



## RESEARCH BRIEF PRODUCT QUALITY

## BEEF RESEARCH

### Consumer and trained panel evaluation of beef strip steaks of varying marbling and enhancement levels cooked to three degrees of doneness

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#### Abstract

The palatability of USDA graded beef strip loins of seven treatments [High Enhanced (HE: 112% of raw weight) Select, Low Enhanced (LE: 107% of raw weight) Select, Prime, upper 2/3 Choice (Top Choice), lower 1/3 Choice (Low Choice), Select, and Standard] cooked to three degrees of doneness [DOD; rare (60 °C), medium (71 °C), or well-done (77 °C)] was evaluated by consumer and trained sensory panelists. For consumers, Select HE steaks rated higher ( $P < 0.05$ ) for juiciness, tenderness, flavor identity, flavor liking, and overall liking than all non-enhanced treatments other than Prime. No differences ( $P > 0.05$ ) were observed between Select LE and Prime samples for most traits evaluated. The effect of USDA grade and enhancement on trained panel palatability scores was independent of DOD for all traits other than juiciness, with the role of marbling in juiciness increasing as DOD increased from rare to well-done. These results indicate enhancement as an effective method to improve the palatability of lower grading beef.

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