# A to Z
# Retained Ownership, Inc.

# 2003 Year-End Summary

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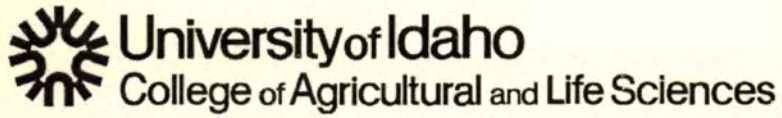
Agricultural Economics Extension Series No. 03-10
**September 2003**

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# A TO Z RETAINED OWNERSHIP, INC.
## 2003-Year-End Summary

### INTRODUCTION

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

The calf feeding program showed good profitability mostly due to higher carcass prices.

### OBJECTIVES

In an effort to provide Idaho ranchers with information concerning retained ownership, marketing alternatives and individual animal performance, an educational program was started by University of Idaho Cooperative Extension System faculty during the fall of 1992. Over the last eleven years, the A to Z program has expanded to provide this opportunity for ranchers throughout the Pacific Northwest.

Specific project objectives are to provide cattle producers with:

- A process for selecting a custom feedlot,
- A process for selecting a financial institution to finance feeding,
- Feedlot performance information for their cattle,
- Individual animal carcass information at slaughter and experience with value based carcass pricing,
- Marketing alternatives available during the feed program, and
- 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. University of Idaho 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 Idaho State Bank in Cambridge, Idaho to finance the program annually. US Bank finances the program currently after a series of bank mergers in the late 1990s.

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. A mid-year meeting held in January at Bruneau provides producers with the opportunity to view their cattle in the feedlot, along with animal performance data and a review of the marketing plan. Cattle are finished and sold by Bruneau Cattle Company to Tyson Fresh Meats of Boise. Carcass data is gathered for individual animals by University of Idaho faculty with assistance from the USDA Grading Service. Feedlot performance information, carcass data, and costs and returns are gathered throughout the program and summarized for each owner's individual steers or heifers and each pen of cattle, as a whole. These data form the basis for the final educational programs held in Fruitland and Mackay, Idaho, conducted after all cattle are marketed. Producers and numerous other guests attending the meetings receive animal performance (feedlot and carcass) data, as well as the proceeds from the sale of their cattle. All of the information is explained and evaluated during the educational session. In addition, a questionnaire is distributed to the participants in order to evaluate the program and make suggestions for future programs.

The eleventh year feeding phase had 581 cattle consigned to the program including 321 steers and 260 heifers . Data gathered during the project are tabulated and analyzed in computerized format.

**PROCEDURES**

Twenty-one ranches consigned 321 steers and 260 heifers to the A to Z Retained Ownership, Inc. program in November 2002. 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). The cattle were to be dehorned, castrated, weaned 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 prior to receiving their booster shots at the feedlot. Initial vaccinations included Lepto-5 (bacterin), IBR, BVD (killed vaccine), $PI_3$ (heat sensitive) and BRSV (modified live vaccine

Cattle Master 4+L5, Pfizer*) and 7-way blackleg and *H. somnus* (Ultrabac 7/Somubac, bacterin-toxoid, Pfizer*). Backup A to Z identification eartags were placed in the cattle at the ranch. Owners provided breed-of-sire, breed-of-dam, color, calving date, weaning date, tag information, and ownership information necessary to secure financing for the program..

The cattle arrived and were weighed on a truckload basis at the feedlot on November 11, 12, and 13, 2002. On November 15 & 18, 2002 they were individually weighed (assessed a percentage shrink back to truck weight), administered boosters to vaccines, treated for internal and external parasites, including liver flukes (Ivomec Plus, Merial Ltd.*), tagged with a duplicate eartag for individual identification if necessary, measured for hip height, and implanted with a growth promotant (Ralgro, Schering-Plough*). A coccidiostat (Deccox, ALPHARMA*) was used in the receiving ration.

Steers were valued at $81.00/cwt for a 600 lb. animal with a +$7.50 slide for lighter weight animals and a -$3.00/cwt slide for heavier weight animals. Heifers were valued at $74.50 for a 600 lb. animal with a +$3.50 slide for lighter weight animals and a -$1.50/cwt slide for heavier weight animals. These values were taken from an electronic marketing service report for feeder cattle prices for the week of November 11, 2002. All owners were responsible for salvage, medicine and death loss charges incurred by their cattle. Feedlot costs encumbered by a calf that died or was salvaged were deducted from sale proceeds of the owner's remaining animals. Only for analytical purposes were death loss and medicine charges averaged across all cattle in order to relate the current year to previous years' data.

Steer and heifer pens were placed on the finishing ration on December 30. This was three weeks earlier than the previous year. This was done as they were approximately 40 lbs. heavier initially. Also, it was determined that prices might be better on the finishing end if the cattle could be marketed a few weeks earlier. The cattle were individually weighed (assessed a 5% shrink) on January 9 & 10, 2003. They were given a clostridial booster and reimplanted that same day.

Dry matter intakes were determined on an individual calf basis for the receiving and start-up rations combined, and 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. Market conditions also entered into the marketing decision. Cattle were processed at Tyson Fresh Meats of Boise on April 18, 2003 (108 heifers and 106 steers), April 25, 2003 (136 heifers), and May 5, 2003 (15 heifers and 209 steers).

Base carcass value was determined according to the formula for average cash price for cattle in the Texas/Oklahoma Panhandle during the current week and adjusted for quality grade, yield grade and carcass non-conformity discounts according to the RTMV (Real-Time Market Value) pricing grid. Prices received are reported in Table 6.

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

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 frame scores for steers 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, death loss and interest on feedlot costs), initial value of the animal, and opportunity costs on the initial value (6 percent interest for the duration of the feeding period) from the total carcass value of the animal (less transportation, brand inspection, and checkoff).

## RESULTS AND DISCUSSION

Animal Performance

Initial information on the two pens of cattle is reported in Table 1. Average age of the steers entering the feedlot was 266 days (equaling a February 17, 2002 average calving date), with an initial weight of 606 pounds. Heifers had an average age of 263 days (February 20, 2002 average calving date) and weighed 571 pounds.
Animal performance for the start-up period, which lasted 58 days, is reported in Table 2. Steers averaged 733 pounds at the first weigh period (January 9, 2003). Performance averaged 2.17 pounds of gain per day, with feed efficiency of 8.58 pounds of feed (dry matter basis) per pound of gain. Average dry matter intake was 18.25 pounds per day. From delivery through the end of the grower rations, three steers died. Two died from respiratory problems and the third hung itself in the fence.

Heifers averaged 706 pounds at the first weigh period (January 10, 2003) and gained 2.27 pounds per day. Feed efficiency for the heifers was 8.25 pounds of feed per pound of gain, with average dry matter intake of 18.01 pounds per day. One heifer died during the initial grower phase. Cause of death was diagnosed as clostridial.

Quite often there is some concern expressed at the mid-year meeting over the lack of performance of the cattle during the start-up period. The data collected over the last eleven years of the program actually suggest a low correlation between animal performance during the start-up period and overall performance during the total feeding period. Average daily gain correlations are 22 percent and 27 percent for the steers and heifers, respectively.

Performance for the finishing period is reported in Table 3. Average finish weight of the steers was 1179.56 pounds, with steers consuming 22.01 pounds of dry matter per day and gaining 4.14 pounds per day. Feed efficiency was 5.30 pounds of dry matter per pound of gain over the 120-day average finishing period. Final death loss was 1.87 percent, as six steers died.

Heifers finished at an average weight of 1104 pounds, consumed 21.79 pounds of dry matter per day and gained 3.89 pounds per day, during the finishing phase. Feed efficiency was 5.57 pounds of feed per pound of gain over the 104-day average finishing period. Final death loss was 0.77 percent as one heifer died at the feedlot and one heifer was condemned at the processing facility.

Performance for the combined start-up and finishing periods is reported in Table 4. Over the entire feeding period, steers gained 3.45 pounds per day, consuming 20.68

pounds of dry matter per day. Average feed efficiency was 5.99 pounds of dry matter per pound of gain and the average days on feed was 167 days. Heifers gained 3.29 pounds per day (a record for the nine years heifers have been part of the program), consumed 20.4 pounds of dry matter and converted 6.18 pounds of feed to a pound of gain over an average of 162 days on feed.

Table 1. Initial animal performance receiving 11/11-13/02.

| | *No. of Animals* | *Mean* | *Minimum* | *Maximum* | *Standard Deviation* |
|---|---|---|---|---|---|
| Steers | | | | | |
| Weight, lb | 315 | 606.49 | 408.20 | 839.51 | 87.35 |
| Hip height, in | 315 | 46.42 | 42.50 | 51.00 | 1.82 |
| Frame score | 300 | 5.63 | 3.56 | 7.82 | ..85 |
| Age, days | 300 | 256.66 | 201.00 | 399.00 | 30.13 |
| Initial value, $/head[a] | 315 | 495.26 | 389.36 | 619.68 | 45.8 |
| Heifers | | | | | |
| Weight, lb | 258 | 571.13 | 360.5 | 784.54 | 86.08 |
| Hip height, in | 258 | 46.15 | 40.50 | 53.00 | 2.15 |
| Frame score | 258 | 5.44 | 2.53 | 8.20 | 1.05 |
| Age, days | 258 | 262.55 | 207.00 | 317.00 | 23.54 |
| Initial value, $/head[a] | 258 | 431.65 | 298.79 | 562.77 | 52.21 |

[a] Initial value of the steers was $81/cwt for 600 lb base weight with a $7.50 slide for steers weighing below 600 lbs and a $ - 3.00 slide for those above the base. Heifers initial value was $74.50/cwt for a 600 lb base weight with a $3.50 slide for heifers below 600 lbs and $ -1.50 slide for those above base weight.

Table 2. Animal performance receiving through start-up period (11/11-12/02 to 1/9-10/03).

| | *No. of Animals* | *Mean* | *Minimum* | *Maximum* | *Standard Deviation* |
|---|---|---|---|---|---|
| Steers | | | | | |
| Weight, lb (1/9-10/03) | 315 | 733.31 | 489.25 | 973.75 | 94.47 |
| Average daily gain, lb/day | 315 | 2.17 | -1.44 | 4.61 | .86 |
| Dry matter intake, lb/day[a] | 315 | 18.25 | 2.58 | 33.99 | 4.86 |
| Feed efficiency, lb feed DM/lb gain | 315 | 8.58 | -100.59 | 100.79 | 12.29 |
| Heifers | | | | | |
| Weight, lb (1/9-10/02) | 258 | 705.93 | 484.50 | 1011.75 | 90.87 |
| Average daily gain, lb/day | 258 | 2.27 | -1.54 | 4.31 | .78 |
| Dry matter intake, lb/day[a] | 258 | 18.01 | 2.37 | 38.44 | 4.77 |
| Feed efficiency, lb feed DM/lb gain | 258 | 8.25 | -19.35 | 32.94 | 3.07 |

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

Table 3. Animal performance finishing period (1/09-10/03 to out-date).

| | *No. of Animals* | *Mean* | *Minimum* | *Maximum* | *Standard Deviation* |
|---|---|---|---|---|---|
| Steers | | | | | |
| Finished weight, lb[a] | 315 | 1179.56 | 774.60 | 1552.38 | 126.55 |
| Average daily gain, lb/day | 315 | 4.14 | 1.32 | 5.89 | .66 |
| Dry matter intake, lb[b] | 315 | 22.01 | 8.38 | 37.16 | 4.37 |
| Feed efficiency, lb feed DM/lb gain | 315 | 5.30 | 4.22 | 6.36 | .39 |
| Heifers | | | | | |
| Finished weight, lb[a] | 258 | 1103.77 | 830.16 | 1417.46 | 115.57 |
| Average daily gain, lb/day | 258 | 3.89 | 2.08 | 5.46 | .56 |
| Dry matter intake, lb[b] | 258 | 21.79 | 10.97 | 35.87 | 4.37 |
| Feed efficiency, lb feed DM/lb gain | 258 | 5.57 | 4.53 | 6.93 | .45 |

[a] Calculated from hot carcass weight using a standard 63% dressing percentage.

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

Table 4. Animal performance total feeding period (11/11-12/02 to out-date).

| | *No. of Animals* | *Mean* | *Minimum* | *Maximum* | *Standard Deviation* |
|---|---|---|---|---|---|
| Steers | | | | | |
| Average daily gain, lb/day | 315 | 3.45 | 1.30 | 4.98 | .55 |
| Days on feed | 315 | 166.78 | 156.00 | 172.00 | 6.68 |
| Dry matter intake, lb[a] | 315 | 20.68 | 9.47 | 32.31 | 3.9 |
| Feed efficiency, lb feed DM/lb gain | 315 | 5.99 | 5.00 | 7.57 | .46 |
| Heifers | | | | | |
| Average daily gain, lb/day | 258 | 3.29 | 1.77 | 4.55 | .48 |
| Days on feed | 258 | 162.09 | 156.00 | 172.00 | 4.07 |
| Dry matter intake, lb[a] | 258 | 20.4 | 11.16 | 32.39 | 3.85 |
| Feed efficiency, lb feed DM/lb gain | 258 | 6.18 | 5.01 | 7.78 | .52 |

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

Carcass data for the cattle is reported in Table 5. Average hot carcass weight for the steers was 743 pounds, with a yield grade of 2.95 and a 12.46 in.$^2$ ribeye. Average marbling score was small (6.24) and average quality grade was mid-select (11.32). Heifers average carcass weight was 695 pounds, with a yield grade of 2.78 and a 12.52 in.$^2$ ribeye. Average marbling score for the heifers was mid-small (7.17) and quality grade was high-select (11.9).

All A to Z cattle were sold through Tyson Fresh Meat's Real-Time Market Value (RTMV) pricing grid system. Base price (USDA Choice yield grade 3) is established as in previous years (weekly average price for fed cattle in the Panhandle feeding region). Individual carcass incentives and discounts were then applied using the RTMV pricing grid. Market dates, number of steers and heifers marketed on those dates and incentives and discounts for specific traits are outlined in Table 6. Base price remained relatively

constant over the marketing period, ranging from a high of $127.77/cwt to a low of $125.15. The USDA Choice/Select spread ranged from $7.40/cwt to $7.10. USDA yield grade 2's received an additional $2.50/cwt, while yield grade 1's received a $6.50/cwt premium over 3's with these premiums remaining constant over the marketing period. Yield grade 4 discounts were $15/cwt through the marketing period. Light weight carcasses were discounted to a greater extent ($17.29 to $21.37/cwt) than heavy weight carcasses ($8.41 to $14.37/cwt). Carcasses qualifying for Certified Angus Beef (CAB) received premiums ranging from $5.36/cwt to $8.15/cwt, while USDA Prime premiums ranged from $12.40/cwt to $13.35/cwt.

Table 5. Animal performance carcass data.

| | *No. of Animals* | *Mean* | *Minimum* | *Maximum* | *Standard Deviation* |
|---|---|---|---|---|---|
| Steers | | | | | |
| Hot carcass weight, lb | 315 | 743.12 | 488.00 | 978.00 | 79.72 |
| Final yield grade | 315 | 2.95 | .69 | 4.97 | .70 |
| Ribeye area, sq in | 315 | 12.46 | 8.00 | 18.1 | 1.56 |
| Kidney, pelvic & heart fat, % | 315 | 2.10 | 1.00 | 3.50 | .49 |
| Backfat, in | 315 | .48 | .10 | 1.0 | .16 |
| Marbling score[a] | 315 | 6.24 | 0.00 | 17.00 | 2.82 |
| Quality grade[b] | 315 | 11.32 | 6.00 | 15.00 | 1.65 |
| Carcass price, $/cwt | 315 | 125.20 | 95.15 | 140.17 | 7.28 |
| Heifers | | | | | |
| Hot carcass weight, lb | 258 | 695.38 | 523.00 | 893.00 | 72.81 |
| Final yield grade | 258 | 2.78 | .75 | 5.00 | .70 |
| Ribeye area, sq in | 258 | 12.52 | 8.40 | 16.50 | 1.62 |
| Kidney, pelvic & heart fat, % | 258 | 1.98 | 1.00 | 3.50 | .42 |
| Backfat, in | 258 | .50 | .10 | .95 | .17 |
| Marbling score[a] | 258 | 7.17 | 3.00 | 18.00 | 2.81 |
| Quality grade[b] | 258 | 11.9 | 9.00 | 16.00 | 1.36 |
| Carcass price, $/cwt | 258 | 127.36 | 98.42 | 144.65 | 6.19 |

[a] Marbling score: Standard $\leq$ 2; Slight = 3, 4, 5; Small = 6, 7, 8; Modest = 9, 10, 11; Moderate = 12, 13, 14; Abundant $\geq$ 15.

[b] Quality grade: $\leq$ 8 = Standard, 9 = Select$^-$, 10 = Select$^0$, 11 = Select$^+$, 12 = Choice$^-$, 13 = Choice$^0$, 14 = Choice$^+$, $\geq$ 15 = Prime.

Table 6. Carcass prices Tyson Fresh Meat Real Time Market Value (RTMV).

| | 4/18/03<br>108 Heifers<br>106 Steers | 4/25/03<br>136 Heifers | 5/2/03<br>15 Heifers<br>209 Steers |
|---|---|---|---|
| Pr | +12.40 | +12.60 | +13.35 |
| CAB | +5.36 | +5.70 | +8.15 |
| YG1 | +6.50 | +6.50 | +6.50 |
| YG2 | +2.50 | +2.50 | +2.50 |
| **Ch 3 Base** | **$127.77<br>($80.50 Live)** | **$127.07<br>($80.05 Live)** | **$125.15<br>($78.85 Live)** |
| Se | -7.30 | -7.10 | -7.40 |
| YG4 | -15.00 | -15.00 | -15.00 |
| < 550 | -21.37 | -17.29 | -18.41 |
| > 950 | -14.37 | -11.29 | -8.41 |
| Heifers | -0.68 | -1.52 | -0.21 |

Costs and Returns

Costs associated with the custom feeding operation on a per animal and per pound of gain basis are reported in Tables 7 and 8. For analysis only, processing, medicine, death loss and interest were assessed on a fixed basis and were the same for each animal. Death loss was calculated as the initial value of the animal less any feedlot cost incurred to the time of mortality. These values were summed and divided by the number of finished animals to derive a death loss cost per head. On a cost per pound of gain basis, these costs are lower for animals with higher average daily gains.
Total feed cost per steer averaged $256.96 and heifers averaged $246.72 per head. Total feeding cost (feed, yardage, processing, medicine, death loss, interest, and opportunity cost) averaged $340.24 for the steers and $318.39 for the heifers. Feed and yardage costs per pound of gain averaged 52 cents and 54 cents for steers and heifers, respectively. Total cost of gain (on a $ per pound of gain basis) was 54 cents and 57 cents for steers and heifers, respectively.

The overall break-even prices and profitability of the feeding program are shown in Table 9. 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 $70.97 per cwt for steers and $67.92 per cwt for heifers. Break-even feeder price (the price that would have been paid for the steer or heifer going into the feedlot which would produce $0.00 profit/loss for the retained ownership program) was $98.21 for steers and $100.40 for the heifers. In other words, if the average price for steers in the fall of 2002 was less than $98.21, then the retained ownership program was more profitable than selling the weaned steers in the fall. The average profit was $96.40 per steers and $136.60 per heifers.

Critical factors that affected profitability were initial animal value, feedlot average daily gain, quality grade, and marketing date.

Steers were valued at $81.00/cwt for a 600 pound animal with a +$7.50 slide for lighter weight animals and a -$3.00/cwt slide for heavier weight animals. Heifers were valued at $74.50 for a 600 pound. animal with a +$3.50 slide for lighter weight animals and a -$1.50/cwt slide for heavier weight animals. Using these market prices, initial values of the cattle going into the feeding program averaged $495/steer and $432/heifer. The opportunity cost of not selling the animal at weaning (an interest expense tied directly to the initial value of the ) averaged $13.56/head and $11.49/head over the feeding period, for steers and heifers, respectively.

Animal performance was slightly above last year's program, with steers gaining 3.45 pounds per day and heifers gaining 3.29 pounds per day. Feed efficiency improved by more than 1 pound (more than 1 pound of less feed was required per pound of gain) over last year's performance. Feed efficiency last year was 7.32 pounds of feed per pound of gain for the steers, while heifers converted at 7.76 pounds. Feed efficiency this year was 5.99 pounds of feed per pound of gain for the steers, while heifers converted at 6.18 pounds.

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

| | *No. of Animals* | *Mean* | *Minimum* | *Maximum* | *Standard Deviation* |
|---|---|---|---|---|---|
| Steers | | | | | |
| Total feed[a] | 315 | 256.96 | 120.78 | 392.47 | 44.28 |
| Yardage[b] | 315 | 41.69 | 39.00 | 43.00 | 1.67 |
| Processing[c] | 315 | 5.59 | 5.59 | 5.59 | -- |
| Medicine | 315 | 4.40 | 4.40 | 4.40 | -- |
| Death loss | 315 | 7.15 | 7.15 | 7.15 | -- |
| Interest[cd] | 315 | 3.02 | 3.02 | 3.02 | -- |
| Opportunity[e] | 315 | 13.56 | 10.94 | 17.24 | 1.18 |
| Total Cost | 315 | 340.24 | 201.66 | 480.16 | 44.89 |
| Heifers | | | | | |
| Total feed[a] | 258 | 246.72 | 131.41 | 379.25 | 44.12 |
| Yardage[b] | 258 | 40.52 | 39.00 | 43.00 | 1.02 |
| Processing[c] | 258 | 5.59 | 5.59 | 5.59 | -- |
| Medicine | 258 | 1.67 | 1.67 | 1.67 | -- |
| Death loss | 258 | 1.92 | 1.92 | 1.92 | -- |
| Interest[cd] | 258 | 3.02 | 3.02 | 3.02 | -- |
| Opportunity[e] | 258 | 11.49 | 8.01 | 15.26 | 1.32 |
| Total Cost | 258 | 318.39 | 200.13 | 454.19 | 44.96 |

[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 $.25 per animal each day.

[c] Fixed cost shared by owners on a per animal basis.

[d] Feeding period financing costs, including interest at 9.00 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* | *Mean* | *Minimum* | *Maximum* | *Standard Deviation* |
|---|---|---|---|---|---|
| Steers | | | | | |
| Total feed[a] | 315 | .56 | .48 | .88 | .05 |
| Feed and yardage[b] | 315 | .52 | .45 | .75 | .04 |
| Total cost of gain | 315 | .60 | .51 | .93 | .05 |
| Heifers | | | | | |
| Total feed[a] | 258 | .46 | .38 | .58 | .04 |
| Feed and yardage[b] | 258 | .54 | .45 | .68 | .04 |
| Total cost of gain | 258 | .60 | .50 | .79 | .04 |

[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 $.25 per animal each day.

Table 9. Break-even price and profitability associated with custom feeding.

| | *No. of Animals* | *Mean* | *Minimum* | *Maximum* | *Standard Deviation* |
|---|---|---|---|---|---|
| Steers | | | | | |
| Break-even live price, $/cwt | 315 | 70.97 | 66.73 | 85.68 | 2.23 |
| Break-even feeder price, $/cwt | 315 | 98.21 | 48.71 | 127.22 | 12.09 |
| Profit/Loss, $/steers | 315 | 96.40 | -196.34 | 246.98 | 66.79 |
| Heifers | | | | | |
| Break-even live price, $/cwt | 258 | 67.92 | 62.66 | 74.69 | 1.87 |
| Break-even feeder price, $/cwt | 258 | 100.40 | 57.09 | 130.95 | 11.0 |
| Profit/Loss, $/heifers | 258 | 136.60 | -105.34 | 258.55 | 49.85 |

## SUMMARY

For the 2002-2003 feeding program, steers had an average daily gain of 3.45 pounds per day and heifers gained an average of 3.29 pounds per day during the feeding period. Dry matter intake was 20.68 and 20.4 pounds per head daily for steers and heifers , respectively. Feed efficiency was 5.99 pounds for the steers and 6.18 pounds for the heifers (expressed in a pounds of feed per pound of gain basis). Hot carcass weights were 743 pounds (steers) and 695 pounds (heifers ). Fifty-seven percent of the steers and 72 percent of the heifers graded choice or higher. In addition, 18 percent of all the steers (30% of the black steers ) and 19 percent of all the heifers (39% of the black heifers) met Certified Angus Beef (CAB) specifications and qualified for premiums under the RTMV pricing grid. Profits averaged $96.40 per steer and $136.60 per heifer. The range in profits and losses was large for both steers (+$246.98 to -$196.34 per head) and heifers (+$258.55 to -$105.34 per head). Prime and choice grades and CAB carcasses were responsible for the high-end of prices received and carcasses that were discounted for being light weight, not grading or yield grade 4 were on the low-end of the profitability scale. Animals that were treated for sickness or those

that did not gain weight were also on the low end of the profitability scale. Feedlot average daily gain, quality grade, and marketing date accounted for most of the variation in profitability. The difference in the percentage of carcasses grading choice accounts for much of the difference in average profitability between steers and heifers (57% vs. 72%).

Overall the 2002-2003 A to Z Retained Ownership, Inc. program was deemed a success by participants. Evaluations were conducted at the year-end meetings in Fruitland and Challis. A review of the questionnaires filled out by the participating ranchers at the year-end meetings indicated satisfaction in the way the program was run during the year. A majority of the ranchers would participate in this retained ownership program again and expressed an interest in feeding cattle for 2003-2004. This year ranchers indicated that the highest value of the A to Z Retained Ownership, Inc. program was the opportunity to gather information on their cattle and the opportunity to critically evaluate their cattle. Other areas where the A to Z program was deemed very useful are: selection of replacement heifers and bulls, keeping abreast with changes in the beef industry, retaining ownership of a calf crop, and fine-tuning ranch management. All suggestions, interests and comments will be considered in designing future retained ownership educational programs.

Cattle performance, feed costs and profitability for 2002-2003 compared to the previous ten years are shown in Appendix B. Incoming value of cattle, feed costs, feed efficiency, and carcass prices are variable over years and contribute greatly to the variation in profitability. Cattle performance is much less variable from year to year.

## LITERATURE CITED


BIF. 1990. Guidelines for uniform beef improvement programs. Beef Improvement Federation. North Carolina State University, Raleigh, North Carolina.

Owens, F.N., W.M. Sharp, and D.R. Gill. 1984. Net energy calculation from feedlot performance data. Research Report MP-116, p. 290. Oklahoma Agricultural Experiment Station, Stillwater, Oklahoma.

Sims, D.D., A.G. Maddux, and J. Mintert. 1991. Kansas steers futurities: 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, South Dakota.

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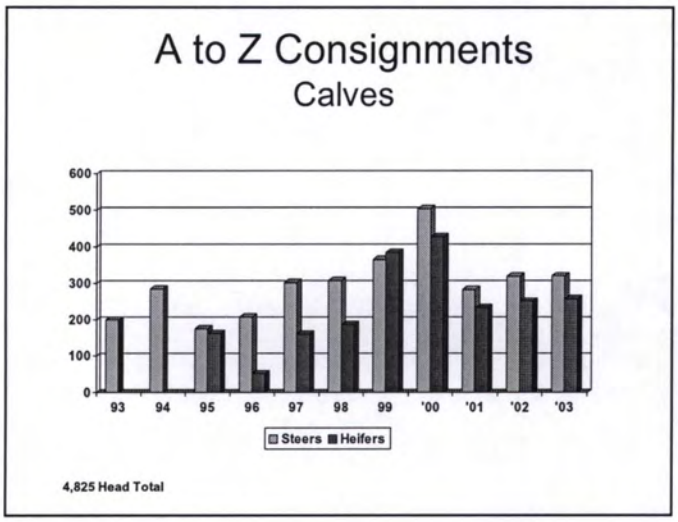
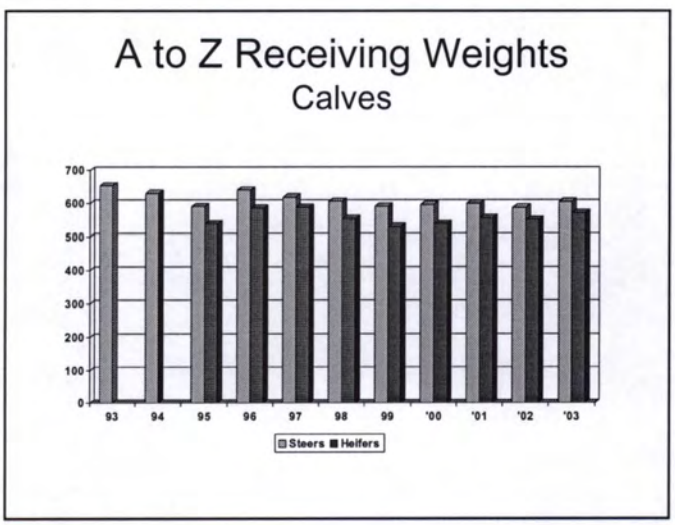
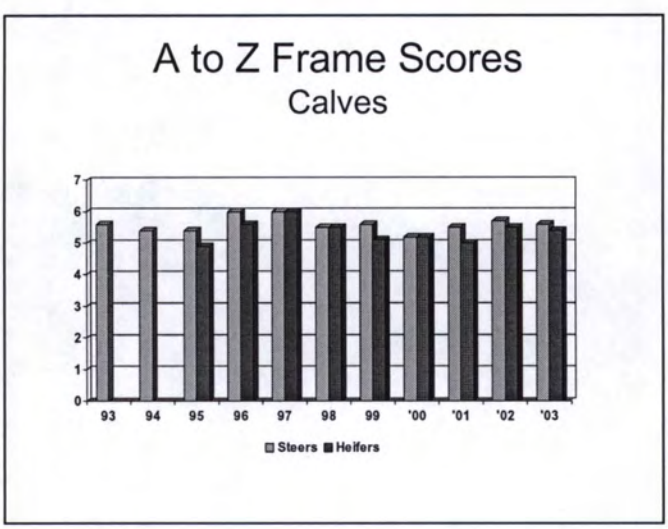
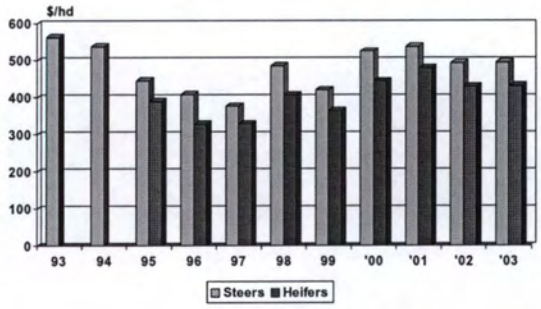
*Appendix B*


A to Z Consignments
Calves
600
500
400
300
200
100
0
93
94
95
96
97
98
99
'00
'01
'02
'03
Steers
Heifers
4,825 Head Total

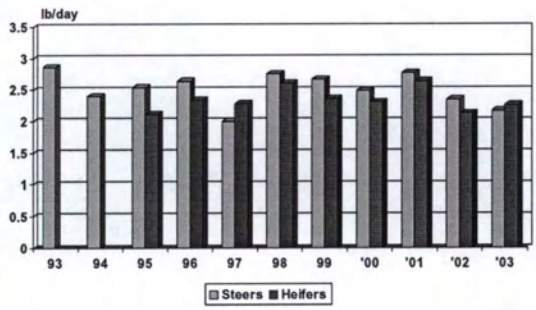

A to Z Receiving Weights
Calves
700
600
500
400
300
200
100
0
93
94
95
96
97
98
99
'00
'01
'02
'03
Steers
Heifers


A to Z Frame Scores
Calves
7
6
5
4
3
2
1
0
93
94
95
96
97
98
99
'00
'01
'02
'03
Steers
Heifers

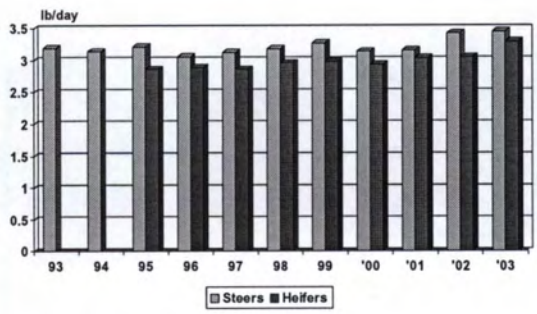
# A to Z Initial Value
## Calves



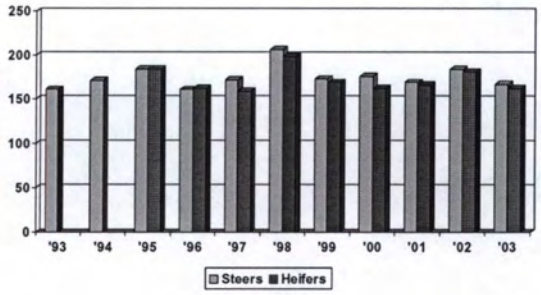

# A to Z – ADG (Receiving – Startup)
## Calves



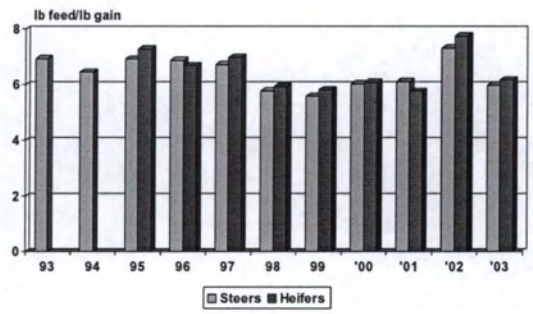

# A to Z – ADG Total
## Calves



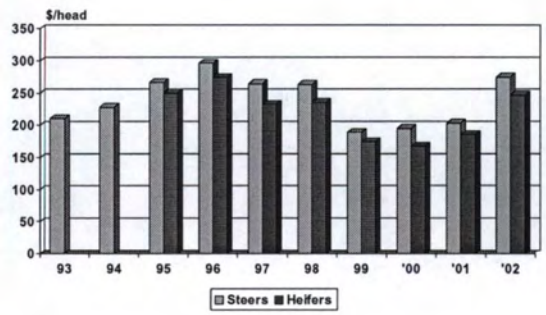
# A to Z – Days on Feed
## Calves



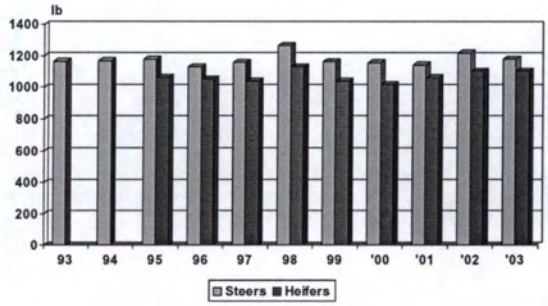

# A to Z – F/G
## Calves



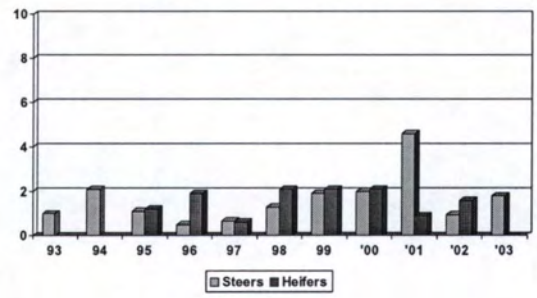

# A to Z – Feed Cost
## Calves



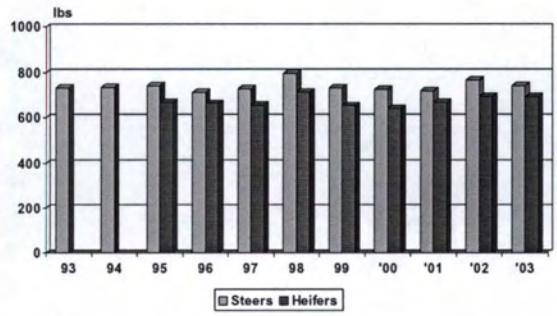
## A to Z Finished Weights
Calves



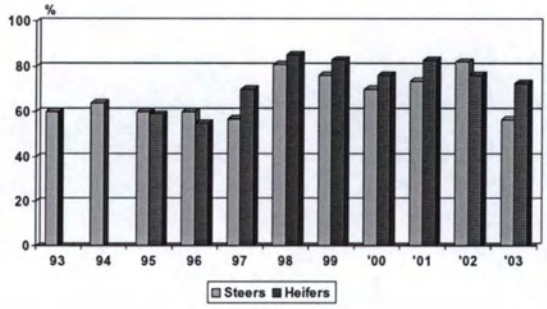

## A to Z Death Loss (%)
Calves



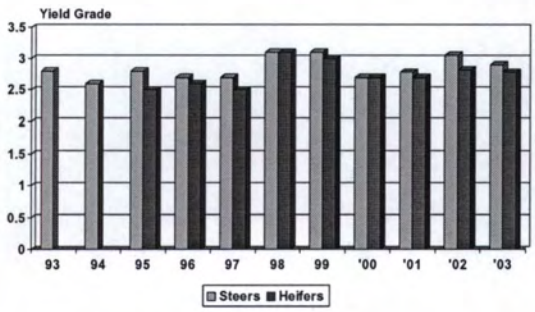

## A to Z Carcass Weights
Calves



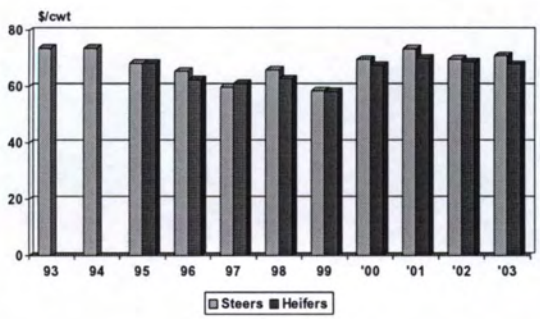
## A to Z Quality Grade (% Ch and Pr)
Calves



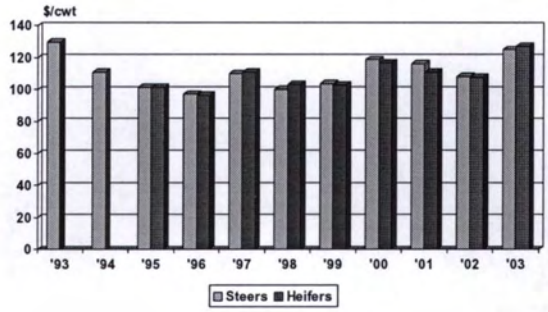

## A to Z Yield Grades
Calves




## A to Z – Break-Even
Calves



# A to Z Carcass Price
## Calves




# A to Z – Profit
## Calves