



RESEARCH BRIEF PRODUCT QUALITY

BEEF RESEARCH

Impact of Elevated Aging Temperatures on Retail Display, Tenderness, and Consumer Acceptability of Beef

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Abstract

Palatability, color, and aroma of steaks derived from subprimals aged for 14 d at conventional temperatures (0.0 to 1.1 °C) versus those aged for 7 d at conventional temperatures followed by 7 d at elevated temperatures (3.3 to 4.4 °C) were evaluated before and after 5-d retail display. Subprimals from the elevated temperature aging treatment had stronger ($P < 0.05$) sweet and sour aromas, and the top sirloin had stronger ($P < 0.05$) bloody/serummy scores. After the 5-day retail display, aroma (sour, bloody/serummy) and discoloration of T-bone/Porterhouse steaks were most impacted compared to other steaks. Elevated temperature during the last 7 d of aging did not significantly improve consumer panelists' palatability scores, and no differences ($P = 0.66$) were seen in WBS force between aging treatments. Using higher storage temperatures to age beef does not warrant the risk associated with impacting color and odor characteristics that could negatively influence consumer acceptance of retail beef.

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