

The BBU/TAMU Sire Evaluation Project

(A visit with former BBU Executive Vice President Wendell Schronk)

The following article summarizes our BBU Sire/Progeny Study conducted by Dr. Jim Sanders with the Texas A&M Animal Science Dept. I want to thank Dr. Sanders, Dr. Dave Lunt and the various members who paid to have these 15 bulls evaluated. While they were interested in their particular bull, the BBU Board of Directors, the breed improvement committee and I were all interested in the breed in general as we were trying to establish a base line for our cattle. Without the contributions of these members we certainly could not have gathered so much useful data on our breed. I appreciate the support and cooperation that this project had and was extremely pleased with our breed's performance when it came to evaluating carcass merit.

By Kelli L. Key, Graduate Research Assistant, Texas A&M University

In 1998, Texas A&M and Beefmaster Breeders United (BBU) entered into a collaborative effort to progeny test a group of Beefmaster sires. Over a five-year period, 258 progeny out of 15 bulls were evaluated for growth and carcass traits. These calves were produced by breeding commercial Angus cows from the Texas A&M University Research Station at McGregor with semen from the selected bulls. Calves were born from 1998 to 2001 and weaned in October or November of each year at approximately seven months of age. Steers and heifers were fed at the McGregor station and harvested in early June of each year at Sam Kane Beef Processors in Corpus Christi. Carcass measurements were recorded, and quality grade and yield grade factors were evaluated by U.S. Department of Agriculture (USDA) graders as well as Texas A&M meat science faculty and students.

Birth weight was recorded on all calves included in the project. The adjusted average birth weight was 81.5 lbs., with sire averages ranging from a low of 73.3 lbs. to a high of 90.3 lbs. At the time of weaning, actual weaning weights were taken. The adjusted average weaning weight across all sires was 462.3 lbs. Individual sires in the project had progeny weaning weight averages that ranged from 413.6 to 504.9 lbs., during some extremely hot and dry years. The adjusted average yearling weight was 866.6 lbs. for all sires, while the sire averages ranged from 789.3 to 954.9 lbs.

The adjusted average hot carcass weight was 632.3 lbs. Individual sire averages for hot carcass weight included a low of 568.8 lbs. and a high of 706 lbs. The adjusted average ribeye area was 11.51 sq. in.,

with the lowest sire averaging 9.94 sq. in. and the high sire averaging 12.38 sq. in. The adjusted average yield grade, as calculated using the USDA yield grade equation, was 3.28. Sire average yield grades ranged from 2.71 to 3.94. The adjusted average marbling score was Small 48, which translates to a quality grade of low Choice. The lowest sire's average marbling score was Slight 71 (Select), and the highest sire's average was Modest 10 (average Choice).

All carcasses included in the project were evaluated by the USDA grader at Sam Kane Beef Processors. Across the four years of the project, 72 percent of all carcasses graded either Prime or Choice. The highest performing sire in terms of quality grade produced progeny that all graded Prime or Choice, while the lowest performing sire had only 14 percent of his progeny grade Prime or Choice. Forty-nine percent of all carcasses in the study were determined to have yield grades of 1 or 2. The leading sire for yield grade had 86 percent of his progeny grade either 1 or 2, while the lowest ranking sire had only 9 percent of his progeny meet this standard.

One steak was removed from each carcass and transported to Texas A&M, where steaks were aged for fourteen days. After this aging period, Warner-Bratzler Shear Force measures were recorded for each individual animal. Warner-Bratzler Shear Force is a mechanical measurement of tenderness that simulates the amount of force required to cut through a one-half inch core of cooked meat. The adjusted average shear force value for all animals was 7.47 lbs. This is substantially less than 10 lbs., which is generally considered the designation between a tender and tough steak. Shear force averages ranged from 6.42 to 8.80 lbs. for the sires involved in the project.

Within the small group of sires included in the project, there are individual bulls that excel in value-determining characteristics such as growth traits, carcass quality and carcass cutability. The progeny in the study performed very well in the area of carcass quality, as 72 percent of the carcasses graded Choice or above, and no sires had shear force averages above 10 lbs. "The results of this progeny test appear to be very favorable for the Beefmaster breed," said Dr. Jim Sanders of Texas A&M University. "The cattle performed well from birth to harvest, and the carcasses were outstanding. I would like to thank Dr. David Lunt and the staff of the McGregor Research Station for their work to make this project a success and I want to thank BBU and those participating breeders."

The bulls that were tested are Lasater 2516; Classic Cotton; CJ's Desperado 530; Polled Mandate; Cherokee Renegade 399/5; Evolution; Black Lazer; Cherokee's Appeal; L Bar 5502; The Postman; Synergy; Oak Creek Ranch Red One; L Bar 7499; CF's Grand Cherokee; and EMS Smooth Connection