

A TO Z RETAINED OWNERSHIP COMPANY

1995 Year-End Summary

Introduction

The A to Z Retained Ownership Company was started in 1992 as a cooperative venture by cow-calf producers, the Bruneau Cattle Company feedlot, veterinarians, packers, bankers, allied industry representatives and University of Idaho Extension System. The primary goal of this educational program was to give cow-calf producers information on how their cattle performed through the feeding and carcass phases. This report presents the results of the third year of the retained ownership program.

The 1994-95 A to Z program initiated a heifer feeding program for the first time. Retained ownership of both heifers and steers through the finishing phase was not profitable during the 1994-95 program. The cattle market continued the downward trend during most of the feeding program. The value of weaned calves was relatively strong during the fall of 1994, thus keeping opportunity/interest costs high through the feeding period. Finally, the 1995 fed cattle market had a general downward trend, below A to Z projected break-even levels. This was due primarily to a seasonal increase in supply of beef, as well as an abundance of all meats. All of the factors together contributed to the losses approaching \$50 per head and these were experienced over much of the cattle feeding business in 1995.

The A to Z Retained Ownership Company in 1995 was no different than the national and regional trends mentioned earlier. The price of steers going into the program was \$77 per hundred weight (cwt), with a \$3 slide and \$70 with a \$2 slide for the heifers. Using this actual market price scenario, initial values of the cattle going into the feeding program averaged \$445 per head for the steers and \$389 per head for the heifers. The opportunity cost of not selling the calves at weaning (an interest expense tied directly with the initial value of the steers) averaged \$11.66 and \$13.39 per head over the feeding period, for heifers and steers, respectively. Animal performance was not different from prior years in the program, with steers gaining over 3.21 pounds per day and consuming 6.9 pounds of feed per pound of gain. Heifers gained 2.86 pounds per day and consumed 7.3 pounds of feed per pound of gain. Retained ownership losses averaged \$42 per head on the heifers and \$50 per head on the steers.

Objectives

In an effort to provide Southwestern Idaho ranchers with information concerning retained ownership, marketing alternatives and individual animal performance, an educational program was started by University of Idaho faculty during the fall of 1992.

Specific project objectives were to provide cattle producers with:

- 1) A process for selecting a custom feedlot,
- 2) A process for selecting a financial institution to finance feeding,
- 3) Feedlot performance information for their cattle,
- 4) Individual animal carcass information at slaughter,
- 5) Marketing alternatives available during the feeding program,
- 6) Economic evaluation of retained ownership for individual operators and the pen of cattle.

Program Formation

Initiation

The idea of a retained ownership program was broached with the District II Beef Advisory Committee and county agents in the spring of 1992. University of Idaho faculty conducted a review of other retained ownership programs (Sims et al., 1991; Wagner et al., 1992). A small group of producers was asked to form a steering committee to set up the basic ground rules for the program and to make initial decisions in devising the program.

Feedlot selection

Preliminary work involved surveys of five feedlots on their management, feeding, and billing programs. University of Idaho faculty conducted this survey, based upon information requested by the steering committee. Survey information was summarized and presented to the committee. After review of the information, Bruneau Cattle Company in Bruneau, Idaho was selected by the steering committee as the custom feedlot for the retained ownership program.

Financing

A similar approach was followed to secure financing for the feeding program. UI faculty surveyed four lending institutions regarding terms and conditions of a feeding program loan. Several banks required additional steps in order for the A to Z cooperative to secure financing, including the necessity of having a producer/lender-signed form specifying that the cattle were lien-free, the necessity of an additional lien to the prospective lender, creating a non-profit corporation, and others. After much discussion by the steering committee, members selected West One Bank, formerly Idaho State Bank, in Cambridge.

Program Design

Once the feedlot was selected and financing secured, the feeding program was ready to begin. In October 1992, the steering committee met once to lay out the specific guidelines for the program and once with the feedlot operator to coordinate transfer of the cattle into the feedlot. At the second meeting, the feedlot's consulting veterinarian designed a preconditioning program. Allied industry representatives provided technical and financial support for the pre-weaning/receiving program. On February 9, 1995 a Marketing Workshop was held in Cambridge for interested participants. A mid-year meeting with the producers was held February 1, 1995 at Bruneau to provide them with animal performance summary data. Cattle were finished and sold by Bruneau Cattle Company to Iowa Beef Processors (IBP) of Boise. Carcass data were gathered by UI faculty for individual animals through the USDA grading system. Feedlot performance information, carcass data, and costs and returns were gathered throughout the program and summarized for each owner and each pen of cattle, as a whole. These data formed the basis for the final educational program, conducted on June 8, 1995 in Fruitland. The meeting was attended by 20 producers and numerous other guests. Producers received animal performance (feedlot and carcass) data, as well as the proceeds from the sale of their cattle. All of the information was explained and evaluated during the educational session. In addition, a questionnaire was distributed to the participants in order to evaluate the program and make suggestions for future programs.

The second year feeding phase involved 34 producers (primarily from southwestern Idaho) placing 285 head of preconditioned steers in the trial. The third year had 20 producers consigning 176 steers and 16 producers with 163 heifers in the program. Data gathered during the project was tabulated in computerized format and analyzed using the SAS statistical package. Objectives of the analysis were to determine factors, such as carcass performance, market prices, and others, which influence retained ownership profitability.

Procedures

Twenty ranchers consigned 176 steers and 16 ranchers consigned 163 heifers in increments of five head to the A to Z Retained Ownership Company program in October and November 1994. Steers selected were to weigh between 550 and 750 pounds upon arrival at the feedlot. The heifers were to be 50 pounds lighter (500 to 700 pounds). Calves were to be dehorned, castrated, weaned by November 1, 1994 (at least 21 days prior to feedlot delivery), and accustomed to feed bunks, waterers and trace mineral salt. Calves received their first set of vaccinations at the ranch 13 or 14 days (November 6 or 7, 1994) prior to receiving their booster shots at the feedlot. Initial vaccinations included Lepto-5 (bacterin), IBR, BVD (killed vaccine), PI₃ (heat sensitive) and BRSV (modified live vaccine) (Cattle Master 4+L5, Smith Kline Beecham*) and 7-way blackleg and *H. somnus* (Ultrabac 7/Somubac, bacterin-toxoid, Smith Kline Beecham*). USDA eartags were placed in calves at the ranch. Owners provided breed-of-sire, breed-of-dam, weaning and calving date information. Live animal shrunk weights were determined on an individual owner basis at central collection points prior to being delivered to the feedlot, or upon arrival at the feedlot.

* Reference to brand or trade names does not indicate or imply any endorsement of the product or representation that comparable products may not be available.

Calves arrived and were weighed on a truckload basis at the feedlot on November 21 and 22, 1994. Overall transit shrink from the central collection points to the feedlot was calculated to be 4.42 percent on the heifers and 3.9 percent on the steers. On November 25 and 26, 1994, calves were administered boosters to both vaccines, treated for internal and external parasites, including liver flukes (*Ivomec-F*, Merck Ag Vet*), tagged with a duplicate eartag for individual identification, measured for hip height, and implanted with a growth promotant (*Ralgro*, Pitman-Moore*). In addition all calves received a *Pasteurella haemolytica* (*One-Shot*, bacterin-toxoid Smith Kline Beecham*) vaccination at this time. A coccidiostat (*Deccox*, RHÔNE-POULENC*) was used in the receiving and start-up ration for 25 days.

Initial calf values were determined using a price of \$77 per cwt for a 600 pound steer with a \$3 per cwt slide (i.e., a 500 pound steer would have a \$80 per cwt initial value). Heifers were valued at \$70 per cwt, with a \$2 slide. These values were taken from an electronic marketing service report for feeder cattle prices for November 18, 1994. All owners shared death loss and health treatment costs, with charges assessed on a per head basis. Costs associated with the loss of a steer were determined by summing the initial value of the steer and feedlot costs encumbered by that steer. The owner was reimbursed for the initial value of the particular calf lost less any feed or treatment expenses incurred.

Cattle were individually weighed January 19, 1995 and placed on the finishing ration January 23, 1995. Dry matter intakes were determined on an individual owner basis for the receiving and start-up rations and on an individual calf basis for the finishing ration. Feed intakes were adjusted for average live weight and average daily gain during each period using the net energy for maintenance (NE_m) and net energy for gain (NE_g) equations of Owens et al. (1984).

The outdate for finished cattle was determined by Bruneau Cattle Company personnel using days on feed and visual observation as indicators of cattle reaching the choice quality grade. Cattle were slaughtered at Iowa Beef Processors (IBP) of Boise on May 13, 1995 (49 steers and 49 heifers) and May 27, 1995 (124 steers and 111 heifers).

Carcass value was determined by the grade and yield method. Prices received are reported in Table 1. Market prices received in perspective to seasonal live prices for fed cattle in 1992 through 1995 are reported in Figure 1. Carcass data collection and grading were accomplished the first work day, following a weekend carcass chill, after each kill date. Calculations for final yield grade and percent cutability were taken from Beef Improvement Federation proceedings (BIF 1990). The equation for calculating steer frame scores was an average of the frame score equations for bulls and heifers (BIF 1990). Profitability of cattle feeding on an individual owner basis was determined by subtracting feedlot costs (feed, yardage, processing, medicine, and interest), initial value of the steer, and opportunity costs on the initial value (6 percent interest on initial value for the duration of the feeding period) from the total carcass value of the steer (less transportation, brand inspection, and checkoff).

Results and Discussion

Animal Performance

Initial information on the two pens of cattle is reported in Table 2. Average age of the steer calves entering the feedlot was 254 days (equaling a March 12, 1994 average calving date), with an initial weight of 590 pounds. Heifers had an average age of 252 days (March 14, 1994 average calving date) and weighed 538 pounds.

Animal performance for the start-up period, which lasted 59 days, is reported in Table 3. Steers averaged 742 pounds at the first weigh period (January 19, 1995). Performance averaged 2.54 pounds of gain per day, with feed efficiency of 8.4 pounds of feed (dry matter basis) per pound of gain. Average dry matter intake was 20.83 pounds per day. No steers died from delivery through the end of the start-up rations. Medical treatments during this period included 16 steers for respiratory complications, three steers for coccidiosis and one polio. Average energy values for the receiving and start-up rations were 66.72 Mcal per cwt for NE_m and 40.61 Mcal per cwt for NE_g . With an average weight of 665 pounds during the start-up period, steers were consuming 3.1 percent of their body weight in dry matter.

Heifers averaged 665 pounds at the first weigh period and gained 2.11 pounds per day. Feed efficiency for the heifers was 9.47 pounds of feed per pound of gain, with average dry matter intake of 19.1

pounds per day. One heifer died due to respiratory complications, thus making death loss 0.6 percent. Three heifers were treated for respiratory problems and four heifers for coccidiosis. Energy values for the heifer receiving and startup rations were 65.46 Mcal for NE_m and 39.18 Mcal for NE_g . Average weight during the feeding period was 603 pounds, meaning that the heifers were consuming 3.05 percent of their body weight in dry matter.

Performance for the finishing period is reported in Table 4. Average finish weight of the 172 steers was 1,178 pounds, with steers consuming 22.71 pounds dry matter per day and gaining 3.54 pounds per day. Feed efficiency was 6.49 pounds of dry matter per pound of gain over the 125-day finishing period. Death loss was 2.3 percent, as 1 steer died of polio complications, one bloat and two were condemned at slaughter. Medical treatments during this period included five steers for respiratory complications and one steer for polio. Average energy values for the finishing ration were 97.52 Mcal per cwt for NE_m and 64.2 Mcal per cwt for NE_g . It appears that some compensatory growth occurred during the finishing phase from the growing phase. With an average weight of 960 pounds during the finishing period, steers were consuming 2.4 percent of their body weight in dry matter.

Heifers finished at an average weight of 1,061 pounds, consumed 21.67 pounds of dry matter per day and gained 3.23 pounds per day, during the finishing phase. Feed efficiency was 6.72 pounds of feed per pound of gain over the 125-day finishing period. Energy values for the heifer finish ration were 99.6 Mcal for NE_m and 65.27 Mcal for NE_g . The average weight of the heifers during the finishing phase was 863 pounds, meaning that the heifers were consuming 2.5 percent of their body weight in dry matter. One heifer died, one was salvaged and one was condemned at slaughter (malignant lymphoma), translating into a death loss of 1.8 percent.

Performance for the combined start-up and finishing periods is reported in Table 5. Over the entire feeding period, steers gained 3.21 pounds per day, consuming 22.11 pounds of dry matter per day. Average feed efficiency was 6.92 pounds of dry matter per pound of gain and the average days on feed were 184 days. Heifers gained 2.86 pounds per day, consumed 20.84 pounds of dry matter and converted 7.3 pounds of feed to a pound of gain.

Carcass data for the cattle is reported in Table 6. Overall, steer carcass quality grading produced 1.7 percent Prime, 58.1 percent Choice and 40.1 percent Select. Heifer carcasses graded 0.6 percent Prime, 58.5 percent Choice, 39 percent Select and 1.8 percent Standard. During this marketing year, cattle were sold on the traditional grade and yield basis, with some added twists. Unlike past years, there were significant price discounts on heavy (> 935 pounds) and light (< 550 pounds) carcasses, and on yield grade 4 or greater carcasses. Thus, in addition to the traditional price spread between Choice and Select grades, there were now penalties for carcasses that would not "fit the box". Neither of these discounts came into play often during the 1995 marketing of A to Z cattle. The yield grade discount did not significantly impact the 1995 A to Z cattle, as there was only one steer and one heifer in the yield grade 4 category. In terms of light and heavy carcasses, only one heifer carcass weighed below the 500 pound lower limit and there were no carcasses heavier than 950 pounds. There were eight steers and two heifers which yielded carcasses between 850 and 900 pounds and six steers and 24 heifers with carcasses lighter than 600 pounds. Thirty-five steer carcasses and five heifers were between 3.5 and 4 yield grades. Only one steer and one heifer had ribeye areas of less than 10 square inches, 23 steers and 26 heifers were between 10 and 11.5 square inches. Eighteen steers and 13 heifers had ribeyes that were greater than 14.5 square inches, with the maximum of 18.9 square inches on the steers and 16.9 square inches on the heifers. Calculations for cutability indicate the lean meat yield of the carcass. Carcass lean gain calculations indicate growth composition, or, how much of the average daily gain was purely muscle gain and not fat deposition.

The analyses concerning the effects of breed-of-sire on carcass performance were once again inconclusive. The variation within breed was as great (or greater) as between breeds. As a result, these data are not reported this year.

Costs and Returns

Costs associated with the custom feeding operation on a per steer and per pound of gain basis are reported in Tables 7 and 8. Processing, medicine, death loss and interest were assessed on a fixed basis and were the same for each animal. On a cost per pound of gain basis, these costs are lower for animals with higher average daily gains. Total feedlot costs per steer averaged \$423.25 and heifers averaged \$394.98 per head. Feed costs per pound of gain averaged \$0.46 for steers and \$0.48 per pound for heifers. This difference is

primarily due to the fact that steers performed better on feed than heifers (ADG of 3.21 lbs per day vs. 2.86 lbs per day). Total feeding costs were \$0.593 and \$0.623 per pound of gain for steers and heifers, respectively.

The overall break-even prices and profitability of the feeding program are shown in Table 9. Keep in mind that profitability as represented here, is for the feeding period only, it is not a net income value for that calf since the total annual cow costs are approximated with the initial value. Overall break-even live price was slightly more than \$68 per cwt for both steers and heifers. The average loss was \$49.85 per steer and \$42.38 per heifer.

Critical factors that affected profitability (loss) were feedlot average daily gain, quality grade (choice vs. select) and marketing date. These three factors alone accounted for over 70 percent of the variation in profitability for the feeding phase. Quality grade and marketing date, when considered together, are the choice/select spread for carcass price over time. Select cattle lost an average of over \$60 per head more than Choice cattle. Profitability of steers and heifers as affected by marketing date and quality grade are shown in Figure 2. With the declining prices that occurred during the marketing period of the A to Z animals, the outdate of an individual owner's animals greatly affected profitability (loss). Final yield grade, kidney pelvic and heart fat, hot carcass weight, ribeye area and owner did not affect profitability. In fact, all of these variables combined would account for less than 9 percent of the variation in profitability observed in this feeding demonstration.

Summary

For the 1994-95 feeding program, overall average daily gain of the steers was 3.21 pounds per day and heifers gained an average of 2.86 pounds per day during the 183-day feeding period. Dry matter intake was 22.11 pounds per head daily for the steers and 20.84 pounds per day for the heifers. Feed efficiency was 6.92 pounds for the steers and 7.3 pounds for the heifers (pounds of feed per pound of gain). Hot carcass weights were 741 pounds (steers) and 668 pounds (heifers). Approximately 60 percent of both the steers and heifers graded Choice or higher. Sire breed differences were not apparent this year during the feeding trial (variation within breed was still very high). Losses averaged \$49.85 per steer and \$42.38 per heifer. The range in profits and losses were very large for both steers (+\$21.69 to -\$193.22 per head) and heifers (+\$33.79 to -\$239.90 per head). Live weight prices of slightly over \$68 per cwt were required to break even on both the steers and heifers. Marketing date, feedlot average daily gain and the choice/select spread accounted for most of the variation in profitability.

Overall, the A to Z Retained Ownership Company program was a success as determined by a review of the summary questionnaires filled out by 20 of the participating ranchers at the year-end meeting. Most of the respondents indicated satisfaction with the project and over half were considering (or were already) retaining ownership of cattle. Nearly all of the ranchers would participate in another demonstration project (95 percent). Producers offered several suggestions involving tighter restrictions on the initial weight of cattle entering the program, emphasis on preconditioning calves, marketing and sharing death loss and medical expenses, which will be used in future retained ownership educational programs.

Literature Cited

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- Sims, D.D., A.G. Maddux, and J. Mintert. 1991. Kansas steer futures: An analysis of the retained ownership program. Cooperative Extension Service Publication C-725, Manhattan, Kansas.
- Wagner, J.J., T.B. Goehring, D.L. Boggs, L.W. Insley, D.M. Feuz, G.E. Murra, D.E. Moore, and B. Knutson. 1992. South Dakota Retained Ownership Demonstration. Report 92-15. South Dakota State University Agricultural Experiment Station, Brookings.

Table 1. Carcass prices (\$ per cwt) received by quality grade and marketing date.				
Marketing Date	STEERS		HEIFERS	
	Choice	Select	Choice	Select
May 13, 1995	106.75	99.65	107.60	100.50
May 27, 1995	104.45	95.45	105.11	96.11

Table 2. Initial animal performance, receiving 11/21/94.					
	No. of Animals	Mean	Minimum	Maximum	Std dev
STEERS					
Weight, lb	172	590	413	780	76.31
Hip height, in.	172	45.81	42	50	1.77
Frame score	172	5.39	3.5	7.6	0.85
Age, days	172	254.36	206	305	16.54
Initial value, \$/head ^a	172	\$445.48	\$334.65	\$546.78	\$44.03

HEIFERS					
Weight, lb	159	538	380	797	83.71
Hip height, in.	159	44.21	40	49	1.99
Frame score	159	4.92	2.8	7.2	0.94
Age, days	159	252.19	212	329	17.01
Initial value, \$/head ^a	159	\$388.91	\$304.12	\$526.26	\$43.79

^a Initial value of the steers was determined using the value of \$77/cwt for a 600 lb steer with a \$3/cwt slide. Heifer initial value was derived using a price of \$70/cwt with a \$2 slide.

Table 3. Animal performance, receiving through start-up period (11/21/94 to 1/19/95).					
	No. of Animals	Mean	Minimum	Maximum	Std dev
STEERS					
Weight, lb 1/19/95	172	742.27	523	964	81.64
Average daily gain, lb/day	172	2.54	.68	4.19	.62
Dry matter intake, lb ^a	172	20.83	11.80	32.10	4.17
Feed efficiency, lb feed DM/lb gain	172	8.40	6.58	17.94	1.34

HEIFERS					
Weight, lb 1/19/95	159	664.69	470	979	84.99
Average daily gain, lb/day	159	2.11	.31	4.11	.58
Dry matter intake, lb ^a	159	19.10	9.90	34.60	4.34
Feed efficiency, lb feed DM/lb gain	159	9.47	7.14	33.55	2.61

^a Individual animal dry matter intake was calculated by adjusting for live weight and average daily gain (Owens et al., 1984).

Table 4. Animal performance, finishing period (1/20/95 to out-date).

	No. of Animals	Mean	Minimum	Maximum	Std dev
STEERS					
Finished weight, lb ^a	172	1178	873	1470	110
Days on feed	172	124.93	115	129	6.38
Average daily gain, lb/day	172	3.54	.61	4.69	.62
Dry matter intake, lb ^b	172	22.71	9.90	32.70	3.91
Feed efficiency, lb feed DM/lb gain	172	6.49	5.31	16.23	.90

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HEIFERS					
Finished weight, lb ^a	159	1061	649	1395	113.10
Days on feed	159	124.59	115	129	6.52
Average daily gain, lb/day	159	3.23	.89	4.60	.61
Dry matter intake, lb ^b	159	21.67	7.50	36.10	4.41
Feed efficiency, lb feed DM/lb gain	159	6.72	5.48	8.43	.53

^a Calculated from hot carcass weight using a standard 63 percent dressing percentage.
^b Individual animal dry matter intake was calculated by adjusting for live weight and average daily gain (Owens et al., 1984).

Table 5. Animal performance, total feeding period (11/21/94 to out-date).

	No. of Animals	Mean	Minimum	Maximum	Std dev
STEERS					
Average daily gain, lb/day	172	3.21	1.12	4.27	.49
Days on feed	172	183.93	174	188	6.38
Dry matter intake, lb ^a	172	22.11	11.31	30.40	3.34
Feed efficiency, lb feed DM/lb gain	172	6.92	5.72	11.18	.65

HEIFERS					
Average daily gain, lb/day	159	2.86	1.10	3.94	.46
Days on feed	159	183.60	174	188	6.52
Dry matter intake, lb ^a	159	20.84	9.38	31.73	3.67
Feed efficiency, lb feed DM/lb gain	159	7.30	5.93	9.43	.64

^a Individual animal dry matter intake was calculated by adjusting for live weight and average daily gain (Owens et al., 1984).

Table 6. Animal performance, carcass data.

	No. of Animals ^a	Mean	Minimum	Maximum	Std dev
STEERS					
Hot carcass weight, lb	172	741.88	550	926	69.49
Final yield grade	171	2.76	.2	4.3	.74
Ribeye area, sq. in.	171	12.82	9.8	18.90	1.41
Kidney, pelvic & heart fat, %	171	1.81	.5	3.0	.52
Adjusted back fat, in.	171	.47	.08	.84	.16
Marbling score ^b	171	5.96	2.0	18.0	2.34
Quality grade ^c	172	11.35	8.0	16.0	1.36
Cutability, % ^d	171	50.35	46.87	56.19	1.72
Carcass lean gain, lb/day ^e	171	1.02	.38	1.43	.16
HEIFERS					
Hot carcass weight, lb	159	668.36	409	879	71.24
Final yield grade	158	2.49	1.10	4.0	.59
Ribeye area, sq. in.	158	12.76	9.2	16.9	1.26
Kidney, pelvic & heart fat, %	158	2.08	0.0	3.5	.59
Adjusted back fat, in.	158	.45	.08	.96	.14
Marbling score ^b	158	6.01	2.0	15.0	2.14
Quality grade ^c	159	11.43	8.0	15.0	1.29
Cutability, % ^d	158	51.03	47.51	54.22	1.36
Carcass lean gain, lb/day ^e	158	.92	.38	1.24	.15

^a Two steers and one heifer were condemned at slaughter. Eartag lost for one steer, thus unable to gather carcass data.

^b Marbling score, 2 = Standard⁺, 3 = Select⁻, 4 = Select⁰, 5 = Select⁺, 6 = Choice⁻, 7 = Choice⁰, 8 = Choice⁺, 9 = Modest⁻, 10 = Modest⁰, 11 = Modest⁺, 12 = Moderate⁻, 13 = Moderate⁰, 14 = Moderate⁺.

^c Quality grade, 9 = Select⁻, 10 = Select⁰, 11 = Select⁺, 12 = Choice⁻, 13 = Choice⁰, 14 = Choice⁺.

^d Cutability = 51.34 - (5.784 x adjusted backfat, in.) - (.462 x kidney, pelvic & heart fat, %) - (.0093 x hot carcass weight, lb) + (.74 x ribeye area, sq. in.)

^e Carcass lean gain = (hot carcass weight x (cutability/100) - (empty body fat x .70) x (cutability/100))/days on feed.

Table 7. Costs associated with custom feeding on a \$ per steer basis.

	No. of Animals	\$ per steer basis			Std dev
		Mean	Minimum	Maximum	
\$/STEER					
Total feed ^a	172	\$344.56	\$214.91	\$452.87	\$43.33
Yardage ^b	172	\$36.57	\$34.40	\$37.40	\$1.28
Processing ^c	172	\$6.46	\$6.46	\$6.46	
Medicine ^c	172	\$1.88	\$1.88	\$1.88	
Death loss ^c	172	\$15.89	\$15.89	\$15.89	
Interest ^{cd}	172	\$4.50	\$4.50	\$4.50	
Opportunity ^e	172	\$13.39	\$10.29	\$16.81	\$1.32
Total Cost	172	\$423.25	\$296.05	\$532.65	\$44.21

\$/HEIFER					
Total feed ^a	159	\$322.49	\$183.95	\$436.52	\$44.52
Yardage ^b	159	\$36.52	\$34.60	\$37.40	\$1.30
Processing ^c	159	\$6.46	\$6.46	\$6.46	
Medicine ^c	159	\$1.16	\$1.16	\$1.16	
Death loss ^c	159	\$12.19	\$12.19	\$12.19	
Interest ^{cd}	159	\$4.50	\$4.50	\$4.50	
Opportunity ^e	159	\$11.66	\$9.35	\$14.97	\$1.23
Total Cost	159	\$394.98	\$256.12	\$509.80	\$45.14

^a Individual animal dry matter intake was calculated by adjusting for live weight and average daily gain (Owens et al., 1984).
^b Yardage costs were \$.20 per animal each day.
^c Fixed cost shared by owners on a per animal basis.
^d Feeding period financing costs, including interest at 8.5 percent and a loan origination fee.
^e Opportunity cost was calculated at 6 percent interest on the initial value of each animal for the duration of the feeding period.

Table 8. Costs associated with custom feeding on a \$ per lb of gain basis.

	No. of Animals	\$ /lb of Gain			Std dev
		Mean	Minimum	Maximum	
STEERS					
Total feed ^a	172	\$.46	\$.38	\$.71	\$.04
Yardage ^b	172	\$.065	\$.05	\$.18	\$.015
Processing ^c	172	\$.011	\$.008	\$.031	\$.003
Medicine ^c	172	\$.003	\$.0024	\$.009	\$.00076
Death loss ^c	172	\$.028	\$.0199	\$.076	\$.0065
Interest ^{cd}	172	\$.008	\$.006	\$.021	\$.002
Opportunity ^e	172	\$.024	\$.016	\$.071	\$.007
Total cost of gain	172	\$.593	\$.514	\$1.02	\$.063

HEIFERS					
Total feed ^a	159	\$.48	\$.39	\$.61	\$.04
Yardage ^b	159	\$.072	\$.05	\$.18	\$.016
Processing ^c	159	\$.013	\$.009	\$.031	\$.003
Medicine ^c	159	\$.002	\$.0016	\$.006	\$.00051
Death loss ^c	159	\$.024	\$.0165	\$.059	\$.0054
Interest ^{cd}	159	\$.009	\$.006	\$.022	\$.002
Opportunity ^e	159	\$.023	\$.015	\$.051	\$.006
Total cost of gain	159	\$.623	\$.532	\$.893	\$.058

^a Individual animal dry matter intake was calculated by adjusting for live weight and average daily gain (Owens et al., 1984).
^b Yardage costs were \$.20 per animal each day.
^c Fixed cost shared by owners on a per animal basis.
^d Feeding period financing costs, including interest at 8.5 percent and a loan origination fee.
^e Opportunity cost was calculated at 6 percent interest on the initial value of each animal for the duration of the feeding period.

Table 9. Break-even price and profitability associated with custom feeding.					
	No. of Animals	Mean	Minimum	Maximum	Std dev
STEERS					
Break-even price, \$/cwt	172	\$68.32	\$63.77	\$82.27	\$2.52
Profit/(Loss), \$/steer	172	(\$49.85)	\$21.69	(\$193.22)	\$40.76

HEIFERS					
Break-even price, \$/cwt	159	\$68.25	\$64.32	\$82.38	\$2.22
Profit/(Loss), \$/heifer	159	(\$42.38)	\$33.79	(\$239.90)	\$42.67

Figure 1. Fed steer prices
January 1, 1993 to March 18, 1995

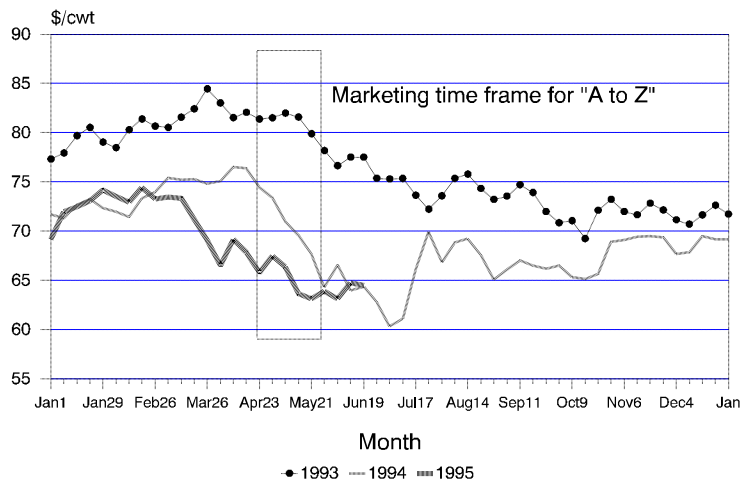
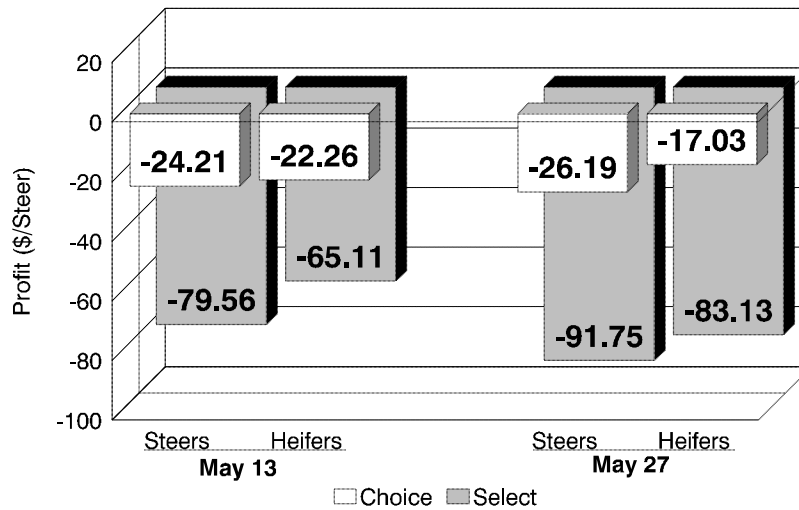


Figure 2. Effect of quality grade and market date on profitability



Ranchers

Larry/Shari Adkins
Seven A Ranch
2377 S. Grays Ck Road
Indian Valley, ID 83632
208-256-4366

Jerry Allcott
8759 Deer Flat Road
Nampa, ID 83686
208-467-1491

Bacon Valley Ranch
1684 Goodrich Creek
Council, ID 83612
208-253-4770

John Balderson
Box 345
Council, ID 83612
208-253-4230

Bill Copher
2490 Cemetery Lane
Council, ID 83612
208-253-4283

Larry Derie
2205 Jackson Creek Road
Council, ID 83612
208-253-6068

James and Nola Fuller
2518 Cemetery Lane
Council, ID 83612
208-253-4797

Ethel Gossard
2694 Upperdale Road
Council, ID 83612
208-253-4318

Rodney Greenwood
2675 Council/Cuprum Road
Council, ID 83612
208-254-4416

Jack Harrop
Harrop Ranch Inc.
HC 60, Box 240
Moore, ID 83255
208-554-4641

Jerry Hoagland
Seven High Ranch
HC 79, Box 44
Melba, ID 83641
208-495-2810

Steve & Sandy Haren
P O Box 413
Council, ID 83612
208-253-4729

Dan C Keetch
166 Keetch Road
Montpelier, ID 83254
208-847-2242

Jim Little
P.O. Box 68
Emmett, ID 83617
208-365-2220

Ray & Lucille Moore
P.O. Box 792
Council, ID 83612
208-253-6945

Mike Paradis
Box 348
Council, ID 83612
208-253-4458

Jack Rubelt
Harrington/Rubelt
2280 Old Hornet Rd
Council, ID 83612
208-253-6963

Royce/Bob Schwenkfelder
S&S Cattle Co.
3381 Schwenkfelder
Cambridge, ID 83610
208-257-3591

Chet Slyter
935 Blue Dog Road
Weiser, ID 83672
208-549-3774

Springer/Fairchild
c/o Dave Springer
Rt. 1 Box 48
Midvale, ID 83645
208-355-2352

Jeff Springer
Rt. 1 Box 48
Midvale, ID 83645
208-355-2432

Howard Sutton
S Diamond Cattle
Rt. 1 Box 27
Midvale, ID 83645
208-355-2450

Steve Sutton
Knob Hill Ranch
HC 70, Box 2454
Midvale, ID 83645
208-355-2311

Jack M. Whitworth
Box 167
May, ID 83253

Mark Yates
2502 Cemetery Lane
Council, ID 83612
208-253-6053

Producer Steering Committee

Larry Adkins Larry Derie
Ferrell Crossley Mike Paradis
Dave Springer Jack Rubelt

Participating Feedlot

Bruneau Cattle Company
HC 85 box 138
Bruneau, ID 83604
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Eric Davis, Manager

Allied Industry Technical & Financial Support

Mike Mogensen
Merck AgVet Division, Merck & Co., Inc.
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Meridian, ID 83642
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Eagle, ID 83616
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Paul Trout
Pfizer Animal Health
1304 N. Middleton Rd.
Nampa, ID 83651
208-465-9418

Mike Schnabel
RHÔNE-POULENC Animal Nutrition N.A.
700 E. 2226 S.
Bountiful, UT 84010
801-292-3644

Participating Lending Institution

West One Bank
Cambridge, ID 83610

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