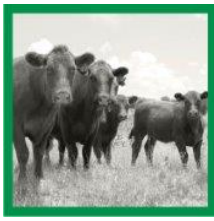

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National Beef Quality Audit – 2016: Survey of carcass characteristics through instrument grading assessments

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Abstract

The instrument grading assessment portion of the National Beef Quality Audit (NBQA) – 2016 allows the unique opportunity to evaluate beef carcass traits over the course of a year. One week of instrument grading data was collected each month from 5 beef processing corporations encompassing 18 facilities from January 2016 through December 2016 (*n* = 4,544,635 carcasses). Mean USDA yield grade (YG) was 3.1 with 1.37 cm fat thickness (FT), 88.9 cm^2 LM area, 393.6 kg HCW, and 2.1% KPH. Frequency distribution of USDA YG was 9.5% YG 1, 34.6% YG 2, 38.8% YG 3, 14.6% YG 4, and 2.5% YG 5. Increases in HCW and FT since the NBQA–2011 were major contributors to differences in mean YG and the (numerically) increased frequency of YG 3, 4, and 5 carcasses found in the current audit. Mean marbling score was Small[75], and the distribution of USDA quality grades was 4.2% Prime, 71.4% Choice, 21.7% Select, and 2.7% other. Frequency of carcasses grading Prime on Monday (6.43%) was numerically higher than the average frequency of carcasses grading Prime overall (4.2%). Monthly HCW means were 397.6 kg in January, 397.2 kg in February, 396.5 kg in March, 389.3 kg in April, 384.8 kg in May, 385.0 kg in June, 386.1 kg in July, 394.1 kg in August, 399.1 kg in September, 403.9 kg in October, 406.5 kg in November, and 401.9 kg in December. Monthly mean marbling scores were Small[73] in January, Small[80] in February, Small[81] in March, Small[77] in April, Small[70] in May, Small[67] in June, Small[70] in July, Small[75] in August, Small[74] in September, Small[76] in October, Small[80] in November, and Small[79] in December. Both mean HCW and mean marbling score declined in the months of May and June. The month with the greatest numerical frequency of dark cutters was October (0.74%). Comparison of overall data from in-plant carcass and instrument grading assessments revealed close alignment of information, especially for YG (3.1 for in-plant assessment versus 3.1 for instrument grading) and marbling (Small[70] for in-plant assessment versus Small[75] for instrument grading). These findings allow the beef industry access to the greatest volume of beef value–determining characteristics for the U.S. fed steer and heifer population than ever reported, resulting in potentially more precise targeting of future quality and consistency efforts.

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