



RESEARCH BRIEF PRODUCT QUALITY

BEEF RESEARCH

Tenderness assessments of top loin steaks from retail markets in four U.S. cities

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Abstract

The purpose of this study was to evaluate the tenderness of beef loin steaks from retail markets in 4 U.S. cities. Beef top loin steaks ($n = 1,613$) were obtained for Warner–Bratzler shear force (WBSF), slice shear force (SSF), and consumer sensory determinations. Personnel at 4 universities (California Polytechnic State University, Colorado State University, University of Missouri, and Texas A&M University) conducted the study over a 12-mo period. Enhanced/blade-tenderized top loin steaks had the lowest ($P < 0.05$) WBSF and SSF values, whereas non-enhanced top loin, bone-in steaks had the highest ($P < 0.05$) WBSF and SSF values. Enhanced/blade-tenderized top loin steaks received the highest ($P < 0.05$) ratings by consumers for palatability scores, whereas non-enhanced top loin, bone-in steaks had the lowest ($P < 0.05$) consumer panelist ratings. The USDA quality grade did have an effect ($P < 0.05$) on the tenderness of non-enhanced steaks but did not affect ($P > 0.05$) steaks that were enhanced/blade tenderized. The WBSF values and consumer sensory values for top loin steaks were comparable to the 2010 National Beef Tenderness Survey, signifying that no drastic changes in tenderness have occurred due to changes in antemortem or postmortem conditions.

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