Technical **Report** TR98-2

Agricultural Experiment Station | Department of Animal Sciences | San Juan Basin Research Center | March 1998

49th Annual Beef Cattle Improvement Report and Sale Data

Colorado State University and Four Corners BCIA Bull Sale Saturday, April 4, 1998

D.W. Schafer, R.D. Green

Colorado State University

SATELLITE PREVIEW
------THURSDAY, APRIL 2, 1998------

8:00- 9:00 p.m. Satellite preview of sale bulls & heifers - coordinates: G3, channel 18.

PRE-SALE SOCIAL
------FRIDAY, APRIL 3, 1998------

6:00-8:00 p.m. Cattleman's Pre-Sale Social. K-Bob's Restaurant, Durango.

AUCTION
------SATURDAY, APRIL 4, 1998------

San Juan Basin Research Center, Hesperus, CO, 16 miles southwest of Durango on Colorado State Highway 140 (40 miles north of Farmington).

9:00 a.m. Display of sale bulls & heifers.

11:30 a.m. Lunch served by the Marvel Grange and sponsored in part by American Breeders Service.
Satellite preview of sale bulls & heifers - coordinates: G3, channel 18.

12:30 p.m. Auctioneer - Madden Brothers, Torrington, WY
Auction of approximately 170 performance tested bulls & heifers from the herd of the Colorado State University-San Juan Basin Research Center and Four Corners Beef Cattle Improvement Association (BCIA) breeders.

------GENERAL INFORMATION------

Satellite Transmission. The 49th Annual Four Corners Bull & Heifer Sale will be broadcast via Superior Productions satellite (coordinates: G3, channel 18). Buyers may choose to attend the sale or sit in the comfort of their own home and buy bulls simply by phoning one of the sale day phone numbers available to pre-registered buyers. The bulls and heifers will be taped on video prior to the sale and their pictures will be broadcast simultaneously as they sell with the sound being provided live from the sale site via telephone link. A preview of the bulls and heifers may be seen April 2 at 8:00 p.m. MST and again on April 4 at 11:30 a.m. MST followed by the sale at 12:30 p.m. MST. Persons interested in purchasing bulls and/or heifers via satellite need to call Dave Schafer at (888) 598-9775 to register for a buyer number. You must have a buyer number to purchase bulls and/or heifers over the satellite. If you do not have a satellite, try contacting a neighbor or your local Extension agent to see if they will let you view the sale.

Terms of Sale. All lots will be sold to the highest bidder. The Auctioneer will settle any disputes as to bids by declaring all bids off and reselling the animals in question. Animals sold in this sale will be fed and cared for free of charge for twenty-four hours following the sale, but at the owner's risk, and will be turned over to the purchaser or loaded for shipment as he may direct. A certificate of transfer and bill of sale will be furnished for each animal sold, and a registration certificate will be furnished on all registered animals by the Consignor. The Purchaser must present a bill of sale at the loading pens prior to removing the animal(s) from the premises. The terms of sale are cash and all settlements must be made at the close of the auction unless other arrangements have been made prior to the sale.

Delivery & Insurance. Free delivery will be provided to central locations within a 500 mile radius and/or to persons with purchases of $10,000 or more. For purchases outside the 500 mile radius and under $10,000, low cost delivery will be arranged at the time of settlement. Bulls &/or heifers selling to Canada or Mexico will be delivered to the nearest port of entry at the border. Expenses and transportation beyond the border will be the responsibility of the buyer. All bulls & heifers are cleared for interstate shipment and have been tested in accordance with rules and regulations approved by the Animal Health Division (USDA) and the State of Colorado as a certified brucellosis and accredited tuberculosis free herd. Buyers requesting to have their bulls &/or heifers delivered must purchase low cost insurance(1.5% of the purchase price for 15 days coverage) at the time of settlement to protect the hauler. The same insurance is also available to all other buyers upon request and for longer coverage periods if so desired.

Breeders Guarantee. All sale bulls are guaranteed to be breeders. All bulls are subjected to a breeding soundness exam (BSE). All bulls must meet the minimum standards set by the Four Corners BCIA. Only bulls that meet this criteria are offered for sale. If for some unforseen reason a bull should prove to be a non-breeder, it should be brought to the attention of the test personnel and/or seller within 90 days after the sale. If an adjustment is to be made, the Four Corners BCIA Cooperator must be provided with a certificate from a veterinarian stating the problem with the bull.

Structural Soundness Exam. All sale bulls will be subjected to a comprehensive structural soundness exam. The bulls have been managed and developed in such a way as to minimize feet and leg problems and to insure their future soundness. However, despite our best efforts, some bulls leave something to be desired when it comes to feet, legs and structural soundness. Therefore, instead of trimming feet or utilizing other methods to cover up unsoundness, the bulls will be critically analyzed by two qualified cattlemen and a veterinarian for structural soundness. Structurally unsound bulls will be removed from the sale.

Health Program. All bulls & heifers were tested for tuberculosis and brucellosis upon arrival at the test center. All bulls & heifers were treated with Ivermectin-F for internal and external parasites. All bulls have been inoculated with IBR, BVD, BRSV, PI_3, 7-Way Clostridia, and H. Somnus vaccine. All heifers have been vaccinated for brucellosis and tested for pulmonary arterial pressure (PAP), reproductive tract score (RTS) and pelvic measurements. All bulls have been tested for breeding soundness, pelvic measurements and PAP. Measurements from these tests are provided in the catalog.

Obligation. It shall be expressly understood that the sponsors of this sale, Colorado State University-San Juan Basin Research Center and Four Corners BCIA, act only as agents for the consignors and assume no liability, legal or otherwise. All guarantees shall constitute a contract between the Consignor and the Purchaser of each lot.

Sealed Bids. Sealed bids for any of the bulls or heifers may be handled through Dave Schafer, San Juan Basin Research Center (970-385-4574).

------*PERFORMANCE TESTING SINCE 1949*------

Ranchers from the Four Corners area and surrounding western states have been testing bulls cooperatively with Colorado State University's San Juan Basin Research Center since 1950. Colorado State University began performance testing in 1949 and opened the test to area ranchers in 1950. In 1975, a forty pen bull testing facility was built by the Cooperators to test over 200 bulls annually.

The Four Corners Bull Test offers purebred and commercial cattlemen the opportunity to purchase bulls with good genetics that will perform on mountain ranches. Bulls purchased from this test have greatly influenced the genetics of herds in Colorado and neighboring states. Ranchers who have purchased Four Corners performance-tested bulls for more than 10 years have reported 100-200 pound increases in weaning and yearling weights.

The elevation of the Four Corners Bull Test is 7,600 feet making it the nation's only high mountain bull test. Many of the cooperators as well as buyers run their cattle at high elevations and are concerned about costly losses to brisket disease (high altitude disease). Research at Colorado State University has shown that pulmonary arterial pressure (PAP) is a very good indicator of brisket disease susceptibility. Additionally, research has shown that differences in PAP values are highly heritable; therefore, selection for lower PAP values can lower the incidence of brisket disease. PAP information is provided in the catalog.

-----*PERFORMANCE TESTING PROCEDURES*-----

The bulls were delivered to the test facility on October 20, 1997. Following a 21 day adjustment period, the bulls were weighed on the 112 day test November 10, 1997. Bulls were weighed at 28, 56, 84, and 112 days with 2-day weights taken for the initial and 112-day periods. Bulls were penned in groups of 3 to 6 bulls per pen.

Bulls were fed twice daily, a mixture of sorghum silage (45%), corn (35%), ground alfalfa/grass hay (17%), soybean meal (3%), and a vitamin/mineral supplement. The feed was weighed to each pen. Feed conversion was calculated for the group of bulls in each pen. Feed efficiency values were adjusted to a common body weight as recommended by the Beef Improvement Federation.

-----*ACKNOWLEDGMENTS*-----

A HUGE THANK YOU to Stetson Conrad for feeding & caring for the bulls & to the San Juan Basin Research Center Crew *(Dave Schafer, Gary Conrad, Tom Campion, Ronda Shockley, Dan Selzer, Josh Golden, Kristin Goff & Rena Bacus)* for their hard work in getting things ready for the sale. Your efforts are greatly appreciated!

ALSO, SPECIAL THANKS to Beth LaShell, the La Plata County 4-H Livestock Judging Team & their parents for clipping & washing the bulls. Your hard work is VERY much appreciated.

FOUR CORNERS BEEF CATTLE IMPROVEMENT ASSOCIATION CONSIGNORS

7X Bar Registered Herefords; Dave Hooker; 884-3650 Lane; Hotchkiss, CO 81419; 970-872-3034

Clark Ranches; John Clark; 5722 CR 311; Ignacio, CO 81137; 970-884-2893

Gary Conrad; 18683 Hwy 140; Hesperus, CO 81326; 970-385-4457

Craig Herefords; Dan & Karen Craig; P.O. Box 152; Phippsburg, CO 80469; 970-736-2272

CSU-San Juan Basin Research Center; David Schafer; 18683 Hwy 140; Hesperus, CO 81326; 970-385-4574

Travis & Carry Daves; P.O. Box 282; Pleasant View, CO 81331; 970-562-4527

Desert Edge Ranch; Perry Bunderson; Moore Rt Box 15; Ferron, UT 84523; 801-286-2279/2366

Douglas Creek Herefords; Scott Robertson; P.O. Box 490; Rangely, CO 81648; 970-675-8569

Douglas Creek Herefords; Owen Robertson; P.O. Box 190; Rangely, CO 81648; 970-675-8569

Gooders Hereford Hollow Ranch; L.J. & Wendy Gooder; RR#1 Box 1794; Washburn, MO 65772; 417-435-2499

Greer Ranches; Jim Greer; 7882 CR 100; Hesperus, CO 81326; 970-588-2220

Doug Hall Herefords; Doug Hall; 321 Peachway; Fruita, CO 81521; 970-858-3203

Hanging W Herefords; Robert & Rita Weitzel; 16662 CR 25; Dolores, CO 81323; 970-882-2286

James Kennett; P.O. Box 251; Placerville, CO 81430; 970-883-5305

Brice Lee; 940 CR 119; Hesperus, CO 81326; 970-588-3369

Kevin & Bunny McComb; 10950 CR 23; Cortez, CO 81321; 970-565-2003

LaMar Monroe & Sons; LaMar Monroe; P.O. Box 560327; Scipio, UT 84656; 801-758-2424

LPB Red Angus; Lawrence L. Bucholz; 2616 Arch Lane; Farmington, NM 87402; 505-327-1619

Neal Ranches; Lynn & Paula Neal; 29400 CR M; Dolores, CO 81323; 970-564-1724

Randle Land & Cattle; Robert Campbell; 5688 CR 321; Ignacio, CO 81137; 970-563-9070

Rasmusson Charolais Ranch; Shand Rasmusson; 97 E. 100 S. (57-4); Ephraim, UT 84627; 801-283-4244

Rasmusson Charolais Ranch; 200 E. 233 N.; Manti, UT 84642; 801-835-5191

Redd Ranches; Paul Redd; Box 326; Paradox, CO 81429; 970-859-7358

Reininghaus Ranches; John Reininghaus; 5134 Indian Creek Rd.; Cathey's Valley, CA 95306; 209-374-3355

Reininghaus Ranches; John Reininghaus; P.O. Box 430; Ignacio, CO 81137; 970-883-2248

Salt Creek Simmentals; Jerry McCaw; 7063 Hwy 172; Ignacio, CO 81137; 970-884-2541

Shoeneman 5M Charolais Ranch; Joel & Linda Shoeneman; 8672 WCR 73; Roggen, CO 80652; 303-849-5258

Sitton's Registered Herefords; Jim Sitton; P.O. Box 277; Bayfield, CO 81122; 970-884-2570

Sweet Grass Herefords; Earl & Debbie Raymond; 5755 WCR 63; Keenesburg, CO 80643; 303-732-0423

T-Cross Ranches; Wilbur Davis, Mgr.; 24350 Squirrel Creek Rd; Colorado Springs, CO 80928; 719-683-3288

T-Cross Ranches; Robert Norris, Owner; 6310 N. Yucca Road; Paradise Valley, AZ 85253; 602-998-1269

Tycksen Farms; Walter H. & Audrey Tycksen; Box 244; Pleasant View, CO 81331; 970-562-4681

Vaca Roja Ranch; Carolyn Watson; 778 Salt Creek Rd.; Ignacio, CO 81137; 970-259-0138

Wells-Champlin Ranch; Cliff Schmid; P.O. Box 452; Ignacio, CO 81137; 970-883-5305

Dick White; Box 363; Gallup, NM 87305

GLOSSARY OF TERMS & ABBREVIATIONS

112 Day Weight (112 DAY WT) - Weight taken at the end of the 112 day test. This weight is used as the bulls actual yearling weight and for calculating adjusted yearling weight.

Accuracy (ACC) - Correlation between an animal's unknown actual breeding value and a calculated estimated breeding value.

Actual Weaning Weight (ACT WW) - Weight taken at the time the calf is removed from the cow and weaned.

Adjusted Hip Height (ADJ HIP HT) - Height of the animal at the hips adjusted to 365 days of age using the following formula (Note: The value 0.025 is used in the same formulas to adjust heifers hip heights).

Under 365 days in age: Actual Hip Ht. + (Number of days under 365 x 0.033)
Over 365 days in age: Actual Hip Ht. - (Number of days over 365 x 0.025)

Adjusted Pelvic Area (ADJ PELV AREA) - Obtained by multiplying the height and width measurements of the pelvic opening and adjusting to a common age of 365 days. Area is measured in square centimeters (cm^2). Pelvic area has been shown to influence calving difficulty in first-calf heifers. The following formulas are used to adjust pelvic openings for males and females:

Males: Actual Pelvic Area + .25(365 - actual age) Females: Actual Pelvic Area + .27(365 - actual age)

Adjusted Weaning Weight (ADJ WW) - An un-shrunk, off-the-cow weight adjusted to 205 days of age and to a mature dam age equivalence.

$$\frac{\text{(Actual Weaning Wt. - Birth Weight)}}{\text{Age at weaning}} \times 205 + \text{Birth Wt.} + \text{Age of Dam Adjustment}$$

Adjusted Yearling Weight (ADJ YW) - An un-shrunk weight adjusted to 365 days of age and for age of dam. The following formula is used:

$$\frac{\text{(Actual Yearling Wt. - Actual Weaning Wt.)}}{\text{Number of days between the two weights}} \times 160 + \text{Adjusted Weaning Weight}$$

Average Daily Gain (ADG) - Measurement of daily body weight change in an animal on a feed test.

Beef Improvement Federation (BIF) - A federation of organizations, businesses, and individuals interested or involved in performance evaluation of beef cattle. The purposes of BIF are to bring about uniformity of procedures, development of programs, cooperation among interested entities, education of its members and the ultimate consumers of performance evaluation methods, and to build confidence of the beef industry in the principles and potentials of performance testing.

Birth Weight (BW) - The weight of a calf taken within 24 hours after birth. Heavy birth weights tend to be correlated with calving problems, but the conformation of the calf and the cow are contributing factors.

Breeding Soundness Exam (BSE) - Includes an internal and external physical evaluation and an evaluation of a bull's semen for quality and quantity. A bull must meet certain criteria to be declared a satisfactory breeder.

Expected Progeny Difference (EPD) - The difference in performance to be expected from future progeny of a parent, compared with that expected from future progeny of all other parents evaluated in the analysis when bred to equal mates. EPD is an estimate based on progeny testing and is equal to one-half the estimate of breeding value obtainable from the progeny test records. EPDs for growth traits are generally expressed in pounds, either as a plus difference or minus difference from the population average. EPDs are generally reported in the units of measure of the trait, (e.g., pounds, cm, cm^2, percent, etc.).

Feed Conversion (FEED CONV) - Also referred to as feed efficiency, this is a measure of units of feed consumed per unit of weight gained. Also the production (meat, milk) per unit of feed consumed.

Frame Score (FR SC) - A score based on the actual measurement of hip height that was calculated according to BIF guidelines using the following formula:

$$\text{Frame Score} = -11.548 + .4878*(\text{hip ht}) - .0289*(\text{days of age}) + .00001947*(\text{days of age})^2 + .0000334*(\text{hip ht})*(\text{days of age}).$$

Initial Weight (INIT WT) - Weight of the animal at the beginning of the performance test.

Maternal Value of Daughters-Milk (MK) - This value relates to those traits that are maternally influenced and expressed only by the female, e.g., milk production. It is the difference in performance expected from future progeny of daughters of the parent in question as compared to other parents evaluated in the analysis. Both the sire and dam transmit genes for maternal traits to their female progeny. These daughters express their full breeding value (2 x their EPD) for the maternal trait.

Maternal Value of Daughters-Wean WT (TM) - This value is calculated for traits that are both directly and maternally determined, such as weaning weight. It is the difference in total performance expected from the future progeny from daughters of the parent in question due to that parent's genetic contribution to its daughters. It is calculated as one-half the direct EPD value plus the maternal EPD value. The EPD value of the parent predicts the performance of its grand-progeny.

Most Probable Producing Ability (MPPA) - An estimate of cows's future productivity for a trait (such as progeny weaning weight ratio) based on her past productivity. For example, a cow's MPPA for weaning ratio is calculated from the cow's average progeny weaning ratio, the number of her progeny with weaning records, and the repeatability of weaning weight.

Number of Contemporaries (NO CONT) - The number of animals of similar breed, sex, and age, against which an animal was compared in performance tests. The greater the number of contemporaries, the greater the accuracy of comparisons.

Percent Inbreeding (PCT INB) - Percent of loci that have genes identical by descent (homozygous).

Pulmonary Arterial Pressure (PAP) - Obtained by a procedure called "right heart catheterization", this test is the best indicator to date for identifying animals predisposed to Brisket Disease. The test is not 100 percent and should be used as such. Generally, cattle with PAP values greater than 50 are considered high and cattlemen should be cautious of using them at high elevations.

Reproductive Tract Score (RTS) - Score used to estimate sexual maturity (puberty) in heifers via rectal palpation of the uterine horns and ovaries. The score ranges from 1 to 5. A RTS of 1 = an infantile tract & not cycling; 2 = an infantile tract with small follicles & not cycling; 3 = on the verge of cycling, slight uterine tone, follicles present; 4 = cycling heifers, good uterine tone & size, and follicular growth; 5 = cycling heifers with palpable corpus luteum.

Scrotal Circumference (SC) - A measure of testes size obtained by measuring the distance around the testicles in the scrotum with a circular tape. Related to semen producing capacity and age at puberty of female sibs and progeny.

Total Maternal (TM) - see Maternal Value of Daughters-WEAN WT.

Weight per day of age (WDA) - Weight of an individual divided by the individual's age in days.

Weight Ratio (RAT) - In beef cattle evaluations, weight ratios refer to the weight of an individual animal relative to the average of all animals in the same group. An average ratio is 100 so if an animal has a ratio of 105 he is 5% above the average and if an animal has a ratio of 95 he is 5% below the average. Ratios are calculated using the following formula:

$$\frac{\text{Individual record}}{\text{Average of animals in group}} \times 100.$$

AUCTION - SATURDAY, APRIL 4, 1998
12:30 p.m.
Performance of Cooperator and Experiment Station Purebred and Composite Bulls

Performance Information: The information in the following section was generated from the bulls on the 112 day performance test. Weaning weight was adjusted to 205 days of age and for age of dam according to each breed organization's standard adjustments. Adjusted weaning weights and ratios were generally supplied by the cooperators. Adjusted yearling weight was computed as adjusted weaning weight plus average daily gain from weaning to the 112 day test weight multiplied by 160. Average daily gain ratios were computed using the bull's record divided by the average of the bulls of the same breed group, multiplied by 100. Breed average daily gains are presented below. Because of pre-test differences between ranches, critical comparisons should be made using the information generated since the bulls began the 112 day test. All bulls listed in the catalog will sell provided no problems arise between the printing of this catalog and sale day.

Sale Order: The bulls are list by sale order within breed. This year each breed will be rotated through the sale order and only a few will sell at a time instead of all of one breed as in years past. For example, there are 42 Herefords, 21 Red Angus and 16 Angus. We will sell the first 25% of each breed in rotation. So, 11 Herefords will sell, then 5 Red Angus, followed by 4 Angus and the remaining breeds. Then we will repeat the process and sell the second 25% of each breed and continue until all bulls have passed through the sale ring. A sheet listing the final sale order will be provided on sale day. The sale order of breeds will be: Hereford, Red Angus, Angus, Gelbvieh, Simmental, Charolais, Limousin, System 1 Composites and Gelbvieh-Hereford Crosses.

Calving Ease Bulls (CE): Calving ease bulls are marked with a "CE" in the upper right hand corner of the bull's information box. Calving ease bulls were selected using actual birth and birth weight EPD.

Pulmonary Arterial Pressure (PAP): Obtained by a procedure called "right heart catheterization", this test is the best indicator to date for identifying animals predisposed to Brisket Disease (High Altitude Disease). The test is not 100 percent accurate and should be used as such. Generally, cattle with PAP values greater than 50 are considered high and cattlemen should be cautious of using them at elevations above 7000 feet. Cattlemen with ranches at less than 5000 feet elevation do not need to be concerned with the PAP value unless they are selling breeding stock to cattlemen at high elevations. Bulls with PAP values greater than 50 are best suited for operations at less than 5000 feet elevation.

Expected Progeny Differences (EPDs): The EPDs presented in the following section were obtained from their respective breed associations. EPDs are the expected differences (expressed in pounds) in performance of a sire's progeny when compared to fixed base. While EPDs for birth, weaning and yearling weights refer to the progeny of sires, the maternal values of milk and weaning weight refer to how we expect progeny of daughters to perform. The accuracy value is a measure of reliability for the corresponding EPD. They range from 0 to 1 and are calculated according to Beef Improvement Federation Guidelines. The higher the value, the more confidence we have that the sire's EPD will not change much with additional progeny. In general, the more information on a sire, the higher the accuracy value. Because these bulls are young, the EPDs presented are pedigree estimates (or back solutions) and would have very low accuracies. Additionally, EPDs cannot be compared across breeds. Each breed association is responsible for producing its' own sire summary and therefore, different methods and data sets are used. The following EPD estimates are the best available for young bulls.

BREED AVERAGE DAILY GAINS

Breed	Number	ADG
Hereford	63	2.79
Angus	20	2.89
Red Angus	26	2.83
Simmental	8	3.00
Gelbvieh	10	3.03
Limousin	2	2.60
Charolais	6	2.86
System 1	13	2.96
GV-H	7	3.21
Overall	155	2.87

HORNED & POLLED HEREFORD

9-1 LMS Lumberjack 7153 100% P. Hereford

Born: 03/31/97 Tattoo: 7153 Polled

Consignor: LaMar Monroe & Sons - Scipio, UT

Sire: Gold Tradition 42
PGS: MDH Trdition 401Z ET
Dam: LMS Summette 153
MGS: NK L1 Domino 9449

PAP	SC	HT	PELV
44	34.0	54.7	191

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	4.1	655	52	1168	84	8	35

ADG/Ratio: 4.09/147 **WDA**: 3.20 Cowmans kind of bull, pedigree loaded with performance & moderate BW. His sire ranks in the top 1% of the breed for WW & YW. Pictured to the right.

9-6 LMS Lumberjack 7841 100% P. Hereford

Born: 03/28/97 Tattoo: 7841 Polled

Consignor: LaMar Monroe & Sons - Scipio, UT

Sire: Gold Tradition 42
PGS: MDH Trdition 401Z ET
Dam: LMS L1 Lady 841
MGS: L1 Domino 202 ET

PAP	SC	HT	PELV
52	31.0	53.2	172

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	4.0	717	52	1179	82	17	43

ADG/Ratio: 3.43/123 **WDA**: 3.24 Another great Tradition son with added muscle & excellent group. Dam is a great Reggie daughter with a milk EPD of +29. 7841 had a 717 lb 205 adj. wt. (no creep).

10-5 DCH Mr Pro Q Time 7355 100% Hereford

Born: 03/27/97 Tattoo: 7355 Horned

Consignor: Douglas Creek Herefords - Rangely, CO

Sire: SB Prospector Q276
PGS: CWH Prospector 3232
Dam: DCH Ms Pro Expl 1201
MGS: RR Prospector 9394

PAP	SC	HT	PELV
61	34.0	50.3	186

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
89	1.8	621	23	1088	49	19	30

ADG/Ratio: 3.54/127 **WDA**: 3.00 Selling full possession, retaining 1/4 interest. Weaned at 49% of dam's body wt., moderate BW, exceptional growth. Great-grandsire was Prospector 7558.

7-2 DK General 709 100% Hereford

Born: 02/15/97 Tattoo: 709 Horned

Consignor: Craig Herefords - Phippsburg, CO

Sire: Church General 542
PGS: JV Generator 118
Dam: DK Miss Stockman 202
MGS: MFR Stockman 764

PAP	SC	HT	PELV
41	35.5	51.6	182

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
90	3.3	699	34	1163	70	18	35

ADG/Ratio: 3.16/113 **WDA**: 3.16 Dam is a "Dam of Distinction" in the Hereford breed. Her '96 bull calf was a top seller at the '97 4 Corners Sale & his grandam had the highest gaining bull in 1996.

7-3 DK General 717 100% Hereford

Born: 02/28/97 Tattoo: 717 Horned

Consignor: Craig Herefords - Phippsburg, CO

Sire: Church General 542
PGS: JV Generator 118
Dam: DK Miss Stockman 203
MGS: MFR Stockman 764

PAP	SC	HT	PELV
45	36.0	51.0	176

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
85	2.9	655	31	1058	63	14	30

ADG/Ratio: 3.45/124 **WDA**: 2.88 His dam is one of our best cows.

12-2 Prospector 707 100% P. Hereford

Born: 04/08/97 Tattoo: 707 Polled

Consignor: Brice Lee - Hesperus, CO

Sire: Prospector T 2662
PGS:
Dam: Prospectora 360
MGS: Ouray P 9686

PAP	SC	HT	PELV
41	35.0	51.4	163

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
75	N/A	702	N/A	1164	N/A	N/A	N/A

ADG/Ratio: 3.04/109 **WDA**: 3.22 Dam had one of the largest pelvic measurements recorded in our herd (196). Low calf weight, calving ease bull. Part of the '98 High gaining Hereford sire group.

10-2 DCH The RCC Prospct 7210 100% Hereford

Born: 02/13/97 Tattoo: 7210 Horned

Consignor: Douglas Creek Herefords - Rangely, CO

Sire: RCC Prospector 4006
PGS: RCC Prospct 7141 1ET
Dam: DCH Ms Tarr Exp 0251
MGS: Tarrington O 7460

PAP	SC	HT	PELV
38	34.0	49.4	161

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
83	1.0	550	20	1034	39	9	19

ADG/Ratio: 3.40/122 **WDA**: 2.80 Selling full possession & 3/4 semen interest. Sire is an inbred Prospector. PGS most feed eff. bull in '89 4 Corners test. Dam weaned 54% of body wt. & bred A.I.

8-1 SR 3203 Aggie 7112 100% Hereford

Born: 02/07/97 Tattoo: 7112 Horned

Consignor: Sitton's Registered Herefords - Bayfield, CO

Sire: CSU Aggie 3203
PGS: OXH Mark Domino 7028
Dam: SR 10H Press 5133
MGS: Star Domino 10H 1ET

PAP	SC	HT	PELV
39	37.5	49.7	198

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
79	0.7	602	31	1090	56	20	35

ADG/Ratio: 3.19/114 **WDA**: 2.77

13-3 DH Prototype L8 100% Hereford

Born: 03/06/97 Tattoo: L8 Horned

Consignor: 7X Bar Registered Herefords - Hotchkiss, CO

Sire: HH Advance 9012Y
PGS: CL 1 Domino 501
Dam: DH Protoette G1
MGS: GK Genetic Explosion

PAP	SC	HT	PELV
34	34.0	51.6	177

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	1.0	644	25	1045	45	19	31

ADG/Ratio: 3.28/118 **WDA**: 2.84

14-1 GHH L1 Domino 9702 100% Hereford

Born: 02/05/97 Tattoo: 702 Horned

Consignor: Gooders Hereford Hollow Ranch - Washburn, MO

Sire: Stretch
PGS: GHH L1 Domino 9401
Dam: DB Grand Lady 931
MGS: Dom 1087 5044

PAP	SC	HT	PELV
47	32.0	52.4	180

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
89	N/A	630	N/A	1029	N/A	N/A	N/A

ADG/Ratio: 3.22/116 **WDA**: 2.81 Excellent range bull prospect. Sire was top gainer at OSU 4.30 ADG. Dam's nurse ratio is 117 on 6 calves.

5-3 Monument Time 97102 100% Hereford

Born: 01/28/97 Tattoo: 7102 Horned

Consignor: Doug Hall Registered Herefords - Fruita, CO

Sire: Monument Time 923
PGS: Tex Prime Time
Dam: Monument Lady 91102
MGS: DH Monument 956

PAP	SC	HT	PELV
46	32.0	50.7	168

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
91	3.4	649	44	1073	73	8	30

ADG/Ratio: 3.07/110 **WDA**: 2.92 Dam is Line one and Carpenter-Williams breeding.

1-2 Prospector 7326 100% Hereford

Born: 04/07/97 Tattoo: 7326 Horned

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: RCC Prospector 4006
PGS: RCC Prospct 7141 1ET
Dam: Prospectita R 9655
MGS: Prospector 2218

PAP	SC	HT	PELV
45	33.0	49.9	174

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
92	3.9	601	21	1006	37	15	26

ADG/Ratio: 3.27/117 **WDA**: 2.79 30% inbred bull out of one of our top cows. Average weaning wt. ratio on 7 calves is 110.

12-1 Prospector T 701 100% Hereford

Born: 04/09/97 Tattoo: 701 Horned

Consignor: Brice Lee - Hesperus, CO

Sire: Prospector T 2662
PGS:
Dam: Terra P 061
MGS: Tarrington 4578

PAP	SC	HT	PELV
42	35.0	49.4	190

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
70	N/A	562	N/A	996	N/A	N/A	N/A

ADG/Ratio: 3.21/115 **WDA**: 2.73 Low calf weight, calving ease bull. Part of the 1998 High gaining Hereford sire group.

5-5 Monument Rock 9754 100% Hereford

Born: 01/18/97 Tattoo: 9754 Horned

Consignor: Doug Hall Registered Herefords - Fruita, CO

Sire: RB L1 Domino 5004
PGS: HH Advance 249B
Dam: Monument Lady 9554
MGS: Monument Time 923

PAP	SC	HT	PELV
43	34.0	50.4	157

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
87	2.5	591	34	1003	62	10	27

ADG/Ratio: 3.08/111 **WDA**: 2.52 Sire is proven for easy calving.

10-1 DCH Prospectr Again 7205 100% Hereford

Born: 02/11/97 Tattoo: 7205 Horned

Consignor: Douglas Creek Herefords - Rangely, CO

Sire: RCC Prospector 4006
PGS: RCC Prospct 7141 1ET
Dam: DCH Pros 7558 4462
MGS: VR L1 Ouray 932

PAP	SC	HT	PELV
41	38.0	48.9	171

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
87	2.8	557	17	979	34	14	22

ADG/Ratio: 3.15/113 **WDA**: 2.54 Out of the 53% inbred RCC Prospector 4006, his dam weaned 49% of her body weight & bred back A.I.

5-2 Monument Lad 9709 100% Hereford

Born: 01/03/97 Tattoo: 9709 Horned

Consignor: Doug Hall Registered Herefords - Fruita, CO

Sire: HH Advance 9012Y
PGS: CL 1 Domino 501
Dam: Redland Lady 9309
MGS: DH Monument Rave 27

PAP	SC	HT	PELV
38	36.0	52.0	179

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
94	1.8	593	30	1018	52	15	29

ADG/Ratio: 3.02/108 **WDA**: 2.68 Sire (HH Advance 9012Y) is one of the top Hereford sires. Cow is one of my best cows.

7-4 DK General 718 100% Hereford

Born: 03/01/97 Tattoo: 718 Horned

Consignor: Craig Herefords - Phippsburg, CO

Sire: Church General 542
PGS: JV Generator 118
Dam: DK Miss Stockman 214
MGS: MFR Stockman 764

PAP	SC	HT	PELV
39	32.0	51.5	176

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
100	5.5	704	36	1082	72	17	35

ADG/Ratio: 2.81/101 **WDA**: 2.93 His dam is one of our four Dams of Distinction.

6-4 T+ Ouray 7118 100% Hereford

Born: 02/16/97 Tattoo: 7118 Horned

Consignor: T-Cross Ranches - Colorado Springs, CO

Sire: Ouray Prospector 501
PGS: Ouray P 9686
Dam: Ms T+ Sterling 5128
MGS: T+ Sterling N 3065

PAP	SC	HT	PELV
39	33.0	50.0	188

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
75	N/A	618	N/A	990	N/A	N/A	N/A

ADG/Ratio: 3.05/110 **WDA**: 2.54

9-3 LMS Lumberjack 7418 100% P. Hereford

Born: 02/18/97 Tattoo: 7418 Polled

Consignor: LaMar Monroe & Sons - Scipio, UT

Sire: Gold Tradition 42
PGS: MDH Trdition 401Z ET
Dam: LMS Perfette 918
MGS: Mr Perfect Time 1ET

PAP	SC	HT	PELV
39	34.0	52.2	168

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
85	3.9	614	50	1036	83	12	37

ADG/Ratio: 2.90/104 **WDA**: 2.70 Another long stretchy Tradition son with excellent pigmentation.

8-3 SR 10H Domino 7140 100% Hereford

Born: 03/14/97 Tattoo: 7140 Horned

Consignor: Sitton's Registered Herefords - Bayfield, CO

Sire: Star Domino 10H
PGS: Star Domino 288
Dam: SR Ms Explosion 1222
MGS: CSU Explosion 7234

PAP	SC	HT	PELV
43	35.0	50.9	174

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
84	1.6	543	28	1014	46	22	36

ADG/Ratio: 2.96/106 **WDA**: 2.79

5-6 Monument Rock 9723 100% Hereford

Born: 01/23/97 Tattoo: 9723 Horned

Consignor: Doug Hall Registered Herefords - Fruita, CO

Sire: RB L1 Domino 5004
PGS: HH Advance 249B
Dam: Monument Lady P9523
MGS: Rell Poundmaker 051

PAP	SC	HT	PELV
49	34.0	50.2	182

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
92	1.7	570	23	968	41	16	27

ADG/Ratio: 3.11/111 **WDA**: 2.43 Dam's grandsire is CL 1 Domino 590. Dam is a 2-year old.

10-4 DCH Will Count Q 7343 100% Hereford

Born: 03/14/97 Tattoo: 7343 Horned

Consignor: Douglas Creek Herefords - Rangely, CO

Sire: SB Prospector Q276
PGS: CWH Prospector 3232
Dam: SB Prospectia Q35
MGS: CWH Prospector 3232

PAP	SC	HT	PELV
36	34.0	47.9	168

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
87	1.4	568	15	984	37	25	33

ADG/Ratio: 3.04/109 **WDA**: 2.70 Selling full possession, retaining 1/4 interest. Bull is 12.5% inbred. Very high maternal EPD traits, excellent udders & good eye pigment.

11-2 Prospector 735 100% Hereford

Born: 04/23/97 Tattoo: 735 Horned

Consignor: Brice Lee - Hesperus, CO

Sire: Prospector T 2662
PGS:
Dam: Prospectora MD 216
MGS: JCB Mark Dom 4172

PAP	SC	HT	PELV
34	33.0	50.7	180

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
75	N/A	535	N/A	1005	N/A	N/A	N/A

ADG/Ratio: 2.97/107 **WDA**: 2.73 Low calf weight, calving ease bull. Part of the 1998 High gaining Hereford sire group.

9-4 LMS Lumberjack 7419 100% P. Hereford

Born: 02/24/97 Tattoo: 7419 Polled, Scurs

Consignor: LaMar Monroe & Sons - Scipio, UT

Sire: Gold Tradition 42
PGS: MDH Trdition 401Z ET
Dam: LMS Dominette 419
MGS: RB L1 Domino 2088

PAP	SC	HT	PELV
36	30.0	52.4	169

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
92	3.5	673	47	1062	80	17	40

ADG/Ratio: 2.73/98 **WDA**: 2.82 Big rugged calf exhibits a lot of natural thickness to go along with his strong EPD package.

6-6 T+ Ouray 7140 100% Hereford

Born: 02/21/97 Tattoo: 7140 Horned

Consignor: T-Cross Ranches - Colorado Springs, CO

Sire: Ouray Prospector 501
PGS: Ouray P 9686
Dam: T+ Ms Sterling 5190
MGS: S Nizhoni 919

PAP	SC	HT	PELV
36	33.0	51.7	176

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
82	N/A	665	N/A	1037	N/A	N/A	N/A

ADG/Ratio: 2.76/99 **WDA**: 2.67

12-3 Prospector 747 100% Hereford

Born: 04/13/97 Tattoo: 747 Horned

Consignor: Brice Lee - Hesperus, CO

Sire: Prospector T 2662
PGS:
Dam: Prospectora MD 214
MGS: JCB Mark Dom 4172

PAP	SC	HT	PELV
37	36.0	50.4	177

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
70	N/A	574	N/A	1028	N/A	N/A	N/A

ADG/Ratio: 2.77/99 **WDA**: 2.80 Low calf weight, calving ease bull. Part of the 1998 High gaining Hereford sire group.

10-3 DCH CSU Challenger 7334 100% Hereford

Born: 03/05/97 Tattoo: 7334 Horned

Consignor: Douglas Creek Herefords - Rangely, CO

Sire: CSU Explosion 7234
PGS: GK Genetic Explosion
Dam: DCH Ms Tarchal 8262
MGS: L1 Challenger

PAP	SC	HT	PELV
41	33.0	49.1	153

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
86	5.6	569	28	984	50	16	30

ADG/Ratio: 2.89/104 **WDA**: 2.69 Out of an ABS sire, his maternal grandsire is also an ABS bull. Should pass tremendous growth & maternal traits to progeny.

15-2 Commercial Bull Polled Hereford

Born: 04/07/97 Tattoo: 7357 Polled

Consignor: Wells-Champlin Ranch - Ignacio, CO

Sire: 50% CSU Cash Bull
PGS:
Dam:
MGS:

PAP	SC	HT	PELV
45	31.0	48.9	168

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
99	N/A	592	N/A	960	N/A	N/A	N/A

ADG/Ratio: 2.95/106 **WDA**: 2.55

15-3 Commercial Bull Polled Hereford

Born: 04/14/97 Tattoo: 75201 Polled

Consignor: Wells-Champlin Ranch - Ignacio, CO

Sire: WIB Megatime 212
PGS:
Dam:
MGS:

PAP	SC	HT	PELV
44	31.0	48.6	156

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
71	N/A	571	N/A	992	N/A	N/A	N/A

ADG/Ratio: 2.82/101 **WDA**: 2.57

7-5 DK General 720 100% Hereford

Born: 03/02/97 Tattoo: 720 Horned

Consignor: Craig Herefords - Phippsburg, CO

Sire: Church General 542
PGS: JV Generator 118
Dam: DK Miss Stockman 308
MGS: MFR Stockman 764

PAP	SC	HT	PELV
37	31.0	49.0	172

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
84	2.8	672	30	1029	64	11	26

ADG/Ratio: 2.67/96 **WDA**: 2.76 Dam is a full sister to #7-2. Her heifer took Reserve Grand Champion female at the Routt County Fair in 1997.

1-6 Prospector T 7010 100% Hereford

Born: 02/11/97 Tattoo: 7010 Horned

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: Prospector 5102
PGS: RCC Prspctr 3030 1ET
Dam: Taren OU 5221
MGS: Tarrington P 1542

PAP	SC	HT	PELV
35	38.0	49.0	181

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
95	4.2	556	26	950	48	13	26

ADG/Ratio: 2.90/104 **WDA**: 2.41 13% inbred, out of a 2-yr old dam, PGS is the sire of the top gaining bull over all breeds in this year's test.

4-4 Monument Glen P9714 100% P. Hereford

Born: 02/25/97 Tattoo: 9714 Polled

Consignor: Doug Hall Registered Herefords - Fruita, CO

Sire: GK Excello 546D
PGS: GK Excello 116B
Dam: Monument Lady 9414
MGS: H Tim 13

PAP	SC	HT	PELV
42	40.0	50.8	169

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
98	4.9	692	37	1064	61	16	34

ADG/Ratio: 2.51/90 **WDA**: 2.81

4-1 Monument Glen P971 100% P. Hereford

Born: 02/15/97 Tattoo: 971 Polled

Consignor: Doug Hall Registered Herefords - Fruita, CO

Sire: GK Excello 546D
PGS: GK Excello 116B
Dam: Monument Lady 941
MGS: Tex Prime Time

PAP	SC	HT	PELV
44	37.0	52.0	156

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
98	6.1	611	41	992	73	15	35

ADG/Ratio: 2.72/98 **WDA**: 2.61

1-4 Prospector 7322 100% P. Hereford

Born: 04/02/97 Tattoo: 7322 Polled

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: Prospector A 3556
PGS: Feltons 488
Dam: Prospectita OU 4139
MGS: Prospector T 2456

PAP	SC	HT	PELV
45	39.0	49.8	162

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
84	1.9	635	34	1019	59	14	31

ADG/Ratio: 2.58/93 **WDA**: 2.70 PGS ranks #1 in the Hereford breed for scrotal circumference & his sire ranks #2.

11-1 Prospector T 703 100% Hereford

Born: 04/13/97 Tattoo: 703 Horned

Consignor: Brice Lee - Hesperus, CO

Sire: Prospector T 2662
PGS:
Dam: Terra P 055
MGS: Tarrington 4578

PAP	SC	HT	PELV
44	31.0	50.4	176

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
70	N/A	535	N/A	940	N/A	N/A	N/A

ADG/Ratio: 2.69/96 **WDA**: 2.54 Low calf weight, calving ease bull. Part of the 1998 High gaining Hereford sire group.

9-2 LMS Tradition 7181 100% P. Hereford

Born: 03/27/97 Tattoo: 7181 Polled

Consignor: LaMar Monroe & Sons - Scipio, UT

Sire: Gold Tradition 365
PGS: MDH Trdition 401Z ET
Dam: LMS Pretty Time 181
MGS: KH Prime Time 9451

PAP	SC	HT	PELV
35	31.5	52.1	179

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
92	5.1	729	49	1018	83	24	48

ADG/Ratio: 2.42/87 **WDA**: 2.86 Stout growthy calf with strong EPDs. Dam is on of our best cows with a milk EPD of +28. 7181 has an adj. 205-day wt. of 729 lbs (no creep).

1-3 Prospector OU 7154 100% P. Hereford

Born: 03/05/97 Tattoo: 7154 Polled

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: Feltons Monarch 650
PGS: FHR J215 Lute 987
Dam: Miss Ouray P 2521
MGS: Ouray 9120

PAP	SC	HT	PELV
32	37.0	48.6	160

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
106	4.8	569	32	928	47	17	33

ADG/Ratio: 2.68/96 **WDA**: 2.54 Very low PAP with good growth & strong maternal traits.

6-1 Sterling T+ 7117 100% P. Hereford

Born: 02/16/97 Tattoo: 7117 Polled, Scurs

Consignor: T-Cross Ranches - Colorado Springs, CO

Sire: T+ Sterling N 3065
PGS: S Nizhoni 919
Dam: T+ Pro Miss 4412
MGS: RCC Prospector 6141

PAP	SC	HT	PELV
38	31.0	50.6	156

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
74	4.9	623	28	941	45	13	27

ADG/Ratio: 2.63/94 **WDA**: 2.46

13-2 JA L1 Domino 7257 100% Hereford

Born: 02/03/97 Tattoo: 7257 Horned

Consignor: Hanging W Herefords - Dolores, CO

Sire: JA L1 Domino 3202
PGS: GB L1 Domino 690
Dam: JA L1 Dominette 507
MGS: CL 1 Domino 177

PAP	SC	HT	PELV
32	32.0	47.6	166

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
86	3.2	524	33	885	56	10	26

ADG/Ratio: 2.77/99 **WDA**: 2.25 A tremendous calf from a heifer. Clean profile with evident muscle. Sire is easy calving.

6-3 Sterling T+ 7175 100% P. Hereford

Born: 03/02/97 Tattoo: 7175 Polled, Scurs

Consignor: T-Cross Ranches - Colorado Springs, CO

Sire: T+ Sterling N 3065
PGS: S Nizhoni 919
Dam: T+ Ms Prospect 0160
MGS: Prospector T 6596

PAP	SC	HT	PELV
41	35.0	50.0	180

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
90	6.3	691	35	961	51	10	28

ADG/Ratio: 2.49/89 **WDA**: 2.61

1-1 Prospector T 7304 100% Hereford

Born: 03/27/97 Tattoo: 7304 Horned

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: RCC Prospector 4006
PGS: RCC Prospct 7141 1ET
Dam: Taren P 7597
MGS: Tarrington 2216

PAP	SC	HT	PELV
35	34.0	48.3	158

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
78	1.5	524	14	857	22	14	21

ADG/Ratio: 2.63/95 **WDA**: 2.36 13% inbred, should be an easy calving bull when used on Hereford heifers.

RED ANGUS

5-1 Monument Glen P978 100% P. Hereford

Born: 01/29/97 Tattoo: 978 Polled

Consignor: Doug Hall Registered Herefords - Fruita, CO

Sire: GK Excello 546D
PGS: GK Excello 116B
Dam: Monument Lady P938
MGS: Rell Poundmaker 051

PAP	SC	HT	PELV
39	33.0	50.2	184

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
86	2.2	594	36	920	61	6	24

ADG/Ratio: 2.43/87 **WDA**: 2.46 Dam has Carpenter-Williams breeding.

28-2 97 VRR El Dolor 130 100% Red Angus

Born: 04/15/97 Tattoo: 701 Polled, Black

Consignor: Vaca Roja Ranch - Ignacio, CO

Sire: VRR El Dolor 925
PGS: El Dolor 7400
Dam: 315 Deb 1092 AAA
MGS: VDAR New Trend 315

PAP	SC	HT	PELV
45	33.0	51.6	172

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
81	3.7	702	23	1209	43	14	26

ADG/Ratio: 3.54/125 **WDA**: 3.35 1998 High gaining Red Angus bull & part of the high gaining Red Angus sire group. Pictured below.

14-4 VRR Taursorv 060 100% Red Angus

Born: 03/27/97 Tattoo: 060 Polled, Red

Consignor: Clark Ranches - Ignacio, CO

Sire: VRR Super Red
PGS: 87 VRR Superstar
Dam: VRR Honesty
MGS: Bieber Honest Abe

PAP	SC	HT	PELV
49	34.0	50.6	166

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
85	1.9	755	22	1249	36	5	18

ADG/Ratio: 3.15/111 **WDA**: 3.46

24-4 Redd B. Clifftop 7566 99% Red Angus CE

Born: 04/11/97 Tattoo: 7566 Polled, Red

Consignor: Redd Ranches - Paradox, CO

Sire: Beckton Cliff Top E013T
PGS: Beckton Clifftop T
Dam: RDD Miss Topper 3646
MGS: RDD B Topper 1675

PAP	SC	HT	PELV
43	35.0	50.8	175

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
78	-2.8	545	15	1079	33	9	17

ADG/Ratio: 3.54/125 **WDA**: 2.93

28-3 97 VRR El Dolor 323 100% Red Angus CE

Born: 04/24/97 Tattoo: 702 Polled, Red

Consignor: Vaca Roja Ranch - Ignacio, CO

Sire: VRR El Dolor 925
PGS: El Dolor 7400
Dam: VRR Sonja 061
MGS: El Dolor 7400

PAP	SC	HT	PELV
56	35.0	49.8	173

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
80	-1.7	720	19	1129	32	9	18

ADG/Ratio: 2.97/105 **WDA**: 3.08 Part of the 1998 High gaining Red Angus sire group.

28-1 97 VRR El Dolor 057
100% Red Angus CE
Born: 04/25/97 Tattoo: 700 Polled, Black

Consignor: Vaca Roja Ranch - Ignacio, CO

Sire: VRR El Dolor 925
PGS: El Dolor 7400
Dam: VRR Bogey
MGS: Bieber Design 1325-082

PAP	SC	HT	PELV
45	34.0	52.4	188

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
79	-1.3	756	19	1180	28	7	16

ADG/Ratio: 2.82/100 **WDA**: 3.25 Part of the 1998 High gaining Red Angus sire group.

27-2 LPB Topper G02
100% Red Angus
Born: 02/02/97 Tattoo: G02 Polled, Red

Consignor: LPB Red Angus - Farmington, NM

Sire: RDD Topper C302
PGS: Bieber Topper 2476
Dam: VRR Flo-Two
MGS: CWH Redmesa 307

PAP	SC	HT	PELV
36	35.0	48.3	164

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
62	1.4	486	26	923	41	5	18

ADG/Ratio: 3.50/124 **WDA**: 2.49 Twin. Super fertile dam, twins born Feb. 2, 1997 and another set of twins born Feb. 4, 1998.

28-4 97 VRR Mustang 107
100% Red Angus CE
Born: 04/05/97 Tattoo: 703 Polled, Red

Consignor: Vaca Roja Ranch - Ignacio, CO

Sire: VRR Mustang 617
PGS: 87 VRR Superstar
Dam: VRR Super Queen
MGS: 87 VRR Superstar

PAP	SC	HT	PELV
53	36.0	51.8	182

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
77	-1.9	774	16	1168	28	13	21

ADG/Ratio: 2.59/92 **WDA**: 3.24

29-3 AWT Topper 093
100% Red Angus
Born: 02/24/97 Tattoo: O93 Polled, Black

Consignor: Tycksen Ranch - Pleasant View, CO

Sire: Stevenson Fortune 435C
PGS:
Dam: CWA 106 Allstar
MGS: Continental Allstar

PAP	SC	HT	PELV
44	32.5	50.8	161

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
78	N/A	462	N/A	919	N/A	N/A	N/A

ADG/Ratio: 3.22/114 **WDA**: 2.46

25-3 CSU El Dolor 7048
100% Red Angus CE
Born: 02/22/97 Tattoo: 7048 Polled, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: LMAN None Better 9604
PGS: Leachman Better Hvy 8041
Dam: CSU Dolores 1435
MGS: El Dolor 7400

PAP	SC	HT	PELV
44	36.0	49.2	168

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
84	-0.8	565	31	1001	50	2	17

ADG/Ratio: 3.30/117 **WDA**: 2.73 Long bodied, deep ribbed & heavy muscled.

25-2 CSU El Dolor 7088
100% Red Angus
Born: 03/01/97 Tattoo: 7088 Polled, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: LMAN None Better 9604
PGS: Leachman Better Hvy 8041
Dam: CSU Dolores 8421
MGS: Continental Allstar

PAP	SC	HT	PELV
49	36.0	50.0	195

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
94	2.3	642	40	1089	60	4	23

ADG/Ratio: 2.98/105 **WDA**: 2.98 Very attractive bull, long bodied, deep ribbed & heavy muscled. Great addition to anyone's herd.

27-3 LPB Topper G03
100% Red Angus
Born: 02/08/97 Tattoo: G03 Polled, Red

Consignor: LPB Red Angus - Farmington, NM

Sire: RDD Topper C302
PGS: Bieber Topper 2476
Dam: VRR Misty
MGS: CWH Redmesa

PAP	SC	HT	PELV
40	34.0	49.4	186

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
90	0.1	651	24	1027	41	8	20

ADG/Ratio: 2.94/104 **WDA**: 2.75 12-year old dam has never missed. This bull has extra length, depth & width.

25-4 CSU El Dolor 7060
100% Red Angus CE
Born: 02/25/97 Tattoo: 7060 Polled, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: LMAN None Better 9604
PGS: Leachman Better Hvy 8041
Dam: CSU Dolores 2565
MGS: CSU El Dolor 0410

PAP	SC	HT	PELV
31	36.0	48.8	164

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
78	-1.6	549	28	980	45	-1	13

ADG/Ratio: 3.00/106 **WDA**: 2.68 Lowest PAP bull in the sale. Long bodied with above average to heavy muscle.

24-3 Redd B. Clifftop 7343

100% Red Angus

Born: 02/05/97 Tattoo: 7343 Polled, Red

Consignor: Redd Ranches - Paradox, CO

Sire: Beckton Cliff Top E013T
PGS: Beckton Clifftop T
Dam: RDD Ms Z Julian 5781
MGS: Beckton Julian G Z413

PAP	SC	HT	PELV
72	36.0	46.2	153

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
80	-1.7	476	20	977	38	4	14

ADG/Ratio: 2.98/105 **WDA**: 2.39

29-2 AWT Topper 030

99% Red Angus

Born: 03/02/97 Tattoo: O30 Polled, Red

Consignor: Tycksen Ranch - Pleasant View, CO

Sire: LPB Topper E04
PGS: RDD Topper C302
Dam: LaPlata 62
MGS: RDD Neva 6287

PAP	SC	HT	PELV
40	34.0	49.0	192

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
80	0.0	477	24	935	37	8	20

ADG/Ratio: 3.02/107 **WDA**: 2.52 Dam has raised 4 calves and each has been one of the best in the herd. Sire was the 2nd high gaining bull in '96 4 Corners Test.

24-1 Redd B. Clifftop 7275

99% Red Angus

Born: 02/03/97 Tattoo: 7275 Polled, Red

Consignor: Redd Ranches - Paradox, CO

Sire: Beckton Cliff Top E013T
PGS: Beckton Clifftop T
Dam: RDD Ms 5-Spot 5603
MGS: Leachman Five Spot

PAP	SC	HT	PELV
40	37.0	48.1	173

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
96	0.5	538	26	1003	44	2	15

ADG/Ratio: 2.79/99 **WDA**: 2.49

24-2 Redd B. Clifftop 7295

99% Red Angus

Born: 02/01/97 Tattoo: 7295 Polled, Red

Consignor: Redd Ranches - Paradox, CO

Sire: Beckton Cliff Top E013T
PGS: Beckton Clifftop T
Dam: RDD Ms Clipper 5535
MGS: RDD Clipper 0319

PAP	SC	HT	PELV
44	34.0	46.0	158

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
80	-0.3	454	25	947	45	7	19

ADG/Ratio: 2.94/104 **WDA**: 2.30

27-4 LPB Topper G04

100% Red Angus

Born: 02/18/97 Tattoo: G04 Polled, Red

Consignor: LPB Red Angus - Farmington, NM

Sire: CSU El Dolor 5212
PGS: Beckton Vanquish B892
Dam: LPB Topper 727C
MGS: RDD Topper C302

PAP	SC	HT	PELV
76	30.0	50.7	162

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
84	0.0	687	27	1024	48	12	26

ADG/Ratio: 2.54/90 **WDA**: 2.64

14-3 VRR Taur 32

100% Red Angus

Born: 03/20/97 Tattoo: 32 Polled, Red

Consignor: Clark Ranches - Ignacio, CO

Sire: VRR Super Red
PGS: 87 VRR Superstar
Dam: VRR Sonja 823
MGS: El Dolor 7400

PAP	SC	HT	PELV
56	34.0	50.0	177

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
68	0.3	650	22	1002	34	12	22

ADG/Ratio: 2.61/92 **WDA**: 2.74

29-1 AWT Topper 092

100% Red Angus

Born: 03/04/97 Tattoo: O92 Polled, Red

Consignor: Tycksen Ranch - Pleasant View, CO

Sire: LPB Topper E04
PGS: RDD Topper C302
Dam: WHT Titan 4001
MGS: 224 PJM 1142

PAP	SC	HT	PELV
49	31.0	49.0	166

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
84	1.8	445	18	936	29	5	14

ADG/Ratio: 2.55/90 **WDA**: 2.39 Dam has a quiet disposition, easy to handle and has raised one of the top calves every year.

26-4 CSU El Dolor 7098

100% Red Angus

Born: 03/02/97 Tattoo: 7098 Polled, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: MRM Supreme CE 9407
PGS: BUF CRK Copper Top 1628
Dam: CSU Dolores 9679
MGS: El Dolor 7400

PAP	SC	HT	PELV
36	31.0	49.5	160

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
90	-0.6	507	12	885	24	14	20

ADG/Ratio: 2.62/92 **WDA**: 2.42

27-1 LPB Topper G01 100% Red Angus

Born: 02/02/97 Tattoo: G01 Polled, Red

Consignor: LPB Red Angus - Farmington, NM

Sire: RDD Topper C302
PGS: Bieber Topper 2476
Dam: VRR Flo-Two
MGS: CWH Redmesa 307

PAP	SC	HT	PELV
60	32.0	47.3	158

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
67	1.4	503	26	841	41	5	18

ADG/Ratio: 2.53/89 **WDA**: 2.29 Twin. Super fertile dam, twins born Feb. 2, 1997 and another set of twins born Feb. 4, 1998.

31-1 Commercial Angus Bull Angus

Born: 03/10/97 Tattoo: 37 Scurs, Black

Consignor: Greer Ranches - Hesperus, CO

Sire: CSU Rito 3410
PGS: Tybar Top Dawg M20
Dam:
MGS:

PAP	SC	HT	PELV
35	35.0	48.8	190

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
72	N/A	640	N/A	1111	N/A	N/A	N/A

ADG/Ratio: 3.36/116 **WDA**: 2.96

14-2 LWG Scotch Trademark 754 100% Angus

Born: 02/12/97 Tattoo: Polled, Black

Consignor: Gooders Hereford Hollow Ranch - Washburn, MO

Sire: Jacs Mailman 2031
PGS: Bold Scotch SC 491
Dam: Nichols Lula U77
MGS: Nichols Trademark 51

PAP	SC	HT	PELV
43	41.0	52.6	177

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
90	N/A	615	N/A	1092	N/A	N/A	N/A

ADG/Ratio: 3.22/112 **WDA**: 2.96 Our best cow family. Nurse ratio of 111 on 8 calves. Sire was JACS Ranch top gaining & largest SC bull with a 13.61 REA at 365-days.

33-5 CSU Tybar Q77 7094 100% Angus CE

Born: 03/02/97 Tattoo: 7094 Polled, Black

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: Tybar Emulation Q77
PGS: Emulation N Bar 5522
Dam: Miss CSU Rito 5053
MGS: Tybar Impact M32

PAP	SC	HT	PELV
34	35.0	48.0	165

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
72	-1.6	562	15	988	37	11	20

ADG/Ratio: 3.33/115 **WDA**: 2.54 Part of the 1998 High gaining Angus Sire group. Stacked pedigree for low PAP & calving ease. Out of 2-year old dam.

31-4 Commercial Angus Bull Angus

Born: 03/17/97 Tattoo: 23 Scurs, Black

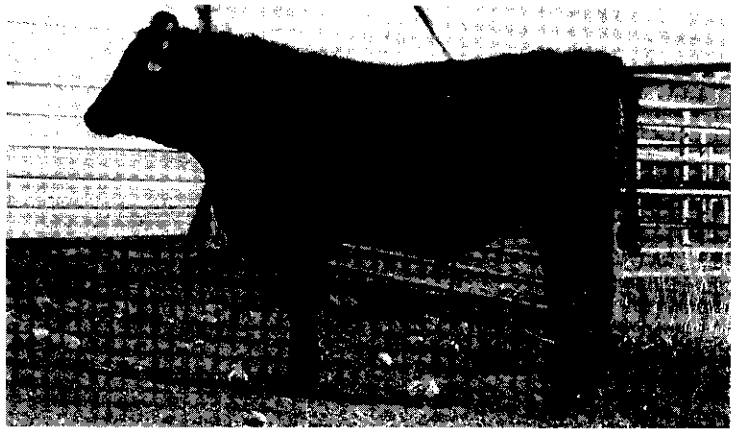
Consignor: Greer Ranches - Hesperus, CO

Sire: BMA Wild Turkey 5B1
PGS: Becks MTN Wild Turkey 1X5
Dam:
MGS:

PAP	SC	HT	PELV
35	39.0	52.9	190

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
82	N/A	665	N/A	1168	N/A	N/A	N/A

ADG/Ratio: 3.47/120 **WDA**: 3.21 1998 High gaining Angus bull. Pictured below



31-2 Commercial Angus Bull Angus

Born: 02/26/97 Tattoo: 96 Polled, Black

Consignor: Greer Ranches - Hesperus, CO

Sire: CSU Rito 3410
PGS: Tybar Top Dawg M20
Dam:
MGS:

PAP	SC	HT	PELV
40	37.0	48.9	179

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
71	N/A	593	N/A	1022	N/A	N/A	N/A

ADG/Ratio: 3.26/113 **WDA**: 2.80

33-4 CSU Tybar Q77 7280 100% Angus

Born: 03/21/97 Tattoo: 7280 Polled, Black

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: Tybar Emulation Q77
PGS: Emulation N Bar 5522
Dam: Miss Rito 2587
MGS: Select 0448

PAP	SC	HT	PELV
41	35.0	48.5	185

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
82	0.4	563	13	1000	32	7	16

ADG/Ratio: 3.22/112 **WDA**: 2.76 Part of the 1998 High gaining Angus Sire group. Good low PAP.

33-2 CSU Tybar R58 7008 100% Angus

Born: 02/11/97 Tattoo: 7008 Polled, Black

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: Tybar Emulation EXT R58
PGS: N Bar Emulation EXT
Dam: Miss CSU Rito 5011
MGS: VDAR Traveler 722

PAP	SC	HT	PELV
43	35.0	48.0	181

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	2.6	582	30	1028	57	16	38

ADG/Ratio: 3.10/107 **WDA**: 2.62 Low PAP with good growth & maternal EPDs.

30-4 Tycksen Ambush 701 100% Angus

Born: 02/02/97 Tattoo: 701 Polled, Black

Consignor: Tycksen Ranch - Pleasant View, CO

Sire: Paramount Ambush 2172
PGS: Bandolier Eston Durness 42B
Dam: K-E Princes Eileen 93
MGS: K-E McDonald

PAP	SC	HT	PELV
40	34.0	48.8	171

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
70	3.0	447	27	1042	44	16	29

ADG/Ratio: 2.99/103 **WDA**: 2.45

32-3 CSU Tybar M20 7000 100% Angus

Born: 02/06/97 Tattoo: 7000 Polled, Black

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: Tybar Top Dawg M20
PGS: Vance Top Dawg
Dam: Miss CSU Rito 5115
MGS: Tybar Eurloch P68

PAP	SC	HT	PELV
49	35.0	48.4	180

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
86	1.1	582	28	1014	41	11	34

ADG/Ratio: 3.07/106 **WDA**: 2.58 Long bodied, deep ribbed with above average to heavy muscle. Out of a 2-year old dam.

33-3 CSU Tybar Q77 7294 100% Angus CE

Born: 03/24/97 Tattoo: 7294 Polled, Black

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: Tybar Emulation Q77
PGS: Emulation N Bar 5522
Dam: Miss Rito 1467
MGS: GDAR Cash Flow 6203

PAP	SC	HT	PELV
39	40.0	49.0	176

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
76	-0.4	542	13	955	34	13	20

ADG/Ratio: 3.05/106 **WDA**: 2.64 Part of the 1998 High gaining Angus Sire group. Good low PAP & a calving ease bull. Large scrotal circumference.

32-2 CSU Tybar M20 7004 100% Angus CE

Born: 02/11/97 Tattoo: 7004 Polled, Black

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: Tybar Top Dawg M20
PGS: Vance Top Dawg
Dam: Miss CSU Rito 5001
MGS: VDAR Traveler 722

PAP	SC	HT	PELV
42	38.0	49.0	187

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
80	0.2	663	31	1056	50	16	39

ADG/Ratio: 2.65/92 **WDA**: 2.72 Long, deep ribbed bull with above average to heavy muscle. Out of 2-year old dam.

32-4 CSU Tybar P68 7114 100% Angus CE

Born: 03/02/97 Tattoo: 7114 Polled, Black

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: Tybar Eurloch P68
PGS: Stone Gate Eurloch
Dam: Miss Rito 1453
MGS: GDAR Rainmaker 340

PAP	SC	HT	PELV
48	36.0	51.5	180

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
75	-0.6	611	21	978	34	15	28

ADG/Ratio: 2.86/99 **WDA**: 2.68 Deep bodied bull with above average muscle.

30-2 Tycksen Travelor Bob 100% Angus

Born: 01/15/97 Tattoo: G17 Polled, Black

Consignor: Tycksen Ranch - Pleasant View, CO

Sire: Whitestone Fly Traveler 3006
PGS: Hoff Hi Flyer SC 7134
Dam: HT Miss Continental 5801
MGS: Woodhill Valor

PAP	SC	HT	PELV
43	35.0	47.5	154

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
74	2.5	444	35	777	67	11	28

ADG/Ratio: 3.05/105 **WDA**: 2.03 Half-brother to the top gaining Angus in the '97 4 Corners Test. Dam is easy fleshing with a quiet disposition.

30-1 Tycksen New Trend G10 100% Angus

Born: 01/30/97 Tattoo: G10 Polled, Black

Consignor: Tycksen Ranch - Pleasant View, CO

Sire: VDAR New Trend 315
PGS: AAR New Trend
Dam: K BAR E Pride Indy 89
MGS: K E Independent 870

PAP	SC	HT	PELV
36	35.0	48.7	190

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
86	2.6	430	24	818	44	10	22

ADG/Ratio: 2.86/99 **WDA**: 2.16 Dam is a Pathfinder Cow.

32-6 CSU Tybar P68 7142 100% Angus

Born: 03/04/97 Tattoo: 7142 Polled, Black

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: Tybar Eurloch P68
PGS: Stone Gate Eurloch
Dam: Miss CSU Rito 3439
MGS: Tybar Top Dawg M20

PAP	SC	HT	PELV
36	35.0	48.0	166

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
75	0.7	539	24	914	42	10	29

ADG/Ratio: 2.55/88 **WDA**: 2.45 Stacked pedigree for low PAP and calving ease.

30-3 Tycksen Saratoga G06 100% Angus

Born: 01/24/97 Tattoo: G06 Polled, Black

Consignor: Tycksen Ranch - Pleasant View, CO

Sire: Super Ranger 87
PGS: Skarship Saratoga
Dam: Hodges Susan Blackmaid 89
MGS: Premier Independence K N

PAP	SC	HT	PELV
37	33.0	48.1	156

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
98	3.3	421	16	831	22	8	15

ADG/Ratio: 2.71/94 **WDA**: 2.17

GELBVIEH

18-2 Commercial Gelbvieh Bull XX/1 Gelbvieh

Born: 03/30/97 Tattoo: Polled, Red

Consignor: Dick White - Gallup, NM

Sire: Comb 363C (#33-5)
PGS: Black Sensation
Dam: 7/RED
MGS: 7/M Bull out of Handel

PAP	SC	HT	PELV
41	37.0	54.7	238

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
94	N/A	918	N/A	1396	N/A	N/A	N/A

ADG/Ratio: 3.35/110 **WDA**: 3.89

23-5 Redd KHR 7577 75% Gelbvieh

Born: 04/25/97 Tattoo: 7577 Horned, Red

Consignor: Redd Ranches - Paradox, CO

Sire: KHR 34D
PGS: KHR 66C
Dam: Redd Ms Double 1236
MGS: TVG Minnesota Double

PAP	SC	HT	PELV
32	35.0	51.8	186

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	-1.3	679	13	1205	32	8	15

ADG/Ratio: 3.62/119 **WDA**: 3.34 1998 High gaining Gelbvieh bull & 3rd highest gaining bull over all breeds. Pictured below.

19-3 COMB 87G 100% Gelbvieh

Born: 02/20/97 Tattoo: 87G Polled,Red

Consignor: Kevin & Bunny McComb - Cortez, CO

Sire: Len Zorro
PGS: Len Prime Cut
Dam: COMB Miss Bailey
MGS: LDB Black Classic

PAP	SC	HT	PELV
34	34.0	51.7	202

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
89	-0.8	570	7	1123	16	-1	3

ADG/Ratio: 3.50/115 **WDA**: 2.97 Part of the 1998 High gaining Gelbvieh sire group.

19-4 COMB 187G 100% Gelbvieh

Born: 02/20/97 Tattoo: 187G Polled,Black

Consignor: Kevin & Bunny McComb - Cortez, CO

Sire: Len Zorro
PGS: Len Prime Cut
Dam: COMB 187A
MGS: CKS Tradition U4

PAP	SC	HT	PELV
36	35.0	51.2	210

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
91	0.1	563	11	1125	20	-3	3

ADG/Ratio: 3.14/104 **WDA**: 2.98 Part of the 1998 High gaining Gelbvieh sire group.

23-4 Redd KHR 7576 88% Gelbvieh

Born: 04/15/97 Tattoo: 7576 Red

Consignor: Redd Ranches - Paradox, CO

Sire: KHR 34D
PGS: KHR 66C
Dam: Redd Ms Hockeye 1213
MGS: KHR 07T

PAP	SC	HT	PELV
45	36.0	51.6	203

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	-1.9	594	8	1061	20	8	12

ADG/Ratio: 3.08/102 **WDA**: 2.94

19-5 155G 75% Gelbvieh
Born: 03/05/97 Tattoo: 155G Black

Consignor: Kevin & Bunny McComb - Cortez, CO

Sire: Len Zorro
PGS: Len Prime Cut
Dam:
MGS:

PAP	SC	HT	PELV
41	38.0	52.6	207

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
93	N/A	668	N/A	1137	N/A	N/A	N/A

ADG/Ratio: 2.89/95 **WDA**: 3.11 Part of the 1998 High gaining Gelbvieh sire group.

23-3 Redd KHR 7481 75% Gelbvieh
Born: 04/13/97 Tattoo: 7481 Red

Consignor: Redd Ranches - Paradox, CO

Sire: KHR 34D
PGS: KHR 66C
Dam: Redd Ms Double 1252
MGS: TVG Minnesota Double

PAP	SC	HT	PELV
40	35.0	50.0	192

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	-1.9	640	12	1088	30	7	13

ADG/Ratio: 2.88/95 **WDA**: 3.01

23-2 Redd KHR 7181 88% Gelbvieh
Born: 03/31/97 Tattoo: 7181 Red

Consignor: Redd Ranches - Paradox, CO

Sire: KHR 34D
PGS: KHR 66C
Dam: Redd Ms PC Prospect 4265
MGS: 449X 88

PAP	SC	HT	PELV
67	32.0	52.2	174

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
90	-3.7	563	5	1046	14	6	8

ADG/Ratio: 2.72/90 **WDA**: 2.89

23-1 Redd KHR 7179 75% Gelbvieh
Born: 03/22/97 Tattoo: 7179 Red

Consignor: Redd Ranches - Paradox, CO

Sire: KHR 34D
PGS: KHR 66C
Dam: Redd Ms Plains 4366
MGS: High Plains PI

PAP	SC	HT	PELV
41	34.0	48.5	164

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	-4.2	582	11	1030	25	6	11

ADG/Ratio: 2.71/89 **WDA**: 2.83

SIMMENTAL

16-2 Registered Simmental Bull 88% Simmental
Born: 03/12/97 Tattoo: G59 Horned, Black

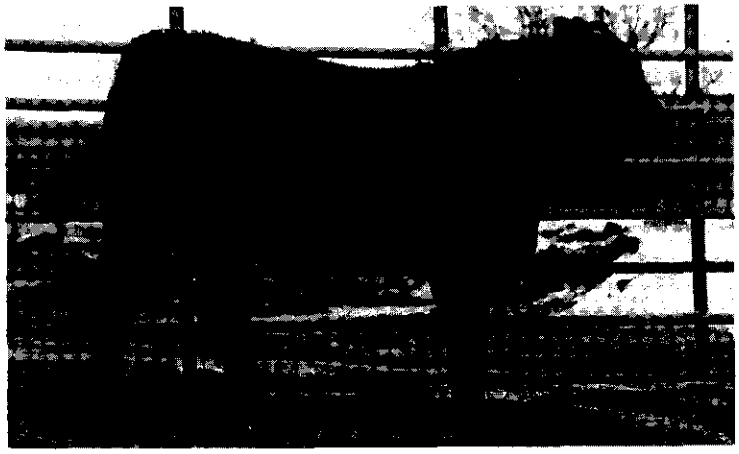
Consignor: Salt Creek Simmentals - Ignacio, CO

Sire: Big-N-Red
PGS: L-7 Mr. Big-N-Tall
Dam:
MGS:

PAP	SC	HT	PELV
38	35.0	53.3	217

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
89	1.0	757	23	1301	33	1	13

ADG/Ratio: 3.56/119 **WDA**: 3.50 1998 High gaining Simmental bull. Pictured to the right.



16-1 Registered Simmental Bull 88% Simmental
Born: 03/15/97 Tattoo: G127 Polled, RWF

Consignor: Salt Creek Simmentals - Ignacio, CO

Sire: RAB Stretch Power W1286
PGS: Polled Stretch
Dam:
MGS:

PAP	SC	HT	PELV
45	34.0	53.9	210

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
89	4.0	724	35	1264	56	10	28

ADG/Ratio: 3.16/105 **WDA**: 3.42

16-3 Registered Simmental Bull 88% Simmental
Born: 03/17/97 Tattoo: G27 Scurs, RWF

Consignor: Salt Creek Simmentals - Ignacio, CO

Sire: R&R The Wizard 504X
PGS:
Dam:
MGS:

PAP	SC	HT	PELV
40	34.0	53.0	212

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	4.0	816	34	1193	56	6	23

ADG/Ratio: 2.99/100 **WDA**: 3.29

18-1 Commercial Simmental Bull 88% Simmental

Born: 02/22/97 Tattoo: Horned, RWF

Consignor: Gary Conrad - Hesperus, CO

Sire: 4288
PGS: DSR Prof 2J 199B
Dam: 9549 (SM-BN-H)
MGS: SR Polled Generator 7W01

PAP	SC	HT	PELV
46	42.0	50.3	163

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
104	N/A	698	N/A	1142	N/A	N/A	N/A

ADG/Ratio: 3.06/102 **WDA**: 3.13

17-2 RLC G782 100% Simmental

Born: 04/22/97 Tattoo: G782 Polled, Red

Consignor: Randle Land & Cattle - Ignacio, CO

Sire: RLC Black Sage E505
PGS: Circle S Leachman 600U
Dam: Rans Black 120C
MGS: Rains Black Bart W02W

PAP	SC	HT	PELV
34	37.0	53.7	165

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
86	4.0	787	37	1158	59	4	23

ADG/Ratio: 2.87/96 **WDA**: 3.14

CHAROLAIS

17-3 RLC G747 100% Simmental

Born: 03/21/97 Tattoo: G747 Polled, Red

Consignor: Randle Land & Cattle - Ignacio, CO

Sire: Emmons Black Hercules
PGS: Landridge Jet Black
Dam: JBSA74
MGS: Meyers Blacktop 206Y

PAP	SC	HT	PELV
42	35.0	51.0	197

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	4.0	648	37	1046	54	5	24

ADG/Ratio: 2.96/99 **WDA**: 2.91

22-6 Rasmusson Tradition G89 100% Charolais

Born: 03/23/97 Tattoo: G89 Polled, White

Consignor: Rasmusson Charolais Ranch - Ephraim, UT

Sire: WCR Tradition 396
PGS: WCR Sir Tradition 066
Dam: RCR Miss Fortune Z31
MGS: RCR Mr Fortune X26

PAP	SC	HT	PELV
55	35.0	52.2	170

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	1.5	592	16	1032	26	8	15

ADG/Ratio: 3.26/114 **WDA**: 2.84 1998 High gaining Charolais bull. Pictured below.

22-4 Rasmusson Tradition G79 100% Charolais

Born: 03/15/97 Tattoo: G79 Polled, White

Consignor: Rasmusson Charolais Ranch - Ephraim, UT

Sire: WCR Tradition 396
PGS: WCR Sir Tradition 066
Dam: RCR Miss Impressive
MGS: BCR Mr Barton 9117

PAP	SC	HT	PELV
39	32.0	51.3	170

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
85	1.5	592	10	1016	22	7	12

ADG/Ratio: 3.00/105 **WDA**: 2.73

22-1 Rasmusson Tradition G80 100% Charolais

Born: 03/17/97 Tattoo: G80 Polled, White

Consignor: Rasmusson Charolais Ranch - Ephraim, UT

Sire: WCR Tradition 396
PGS: WCR Sir Tradition 066
Dam: RCR Miss Fortune B42
MGS: RCR Mr Fortune X26

PAP	SC	HT	PELV
33		51.9	182

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
91	1.0	592	14	1009	26	8	15

ADG/Ratio: 2.94/103 **WDA**: 2.77

22-5 Rasmusson Dominion G411 100% Charolais

Born: 03/12/97 Tattoo: G411 Horned, White

Consignor: Rasmusson Charolais Ranch - Ephraim, UT

Sire: Dominion
PGS: Schurrtop Dominion Pld
Dam: RCR Miss Fortune C65
MGS: RCR Mr Fortune X26

PAP	SC	HT	PELV
49		51.2	182

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
85	2.5	563	14	938	22	7	14

ADG/Ratio: 2.78/97 **WDA**: 2.55

22-3 Rasmusson Dominion G402 100% Charolais

Born: 03/06/97 Tattoo: G402 Horned, White

Consignor: Rasmusson Charolais Ranch - Ephraim, UT

Sire: Dominion
PGS: Schurrtop Dominion Pld
Dam: RCR Miss Fortune A-2
MGS: BR Fortune S752

PAP	SC	HT	PELV
37		50.6	181

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	2.0	557	19	852	24	8	18

ADG/Ratio: 2.73/96 **WDA:** 2.35

19-2 Black Frontier 713G 100% Limousin

Born: 02/22/97 Tattoo: 713G Horned, Black

Consignor: Neal Ranches - Dolores, CO

Sire: Thawks Black Frontier
PGS: Black Duke 045P
Dam: Miss LG FDR Bradda 013A
MGS: FDR Bradda

PAP	SC	HT	PELV
36		52.2	190

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
80	-0.1	530	4	855	9	3	5

ADG/Ratio: 2.88/111 **WDA:** 2.35

19-1 Black Frontier 765G 100% Limousin

Born: 02/26/97 Tattoo: 765G Horned, Black

Consignor: Neal Ranches - Dolores, CO

Sire: Thawks Black Frontier
PGS: Black Duke 045P
Dam: NR 655U
MGS: M M Stretch

PAP	SC	HT	PELV
46	30.0	50.4	172

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
72	-1.1	491	-1	883	3	2	2

ADG/Ratio: 2.32/89 **WDA:** 2.36

36-4 System 1 Composite System 1

Born: 02/15/97 Tattoo: 7038 Scurs, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 933692 (System 1)
PGS: 911550 (M3-RX-H)
Dam: 955299 (System 1)
MGS: 922700 (M3-RX-H)

PAP	SC	HT	PELV
36	36.0	48.1	182

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
80	N/A	570	N/A	1035	N/A	N/A	N/A

ADG/Ratio: 3.34/113 **WDA:** 2.65 Low PAP with lots of growth out of a 2-year old dam.

35-3 System 1 Composite System 1

Born: 03/04/97 Tattoo: 7138 Horned, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 922588 (RX-CA-H)
PGS: RX3 Z1164 (900964)
Dam: 911461 (M3-CA-H)
MGS: MARC III M347 (M00347)

PAP	SC	HT	PELV
34	36.0	50.6	186

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
104	N/A	628	N/A	1063	N/A	N/A	N/A

ADG/Ratio: 3.19/108 **WDA:** 2.91 Very low PAP with lots of growth.

34-2 System 1 Composite System 1

Born: 03/05/97 Tattoo: 7146 Polled, RWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 933478 (M3-CA-H)
PGS: MARC III M357 (M00357)
Dam: 922615 (RX-CA-H)
MGS: RX3 Z1164 (900964)

PAP	SC	HT	PELV
39	36.0	49.6	171

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
94	N/A	691	N/A	1073	N/A	N/A	N/A

ADG/Ratio: 3.00/101 **WDA:** 2.94 Half-sibs were 3rd over all breeds for average daily carcass gain & 1st in the Misc. Composite divison for ADCG & net return in the '97 Great Western Beef Expo.

35-4 System 1 Composite System 1

Born: 03/13/97 Tattoo: 7242 Horned, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 933460 (CA-M3-H)
PGS: CASH 8292 (CA8292)
Dam: 911497 (RX-M3-H)
MGS: RX3 899936

PAP	SC	HT	PELV
41	32.0	50.8	168

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
94	N/A	589	N/A	1006	N/A	N/A	N/A

ADG/Ratio: 3.16/107 **WDA:** 2.77 Low PAP, good growth, out of a heavy milking cow.

34-4 System 1 Composite System 1

Born: 03/10/97 Tattoo: 7232 Horned, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 922700 (M3-RX-H)
PGS: MARC III 899969
Dam: 900439 (CA-RX-H)
MGS: CASH 608 (CA0608)

PAP	SC	HT	PELV
38	35.0	50.2	194

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
90	N/A	609	N/A	1048	N/A	N/A	N/A

ADG/Ratio: 2.93/99 **WDA:** 2.88 Half-sibs placed 4th for progeny performance index (performance, carcass quality & net return) in the '95 Great Western Beef Expo.

35-2 System 1 Composite — System 1

Born: 03/12/97 Tattoo: 7240 Polled, Red Brockle

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 944060 (M3-RX-H)
PGS: MARC III M363 (M00363)
Dam: 900603 (CA-RX-H)
MGS: CASH 14-3 (CA0143)

PAP	SC	HT	PELV
36	36.0	49.8	181

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
92	N/A	648	N/A	1056	N/A	N/A	N/A

ADG/Ratio: 2.85/96 **WDA**: 2.90 Good low PAP.

34-3 System 1 Composite — System 1

Born: 03/04/97 Tattoo: 7132 Scurs, Black

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 933478 (M3-CA-H)
PGS: MARC III M357 (M00357)
Dam: 933545 (RX-CA-H)
MGS: RX3 Z1164 (900964)

PAP	SC	HT	PELV
36	38.0	49.6	192

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
94	N/A	627	N/A	1035	N/A	N/A	N/A

ADG/Ratio: 2.88/97 **WDA**: 2.78 Half-sibs were 3rd over all breeds for average daily carcass gain & 1st in the Misc. Composite divison for ADCG & net return in the '97 Great Western Beef Expo.

36-5 System 1 Composite — System 1

Born: 02/12/97 Tattoo: 7016 Polled, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 933448 (System 1)
PGS: 900486 (M3-RX-H)
Dam: 955255 (System 1)
MGS: 933692 (System 1)

PAP	SC	HT	PELV
36	35.0	48.0	168

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
84	N/A	605	N/A	1017	N/A	N/A	N/A

ADG/Ratio: 2.93/99 **WDA**: 2.61 Half-sibs placed 3rd for progeny performance index (performance, carcass quality & net return) in the '96 Great Western Beef Expo.

36-2 System 1 Composite — System 1

Born: 03/30/97 Tattoo: 7314 Horned, Black

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 955318 (System 1)
PGS: 933478 (M3-CA-H)
Dam: 944207 (System 1)
MGS: 922588 (RX-CA-H)

PAP	SC	HT	PELV
33	35.0	46.7	172

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
72	N/A	601	N/A	1001	N/A	N/A	N/A

ADG/Ratio: 2.85/96 **WDA**: 2.65 Low PAP & birth weight.

GELBVIEH-HERFORD CROSSES

38-3 Commercial Bull — 50% Gelb-Here

Born: 03/02/97 Tattoo: 7112 Polled, RWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: DAR Captain Doc
PGS: EGF Mr. 709R
Dam: Prospectita 1629
MGS: Prospector 7472

PAP	SC	HT	PELV
36	36.0	51.0	202

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
85	N/A	518	N/A	992	N/A	N/A	N/A

ADG/Ratio: 3.61/112 **WDA**: 2.72 1998 High gaining Gelbvieh-Hereford bull & 4th highest gaining bull over all breeds.

37-3 Commercial Bull — 50% Gelb-Here

Born: 03/03/97 Tattoo: 7122 Polled, RWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: BEA Polled Midnight
PGS: LNR Traitmaker
Dam: Miss Alpine R 3511
MGS: Braxton Giant 1

PAP	SC	HT	PELV
36	35.0	52.0	192

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
100	N/A	592	N/A	1036	N/A	N/A	N/A

ADG/Ratio: 3.30/103 **WDA**: 2.79

38-1 Commercial Bull — 50% Gelb-Here

Born: 02/27/97 Tattoo: 7068 Polled, BWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: DDM Mr. Sherman Tank
PGS: Sherman
Dam: Taren 0647
MGS: Tarrington 7644

PAP	SC	HT	PELV
34	39.0	49.9	193

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
106	N/A	580	N/A	1026	N/A	N/A	N/A

ADG/Ratio: 3.08/96 **WDA**: 2.81

37-1 Commercial Bull — 50% Gelb-Here

Born: 03/03/97 Tattoo: 7124 Polled, BWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: BEA Polled Midnight
PGS: LNR Traitmaker
Dam: Miss Ouray 0547
MGS: Ouray P 6602

PAP	SC	HT	PELV
42	36.0	50.5	171

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
87	N/A	557	N/A	1013	N/A	N/A	N/A

ADG/Ratio: 3.07/96 **WDA**: 2.78

37-2 Commercial Bull 50% Gelb-Here

Born: 02/24/97 Tattoo: 7058 Polled, RWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: BEA Polled Midnight
PGS: LNR Traitmaker
Dam: Prospectita R 3453
MGS: BJH 25K Prospctr 51M

PAP	SC	HT	PELV
42	38.0	49.4	164

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
78	N/A	562	N/A	987	N/A	N/A	N/A

ADG/Ratio: 3.14/98 **WDA**: 2.64

38-2 Commercial Bull 50% Gelb-Here

Born: 02/23/97 Tattoo: 7054 Polled, BWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: DDM Mr. Sherman Tank
PGS: Sherman
Dam: Prospectita OU 4095
MGS: Prospector A 6552

PAP	SC	HT	PELV
37	32.0	48.8	193

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
89	N/A	510	N/A	957	N/A	N/A	N/A

ADG/Ratio: 3.21/100 **WDA**: 2.50

38-4 Commercial Bull 50% Gelb-Here

Born: 03/04/97 Tattoo: 7130 Polled, RWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: DAR Captain Doc
PGS: EGF Mr. 709R
Dam: Prospectita OU 4169
MGS: Prospector A 6552

PAP	SC	HT	PELV
36	33.0	49.6	184

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
93	N/A	511	N/A	926	N/A	N/A	N/A

ADG/Ratio: 3.04/95 **WDA**: 2.43

That's not all, turn the page and select some open yearling heifers to go with your new bull.

System 1 Composite =
1/4 MARC III, 1/4 RX3, 1/4 CASH, 1/4 Hereford

MARC III = 1/4 Red Poll, 1/4 Pinzgauer, 1/4 Angus, 1/4 Here.

RX3 = 1/2 Red Angus, 1/4 Red Holstein, 1/4 Hereford

CASH = 1/4 Charolais, 1/4 Brown Swiss, 1/4 Angus, 1/4 Here.

FOUR CORNERS HEIFER DEVELOPMENT PROGRAM

The Four Corners Heifer Development Program was initiated this year in an effort to offer breeders a place to develop and market their replacement heifers. There is no requirement for the participating breeders to sell their heifers. They may simply choose to have their heifers developed and then take them home. The program was designed to develop heifers not to test them. Therefore, you will not find any gain information for any of the heifers listed in the catalog. The heifers were not fed for maximum gain. The heifers were fed a ration consisting of Gro-Gest B68 Pellets, corn, alfalfa/grass hay and sorghum silage. The heifers were fed to gain 2 lbs/day. These heifers will be ready to take home and breed at the time of sale. Pulmonary Arterial Pressures (PAP), reproductive tract scores (RTS), and pelvic areas are provided on each of the heifers.

The heifers will be offered for sale immediately after all the bulls pass through the sale ring. The heifers will be sold by breed in the order they are listed and in groups according to the owners specifications. This means an owner may sell his/her heifers as a group or offer the buyer choice of one or more. All heifers are being sold as open and ready to breed. All heifers listed will sell provided no problems arise between the printing of the sale catalog and sale day.

HEREFORD

47-1 SGH 222B Cachet G3 100% P. Hereford
Born: 02/14/97 Tattoo: G3 Polled

Consignor: Sweet Grass Herefords - Keenesburg, CO

Sire: IHRY J&D Ladd 222B ET
PGS: FHF CL Dom 614R 77U
Dam: SGH Jenny Gal C2
MGS: BT Nob 435N 1ET

PAP	RTS	HT	PELV
31	4.0	46.6	161

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	4.3	507	27	668	45	4	18

Great pedigree with a gentle disposition. Dam is a superb mother & sire has produce some outstanding females in our herd.

47-2 SGH 222B Carmen G5 100% P. Hereford
Born: 02/18/97 Tattoo: G5 Polled

Consignor: Sweet Grass Herefords - Keenesburg, CO

Sire: IHRY J&D Ladd 222B ET
PGS: FHF CL Dom 614R 77U
Dam: SH Miss Pacer 95
MGS: M Pace 516

PAP	RTS	HT	PELV
40	4.0	49.2	218

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
89	4.4	560	30	778	52	6	21

Out of a beautiful horned cow who has produced only heifer calves for us. She brings a strong pedigree as well as performance.

47-3 SGH 508 Felicia G8 100% P. Hereford
Born: 02/23/97 Tattoo: G8 Polled

Consignor: Sweet Grass Herefords - Keenesburg, CO

Sire: CRR 832W Levi 508
PGS: CIR D Wrangler 832W
Dam: SGH Lads Lady E2
MGS: IHRY J&D Ladd 222B ET

PAP	RTS	HT	PELV
47	4.0	48.3	182

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
85	N/A	543	32	791	53	12	27

Oustanding female. Best pedigree of our sire group with Wrangler & IHRY J&D Lad. The females in her pedigree pack a lot of punch.

47-4 SGH 222B Grace G12 100% P. Hereford
Born: 03/08/97 Tattoo: G12 Polled

Consignor: Sweet Grass Herefords - Keenesburg, CO

Sire: IHRY J&D Ladd 222B ET
PGS: FHF CL Dom 614R 77U
Dam: SGH Miss Magic D3
MGS: ABC All Time 9131

PAP	RTS	HT	PELV
32	3.0	48.2	174

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
83	4.1	552	29	766	48	8	22

Great combination of horned & polled genetics. Balanced EPDs, strong maternal & performance. Dam & granddam have picture perfect udders. Great addition to any herd.

RED ANGUS

42-2 LPB Topper G07 100% Red Angus

Born: 02/24/97 Tattoo: G07 Polled, Red

Consignor: LPB Red Angus - Farminton, NM

Sire: RDD Topper C302
PGS: Bieber Topper 2476
Dam: VRR Sun Beam
MGS: El Dolor 7400

PAP	RTS	HT	PELV
40	5.0	48.4	219

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
79	0.2	593	24	913	42	10	22

42-3 LPB Topper G08 100% Red Angus

Born: 03/04/97 Tattoo: G08 Polled, Red

Consignor: LPB Red Angus - Farminton, NM

Sire: RDD Topper C302
PGS: RDD Topper C302
Dam: LPB Barb
MGS: VRR Ten Four

PAP	RTS	HT	PELV
66	3.0	48.0	173

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
86	1.9	599	26	872	47	7	20

42-5 LPB Topper G10 100% Red Angus

Born: 05/06/97 Tattoo: G10 Polled, Red

Consignor: LPB Red Angus - Farminton, NM

Sire: RDD Topper C302
PGS: RDD Topper C302
Dam: LPB Topper 205B
MGS: RDD Topper C302

PAP	RTS	HT	PELV
62	4.0	49.6	198

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
72	0.7	629	27	942	51	8	22

A younger heifer that is well worth waiting for.

43-1 Desert Edge NB 705 100% Red Angus

Born: 02/22/97 Tattoo: 705 Polled, Red

Consignor: Desert Edge Ranch - Ferron, UT

Sire: None Better 1265C
PGS: LMan None Better 9604
Dam: BP 1358 1037
MGS: BUF CRK 170-792

PAP	RTS	HT	PELV
53	5.0	49.3	219

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
84	4.1	569	36	847	55	3	21

43-4 Desert Edge NB 709 100% Red Angus

Born: 02/24/97 Tattoo: 709 Polled, Red

Consignor: Desert Edge Ranch - Ferron, UT

Sire: None Better 1265C
PGS: LMan None Better 9604
Dam: River Lark 916
MGS: KCD Stam Gold Cap 49

PAP	RTS	HT	PELV
37	3.0	46.8	171

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
74	0.1	509	20	743	33	-3	7

49-1 97 VRR Sonja 053 100% Red Angus

Born: 04/26/97 Tattoo: 706 Polled, Red

Consignor: Vaca Roja Ranch - Ignacio, CO

Sire: VRR El Dolor 925
PGS: El Dolor 7400
Dam: VRR Daphne Too
MGS: El Dolor 7400

PAP	RTS	HT	PELV
43	3.0	48.4	174

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
91	2.5	626	28	871	45	12	26

49-2 97 VRR Sonja 119 100% Red Angus

Born: 04/08/97 Tattoo: 705 Polled, Red

Consignor: Vaca Roja Ranch - Ignacio, CO

Sire: VRR El Dolor 925
PGS: El Dolor 7400
Dam: VRR Jackie
MGS: BJR Canyon Chief 811

PAP	RTS	HT	PELV
38	3.0	48.4	182

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
87	-0.1	634	22	846	35	13	25

49-3 97 VRR Sonja 330 100% Red Angus

Born: 04/21/97 Tattoo: 708 Polled, Red

Consignor: Vaca Roja Ranch - Ignacio, CO

Sire: VRR El Dolor 925
PGS: El Dolor 7400
Dam: VRR Sonja 173
MGS: El Dolor 7400

PAP	RTS	HT	PELV
36	3.0	48.2	174

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
79	0.0	605	20	804	31	8	18

49-4 97 VRR Sonja 713 100% Red Angus

Born: 04/27/97 Tattoo: 707 Polled, Red

Consignor: Vaca Roja Ranch - Ignacio, CO

Sire: VRR El Dolor 925
PGS: El Dolor 7400
Dam: 87 VRR 417-511
MGS: Continental Allstar

PAP	RTS	HT	PELV
33	3.0	49.4	195

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
73	0.9	722	18	956	24	10	20

43-5 BUN Desert Edge CK 731 100% Gelbvieh

Born: 03/21/97 Tattoo: 731 Polled, Red

Consignor: Desert Edge Ranch - Ferron, UT

Sire: BRC Leachman GV 8822E
PGS: RLS 314C
Dam: PFG Madge
MGS: LNR Starbright

PAP	RTS	HT	PELV
37	5.0	52.5	209

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
86	-1.9	625	2	834	3	4	5

43-7 BUN Desert Edge 804 740 100% Gelbvieh

Born: 03/29/97 Tattoo: 740 Polled, Red

Consignor: Desert Edge Ranch - Ferron, UT

Sire: BFR Mr. Polled Enforcer
PGS: BFR Mr 9087Y
Dam: BUN Desert Edge C D01
MGS: PCW Pld Black Imprint 386Z

PAP	RTS	HT	PELV
42	3.0	51.7	211

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
76	-2.4	620	7	883	10	2	6

43-8 Commercial Heifer 75% Gelbvieh

Born: 03/04/97 Tattoo: 743 Polled, Black

Consignor: Desert Edge Ranch - Ferron, UT

Sire: BFR Mr. Polled Enforcer
PGS: BFR Mr 9087Y
Dam:
MGS: Blk Polled Imprint

PAP	RTS	HT	PELV
39	4.0	53.0	205

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
90	N/A	672	N/A	994	N/A	N/A	N/A

Dam is a black, polled cow out of Blk Polled Imprint.

48-1 5M Iron Sheila 9722 100% Charolais

Born: 03/20/97 Tattoo: 9722 Polled, White

Consignor: Shoeneman 5M Charolais - Roggen, CO

Sire: 5M Iron Packer 9493
PGS: EC Packer 125
Dam: 5M Desert Rose 8626
MGS: Honey Brook Expec. (Polled)

PAP	RTS	HT	PELV
31	5.0	49.1	211

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
93	N/A	579	N/A	811	N/A	N/A	N/A

Large pelvic area. Sire is mild dispositioned bull. Shoeneman sired steers produced the high dollar carcasses in the Charolais Division at '97 G W Beef Expo.

48-2 5M Iron Skies 9735 100% Charolais

Born: 03/05/97 Tattoo: 9735 Polled, White

Consignor: Shoeneman 5M Charolais - Roggen, CO

Sire: 5M Iron Packer 9493
PGS: EC Packer 125
Dam: 5M White Ranger 9527
MGS: SCR Polar (Polled)

PAP	RTS	HT	PELV
32	5.0	49.1	222

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
89	N/A	562	N/A	808	N/A	N/A	N/A

Large pelvic area. Sire is mild dispositioned bull. Shoeneman sired steers produced the high dollar carcasses in the Charolais Division at '97 G W Beef Expo.

48-3 5M Silver Iron 9743 100% Charolais

Born: 03/19/97 Tattoo: 9743 Polled, White

Consignor: Shoeneman 5M Charolais - Roggen, CO

Sire: 5M Iron Packer 9493
PGS: EC Packer 125
Dam: 5M Polar Honey 9554 (Polled)
MGS: SCR Polar 22405 (Polled)

PAP	RTS	HT	PELV
37	3.0	49.6	197

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
88	N/A	580	N/A	831	N/A	N/A	N/A

Large pelvic area. Sire is mild dispositioned bull. Shoeneman sired steers produced the high dollar carcasses in the Charolais Division at '97 G W Beef Expo.

48-4 5M Easy Lisa 9748 100% Charolais

Born: 03/13/97 Tattoo: 9748 Polled, White

Consignor: Shoeneman 5M Charolais - Roggen, CO

Sire: 5M Easy Packer 9476 (Polled)
PGS: EC Packer 125
Dam: 5M XX1 Mark 8768 (Polled)
MGS: 5M Benchmark 1038

PAP	RTS	HT	PELV
35	3.0	49.4	175

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
86	N/A	568	N/A	705	N/A	N/A	N/A

Steers sired by Shoeneman bulls have a reputation for moderate frame size, carcass merit & gainability. Put some of these traits in your herd.

48-5 5M Easy Laura 9754 100% Charolais

Born: 04/02/97 Tattoo: 9754 Polled, White

Consignor: Shoeneman 5M Charolais - Roggen, CO

Sire: 5M Easy Packer 9476 (Polled)
PGS: EC Packer 125
Dam: Miss Curley 1306 (Polled)
MGS: SCR Miss Magic 129 (Polled)

PAP	RTS	HT	PELV
40	3.0	51.5	194

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
91	N/A	639	N/A	782	N/A	N/A	N/A

Steers sired by Shoeneman bulls have a reputation for moderate frame size, carcass merit & gainability. Put some of these traits in your herd.

48-6 5M Renee Spike 9758 100% Charolais

Born: 04/04/97 Tattoo: 9758 Horned, White

Consignor: Shoeneman 5M Charolais - Roggen, CO

Sire: 11C Expeditor 305 "Spike" (Pld)
PGS: 11C Polled Expeditor (Polled)
Dam: 5M Lana Spike 94150 (Scurs)
MGS: 11C Expeditor 305 "Spike" (Pld)

PAP	RTS	HT	PELV
42	4.0	49.6	183

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
91	N/A	619	N/A	819	N/A	N/A	N/A

Steers sired by Shoeneman bulls have a reputation for moderate frame size, carcass merit & gainability. Put some of these traits in your herd.

CROSSBRED &/OR COMPOSITES

45-1 Commercial Heifer BR-AN-X

Born: 02/17/97 Tattoo: 7111 Black

Consignor: Travis & Carry Daves - Pleasant View, CO

Sire: 506 (Brangus-Angus)
PGS:
Dam: Brangus-Hereford
MGS: Durango 3172

PAP	RTS	HT	PELV
39	4.0	48.2	167

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
85	N/A	494	N/A	763	N/A	N/A	N/A

45-2 Commercial Heifer BR-AN-X

Born: 02/26/97 Tattoo: 7417 Black

Consignor: Travis & Carry Daves - Pleasant View, CO

Sire: 506 (Brangus-Angus)
PGS:
Dam: Brangus-Simmental
MGS: Durango 3554

PAP	RTS	HT	PELV
41	3.0	46.9	177

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
84	N/A	452	N/A	743	N/A	N/A	N/A

45-3 Commercial Heifer BR-AN-X

Born: 01/31/97 Tattoo: 7037 Black

Consignor: Travis & Carry Daves - Pleasant View, CO

Sire: 506 (Brangus-Angus)
PGS:
Dam: Hereford-Angus
MGS:

PAP	RTS	HT	PELV
40	4.0	46.2	170

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
80	N/A	475	N/A	614	N/A	N/A	N/A

45-4 Commercial Heifer BR-AN-SM

Born: 03/12/97 Tattoo: 7701 Black

Consignor: Travis & Carry Daves - Pleasant View, CO

Sire: 506 (Brangus-Angus)
PGS:
Dam: Miss Cascade 1707
MGS: Cascade 0596

PAP	RTS	HT	PELV
40	3.0	48.2	195

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
92	N/A	540	N/A	773	N/A	N/A	N/A

45-5 Commercial Heifer BR-AN-SM

Born: 02/28/97 Tattoo: 7509 BWF

Consignor: Travis & Carry Daves - Pleasant View, CO

Sire: 506 (Brangus-Angus)
PGS:
Dam: Miss Cascade 1709
MGS: Cascade 0596

PAP	RTS	HT	PELV
30	3.0	48.0	164

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
90	N/A	541	N/A	716	N/A	N/A	N/A

45-6 Commercial Heifer BR-AN-SM

Born: 02/21/97 Tattoo: 7345 Black

Consignor: Travis & Carry Daves - Pleasant View, CO

Sire: 506 (Brangus-Angus)
PGS:
Dam: Miss Cascade 2735
MGS: Cascade 0596

PAP	RTS	HT	PELV
32	3.0	49.8	184

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
122	N/A	597	N/A	845	N/A	N/A	N/A

45-7 Commercial Heifer BR-AN-SM

Born: 02/17/97 Tattoo: 7213 BWF

Consignor: Travis & Carry Daves - Pleasant View, CO

Sire: 506 (Brangus-Angus)
PGS:
Dam: Simmental
MGS: Bold Future

PAP	RTS	HT	PELV
32	3.0	48.7	217

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
92	N/A	497	N/A	737	N/A	N/A	N/A

45-8 Commercial Heifer BR-AN-SM

Born: 03/04/97 Tattoo: 7667 GWF

Consignor: Travis & Carry Daves - Pleasant View, CO

Sire: 506 (Brangus-Angus)
PGS:
Dam: Simmental
MGS: DSR Prof 2J 199B

PAP	RTS	HT	PELV
36	5.0	47.6	181

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
90	N/A	545	N/A	805	N/A	N/A	N/A

45-9 Commercial Heifer BR-AN-SM

Born: 04/05/97 Tattoo: 7823 RWF

Consignor: Travis & Carry Daves - Pleasant View, CO

Sire: 506 (Brangus-Angus)
PGS:
Dam: Simmental
MGS: DSR Prof 2J 199B

PAP	RTS	HT	PELV
33	4.0	48.1	190

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
85	N/A	562	N/A	785	N/A	N/A	N/A

44-1 Commercial Heifer Simmental-X

Born: 03/15/97 Tattoo: 16 RWF

Consignor: Clark Ranches - Ignacio, CO

Sire: Simmental
PGS:
Dam: Angus-Hereford
MGS:

PAP	RTS	HT	PELV
35	4.0	50.4	196

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
N/A	N/A	518	N/A	772	N/A	N/A	N/A

44-2 Commercial Heifer Simmental-X

Born: 03/15/97 Tattoo: 53 Black

Consignor: Clark Ranches - Ignacio, CO

Sire: Simmental
PGS:
Dam: Angus-Hereford
MGS:

PAP	RTS	HT	PELV
37	4.0	48.4	212

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
N/A	N/A	526	N/A	879	N/A	N/A	N/A

44-3 Commercial Heifer Simmental-X

Born: 03/15/97 Tattoo: 7 Red

Consignor: Clark Ranches - Ignacio, CO

Sire: Simmental
PGS:
Dam: Angus-Hereford
MGS:

PAP	RTS	HT	PELV
37	4.0	48.4	210

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
N/A	N/A	565	N/A	773	N/A	N/A	N/A

41-1 System 1 Composite System 1

Born: 02/16/97 Tattoo: 7029 Polled, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 933692 (System 1)
PGS: 911550 (M3-RX-H)
Dam: 955009 (System 1)
MGS: 933448 (System 1)

PAP	RTS	HT	PELV
33	5.0	46.5	196

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
68	N/A	510	N/A	698	N/A	N/A	N/A

41-2 System 1 Composite System 1

Born: 03/07/97 Tattoo: 7159 Horned, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 944074 (System 1)
PGS: 911516 (M3-RX-H)
Dam: 944299 (System 1)
MGS: 911516 (M3-RX-H)

PAP	RTS	HT	PELV
38	4.0	46.1	161

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
82	N/A	607	N/A	804	N/A	N/A	N/A

41-3 System 1 Composite System 1

Born: 03/11/97 Tattoo: 7181 Horned, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 955216 (System 1)
PGS: 933448 (System 1)
Dam: 955107 (System 1)
MGS: 933448 (System 1)

PAP	RTS	HT	PELV
41	3.0	48.3	169

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
85	N/A	588	N/A	737	N/A	N/A	N/A

41-4 System 1 Composite System 1

Born: 03/12/97 Tattoo: 7187 Horned, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 944064 (System 1)
PGS: 911504 (CA-RX-H)
Dam: 933407 (System 1)
MGS: 911504 (CA-RX-H)

PAP	RTS	HT	PELV
35	4.0	46.8	183

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
82	N/A	549	N/A	752	N/A	N/A	N/A

41-5 System 1 Composite System 1

Born: 03/27/97 Tattoo: 7261 Polled, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 955036 (CA-RX-H)
PGS: 900903 (CASH)
Dam: 933455 (M3-RX-H)
MGS: MARC III M322 (M00322)

PAP	RTS	HT	PELV
36	3.0	46.6	179

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
118	N/A	557	N/A	750	N/A	N/A	N/A

41-6 Commercial Heifer Crossbred

Born: 03/04/97 Tattoo: 7119 Polled, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 955142 (BZ-BM-RA)
PGS: 899909 (Barzona)
Dam: 866505 (CA-H)
MGS: CASH (CA0206)

PAP	RTS	HT	PELV
37	4.0	46.0	173

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
80	N/A	528	N/A	771	N/A	N/A	N/A

41-7 Commercial Heifer Crossbred

Born: 03/12/97 Tattoo: 7185 Polled, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 955076 (BM-BR-AN)
PGS: 899906 (Beefmaster)
Dam: 877511 (RX-H)
MGS: RX3 (RX1039)

PAP	RTS	HT	PELV
36	4.0	48.2	168

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
91	N/A	580	N/A	796	N/A	N/A	N/A

41-8 Commercial Heifer Crossbred

Born: 03/15/97 Tattoo: 7205 Horned, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 955076 (BM-BR-AN)
PGS: 899906 (Beefmaster)
Dam: 888507 (RX-H)
MGS: RX3 (RX1187)

PAP	RTS	HT	PELV
31	4.0	48.3	166

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
98	N/A	581	N/A	775	N/A	N/A	N/A

41-9 Commercial Heifer Crossbred

Born: 03/24/97 Tattoo: 7245 Polled, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 944248 (BM-BZ-RA)
PGS: 899979 (Beefmaster)
Dam: 900529 (M3-H)
MGS: MARC III M333 (M00333)

PAP	RTS	HT	PELV
33	4.0	48.6	178

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
90	N/A	617	N/A	762	N/A	N/A	N/A

41-10 Commercial Heifer Crossbred

Born: 04/02/97 Tattoo: 7279 Polled, Red

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: 955142 (BZ-BM-RA)
PGS: 899909 (Barzona)
Dam: 866579 (CA-H)
MGS: CASH (CA0206)

PAP	RTS	HT	PELV
36	4.0	46.3	173

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
86	N/A	548	N/A	758	N/A	N/A	N/A

41-11 Commercial Heifer Hereford-X

Born: 03/21/97 Tattoo: 7239 Polled, RWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: RCC Prospector 4006
PGS: RCC Prospct 7141 1ET
Dam: Miss Rito 2647
MGS: Select 0448

PAP	RTS	HT	PELV
32	3.0	46.0	172

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
86	N/A	517	N/A	700	N/A	N/A	N/A

41-12 Commercial Heifer Hereford-X

Born: 04/27/97 Tattoo: 7317 Horned, RWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: RCC Prospector 4006
PGS: RCC Prospct 7141 1ET
Dam: 944119 (M3-RX-H)
MGS: MARC III M363 (M00363)

PAP	RTS	HT	PELV
34	3.0	46.9	175

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
79	N/A	546	N/A	714	N/A	N/A	N/A

41-13 Commercial Heifer Hereford-X

Born: 04/30/97 Tattoo: 7323 Horned, RWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: RCC Prospector 4006
PGS: RCC Prospct 7141 1ET
Dam: 900675 (CA-RX-H)
MGS: CASH (888917)

PAP	RTS	HT	PELV
49	2.0	48.5	151

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
98	N/A	592	N/A	729	N/A	N/A	N/A

41-14 Commercial Heifer Hereford-X

Born: 03/10/97 Tattoo: 7175 Polled, BWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: RCC Prospector 4006
PGS: RCC Prospct 7141 1ET
Dam: Miss Rito 2475
MGS: GDAR Rainmaker 340

PAP	RTS	HT	PELV
36	4.0	47.2	175

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
92	N/A	560	N/A	767	N/A	N/A	N/A

41-15 Commercial Heifer Hereford-X

Born: 04/09/97 Tattoo: 7297 Polled, BWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: RCC Prospector 4006
PGS: RCC Prospct 7141 1ET
Dam: Miss CSU Rito 3415
MGS: Tybar Top Dawg M20

PAP	RTS	HT	PELV
32	4.0	46.0	175

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
74	N/A	589	N/A	737	N/A	N/A	N/A

41-16 Commercial Heifer Hereford-X

Born: 05/02/97 Tattoo: 7325 Horned, BWF

Consignor: CSU-San Juan Basin Research Center - Hesperus, CO

Sire: RCC Prospector 4006
PGS: RCC Prospct 7141 1ET
Dam: 877451 (CA-H)
MGS: CASH (CA0214)

PAP	RTS	HT	PELV
37	4.0	46.0	169

BIRTH WT	BIRTH EPD	WEANING WT	WEANING EPD	YEARLING WT	YEARLING EPD	MILK EPD	TM EPD
84	N/A	542	N/A	694	N/A	N/A	N/A

SEMEN AUCTION

American Breeders Service (ABS) has donated 10 straws of semen to be auctioned at the beginning of the sale April 4th. The buyer will have their choice of any of the eight bulls listed below. ABS will deliver the semen to your tank whenever you request. Proceeds from the sale of this semen will go towards the Four Corners BCIA to help offset costs associated with the complimentary lunch on April 4th.

----- *EXPECTED PROGENY DIFFERENCES (EPDs)* -----

Bull	Breed	ABS Calving Ease Rating[a]	BW	ACC	WW	ACC	YW	ACC	Milk	ACC	TM
New Design	Angus	***	1.9	.96	31	.91	62	.88	13	.73	29
Heaven or Bust	Red Angus	****	-5.0	.91	22	.83	44	.79	13	.44	25
Sir Arnold	Gelbvieh	***	-4.0	.88	7	.83	26	.67	6	.38	10
Blazer	Hereford	***	2.7	.87	44	.82	87	.72	27	.44	49
Enhancer	P. Hereford	***	-1.0	.76	42	.65	66	.34	15	.15	37
YL13	Charolais	***	-4.9	.90	12	.89	32	.87	7	.80	13
Black Frontier	Limousin	***	-0.1	.87	8	.77	21	.53	7	.15	11
Black Irish	Simmental	****	-1.3	.95	30	.94	59	.94	4	.89	19

[a] ABS Calving Ease Star Rating System:

**** Bull proven for a high level of calving ease scores, birth weight EPD, and accuracy level.

*** Bull who can be used on heifers of the same breed.

** Bull who can be used on cows - no assists expected.

* Bull who should only be used on mature cows - expect large birth weights.

----- *PEDIGREE INFORMATION* -----

Semen Code	Bull	Breed	Sire / Maternal Grandsire
29AN1472	New Design	Angus	VDAR New Trend 315 / K & K Top Gun
29AR0138	Heaven or Bust	Red Angus	Leachman Heavenly 8141 / Leachman Robust 7222
29GV0048	Sir Arnold	Gelbvieh	High Plains PI / ATM Texas Rolls Roych 868
29HH0827	Blazer	Hereford	Churchill Bang 500 / D R Achiever 8403
29HP0883	Enhancer	P. Hereford	Slayton Bedford 264 / GK Justification
29CH0160	YL13	Charolais	BCR Polled Unlimited 003 / HJC Expectation Polled
29LM0055	Black Frontier	Limousin	Black Duke 045 / LKCC Tomahawks Touchdown
29SM0298	Black Irish	Simmental	Irish Black Knight / Kansas Black Jim

A METHOD TO INCREASE THE NUMBER OF CYCLIC YEARLING HEIFERS AT THE BEGINNING OF THE BREEDING SEASON

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Summary

This paper summarizes three trials that involved feeding melengestrol acetate (MGA) to yearling heifers prior to an estrous synchronization period followed by a five day artificial breeding period. The objective was to increase the number of heifers that had cycled, or were nearing their first estrous cycle by the start of an estrous synchronization program that was 32 days before breeding. By having more heifers cycling before breeding, there would be a greater likelihood that more heifers would respond to synchronization and become pregnant earlier in the breeding period for the treated heifers. In all three trials, treated heifers received .5 mg MGA/head daily for 7 or 9 days. Synchronizing of estrus was done using the MGA-prostaglandin system.

TABLE 1. TRIAL SUMMARIES FOR MGA PRE-TREATMENTS

Trial No.	No. Head	Avg. Age at Start (months)	Duration of Feeding (days)	Pretreatment to Breeding (days)	Cycling or near cycling 32 days before Breeding[2] (%)	Pregnancy rate 5 days (%)
1 Treated	50	11.5	7-7[1]	83-64	86*	52
Non-Treated	51		0		74	65*
2 Treated	82	10.9	7	85	48**	41
Non-Treated	84		0		21	37
3 Treated	50	13.4	9	56	58***	54*
Non-Treated	49		0		18	39

* Significant difference (P<.20) **(P<.001) ***(P<.0001)

[1] Two 7-day periods 13 days apart

[2] Determined by Reproductive Tract Score (RTS)

In all three trials there were significantly more heifers cycling or near cycling 32 days before breeding in the treated group. Pregnancy rates for the 5 day synchronized breeding period varied between the three trials. Trial 1 had a 13% higher pregnancy rate for the non-treated group. This lower pregnancy rate for the treated group may have been due to the extended two MGA feeding periods plus synchronization of estrus with MGA. Trial 2 and 3 had a 4 and 15% increase in pregnancy rate for the treated groups. It would appear from these results feeding MGA for 7-9 days, at approximately 60-80 days before a synchronized breeding would also increase the number of pregnant heifers.

Introduction

There are many factors affecting puberty in yearling heifers. Some of these are 1) breed, 2) weight, 3) age, 4) body condition, 5) frame score and 6) different combinations of these factors. It has been shown by Wiltbank (1994) that yearling heifers that become pregnant in a short period of time (1-25 days) improves the likelihood that they will stay in the cow herd and produce a calf every year for a period of 8-10 years. Breeding heifers 1 to 3 weeks earlier than the cow herd plus synchronizing estrus helps to accomplish this. Estrus synchronization programs using progesterone have been shown to induce cycling in immature heifers and non-cycling cows (Odde, 1990). The use of progesterone plus estrogen has been used in very young heifers, 7 to 12 months of age to enhance cycling (Gonzalez Padilla et. al., 1975).

The costs of feeding replacement heifers to reach target weights and attain puberty 2-3 weeks before the cows breeding season is expensive and very difficult due to changing environmental factors. Some ranchers have to haul their heifers to lower altitudes with warmer environments and cheaper feed costs to accomplish this task. For this reason, an inexpensive pretreatment might be available to help more heifers to be near cycling before being synchronized into estrus.

Materials and Methods

Three different trials were used to measure the effect of pre-feeding melengesterol acetate (MGA) for different lengths of time and different periods before breeding on stage of puberty and pregnancy rate for a 5 day synchronized breeding period (Figure 1). Pretreated heifers were fed .5 mg of MGA in a one pound pellet. Non-treated heifers received the same pellet without MGA plus their normal ration of hay and silage. The method used to synchronize estrus in each trial involved feeding .5 mg of MGA / hd daily for 14 days followed by an injection of 25 mg $PGF_{2\alpha}$ (Lutalyse) 17 days after the last day of MGA feeding. Heifers were observed for estrus for 5 days at 12 hour intervals (a.m. and p.m.) starting one day after the $PGF_{2\alpha}$ injection. Heifers observed in heat were bred by one of three AI technicians 12 hours later. An equal number of pre-treated and control heifers were inseminated to each sire and by each technician.

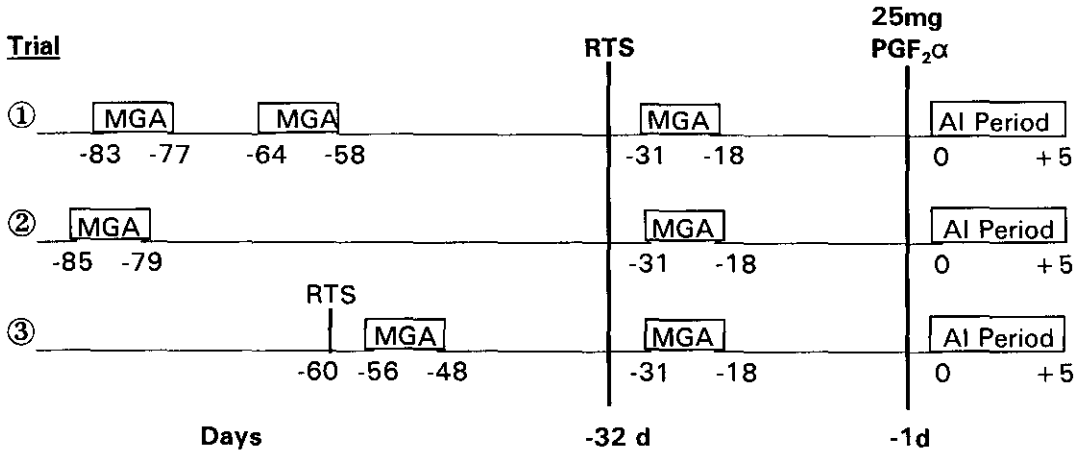

Figure 1. Experimental Design for Pre-treated Groups in Trials 1,2 and 3.

Trial 1 and 3 used mixed breed yearling heifers from the San Juan Basin Research Center, Hesperus, CO in 1996 and 1997. Trial 2 used Angus yearling-heifers from the John E. Rouse Research Center, Saratoga, WY in 1997. The heifer's description for each trial is shown in Table 2. Starting one day (day 32) before all the heifers in each trial began their synchronization of estrous, a pre-breeding examination was done. This examination included body weight, pelvic area, body condition score and reproductive tract score (Table 3). Body condition score (BCS) was determined by general observation and feeling the ribs and pin area. The scoring system ranges from 1-4 thin, 5-6 average and 7-9 fat.

TABLE 2. YEARLING HEIFER PRETREATMENT SYSTEMS USING MELENGESTROL ACETATE (MGA)

Trial No.	Total No. of Heifers	No. of Heifers Pre-treated	Days fed MGA	Start Treatment to Breeding (days)	Average Heifer Age at Start (months)	Average Heifer Age at Breeding (months)
1	101	50	2 times for 7 days each	83	11.5	14.3
2	166	82	7	85	10.9	13.7
3	99	50	9	56	13.4	15.2

The reproductive tract scoring (RTS) is described by Andersen et al. (1987). The score is determined by feeling the uterine horns and ovarian structures by rectal palpation. Score 1, 1.5 and 2 represent immature heifers, 2.5 and

3 advanced but not cycling, 3.5 near cycling, 4 cycling but no corpus luteum and 5 cycling with a corpus luteum. The score of 3.5 is determined mainly by the extra tone or coiling of the uterine horns and no structures on the ovaries. The use of ultrasound would not be able to detect uterine tone (score 3.5). The RTS for all heifers in each trial was determined by a skilled technician. The technician did not know if the heifers were pre-treated at the time of examination on day 32 before breeding.

TABLE 3. PERFORMANCE TRAITS FOR ALL HEIFERS 32 DAYS BEFORE BREEDING

Trial No.	Breed of Heifer	Average Weight (lbs)	Average Pelvic Area (cm^2)	Average Body Condition Score[a]	Average Reproductive Tract Score[b]
1	Angus-Hereford-Composite	695	162	5.66	4.30
2	Angus	671	157	5.10	3.31
3	Angus-Hereford-Composite	561	136	4.80	3.32

[a] Score 1-4 Thin, 5-6 Average and 7-9 Fat

[b] Score 1, 1.5-2 immature, 2.5-3 not cycling, 3.5 near cycling and 4-5 cycling.

In trial 1, blood samples were obtained from all heifers for progesterone content on days 9 and 1 before pretreatment and days 42 and 32 before breeding. [There were five heifers that were not detected to be cycling by the RTS on day 32 and classified as 3.5 (near cycling) as compared to the blood test for (> 1 mcg P_4/ ml) which indicated cycling. Four of these five heifers were detected cycling from blood taken on day 42 and not on 32 when the RTS was taken]. In trial 2, all heifers were bred with semen that had been pre-sorted for presence of Y bearing chromosomes (Seidel, 1998), use of sex sorted semen may have lowered pregnancy rate at the synchronized period. In trial 3, RTS was taken for all heifers before pretreatment and on day 33 to determine changes in RTS due to the pretreatment with MGA for treated versus non-treated heifers. In all three trials heifers were allotted equally to pretreatment versus non-treatment by cycling, age breed, body weight and body condition score.

After the five day synchronized AI period, all heifers were moved to individual breeding pastures and bred by single sires for 64 days. Heat detection (a.m. and p.m.) were observed for 10 days following AI to determine heifers bred by bulls for this period. The heifers in each trial were examined for pregnancy by rectal palpation 64 and 106 days after the start of the breeding season by one qualified technician. The length of pregnancy was determined by estimating the size of the fetus. The number of heifers near cycling or cycling on day 32 before breeding and pregnancy rate for treated versus non-treated heifers was statistically compared by Chi-Square analysis.

Results and Decision

In all three trials there were significantly more heifers near cycling or cycling 32 days before breeding in the pre-treated groups as compared to non-treated (Table 4). Pregnancy rates for the five day synchronized breeding was influenced by the RTS that was recorded 32 days earlier (Table 5). Heifers with RTS of 1.5 and 2 are normally culled and not incorporated into a synchronization of estrus regimen. Pregnancy rates at the synchronized period for heifers with a RTS of 3.5 were only three percent lower as compared to cycling heifers (score 4 and 5). They responded to the MGA-$PGF_{2\alpha}$ synchronization system with a 14% increase in conception as compared to heifers with a score of 3. It is not recommended to sell heifers with a RTS of 3 or 3.5 as the MGA synchronization program helps to stimulate these heifers into estrus.

Pregnancy rates for the five day synchronization breeding period varied between the three trials (Table 6). The pregnancy rates for treated heifers vs non-treated were as follows. Trial 1 (52% vs 65%), trial 2 (41% vs 37%) and trial 3 (54% vs 39%). In trial 1 the treated group was 13% lower in pregnancy rate as compared to the non-treated group. Previous work using extended feeding of MGA has resulted in 14% lower first service conception rate for MGA-treated heifers as compared to controls (Zimbelman et al., 1970). This difference might be due to follicular dynamics (Lucy et al., 1992). Large cystic and atretic follicles at the time of ovulation secreted more estrogen which may cause release of prostaglandin from the uterus and in turn regress the corpus luteum (Savio et al., 1990). A combination of poorer ova from mature follicles plus reduced sperm transportation and lower cleavage rates are reported in females

exposed to progesterone. This might explain that there were no differences in pregnancy rate (63% vs 60%) for cycling heifers (RTS 4 and 5) versus heifers that had a RTS of 3.5 prior to the synchronization of estrous program. Pregnancy rates were similar for treated vs non-treated heifers for 30 days in trials 1 and 3. There was a significant difference in percent pregnancy rate ($P<.05$) for the treated vs non-treated heifers (90% vs 78%) in trial 2 by 30 days. This difference may have been partially due to the sex sorted semen that was used during the synchronized period. It might also be noted that the heifers in trial 2 were the youngest at the start of pretreatment and breeding (10.9 and 13.7 average months of age).

TABLE 4. PERCENT OF HEIFERS BY REPRODUCTIVE TRACT SCORES 32 DAYS BEFORE BREEDING

Trial No.	Fed .5 mg MGA/hd Daily	No. Head	Percent Heifers by Reproductive Tract Score					
			1.5	2	2.5	3	3.5[a]	4 and 5[b]
1	Pre-treated	50	–	–	–	14	16	70
	Non-treated	51	–	4	–	22	22	52
2	Pre-treated	82	–	–	6	46	31	17
	Non-treated	84	1	–	10	68	13	8
3	Pre-treated	50	–	–	6	36	42	16
	Non-treated	49	4	–	12	65	8	10

[a] Near cycling
[b] Cycling

TABLE 5. PREGNANCY RATE FOR FIVE DAY SYNCHRONIZED BREEDING PERIOD BY RTS 32 DAYS BEFORE BREEDING FOR ALL HEIFERS

RTS[1]	Total No. of Heifers	Pregnancy Rate 5 day Synchronized Breeding	
		No.	%
4 & 5	96	60	63
3.5	80	48	60
3	163	59	36
2.5	22	3	14
2	4	–	–
1.5	1	–	–

[1] 4 & 5 cycling, 3.5 non-cycling, 2.5 & 3 not cycling and 1, 1.5 & 2 immature.

From these results, feeding .5 mg of MGA/hd daily for 7 to 9 days at approximately 60 to 80 days prior to breeding will increase the number of heifers cycling or near cycling before a synchronized breeding season. The pregnancy rate should be improved slightly for this period. This treatment is not a cure all and one must still take into consideration the heifers average age, weight and body condition score before pre-treating with MGA.

TABLE 6. PREGNANCY RATE FOR PRE-TREATED VS NON-TREATED YEARLING HEIFERS

Trial No.	Treatment	No. Head	Observed in Estrous		Pregnant Synchronized Period		Pregnant 30 days	
			No.	%	No.	%	No.	%
1	MGA	50	37	74	26	52	34	68
	No-MGA	51	43	84	33	65*	37	72
2	MGA	82	60	73	34	41	74	90**
	No-MGA	84	58	69	31	37	66	78
3	MGA	50	33	66	27	54	38	76
	No-MGA	49	30	61	19	39*	37	76

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FEEDLOT PERFORMANCE OF RESEARCH CENTER STEERS AND HEIFERS

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Colorado State University Agricultural Experiment Station

Introduction

The 1996 calf crop was evaluated at weaning. Bull calves with above average performance were placed in the annual Four Corners Bull Test. The remaining bull calves were castrated. Five steer calves from two different sire groups for a total of ten head were placed in the Great Western Expo in Akron, Colorado. The remaining 113 head of steers were sorted by weight and the heaviest 73 steers were sent to the Navajo Agricultural Products Industry (NAPI) Feedyard in March, 1997 and the remaining 40 were kept at the Research Center, placed on grass for the summer and placed in the NAPI Feedyard in November, 1997.

The majority of the SJBRC heifer calves were retained as replacement heifers. However, there were 21 heifers that were not of replacement heifer quality and they were placed on grass for the summer. In November, 1997, 19 open replacement heifers were added to the group and they were all sent to the NAPI Feedyard.

Carcass information was obtained on all the cattle through the Cattlemen's Carcass Data Collection Service.

Materials and Methods

Expo Steers: Ten System 1 steers representing two sires were sent to the Great Western Expo in Akron, Colorado on November 11, 1996. The steers were weighed and placed on to the 156 day test December 3 following a 21 day warm-up period. The steers were weighed off test on May 8, 1997, marketed and carcass information was collected on May 14, 1997.

NAPI Steers (Group 1): Seventy-three steers were delivered to the NAPI feedlot February 28, 1997. The steers were implanted with Synovex and fed for 160 days. A growing ration was fed until the group averaged 700 pounds and then they were placed on a finishing ration of high moisture corn. Two steers died due to respiratory problems. The remaining 71 steers were shipped August 7, 1997 to the National Beef Cattle Procurement plant, Garden City, Kansas.

NAPI Steers and Heifers (Group 2): Forty steers and 40 heifers were delivered to NAPI feedlot November 3, 1997. The cattle were fed a finishing ration for high moisture corn for 111 days. One steer died from brisket disease. Both groups were shipped on February 22, 1998 to Sunland Beef Packing Plant, Phoenix, Arizona.

Results

Expo Steers: The Expo steer feedlot performance and carcass information is summarized in Tables 1 and 2. Both sire groups performed well during the 156 day test. The System 1 933478 sire group received three awards including 3rd in the overall division for average daily carcass gain, 1st in miscellaneous composite division for average daily carcass gain and net return. The System 1 933448 sire group received 1st in the miscellaneous composite division for carcass price per pound .

TABLE 1. FEEDLOT PERFORMANCE OF GREAT WESTERN BEEF EXPO STEERS

SIRE BREED/ID	NO.	INITIAL WT	MARKET WT	162-D GAIN	ADG	LB FEED / LB GAIN	COST FEED / LB GAIN
System 1 / 933448	5	571	1166	594	3.81	5.45	0.42
System 1 / 933478	5	599	1273	674	4.32	5.17	0.40

TABLE 2. CARCASS PERFORMANCE OF GREAT WESTERN BEEF EXPO STEERS

SIRE BREED/ID	NO.	CARCASS WT	RIBEYE AREA	FAT THICKNESS	% KPH	YIELD GRADE	QUALITY GRADE	CARCASS PRICE / LB
System 1 / 933448	5	751	13.2	0.62	1.3	2.95	CHOICE-	1.024
System 1 / 933478	5	800	13.7	0.45	1.5	2.57	SELECT+	1.016

NAPI Steers (Group 1): Feedlot and carcass results for the Group 1 NAPI steers are presented in Table 3. The entire group gained 4.29 pounds per day and graded 23% choice and 67% select. The 71 steers went into the feedlot averaging 625 pounds and finished at 1311 pounds in 160 days. The feed efficiency for the group was 5.29 on a dry matter basis. The cost of gain for the group of steers was $50.00 per 100 pounds. The steers were valued at 73.50 cents per pound going into the feedlot and sold for 66.65 cents showing a net profit of $84.44 per steer.

TABLE 3. FEEDLOT AND CARCASS RESULTS FOR 1996 CALF-FED STEERS AT THE NAPI FEEDYARD

							HOT	QUALITY				
		INITIAL	MARKET	160-D			CARC	GRADE (%)				
BREED/LINE	NO.	WT	WT	GAIN	ADG	NO.	WT	CH	SE	FAT	REA	YG
Angus	1	580	1340	760	4.75	1	812	100	--	0.40	12.9	2.96
Misc. Crosses	7	614	1337	723	4.52	7	818	14	86	0.46	13.9	2.78
System 1 Composites												
M3-RX-H / 45	2	667	1303	636	3.98	2	763	--	100	0.30	12.7	2.55
M3-CA-H / 46	1	669	1255	586	3.66	1	757	--	100	0.20	14.9	1.61
CA-RX-H / 50	1	595	1385	790	4.94	1	840	--	100	0.60	15.2	2.83
System 1 / 51	30	634	1332	697	4.36	28	771	39	61	0.39	13.1	2.61
AVERAGE	34	641	1319	677	4.24	32	783	34	66	0.37	14.0	2.40
System 2 Composites												
BR-BM-AN / 56	1	673	1465	792	4.95	1	882	--	100	0.40	14.7	2.55
BZ-BR-AN / 57	2	644	1328	698	4.37	2	811	50	50	0.44	13.7	2.81
BM-BZ-AN / 59	1	624	1100	476	2.98	1	695	--	100	0.40	12.3	2.71
System 2 / 61	21	603	1247	644	4.03	21	767	5	95	0.46	12.2	3.17
AVERAGE	25	636	1285	653	4.08	25	789	8	92	0.43	13.2	2.81
GV-H / 63	4	641	1425	784	4.90	4	878	25	75	0.32	15.0	2.30
GROUP AVERAGE	71	625	1311	686	4.29	69	783	23	67	0.41	13.1	2.77

NAPI Steers & Heifers (Group 2): Feedlot performance results for the Group 2 NAPI steers and heifers are presented in Table 4. We were unsuccessful in out attempt to collect carcass information on these two groups of cattle. The steers averaged 4.11 pounds per day. The feed efficiency for the steers was 6.05 on a dry matter basis. The cost of gain for the steers was $53.65 per 100 pounds. The steers were valued at 75 cents per pound going into the feedlot and sold for 63 cents resulting in a net loss of $40.10 per animal.

The heifers averaged 3.58 pounds per day. The feed efficiency for the heifers was 6.70 on a dry matter basis. The cost of gain for the heifers was $57.64 per 100 pounds. The heifers were valued at 71 cents per pound going into the feedlot and sold for 63 cents resulting in a net loss of $40.92 per animal.

TABLE 4. FEEDLOT RESULTS FOR GROUP 2 STEERS AND HEIFERS

BREED / LINE / SIRE NAME	NO.	INITIAL WT	MARKET WT	111-D GAIN	ADG
Steers					
Hereford / 10 / Prospector 2456	1	708	1170	462	4.16
Hereford / 10 / Prospector A 3556	3	845	1395	550	4.96
Hereford / 10 / RCC Prospector 4006	3	818	1325	507	4.57
Hereford / 14 / Tarrington P 1542	4	774	1318	544	4.90
AVERAGE	11	799	1327	528	4.76
Red Angus / 20	2	866	1280	415	3.74
Angus / 28	1	768	1170	402	3.62
Brangus / 31	2	835	1245	410	3.7
System 1 / 51	9	873	1280	407	3.67
System 2 / 61	19	883	1331	439	3.95
Mics. Crosses	5	870	1335	465	4.19
PEN AVERAGE	39	850	1308	456	4.11
Heifers					
Hereford / 10	6	733	1124	391	3.53
Hereford / 14	6	708	1121	413	3.72
AVERAGE	12	721	1123	402	3.63
Red Angus / 20	6	864	1259	395	3.56
Angus / 28	2	910	1253	343	3.09
System 1 / 51	14	827	1214	386	3.48
Gelbvieh-Hereford / 63	2	801	1185	385	3.47
Misc. Crosses	4	764	1149	385	3.46
PEN AVERAGE	40	800	1198	398	3.58