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

30th Annual BIC – Bull Sale

Monday – April 11th, 12:30 p.m.

Selling Approximately 50 Yearling Bulls
Dear Cattlemen:

Enclosed are the final results for the 2015-born yearling bulls on test at the One Bar Eleven Ranch, Colorado State University John E. Rouse Beef Improvement Center. The bulls went on gain test November 13 at an average weight of 636 lbs and age of 238 days. The average daily gain over the entire gain test that ended March 12 was 3.7 lbs per day with the bulls averaging 1071 lbs. In this breeding program, we select at weaning what we consider the best third of our bull calves and castrate the rest.

Many of these bulls will make great calving ease sires with over three-quarters having a positive calving ease EPD and over 70% with a negative birth weight EPD. For those producers at high elevation, over two-thirds of the bulls have a PAP lower than 43 mm Hg.

The focus of our breeding program has always been on producing Angus cattle that are adapted to range environments with cows that have long, productive lifespans, yet feedlot and carcass performance ultimately contribute to a product that satisfies the consumer. To monitor our progress in this area, the steers from our herd are fed at the Eastern Colorado Research Center with carcass data collected at harvest. This data is being accumulated over time for better genetic characterization of our herd. The last group of steers we harvested had an average carcass weight of 852 lbs with over 79% Choice and 18% Prime.

The focus of our breeding and research program is ultimately to improve producer profitability, and a big part of improving and keeping the cow/calf producer profitable, is female fertility and longevity. Stayability EPD represent that characteristic—the ability of a bull’s daughters to stay in the herd, producing calves until at least 6 years of age. This year’s bulls’ average stayability EPD is +.96 and we continue to have cows in the herd that are older than 15 years of age producing calves every year.

The EPD in this catalog are within-herd EPD calculated at CSU’s Center for Genetic Evaluation of Livestock. These EPD are based on performance of the current animals and the historical pedigree and performance data collected from within the herd over the years. These EPD are for use within our program and are not comparable to EPD from other breed associations. Please join us for the sale and thanks in advance for your support. For more information or questions contact any of the following:

**Beef Improvement Center**
Mike Moon 307-329-8030
Lindsey Noreen 307-710-2938

**Colorado State University**
Mark Enns 970-491-2722
Email: Mark.Enns@colostate.edu
BREEDING AND MANAGEMENT PHILOSOPHY

The John E. Rouse—Colorado State University Beef Improvement Center herd has a history of over 50 years of selection for improved performance of economically important traits. The Center 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 (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 with this herd at the Center 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 Research Update

The One Bar Eleven Ranch and the John E. Rouse CSU Beef Improvement Center Angus herd are an integral part of the teaching and research efforts of the Breeding and Genetics program in the Department of Animal Sciences at Colorado State University. This facility is an economically self-sustaining beef operation for educating students serving as a destination for field trips, providing real-world data and examples for use in multiple courses, and offering student internships. In the past, we have had students as interns from six universities and 3 countries. Additionally much of the beef industry’s foundational research on genetic improvement of cow adaptability and fertility occurs with this herd. Historically, research in this herd has resulted in stayability EPD, a selection tool now adopted by breed associations that identifies bulls whose female progeny have a high probability of remaining in the herd by weaning a calf every year through age six. One of the ongoing projects includes improving methods to select animals for reduced susceptibility to high altitude disease. Included in this project is the evaluation of early-life pulmonary arterial pressure measures (PAP) as a means to reduce the incidence of disease and assist in making selection decisions at an earlier age as opposed to waiting until animals are a year of age. One outcome of this project has been the development of PAP EPD for selection—a project that was completed in conjunction with several producers in Colorado and Wyoming.

The process of calculating EPD is evolving and great genetic progress has been made by developing strategies and technology to calculate multi-trait and multi-breed EPD. Additionally, EPD technology now includes DNA-based data as we can obtain high-density genotypes for over 800,000 markers that span the 30 chromosomes in cattle. Specifically, we now have DNA data from over 3,000 animals from this herd and important gene sequence from tissues of the cardio-pulmonary system. These data help us understand that PAP and high altitude tolerance are very polygenic traits (i.e., controlled by thousands of genes). Also, our quantitative genetics research team helped us understand that there are weak relationships between growth traits and PAP in this herd; therefore, we can continue to genetically improve the growth rate of our calves while also improving PAP scores. Our animal science research team continues to collaborate with veterinarians, researchers from the University of Colorado Anschutz School of Medicine and the University of Wyoming to better understand the physiology and genetics of High Altitude (Brisket) Disease. This team approach pools our expertise and accelerates our ability to serve the livestock industries. Recently we have teamed with the American Angus Association to leverage both of our sources of PAP data to produce a more accurate EPD that enables breeders to select against and reduce the incidence of high altitude disease.

We are also conducting projects to determine appropriate cow size and milk production levels for the cow-calf producers in this region’s tough, arid environment, realizing that some genetics may not be suitable to tough environments. Our hope is that this will result in selection of animals with reduced costs of production but acceptable levels of performance and ultimately lead to improving your profitability.
Glossary of Terms and Abbreviations

**Gain 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.

**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 are considered high risk and cattlemen should be cautious of using them at high elevations.

**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.)
SEALED BIDS: Sealed bids for all bulls will be handled by Mike Moon, CSU – BIC (307) 329-8030 or Lindsey Noreen (307) 710-2938.

SALE DAY LUNCH: Lunch will be served at the center at 11:30 a.m. by the Snowy Range Cattlewomen.

INSPECTION OF CATTLE: Available any time before sale date. On sale date, bulls will be available for inspection at 9am.

Map to the Ranch

TERMS OF SALE
All lots will be sold to the highest bidder. The Auctioneer will settle any disputes. Animals sold in this sale will be fed and cared for free of charge for 7 days following the sale, but at owner’s risk, and will be turned over to purchaser or loaded for shipment as directed. After 14 days, a $2 per bull per day late charge will be assessed to the buyer. A certificate of transfer and bill of sale will be furnished for each animal sold. The terms of the sale are cash, and all settlements must be made at the close of the auction. 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 fertility exam that included live semen evaluation and scrotal measurements. They have also been tested BVD free. We feel you are purchasing very good animals from an outstanding herd. Please keep us informed on how they perform for you!

Colorado Buyers
With the recent trich testing rule changes, you will be able to take your bulls home on sale day if you prefer.