



One Bar Eleven Ranch Colorado State University John E. Rouse – Beef Improvement Center

Dear Cattlemen:

Challenging times often require difficult decisions and the COVID-19 situation is no exception. Out of an abundance of caution and a desire to protect vulnerable customers, employees, and community members; we decided to alter the format of the 34th annual John E. Rouse CSU Beef Improvement Center (BIC) Bull Sale to an online/private treaty format. There will be **NO** on-ranch activities associated with the sale. Our goal is to minimize person-to-person contact and promote social distancing to help mitigate the corona virus (COVID-19) pandemic. This is a change for all of us and precludes our ability to meet and speak with you at the bull sale every year—something we greatly enjoy and benefit from. Often these interactions help guide our breeding and research program.

Beef production by nature is seasonal and the upcoming summer breeding season is essential for spring calving and important for overall financial sustainability of our constituency. Bull selection and replacement decisions are a critical piece of the process for all of us. While we won't be meeting together on April 6, we will be selling bulls that have completed the 2019-20 development and genetic improvement process.

Here is how we will conduct this year's sale:

1. Videos of each bull offered will be available online at the following website to aid your selection process: <http://ansci.agsci.colostate.edu/bull-sale/>. These are listed by bull ID corresponding to the information presented in this catalog.
2. We will start accepting purchase requests April 6 @ 1pm via email, phone and text (see the contact information for Lindsey Wamsley, Milt Thomas and Mark Enns below).
 - a. The ID of the bulls you wish to purchase should be included in that communication
 - b. In this catalog, bulls are divided into 4 tiers, each with a different price point as shown. This is the purchase price of the bull (except as outlined in #3 below). The pricing includes delivery of your bulls by the BIC staff in a manner ensuring social distancing and bio-security.
3. Sale-day purchase requests will close at 4pm on April 6.
 - a. Should more than 1 buyer select the same bull, we will call each buyer simultaneously and “auction” that bull off live between the interested parties.
 - b. After purchase, the BIC agrees to hold your bull(s) up to 30 days on a hay diet while an agreed upon location/time for delivery is identified. Bulls remaining undelivered after May 4, 2020 will incur a \$4/day/head feed and yardage charge.
4. After April 6, remaining bulls will be available on a first-come, first-served basis for purchase at stated price through May 4. These will also be delivered maintaining social distancing standards.

Only bulls passing the management teams' performance, PAP, breeding soundness and structure evaluation will be offered for sale. If you have questions, please do not hesitate to call or email questions to any of us listed below.

Performance and pedigree information on the 2019-born yearling bulls completing the gain test at the One Bar Eleven, Colorado State University John E. Rouse Beef Improvement Center are on the following pages. These bull calves were weaned October 2 and started gain test November 25, 2019 at an average weight of 584 lbs. They came off the gain test averaging 980 lbs having gained 3.4 lbs per day under another season of tough, wet, cold weather. These bulls were selected at weaning and represent what we consider roughly the best third of our bull calves with many making great calving ease sires. As a whole, the bull calves in this test had an average birth weight EPD of -.4 with actual birth weight averaging 76 lbs. For those producers at high elevation, 32 of the bulls have a PAP lower than or equal to 42 mm Hg.

We continue to produce within-herd EPD calculated at CSU's Center for Genetic Evaluation of Livestock. These EPD are based on animal pedigree and performance data collected from within this herd and for use within this program. These EPD are not comparable to EPD from other breed associations. We encourage you read the teaching/research update in this catalog for the latest news. Please join us online for the sale.

For more information or questions contact any of the following:

Beef Improvement Center

Lindsey Wamsley 307-710-2938

Lindsey.Noreen@colostate.edu

Colorado State University

Mark Enns, 970-988-5954; Mark.Enns@Colostate.edu

Milt Thomas, 970-286-4267; Milt.Thomas@Colostate.edu

BREEDING AND MANAGEMENT PHILOSOPHY

The John E. Rouse—Colorado State University Beef Improvement Center (BIC) herd has a 50-year history of selection for improved performance of economically important traits. The BIC has established a reputation for predictable, superior performing animals as evidenced by test results involving bull and steer carcass performance tests. Our focus for the breeding program is to continue to develop and improve this highly productive herd of Angus cattle with emphasis on fertility, maternal ability, low pulmonary arterial pressure (PAP, and correspondingly a reduced risk of Brisket Disease), strong early growth and excellent carcass quality. Our end goal is to produce genetics that are adapted to the high-altitude environment with long-lived, low-cost, fertile females and steers that work in the feedlot and on the rail. The research at the BIC focuses on these traits and on methods to improve beef producers' profitability. The John E. Rouse – Colorado State University Beef Improvement Center herd of Angus cattle is an outstanding source of genetics that is contributing significantly to the beef industry's future.

BEEF IMPROVEMENT CENTER (BIC) TEACHING AND RESEARCH UPDATE

The BIC is an integral piece of the teaching and research efforts of the Breeding and Genetics program in the Department of Animal Sciences. This facility contributes significantly to our education efforts through courses, internships, field trips, and data for real-world application. Our interns come from local universities, such as CSU and the University of Wyoming, as well as other colleges of agriculture in the US. Since the last sale, we have had 7 different interns on the ranch gaining experience in cow/calf production. Our Calving and Calf Care class as well as our Advanced Bovine Reproduction course have also used ranch animals. There have also been many students from the College of Veterinary Medicine and Biomedical Sciences receive important training using these cattle.

Much of the beef industry's foundational research on genetics of cow adaptability, longevity and fertility occurs with this herd. Specific examples include stayability and heifer pregnancy, which are now EPD published by many breeding organizations. We continue to put great effort into the study of genetics of high-altitude disease (i.e., brisket disease). Progeny testing of Angus AI Sires is important for our research and is a service provided to semen companies such as ABS Global, Select Sires and Genex that market bulls in the mountainous western states. Over the years, we have evaluated approximately 300 registered Angus AI sires. Since 2011, we have also high density genotyped all calves, which gives us a dataset with ~3,300 animals with genomic information. In total, this data is then used to help evaluate the use of early-life pulmonary arterial pressure (PAP) as a means to reduce the incidence of disease and to assist in making selection decisions at earlier ages as opposed to waiting until animals are a year of age. The American Angus Association, working

with our program, has released a research EPD for PAP, that is largely based on the research performed at this ranch.

In an effort to understand similar heart failures increasingly occurring in moderate elevation feedlots (a.k.a. Feedlot Heart Disease; FHD), we are also studying how feedlot fattening and growth influences PAP. Using additional beef cattle research facilities such as Agricultural Research Education Development Center (ARDEC; Fort Collins) and Eastern Colorado Research Center (Akron, elevation = 4,600 ft), we are beginning to understand that there are increases in PAP with fattening in moderate elevation feedlots and this is independent of time the animals spent at elevation.

Glossary of Terms and Abbreviations

Test ADG (Average Daily Gain): Measurement of daily body weight change of an animal on the 120+ day performance test.

Birth Weight, Weaning Weight, and Yearling Weight EPD: Expressed in pounds, it is a predictor of differences in sires' progeny due to differences in breeding value for the trait of interest.

Calving Ease EPD (CE): Expressed as a probability of an unassisted birth, it is a predictor of a sire's ability to produce calves born unassisted. Higher values represent easier calving. **CE Total Maternal** represents the ability of a sire's daughters to calve easily. Higher values are advantageous for calving ease.

EPD (Expected Progeny Difference): 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 herd performance and pedigree information. EPD's are generally reported in the units of measure of the trait, e.g. pounds, cm, cm², percent, mmHg, etc.

Frame Score: A score based on evaluation of actual height. Scores are based on equations listed in Beef Improvement Federation Guidelines.

Milk EPD: Expressed in pounds of calf weaned, it is the difference in performance expected from daughters of the bull in question due to differences in genetics for milk production.

PAP (Pulmonary Arterial Pressure): 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 accurate and should be used with that knowledge. Generally, cattle with PAP values greater than 50 mmHg are considered high risk and cattlemen should be cautious of using them at high elevations.

PAP (Pulmonary Arterial Pressure EPD): Expressed in mm Hg just as is PAP. This predicts the genetic effect a bull will have on his offspring for PAP. Differences between two bull's PAP EPD represent the expected average difference in PAP of their offspring.

Stayability EPD (STAY): The probability that a sire's daughters will remain in the herd to age six assuming they produced their first calf at 2 years of age. This trait represents longevity of a sire's daughters. Higher values result in a greater probability that a sire's daughters will remain in the herd to 6 years of age.

TERMS OF SALE

In the event of two or more customers submitting purchase request for the same bull, that bull will be sold to the highest bidder via phone interaction. All other bulls will be sold at the posted price. Animals sold in this sale will be fed and cared for free of charge for 30 days following the sale, but at owner's risk, and will be delivered to purchaser at an agreed upon time and location during the 30-day period. The pricing includes delivery of your bulls in a manner ensuring social distancing and bio-security. Bulls remaining undelivered after May 4, 2020 will incur a \$4/day/head feed and yardage charge.

A certificate of transfer, health certificate, and bill of sale will be furnished for each animal sold. The terms of the sale are cash with payment at time of delivery. We will not be held liable for the loss of any animal or it's progeny following the transfer of ownership. All bulls selling have passed a breeding soundness exam that included live semen evaluation and scrotal measurements.

We feel you are purchasing very good animals from an outstanding herd. Please keep us informed on how they perform for you!

Contact information

Beef Improvement Center

Lindsey Wamsley 307-710-2938

Lindsey.Noreen@colostate.edu

Colorado State University

Mark Enns, 970-988-5954; Mark.Enns@Colostate.edu

Milt Thomas, 970-286-4267; Milt.Thomas@Colostate.edu

Bull ID	Sire	Birth Date	Birth Weight	Age of Dam	Actual			Expected Progeny Differences (EPD)										
					Weaning Weight (10/2/19)	Adjusted Weaning Weight	Yearling Wt (3/20)	Actual								STA		
					PAP	SC	BW	WW	Milk	YW	CED	CETM	Y	PAP	Price			
9001	2235	2/15/19	64	2	536	550	983	41	34.5	-3.4	-7	4	0	5.5	0.1	1.0	-2.9	\$2,500
9005	2235	2/17/19	62	2	559	574	1004	33	33.0	-3.3	-7	5	2	6.3	-1.7	1.3	-3.8	\$2,500
9019	2235	2/22/19	82	2	625	646	1042	38	37.0	0.7	11	6	0	-1.9	-3.7	0.8	-3.3	\$2,300
9028	B3R Electorate A229	2/24/19	74	2	532	564	995	39	35.0	-0.1	4	3	18	1.1	3.3	0.3	-2.0	\$2,500
9053	WXW Timberline W287	3/10/19	84	3	574	606	1059	39	36.0	0.8	10	5	20	-1.1	1.7	0.4	-1.0	\$2,300
9059	6048	3/12/19	61	3	511	547	1036	41	36.0	-2.9	5	4	51	6.6	2.0	1.1	-2.0	\$2,500
9063	G A R Genuine	3/14/19	82	10	616	639	1124	45	35.5	1.6	17	2	48	-0.8	-1.7	2.2	-0.9	\$2,100
9064	Connealy Union 215X	3/13/19	81	4	536	553	962	42	33.0	1.9	10	2	4	-3.2	-4.6	0.4	-1.0	\$1,900
9090	Lyons Manhattan 6205	3/15/19	82	4	544	566	1034	48	34.5	1.0	6	2	35	-0.5	0.4	-0.1	0.2	\$2,100
9091	Spring Cove Crossbow	3/15/19	70	3	498	541	936	40	34.0	-2.4	-3	4	7	5.1	2.9	1.2	-1.8	\$1,900
9093	KF Kiowa 6151	3/15/19	84	4	566	589	996	40	35.0	1.2	8	5	16	-0.5	0.8	1.8	-2.0	\$2,300
9094	WXW Timberline W287	3/15/19	80	9	560	570	938	49	34.5	0.7	7	3	-1	0.1	3.1	1.6	0.5	\$2,100
9102	Spring Cove Crossbow	3/16/19	82	8	532	543	1000	40	35.0	0.0	2	2	34	1.2	2.5	-0.3	-2.2	\$2,300
9105	G A Traveler 7121	3/16/19	84	7	554	566	1096	47	39.0	-1.2	3	4	40	2.0	2.3	0.1	0.5	\$2,100
9114	Tehama Tahoe B767	3/16/19	80	4	630	657	1091	47	37.0	0.6	10	2	21	0.8	-2.3	0.7	-0.3	\$2,100
9126	Carter's Omaha	3/17/19	80	4	532	559	877	39	32.5	0.8	0	2	-17	-1.0	-1.1	0.6	-2.0	\$1,900
9152	Lyons Manhattan 6205	3/18/19	82	4	558	588	1048	43	36.5	0.5	2	5	25	0.1	2.1	0.7	-1.7	\$2,300
9158	WXW Timberline W287	3/19/19	78	12	574	642	981	40	37	1.1	14	0	15	-0.2	1.7	1.2	-0.5	\$1,900
9177	Werner Flat Top 4136	3/21/19	80	7	549	573	1007	42	36.0	-0.8	6	6	43	2.5	2.3	1.8	-1.3	\$2,300
9181	Werner Flat Top 4136	3/21/19	80	6	619	647	1018	49	35.5	0.8	15	3	13	1.3	-0.3	1.1	0.5	\$2,100
9183	7110/6394	3/20/19	88	2	502	584	970	39	37.0	1.0	7	2	18	-1.4	1.1	0.4	-0.6	\$1,900
9185	Carter's Omaha	3/21/19	82	6	556	580	995	39	33.0	0.9	4	2	5	-2.0	-6.0	1.9	-0.5	\$2,300
9190	7110/6394	3/21/19	63	2	470	554	905	38	34.5	-1.4	-1	1	11	4.0	1.1	0.4	-1.8	\$2,500
9208	Lyons Manhattan 6205	3/24/19	84	3	584	652	1057	42	35.5	2.8	16	5	34	-1.9	2.8	0.3	-2.0	\$2,300
9233	B3R Electorate A229	4/2/19	72	2	532	650	1059	37	34.5	0.8	13	5	37	1.2	1.4	0.2	-2.4	\$2,500
9260	7156	4/5/19	78	3	496	588	970	43	33.0	-0.8	3	6	41	2.2	3.2	0.3	-2.2	\$1,900
9270	5227	4/8/19	84	11	522	622	974	38	32.5	0.6	11	0	17	-1.8	-2.2	0.0	-2.0	\$2,300
9271	6048	4/8/19	74	4	528	613	927	40	34.0	-1.3	-2	8	-9	3.5	4.5	-0.1	-2.4	\$2,500
9272	5227	4/8/19	72	5	472	535	918	41	35.0	-2.4	-7	2	9	3.9	0.6	0.5	-1.9	\$1,900
9284	B3R Electorate A229	4/9/19	64	2	466	595	904	39	33.5	-1.4	0	4	11	4.8	2.9	1.1	-1.9	\$2,500
9288	7156	4/10/19	68	4	466	547	895	36	32.0	0.0	-3	1	28	0.8	-1.0	0.6	-2.7	\$2,500
9292	4019	4/11/19	70	3	452	554	835	33	34.0	-2.7	-6	6	-8	5.2	2.3	2.3	-2.5	\$2,500
9306	5219	4/15/19	80	11	540	666	968	39	34.5	-0.3	13	1	22	2.2	3.2	1.4	-2.3	\$2,300
9307	7156	4/15/19	70	4	557	670	964	41	31.0	-0.8	3	7	14	3.0	0.9	1.2	-2.3	\$1,900
9309	5219	4/15/19	82	10	477	573	872	37	33.0	0.9	10	3	8	0.3	2.7	1.1	-2.6	\$1,900
9310	6048	4/15/19	80	3	457	569	822	42	35.5	0.2	-1	6	-29	0.3	1.7	0.7	-1.7	\$1,900
9315	6048	4/15/19	76	10	483	582	908	42	35.5	-1.4	-5	7	-24	4.9	5.5	0.1	-1.6	\$1,900
9316	7156	4/15/19	63	5	517	610	986	47	33.0	-2.8	-8	4	19	6.3	2.0	0.0	-0.8	\$2,100
9332	7156	4/18/19	86	7	496	589	939	38	33.0	1.0	2	0	27	-0.7	0.4	1.5	-2.4	\$1,900
9351	4019	4/25/19	72	4	470	595	950	40	33.0	-2.1	-3	5	17	4.6	1.1	1.4	-1.2	\$2,500
Averages			76		531	593	980	44.4	34.1	-0.4	3.9	3.4	18.3	1.6	0.9	0.9	-1.0	