

UI Extension in Fort Hall uses technology to improve bull grading program

AT A GLANCE

University of Idaho Extension and the Fort Hall Bull Grading Committee incorporated technology to enhance cattle quality and decrease calving difficulties.

The Situation

Over 3,800 head of individually owned cattle run on one extensive range unit on the Fort Hall Reservation. The cattle are released as individually owned herds in different areas but commingle and run collectively as one herd. Therefore, it is imperative to closely monitor bull quality to maintain and improve the quality of beef produced by tribal and nontribal ranchers utilizing this range unit. Bull quality, including genetics and physical characteristics, plays a vital role in the quality of calves and retained calves for female herd replacements. Sire calving traits and birth weights also have a significant effect on how easily a cow will calve and how well calves will perform from birth to harvest. Consequently, bull quality and genetics directly affect the number and quality of calves born. These two factors, particularly the number of live births, affect producers' annual income and can make or break operations. The Fort Hall Bull Grading Committee investigated common problems observed by producers on this range unit. Through a series of meetings, the committee identified two main problems, 1) cattle quality needed improvement, and 2) many producers were losing calves due to difficult births (dystocia). Lower quality cattle can lead to decreased marketability, lower percentages of healthy weaned calves and



Exceptional bull battery owned by a Shoshone-Bannock Tribal member — 2024 bulls.

reduced weaning weights. Because many bulls had not been selected for calving ease genetics, cattle producers were experiencing economic losses due to calves lost at birth. Losing calves to difficult births equates to less annual ranch income. Combined, these factors have the potential to bankrupt cattle producers, especially in today's competitive beef markets.

Our Response

Fort Hall Extension educator, Danielle Gunn, collaborated with Extension beef specialist, Benton Glaze, affected producers and the Shoshone-Bannock Tribal Range Department to address these problems. Our objective was to improve cattle quality and reduce the incidence of dystocia to improve ranch profitability. We provided education regarding bull quality, genetics

and technological tools that can be used to select high quality, calving ease bulls. Through these collaborative educational efforts, an improved bull grading program emerged. Producers learned more about the technology behind the genetic selection tool known as “Expected Progeny Differences (EPD).” EPD’s are predictions of the transmitting potential of a sire or dam’s genetic traits to its progeny. Through education, producers gained increased knowledge, understanding and the ability to incorporate the use of EPD technology in their bull selection programs. Following educational programming, producers voted on breed, EPD calving ease, fertility, vaccination requirements and physical characteristics. Physical characteristics include bone structure and correctness, musculature, overall health, condition and soundness. Bulls must also be evaluated by a licensed veterinarian for semen quality and the sexually transmitted disease, trichomoniasis, which causes early abortions in cows.

Bulls are allowed to run for three years after which they must be sold or used off the reservation. Each bull is assigned a letter grade of A, A-, B+, B, or B-. Bulls receiving a B- are rejected and not allowed to run on the range unit. The committee travels to involved ranches every spring to grade all these bulls and ensure requirements are met. The UI Extension educator collaborates with the bull grading committee to ensure all testing and examination requirements are current for the upcoming breeding season. Veterinary health papers and tests and registration papers including EPD values are collected at the time of grading. If all of the requirements are not met, the cattle owner cannot turn his/her cattle onto the range unit until the criteria are met or they must purchase a replacement bull. Following these requirements ensures only healthy, sound, genetically superior bulls are used.

Program Outcomes

Since the addition of the calving ease EPD and physical characteristic requirements in 2012, bull quality has improved, and calving ease has increased dramatically.

FOR MORE INFORMATION

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Because bulls are used for three years, it takes approximately four years or more to achieve and maintain the desired results. Producers have reported dystocia rates have decreased to the point of rarely having to assist in a calf birth. There is also a decreased incidence of calf and cow death. The committee rejects fewer bulls which saves producers money. Data collected in 2005 through 2015 indicated an average of four bulls were rejected per year. Following our educational programming and additional requirements, an average of one bull was rejected per year from 2016-2024. Many years, no bulls are rejected. A steady rate of improvement has been observed. Four main outcomes have resulted from this program:

- The rate of assisted calf births and deaths has declined.
- Bull quality has improved leading to improved calf crops and higher weaning weights.
- Cattle owners understand and use EPD technology to purchase genetically superior bulls.
- Fewer bulls are rejected which saves cattle producers upwards of \$4,000/bull or more since they do not have to replace rejected bulls.

The Future

UI Extension and the Fort Hall Bull Grading Committee will continue to evaluate and provide guidelines and education for genetic tools and traits to improve our program. The program is proven and will continue to help producers decrease the incidence of difficult births and subsequent cow and calf losses during calving. The committee looks forward to more cattle improvements over the next three years.

Cooperators and Co-Sponsors

- Federally Recognized Tribes’ Extension Program
- UI Extension Beef Specialist Benton Glaze
- Unit III Stockmen and Stockwomen
- Shoshone-Bannock Tribal Range Program