

Tucumcari Beef Cattle Feed Efficiency Testing

Investigator(s):

M. Ward¹, S. Jennings², J. Box², J. Jennings², A. Williams², P.L. Cooksey², L.M. Lauriault², and G.K. Martinez²

¹New Mexico State University, Department of Extension Animal Sciences and Natural Resources, Las Cruces, NM 88003

²New Mexico State University, Agricultural Science Center at Tucumcari, NM 88401

Impacts:

The Tucumcari Bull Test has grown both in scope and scale since Dr. Marcy Ward, New Mexico State University's Extension Livestock Specialist, took over as the test director, in 2014. The number of animals tested has grown by 300% since 2013, from 75 bulls tested annually to 350 bulls and heifers tested in 2018. To put the impact of this expansion in perspective, 75 bulls can pass on their genetics to approximately 1500 offspring per year, where 350 tested animals pass on their proven genetics to over 6300 offspring per year.

In 2013, there were 8 active producers and the facility tested 75 bulls, selling only 43. By 2018, the test was measuring performance on 155 bulls, and had 22 producers involved from four states. The economic impact for producers has also been significant. Until 2015, Tucumcari Bull Sale averages were consistently \$300-\$500 lower per bull than other production sales in the state. The 2018 sale was heavily impacted by the bull market and a new competitor located in Tucumcari. Given these challenges, the sale average of the Tucumcari Bull Sale still remained above that of other multi consignor sales in the region.

The test and sale audience has widened as well. In 2013, approximately 75 producers attended the Tucumcari Bull Sale. In 2018 the sale was broadcast live on line, reaching over 130 people from 30 states and two Canadian provinces. Combining the in-house and online attendance, approximately 250 people participated in the sale. The other audience to consider are the visitors to the website and sale catalog pages. The Tucumcari Bull Test is in the top 6 of bull tests listed on Google's main search page for bull efficiency tests. This exposure has generated interest from across the United States. The 2017 sale catalog was also posted on the American Angus Association website. There were over 3200 visits to the catalog page when published.

In fall 2018, TFET agreed to allow NMSU to initiate a water intake project with their cattle. Dr. Ward and her colleagues are developing technology to measure individual water consumption of purebred animals. This technology will continued to be used to allow for a significant multiyear study.

Summary:

There are two primary types of beef cattle producers in New Mexico. The largest sector of this industry is the commercial producer. These producers raise cattle to be sold for beef. The "seed stock" producer is the other sector. These producers raise pure bred cattle that are sold to the commercial producers as herd replacements. Even though the seed stock industry represents approximately 10% of the cattle inventory in New Mexico (NMDA Census, 2016), it contributes a significant proportion (50%) of the genetics to the commercial cow herd.

Seed stock producers collect data on their animals and utilize genetic parameters to make selection decisions that help optimize the genetic potential of their herds. The more information these producers are able to collect, the more quickly they can make genetic improvements. If the seed stock producer improves the performance and efficiency of their cattle, those superior genetics can be carried on through to the commercial producers who purchase their bulls or heifers.

Objectives:

The extension specialist will interpret and distribute the information gained from this outlet to beef cattle producers throughout the region for educational and marketing purposes.

1. For New Mexico beef cattle producers, increase knowledge base in genetic selection methods that can improve herd performance and productivity and
2. For seed stock operators potentially supplying New Mexico beef cattle producers, provide an outlet where they may gain additional information on their cattle.

2018 Outcomes:

In 2018, management of the increase in capacity of the feed efficiency testing facility and use was the primary focus. More cattle require more attention. The aging facilities also were need of repair and updates. Both issues can impact the quality of the testing and the image to the public. As a result, the Tucumcari Feed Efficiency Test, LLC (TFET) hired a new person to see to the daily care of the cattle and help with any facility repairs. The water system has been greatly improved and cattle health more intensely evaluated.

Dr. Ward was also involved in the development of a scholarship program collaboration with Mesalands College in Tucumcari, New Mexico in 2017. That program continues today. Additionally, Wyatt Bishop, one of the winners of last year’s scholarship did so well, he was the individual hired by TFET to care for the cattle. Shane Jennings received a plaque in gratitude for 10 years of service and continues to assist as needed and train the new hire.

Outputs:

The ACES-NMSU Tucumcari Bull Test and Sale Website is the primary source for dissemination of performance data and genetic and pedigree information. Sonja Jo Serna, ACES Media Specialist, serves as the primary administrator of the website, and the Livestock Specialist provides content. Four performance reports, pedigrees of each animal, and their genetic information are made available on the website every year. These reports and genetic information are used by both the test participants and potential buyers to help make educated decisions on how to improve the genetics within their herd. To date, Dr. Ward has generated over 400 summary and individual reports to these producers.

A hard copy catalog is also generated to promote the bulls consigned to the Tucumcari Sale. The catalog contains the same information as the website, but is distributed through the mail to over 1000 producers from NM, TX, CO, and OK.

In the fall of 2018, Dr. Ward submitted a \$50,000 USDA/NIFA Western Sustainable Agriculture Research and Education grant with six of the current cooperators. The purpose of the grant is to further fund the water intake study efforts.



Water Intake Stanchions in Large Grower Pen



Shane Jennings Receives Plaque for 10 Years of Service to Feed Efficiency Testing

