	47898.00	95.80
Corn silage		ton	56.25	27.50	1546.88	3.09
Federal range		AUM	2592.00	1.35	3499.20	7.00
State range		AUM	378.75	5.00	1893.75	3.79
Private range		AUM	1029.60	8.00	8236.80	16.47
Crop aftermath		AUM	924.00	8.00	7392.00	14.78
Salt		lb	9996.00	0.06	599.76	1.20
Protein supplement - 20%		cwt	271.22	8.75	2373.13	4.75
Marketing		head	438.00	7.55	3306.90	6.61
Freight/trucking		head	353.00	5.00	1765.00	3.53
Checkoff/brand inspection		head	438.00	2.00	876.00	1.75
Commission		head	91.00	13.20	1201.20	2.40
Veterinary Medicine		\$	9161.23	1.00	9161.23	18.32
Machinery (fuel, lubrication, repair)		\$	1789.68	1.00	1789.68	3.58
Vehicles (fuel, repair)		\$	6935.88	1.00	6935.88	13.87
Equipment (repair)		\$	763.00	1.00	763.00	1.53
Housing and Improvements (repair)		\$	5858.07	1.00	5858.07	11.72
Hired Labor		hour	2934.00	7.00	20,538.00	41.08
Owner Labor		hour	1318.00	6.75	8896.50	17.79
Interest on Operating Capital		\$	43042.34	0.09	3766.20	7.53
Total Operating Costs					146847.18	293.69
3. Income Above Operating Costs					30879.67	61.76
4. Ownership Costs						
Capital Recovery:						
Purchased Livestock		\$	14,495.74	1.00	14495.74	28.99
Housing and Improvements		\$	26031.60	1.00	26031.60	52.06
Machinery		\$	2716.40	1.00	2716.40	5.43
Equipment		\$	2290.59	1.00	2290.59	4.58
Vehicles		\$	11142.02	1.00	11142.02	22.28
Interest on Retained Livestock		\$	252875.00	0.10	24023.13	48.05
Taxes and Insurance		\$	2946.32	1.00	2946.32	5.89
Overhead		\$	10000.00	1.00	10000.00	20.00
Total Ownership Costs					93645.79	187.29
5. Total Costs					240492.96	480.99
6. Returns to Land, Risk and Management					-62766.11	-125.53

Marsing

Table B2: Investment Summary

	Purchase Price	Salvage/Cull Value	Livestock Share	Useful Life	Annual Taxes and Insurance	Annual Capital Recovery ¹
Buildings, Improvements and Equipment						
Barn	12750.00	1250.00	100	30	112.00	1288.08
Fencing	88200.00	0.00	100	25	705.60	9345.62
Corral	10700.00	2675.00	100	30	107.00	1070.11
Water developments	30000.00	0.00	100	25	240.00	3178.78
Calving shed	45500.00	0.00	100	30	364.00	4626.47
Range improvement	36750.00	0.00	100	10	294.00	5853.03
Water system	5900.00	0.00	100	20	47.20	669.51
Feed wagon	3200.00	295.00	100	10	27.96	490.69
Gooseneck trailer	12500.00	1155.00	100	20	109.24	1397.12
Squeeze	1950.00	180.00	100	10	17.04	299.00
Vet equipment	650.00	65.00	100	10	5.72	99.35
Salt mineral feeders	17.00	0.00	100	5	0.14	4.43
Total	248117.00				2029.90	28,322.18
Purchased Livestock						
Bulls	50000.00	18000.00	100	4		11696.02
Horses	20000.00	6000.00	100	10		2799.73
Total	\$70,000.00					14495.74
Retained Livestock						
Cows	250000.00	175000.00	100			20187.50 ²
Replacement heifers	47500.00	33250.00	100			3835.63 ²
Total	297500.00					24023.13²
Machinery and Vehicles						
Tractor loader	35600.00	7100.00	20	30	68.32	714.48
Tractor - 80hp	30000.00	6000.00	70	60	201.60	2001.92
Pickup 4x4 3/4 ton	28000.00	2400.00	70	4	266.00	5751.77
Truck 2 ton	25400.00	5080.00	50	9	190.50	1942.66
Pickup 4x4 3/4 ton	28000.00	2400.00	50	5	190.00	3447.59
Total	147000.00				916.42	13858.42

¹ Annual capital recovery is the method of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.

² Interest on average investment

Marsing

Table B3: Monthly Summary of Returns and Expenses

	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Value
Production:													
Steer calves										92336			92336
Heifer calves									41978				41978
Aged bull									4536				4536
Cull cows												33107	33107
Cull replacement heifer												5769	5769
Total Receipts	0	0	0	0	0	0	0	0	46514	92336	0	38876	177727
Operating Inputs:													
Alfalfa hay	1995	2209	1069								1069	2209	8550
Grass hay	11466	11858	5738								6143	12695	47898
Corn silage		1031	516										1547
Federal range			389	778	778	778	778						3499
State range			76	152	152	152	152	606	606				1894
Private range				80	80	80	80	3958	3958				8237
Crop aftermath										4928	2464		7392
Salt	50	50	50	50	50	50	50	50	50	50	50	50	600
Protein supplement - 20%	729	802	406					116	128		64	128	2373
Marketing										2665		642	3307
Freight/trucking										1765			1765
Checkoff/brand inspection										706		170	876
Commission										79		1122	1201
Veterinary Medicine	375	2276								6510			9161
Machinery (Fuel,Lube,Repair)	149	149	149	149	149	149	149	149	149	149	150	149	1790
Vehicles (Fuel and Repair)	578	578	578	578	578	578	578	578	578	578	581	578	6936
Equipment (Repair)	64	64	64	64	64	64	64	64	64	64	64	64	763
Housing, Improvements (Repair)	488	488	488	488	488	488	488	488	488	488	490	488	5858
Taxes and Insurance					848							2098	2946
Hired Labor	3164	5439	5264	469	469	469	469	714	889	784	644	1764	20538
Total Costs	19057	24943	14785	2806	3654	2806	2806	6723	6910	18766	11718	22156	137131
Net Returns	-19057	-24943	-14785	-2806	-3654	-2806	-2806	-6723	39605	73570	-11718	16721	40596

Marsing

Table B4: Monthly Feed Requirements

Feed	Units	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Alfalfa hay													
Replacement Heifers	ton	27	29	14	0	0	0	0	0	0	0	14	29
Grass hay													
Cows	ton	175	194	94	0	0	0	0	0	0	0	94	194
Bulls	ton	13	0	0	0	0	0	0	0	0	0	7	14
Horses	ton	4	4	2	0	0	0	0	0	0	0	2	4
Corn silage													
Bulls	ton	0	38	19	0	0	0	0	0	0	0	0	0
Federal range													
Cows	AUM	0	0	235	470	470	470	470	0	0	0	0	0
Replacement Heifers	AUM	0	0	38	76	76	76	76	0	0	0	0	0
Bulls	AUM	0	0	15	30	30	30	30	0	0	0	0	0
State range													
Cows	AUM	0	0	15	30	30	30	30	100	100	0	0	0
Replacement Heifers	AUM	0	0	0	0	0	0	0	15	15	0	0	0
Bulls	AUM	0	0	0	0	0	0	0	6	6	0	0	0
Private range													
Cows	AUM	0	0	0	0	0	0	0	400	400	0	0	0
Replacement Heifers	AUM	0	0	0	0	0	0	0	61	61	0	0	0
Bulls	AUM	0	0	0	0	0	0	0	24	24	0	0	0
Horses	AUM	0	0	0	10	10	10	10	10	10	0	0	0
Crop aftermath													
Cows	AUM	0	0	0	0	0	0	0	0	0	500	250	0
Replacement Heifers	AUM	0	0	0	0	0	0	0	0	0	76	38	0
Bulls	AUM	0	0	0	0	0	0	0	0	0	30	15	0
Horses	AUM	0	0	0	0	0	0	0	0	0	10	5	0
Salt	lb	833	833	833	833	833	833	833	833	833	833	833	833
Protein supplement - 20%													
Cows	cwt	70	77	39	0	0	0	0	0	0	0	0	0
Replacement Heifers	cwt	13	15	7	0	0	0	0	13	15	0	7	15

Marsing

Table B5: Forage Balance (AUMs per month).

Feed	Units	AUM /Unit	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Alfalfa Hay														
Replacement Heifers	ton	3.75	99.8	110.4	53.4								53.4	110.4
Grass Hay														
Cows	ton	2.50	437.5	484.4	234.4								234.4	484.4
Bulls	ton	2.50	31.5										16.9	34.9
Horses	ton	2.50	8.8	9.7	4.7								4.7	9.7
Corn Silage														
Bulls	ton	1.00		37.5	18.8									
Federal Range														
Cows	AUM	1.00			235.0	470.0	470.0	470.0	470.0					
Replacement Heifers	AUM	1.00			38.0	76.0	76.0	76.0	76.0					
Bulls	AUM	1.00			15.0	30.0	30.0	30.0	30.0					
State Range														
Cows	AUM	1.00			15.2	30.3	30.3	30.3	30.3	100.0	100.0			
Replacement Heifers	AUM	1.00								15.2	15.2			
Bulls	AUM	1.00								6.0	6.0			
Private Range														
Cows	AUM	1.00								400.0	400.0			
Replacement Heifers	AUM	1.00								60.8	60.8			
Bulls	AUM	1.00								24.0	24.0			
Horses	AUM	1.00				10.0	10.0	10.0	10.0	10.0	10.0			
Crop Aftermath														
Cows	AUM	1.00										500.0	250.0	
Replacement Heifers	AUM	1.00										76.0	38.0	
Bulls	AUM	1.00										30.0	15.0	
Horses	AUM	1.00										10.0	5.0	
Salt	lb	0.00												
Protein supplement 20%														
Cows	cwt	0.25	17.5	19.3	9.8									
Replacement Heifers	cwt	0.25	3.3	3.7	1.9					3.3	3.7		1.8	3.7
Total AUMs			598.3	664.9	626.0	616.3	616.3	616.3	616.3	619.3	619.7	616.0	619.2	643.0

Bruneau

Table C1: Cow-Calf-- 500 Cows Winter and Summer on Federal Range

	Weight Each	Unit	Total Number of Head or Units	Price or Cost/Unit	Total Value	Value or Cost/Head
1. Gross Receipts						
Steer calves	4.85	cwt	215	85.12	88758.88	177.52
Heifer calves	4.45	cwt	100	77.04	34282.80	68.57
Aged bull	18.00	cwt	5	40.00	3600.00	7.20
Cull cows	10.00	cwt	85	40.14	34119.00	68.24
Cull replacement heifer	8.50	cwt	15	67.87	8653.43	17.31
Total Receipts					169414.10	338.83
2. Operating Costs						
Alfalfa grass hay		ton	571.13	70.00	39978.75	79.96
Federal range		AUM	4536.00	1.71	7756.56	15.51
Crop aftermath		AUM	1068.00	11.00	11748.00	23.50
Deeded range		AUM	30.00	8.00	240.00	0.48
Pasture		AUM	30.00	13.00	390.00	0.78
Protein supplement - 20%		cwt	929.23	8.75	8130.72	16.26
Salt		lb	9243.00	0.06	554.58	1.11
Checkoff/brand inspection		head	420.00	2.00	840.00	1.68
Commission		head	105.00	7.00	735.00	1.47
Freight/trucking		head	500.00	7.00	3500.00	7.00
Veterinary Medicine		\$	9831.70	1.00	9831.70	19.66
Machinery (fuel, lubrication, repair)		\$	2186.62	1.00	2186.62	4.37
Vehicles (fuel, repair)		\$	10742.46	1.00	10742.46	21.48
Equipment (repair)		\$	606.99	1.00	606.99	1.21
Housing and Improvements (repair)		\$	2606.35	1.00	2606.35	5.21
Hired Labor		hour	2450.00	7.00	17,150.00	34.30
Owner Labor		hour	1668.00	7.00	11,676.00	23.35
Interest on Operating Capital		\$	43533.98	0.10	4135.73	8.27
Total Operating Costs					132809.46	265.62
3. Income Above Operating Costs					36604.65	73.21
4. Ownership Costs						
Capital Recovery:						
Purchased Livestock		\$	11157.01	1.00	11157.01	22.31
Housing and Improvements		\$	17879.58	1.00	17879.58	35.76
Machinery		\$	2516.08	1.00	2516.08	5.03
Equipment		\$	2325.33	1.00	2325.33	4.65
Vehicles		\$	17640.15	1.00	17640.15	35.28
Interest on Retained Livestock		\$	267125.00	0.09	23373.44	46.75
Taxes and Insurance		\$	3164.86	1.00	3164.86	6.33
Overhead		\$	20000.00	1.00	20000.00	40.00
Total Ownership Costs					98056.45	196.11
5. Total Costs					230865.91	461.73
6. Returns to Land, Risk and Management					-61451.80	-122.90

Bruneau

Table C2: Investment Summary

	Purchase Price	Salvage /Cull Value	Livestock Share	Useful Life	Annual Taxes and Insurance	Annual Capital Recovery ¹
Buildings, Improvements and Equipment						
Barn	12750.00	1250.00	100	30	112.00	1204.01
Fencing	122500.00	0.00	100	25	980.00	12,219.55
Corrals	15500.00	1550.00	100	30	136.40	1463.47
Water developments	30000.00	0.00	100	25	240.00	2992.54
Feed wagon	3450.00	295.00	100	10	29.96	512.03
Gooseneck trailer	8650.00	1730.00	100	10	83.04	1217.81
Squeeze	1950.00	180.00	100	10	17.04	288.52
Calf Cradle	900.00	80.00	100	10	7.84	133.37
Vet equipment	800.00	65.00	100	15	6.92	95.53
Salt mineral feeders	17.00	0.00	100	5	0.14	4.34
Calf Box	500.00	50.00	100	10	4.40	73.72
Total	197,017.00				1617.74	20,204.91
Purchased Livestock						
Bulls	34,000.00	14,000.00	100	3		9090.92
Horses	16,000.00	6000.00	100	10		2066.10
Total	50000.00					11157.01
Retained Livestock						
Cows	250000.00	175000.00	100			18593.75 ²
Replacement heifers	57500.00	51750.00	100			4779.69 ²
Total	307500.00					23373.44²
Machinery and Vehicles						
Tractor loader	45300.00	9000.00	12	18	52.13	583.74
Tractor - 80hp	36000.00	7200.00	50	18	172.80	1932.33
Pickup 4x4 3/4 ton	27000.00	5400.00	85	4	344.25	6037.71
Pickup 4x4 3/4 ton	27000.00	5400.00	100	6	405.00	5251.73
Truck 2 ton	28000.00	8480.00	70	7	319.20	3108.68
4 wheeler	6000.00	500.00	80	10	65.00	713.08
4 wheeler	6000.00	500.00	80	10	65.00	713.08
Sedan	18,000.00	1800.00	50	6	123.75	1815.86
Total	193300.00				1547.13	20156.22

¹ Annual capital recovery is the method of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.

² Interest on average investment.

Bruneau

Table C3: Monthly Summary of Returns and Expenses

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Value
Production:													
Steer calves										88759			88759
Heifer calves										34283			34283
Aged bull							720			2880			3600
Cull cows							6824			27295			34119
Cull replacement heifer				4615						4038			8653
Total Receipts	0	0	0	4615	0	0	7544	0	0	157255	0	0	169414
Operating Inputs:													
Alfalfa grass hay	14268	13937	6067	263							2678	2767	39979
Federal range			527	1033	1033	1033	1033	1033	1033	1033			7757
Crop aftermath											5874	5874	11748
Deeded range					80	80	80						240
Pasture								130	130	130			390
Protein supplement - 20%	834	753	834	807	807	807	834	834	807	812			8131
Salt	62				62	62	62	62	62	62	62	62	555
Checkoff/brand inspection				16			36			788			840
Commission				56			126			553			735
Freight/trucking				1750						1750			3500
Veterinary Medicine	625		508			803				7200	695		9832
Machinery	182	182	182	182	182	182	182	182	182	182	182	183	2187
(Fuel,Lube,Repair)													
Vehicles (Fuel and Repair)	895	895	895	895	895	895	895	895	895	895	895	899	10742
Equipment (Repair)	51	51	51	51	51	51	51	51	51	51	51	51	607
Housing, Improvements	217	217	217	217	217	217	217	217	217	217	217	218	2606
(Repair)													
Taxes and Insurance	2325					840							3165
Hired Labor	840	2940	5215	5040	245	245	245	245	490	665	560	420	17150
Total Costs	20298	18975	14496	10309	3571	5215	3760	3648	3866	14338	11213	10473	120163
Net Returns	-20298	-18975	-14496	-5694	-3571	-5215	3784	-3648	-3866	142918	-11213	-10473	49252

Bruneau

Table C4: Monthly Feed Requirements

Feed	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alfalfa grass hay													
Cows	ton	155	155	56	0	0	0	0	0	0	0	0	0
Replacement Heifers	ton	36	32	17	0	0	0	0	0	0	0	35	36
Bulls	ton	9	8	9	0	0	0	0	0	0	0	0	0
Horses	ton	4	4	4	4	0	0	0	0	0	0	4	4
Federal range													
Cows	AUM	0	0	250	500	500	500	500	500	500	500	0	0
Replacement Heifers	AUM	0	0	46	92	92	92	92	92	92	92	0	0
Bulls	AUM	0	0	12	12	12	12	12	12	12	12	0	0
Crop aftermath													
Cows	AUM	0	0	0	0	0	0	0	0	0	0	500	500
Bulls	AUM	0	0	0	0	0	0	0	0	0	0	24	24
Horses	AUM	0	0	0	0	0	0	0	0	0	0	10	10
Deeded range													
Horses	AUM	0	0	0	0	10	10	10	0	0	0	0	0
Pasture													
Horses	AUM	0	0	0	0	0	0	0	10	10	10	0	0
Protein supplement - 20%													
Cows	cwt	78	70	78	75	75	75	78	78	75	75	0	0
Replacement Heifers	cwt	18	16	18	17	17	17	18	18	17	18	0	0
Salt lb	1027	0	0	0	1027	1027	1027	1027	1027	1027	1027	1027	1027

Bruneau

Table C5: Forage Balance (AUMs per month)

Feed	Units	AUM/ unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alfalfa grass hay														
Cows	ton	3.00	465.0	465.0	168.8									
Replacement Heifers	ton	3.00	106.9	96.6	51.8								103.5	106.9
Bulls	ton	3.00	27.9	25.2	27.9								11.3	11.3
Horses	ton	3.00	11.6	10.5	11.6	11.3							11.3	11.6
Federal Range														
Cows	AUM	1.00			250.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0		
Replacement Heifers	AUM	1.00			46.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0		
Bulls	AUM	1.00											10.0	10.0
Crop Aftermath														
Cows	AUM	1.00											500.0	500.0
Bulls	AUM	1.00											24.0	24.0
Horses	AUM	1.00											10.0	10.0
Deeded Range														
Horses	AUM	1.00				10.0	10.0	10.0						
Pasture														
Horses	AUM	1.00								10.0	10.0	10.0		
Protein supplement 20%														
Cows	cwt	0.23	17.4	15.8	17.4	16.9	16.9	16.9	17.4	17.4	16.9	16.9		
Replacement Heifers	cwt	0.23	4.0	3.6	4.0	3.9	3.9	3.9	4.0	4.0	3.9	4.0		
Salt	lb	0.00												
Total AUMs			632.9	616.7	589.5	636.0	634.8	634.8	635.4	635.4	634.8	634.9	648.8	652.6

Three Creek

Table D1: Cow-Calf Winter on Federal Range 500 Cows

	Weight Each	Unit	Total Number of Head or Units	Price or Cost/ Unit	Total Value	Value or Cost/ Head
1. Gross Receipts						
Steer calves	4.15	cwt	213	88.36	78105.82	156.21
Heifer calves	3.75	cwt	100	79.58	29842.50	59.69
Aged bull	16.00	cwt	6	42.00	4032.00	8.06
Cull cows	11.00	cwt	85	40.14	37530.90	75.06
Cull replacement heifer	7.25	cwt	13	67.87	6396.75	12.79
Total Receipts					155907.97	311.82
2. Operating Costs						
Meadow hay		ton	340.45	60.00	20427.00	40.85
Protein supplement 20%		cwt	186.35	3.50	652.23	1.30
Salt		lb	11297.00	0.06	677.82	1.36
BLM		AUM	2930.80	1.71	5011.67	10.02
U.S. Forest Service		AUM	1590.00	1.71	2718.90	5.44
State Range		AUM	240.00	5.00	1200.00	2.40
Deeded range		AUM	730.00	8.00	5840.00	11.68
Crop aftermath		AUM	1200.80	10.00	12008.00	24.02
Checkoff/brand inspection		head	432.00	2.00	864.00	1.73
Commission		head	119.00	7.00	833.00	1.67
Freight/trucking		head	119.00	7.00	833.00	1.67
Veterinary Medicine		\$	3852.86	1.00	3852.86	7.71
Machinery (fuel, lubrication, repair)		\$	1520.39	1.00	1520.39	3.04
Vehicles (fuel, repair)		\$	11112.57	1.00	11112.57	22.23
Equipment (repair)		\$	547.00	1.00	547.00	1.09
Housing and Improvements (repair)		\$	2343.87	1.00	2343.87	4.69
Hired Labor		hour	2450.00	6.75	16537.50	33.08
Owner Labor		hour	1668.00	6.75	11259.00	22.52
Interest on Operating Capital		\$	31772.18	0.10	3018.36	6.04
Total Operating Costs					101257.15	202.51
3. Income Above Operating Costs					54650.81	109.30
4. Ownership Costs						
Capital Recovery:						
Purchased Livestock		\$	11546.11	1.00	11546.11	23.09
Housing and Improvements		\$	16642.38	1.00	16642.38	33.28
Machinery		\$	1804.82	1.00	1804.82	3.61
Equipment		\$	2128.54	1.00	1804.82	3.61
Vehicles		\$	16111.85	1.00	16111.85	32.22
Interest on Retained Livestock		\$	252875.00	0.09	22126.56	44.25
Taxes and Insurance		\$	2822.39	1.00	2822.39	5.64
Overhead		\$	20000.00	1.00	20000.00	40.00
Total Ownership Costs		\$			93182.65	186.37
5. Total Costs					194439.80	388.88
6. Returns to Land, Risk and Management					-38531.83	-77.06

Three Creek

Table D2: Investment Summary

	Purchase Price	Salvage/ Cull Value	Livestock Share	Useful Life	Annual Taxes and Insurance	Annual Capital Recovery ¹
Buildings, Improvements and Equipment						
Barn	12750.00	1250.00	100	30	112.00	1204.01
Fencing	120000.00	0.00	100	25	960.00	11970.17
Corral	5100.00	1275.00	100	30	51.00	475.65
Water developments	30000.00	0.00	100	25	240.00	2992.54
Feed wagon	3200.00	295.00	100	10	27.96	473.50
Gooseneck trailer	8000.00	1500.00	100	10	76.00	1132.96
Squeeze	1950.00	180.00	100	10	17.04	288.52
Calf Cradle	900.00	80.00	100	10	7.84	133.37
Vet equipment	650.00	65.00	100	10	5.72	95.84
Salt mineral feeders	17.00	0.00	100	5	0.14	4.34
Total	182,567.00				1497.70	18770.92
Purchased Livestock						
Bulls	42500.00	16250.00	100	4		9480.01
Horses	16000.00	\$6000.00	100	10		2066.10
Total		58500.00				11546.11
Retained Livestock						
Cows	250000.00	175000.00	100			18593.75 ²
Replacement heifers	47500.00	33250.00	100			3532.81 ²
Total	297500.00					22126.56²
Machinery and Vehicles						
Tractor loader	35600.00	7100.00	12	30	40.99	400.09
Tractor - 80hp	30000.00	6000.00	50	30	144.00	1404.73
Pickup 4x4 3/4 ton	27000.00	5400.00	85	4	344.25	6037.71
Pickup 4x4 3/4 ton	27000.00	5400.00	100	6	405.00	5251.73
Truck 2 ton	25400.00	5080.00	70	7	266.70	3006.55
Sedan	18000.00	1800.00	50	6	123.75	1815.86
Total	163000.00				1324.69	17916.67

¹ Annual capital recovery is the method of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods

² Interest on average investment

Three Creek

Table D3: Monthly Summary of Returns and Expenses

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Value
Production:													
Steer calves											78106		78106
Heifer calves											29843		29843
Aged bull								4032					4032
Cull cows								25168			12363		37531
Cull replacement heifer		3936									2460		6397
Total Receipts	0	3936	0	0	0	0	0	29200	0	0	122772	0	155908
Operating Inputs:													
Meadow hay	3032	2738	14657										20427
Protein supple 20%											322	330	652
Salt	62	62		62	62	62	62	62	62	62	62	62	678
BLM	308	308		975	975	975	165	165	165	975			5012
U.S. Forest Service							906	906	906				2719
State range	100	100		250	250	250				250			1200
Deeded range	2400	2400		80	80	80	80	80	80	80	240	240	5840
Crop aftermath											6004	6004	12008
Checkoff/brand inspection		36						126			702		864
Commission		126						441			266		833
Freight/trucking		126						441			266		833
Veterinary Medicine			661			1621				493	1078		3853
Machinery (Fuel,Lube,Repair)	127	127	127	127	127	127	127	127	127	127	127	127	1520
Vehicles (Fuel and Repair)	926	926	926	926	926	926	926	926	926	926	926	930	11113
Equipment (Repair)	46	46	46	46	46	46	46	46	46	46	46	46	547
Housing, Improvements (Repair)	195	195	195	195	195	195	195	195	195	195	195	196	2344
Taxes and Insurance	2069					754							2822
Hired Labor	810	2835	5029	4860	236	236	236	236	473	641	540	405	16538
Total Costs	10073	10024	21639	7520	2896	5271	2742	3750	2978	3795	10773	8340	89802
Net Returns	-10073	-6087	-21639	-7520	-2896	-5271	-2742	25450	-2978	-3795	111999	-8340	66106

Three Creek

Table D4: Monthly Feed Requirements

Feed	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Meadow hay													
Cows	ton	0	0	194	0	0	0	0	0	0	0	0	0
Replacement Heifers	ton	35	32	35	0	0	0	0	0	0	0	0	0
Bulls	ton	12	11	12	0	0	0	0	0	0	0	0	0
Horses	ton	4	4	4	0	0	0	0	0	0	0	0	0
Protein supplement 20%													
Cows	cwt	0	0	0	0	0	0	0	0	0	0	75	77
Replacement Heifers	cwt	0	0	0	0	0	0	0	0	0	0	17	17
Salt	lb	1027	1027	0	1027	1027	1027	1027	1027	1027	1027	1027	1027
BLM													
Cows	AUM	180	180	0	450	450	450	0	0	0	450	0	0
Replacement Heifers	AUM	0	0	0	90	90	90	90	90	90	90	0	0
Bulls	AUM	0	0	0	24	24	24	0	0	0	24	0	0
Bull Replacements	AUM	0	0	0	6	6	6	6	6	6	6	0	0
U.S. Forest Service													
Cows	AUM	0	0	0	0	0	0	500	500	500	0	0	0
Bulls	AUM	0	0	0	0	0	0	30	30	30	0	0	0
State range													
Cows	AUM	20	20	0	50	50	50	0	0	0	50	0	0
Deeded range													
Cows	AUM	300	300	0	0	0	0	0	0	0	0	0	0
Bulls	AUM	0	0	0	0	0	0	0	0	0	0	30	30
Horses	AUM	0	0	0	10	10	10	10	10	10	10	0	0
Crop aftermath													
Cows	AUM	0	0	0	0	0	0	0	0	0	0	500	500
Replacement Heifers	AUM	0	0	0	0	0	0	0	0	0	0	90	90
Horses	AUM	0	0	0	0	0	0	0	0	0	0	10	10

Three Creek

Table D5: Forage Balance (AUMs per month)

Feed	Units	AUM/ unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Meadow hay														
Cows	ton	2.50			484.4									
Replacement Heifers	ton	2.50	87.6	79.1	87.6									
Bulls	ton	2.50	29.1	26.3	29.1									
Horses	ton	2.50	9.7	8.8	9.7									
Protein Supplement														
20%	cwt	0.25											18.8	19.3
Cows	cwt	0.25											4.2	4.4
Replacement Heifers														
Salt	lb	0.00												
BLM														
Cows	AUM	1.00	180.0	180.0		450.0	450.0	450.0				450.0		
Replacement Heifers	AUM	1.00				90.4	90.4	90.4	90.4	90.4	90.4	90.4		
Bulls	AUM	1.00				24.0	24.0	24.0				24.0		
Bull Replacement	AUM	1.00				6.0	6.0	6.0	6.0	6.0	6.0	6.0		
U.S. Forest Service														
Cows	AUM	1.00							500.0	500.0	500.0			
Bulls	AUM	1.00							30.0	30.0	30.0			
State range														
Cows	AUM	1.00	20.0	20.0		50.0	50.0	50.0				50.0		
Deeded range														
Cows	AUM	1.00	300.0	300.0										
Bulls	AUM	1.00											30.0	30.0
Horses	AUM	1.00				10.0	10.0	10.0	10.0	10.0	10.0	10.0		
Crop aftermath														
Cows	AUM	1.00											500.0	500.0
Replacement Heifers	AUM	1.00											90.4	90.4
Horses	AUM	1.00											10.0	10.0
Total AUMs			626.3	614.1	610.7	630.4	630.4	630.4	636.4	636.4	636.4	630.4	653.4	654.0

