

CHARACTERISTICS OF 2015 HOUSTON TOP-PLACING STEERS

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Live weight and carcass data are collected on the top two steers in each class at the Houston Livestock Show and Rodeo, a total of 110 head this year. A summary of data from 1974 to 2015 is at <http://animalscience.tamu.edu/livestock-species/beef/publications/#youthprojects>.

The following summarizes the 2015 data by characteristic, with some comparisons to previous years.

LIVE WEIGHT – for the sixth year was turned in by the exhibitor, with placing animals reweighed for compliance within five percent. The average was 1259 lb, 9 lb lighter than last year but second highest ever at Houston. However, the recent national average of finished steers is approximately 1400 lb, which continues to increase. British classes averaged 1260 lb, Americans 1256 lb, and Continentals 1261 lb. The individual range was from 1010 lb for a lightweight All Other Breeds (which had six classes due to large numbers in the division) to 1485 lb for a heavyweight Chianina.

CARCASS WEIGHT – averaged 809 lb, ranging from 588 lb to 1000 lb. No carcass was disqualified from carcass premiums for being too heavy since the maximum acceptable weight was raised to 1000 lb three years ago. The 588 lb carcass was disqualified for being below the minimum of 600 lb.

DRESSING PERCENT – averaged 64.3% (individuals ranged from 58.2% to 69.5%), which is slightly above the industry average of finished cattle. Dressing percent averaged 66-67% in the 1980s, when show steers were being shrunk more to produce the relatively shallow bodies that were generally preferred by judges at the time.

FAT COVER – averaged 0.49 inches, slightly below last year; range was 0.16 to 1.08. Four carcasses were below the minimum requirement of 0.25 inches. British steers averaged 0.10 below Americans and Continentals. Average fat thickness over the last 10 years is 0.47. Lowest average fat of 0.35 to 0.40 occurred in the late 1970s to mid 1980s.

RIBEYE AREA – averaged 15.4 sq in (ranging from 11.9 to 19.3). Continentals were slightly larger than British and American. Over the last 10 years, the average has ranged from 14.8 to 15.7. Ribeye area has increased over the years as steers have increased in weight. In the late 1970s, ribeyes averaged from 12.5 to 12.9, but carcass weights averaged only about 700 lb. Many of the high-quality branded beef programs, such as Certified Angus Beef®, have a maximum ribeye area of 16.0 sq in. There were 35% of the 2015 carcasses which exceeded that size.

RIBEYE AREA / CWT CARCASS – is a better indication of muscularity than area alone without consideration of weight. The average this year was 1.91 sq in/cwt carcass,

similar to the last several years. Continentals were highest and British lowest. Since 1974, the range has been from 1.73 to 1.92. There was some thinking that slick-shearing would lead to more muscular animals being favored by judges. Slick-shearing started in 1993 and so has been in effect for 23 years. For the first half of that period the average REA/cwt averaged 1.80 to 1.85. For the last half the average has been about 1.90. So, muscularity of the top two steers at Houston appears to have increased slightly over the last several years.

USDA YIELD GRADE – is based primarily on fat thickness and ribeye area in relation to carcass weight to predict percent lean yield from the high-priced cuts. (Lower numerical Yield Grades equals higher percent lean.) This year's average was 2.27 (ranging from 0.43 to 4.33). Five carcasses were disqualified from the carcass contest for exceeding Yield Grade 3.5 (industry price discounts usually don't apply before 4.0). Continentals averaged lower numerical Yield Grades, followed by Americans and British. Considering the large range in muscling and fat among these top-placing steers, it is apparent that show judges consider factors, such as structure and general appearance, other than projected carcass composition.

MARBLING – is the primary factor in USDA Quality Grade. The average this year was Small45, slightly below last year which was the highest ever. (For A Maturity, which was true of all these carcasses, Small00 is the minimum for USDA Choice.) Continentals averaged SM64, British Sm53, and Americans Sm12. Marbling has averaged about one-half degree higher since 2000 than in the 1980s to early 90s.

PERCENT LOW CHOICE OR HIGHER – was 63% compared to an average of 70% the last three years. Current industry average is 70-75%. British were 73% and Continentals 72%. Even though the average marbling of the American group was high enough for low Choice grade only 41% graded low Choice or higher; this is because a number of American carcasses were just slightly below the minimum for Choice. The average of the past 10 years is 60% compared to an average of only 25% over the 1980s to early 90s.

DARK CUTTER – is a condition generally caused by pre-slaughter stress. In the mid-80s to early 90s there were generally around 25% of carcasses that cut dark. In recent years this has declined significantly and there were none this year.

SUMMARY - Considering the large range in muscling and fat among these top-placing steers, it is apparent that show judges consider factors, such as structure and general appearance, other than projected carcass composition. Compared to current industry-wide averages these steers were acceptable as a group, being slightly lower in USDA Quality Grade and superior in USDA Yield Grade.