Beef Chuck Muscle Isolation has no Effect on Premium Ground Beef Programs
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Abstract
This experiment evaluated whether isolating certain muscles from the chuck for retail sale and excluding them from the ground beef mix changes the number of days that ground chuck is acceptable to consumers. Chucks were harvested from twenty-four beef steers, and were allocated to either a traditional or an innovative method. Resulting ground beef patties were stored in retail simulation conditions for 7 d to determine color and oxidative stability. Raw patties were analyzed for thiobarbituric acid reactive substances (TBARS), oxymyoglobin concentration, objective color by Minolta colorimeter, and by a trained sensory panel for odor, color and percent discoloration. No differences ($P > 0.05$) were observed between traditional and innovative style patties for TBARS, sensory odor or color, or oxymyoglobin concentration. Minolta Chromameter readings revealed more substantial fading ($P<0.05$) in traditional patties compared with the innovative style patties. This study demonstrated that removing certain muscles from the ground chuck mix does not result in any detrimental consequences in resulting ground chuck patties.