

**A LITTLE BIT COUNTRY
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WILLIAMS COUNTY**

Ultra-Sound Technology Used On 4-H Steers

Steers exhibited by Williams County 4-H members during the Upper Missouri Valley Fair have been scanned using the ultra-sound technology. This enables us to study the carcass merits of an animal before it is harvested. The scan information measures the ribeye muscle, the amount of fat tissue in the muscle (called marbling) and the amount of fat tissue over the ribeye and rump. With this information we are able to calculate USDA quality and yield grades.

For decades, the industry has used the REA as an indicator of total muscles in a beef carcass, thus it is an important factor in determination of yield grade. Ribeye area is determined by measuring the area of the longissimus dorsi (ribeye) muscle exposed by cutting or "ribbing" the carcass between the 12th and 13th ribs. Ribeye area is expressed in square inches and is often determined using a grid device or by analysis of a ribeye tracing.

The National Beef Quality Audit revealed that both excessively small and excessively large ribeyes were among the top 20 quality challenges identified by the beef industry. An optimum range for ribeye area is 11 to 15 square inches. For average muscled cattle with average dressing percentage, live weight for these cattle would be approximately 967 to 1,500 pounds. However, it is advantageous to achieve on these ribeye areas with cattle to avoid live weights on these extremes. Ribeye area targets should be approximately 1.6 to 1.9 square inches per 100 pounds of carcass weight for 900-pound to 550-pound carcasses, respectively.

Results from 77 steers evaluated to date shows the average REA is 12.84 square inches or 1.62 square inches of REA per hundred pounds of carcass weight. Surprisingly, the difference between the smallest (9.9 sq. in) REA and the largest (16.7 sq. in) REA are not huge considering the animals represent numerous breeding programs and several cattle breeds.