



RESEARCH BRIEF PRODUCT QUALITY

BEEF RESEARCH

Consumer assessment of beef tenderloin steaks from various USDA quality grades at 3 degrees of doneness

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Abstract

A consumer study was conducted to determine palatability ratings of beef tenderloin steaks from USDA Choice, USDA Select, and USDA Select with marbling scores from Slight 50 to 100 (USDA High Select) cooked to various degrees of doneness. Steaks were randomly assigned to 1 of 3 degree of doneness categories: very-rare, medium-rare, or well-done. Consumers (N = 315) were screened for preference of degree of doneness and fed 4 samples of their preferred doneness (a warm-up and one from each USDA quality grade treatment in a random order). Consumers evaluated steaks on an 8-point verbally anchored hedonic scale for tenderness, juiciness, flavor, and overall like as well as rated steaks as acceptable or unacceptable for all palatability traits. Quality grade had no effect ($P > 0.05$) on consumer ratings for tenderness, juiciness, flavor, and overall like scores, with all traits averaging above a 7 ("like very much") on the 8-point scale. In addition, no differences ($P > 0.05$) were found in the percentage of samples rated as acceptable for all palatability traits, with more than 94% of samples rated acceptable for each trait in all quality grades evaluated. Steaks cooked to well-done had lower ($P < 0.05$) juiciness scores than steaks cooked to very-rare or medium-rare and were rated lower for tenderness ($P < 0.05$) than steaks cooked to a very-rare degree of doneness. Results indicate consumers were not able to detect differences in tenderness, juiciness, flavor, or overall like among beef tenderloin steaks from USDA Choice and Select quality grades.

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