

Effect of Electric Stimulation on Characteristic Changes in Hot-Boned Beef Brisket of Different Potential Tenderness

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Abstract : In this study, the effect of electric stimulation on the quality of hot-boned beef brisket muscles was evaluated, including the tenderness, pH, temperature change, and colorant. Muscles were obtained from steers in the local slaughter house. (3 steers for each muscle), removed from the carcasses 4-hour postmortem and variable time to treated with direct current electric 1 and 5 minutes, respectively. Six different electric intensities (direct current voltage of 50, 70 and 90 Volt, pulse with 10, 20 and 40 ms) plus a control were applied to each muscle to determine the optimum treatment conditions. Hot-boned beef brisket was found to get tender with increasing treatment direct current voltage and reduction in the shear force with pulsed with electric treatment. But in a long time to treated with electric current get fading in red color and temperature increase whereas pH quite different compared to non-treated control samples.

Keywords : electric stimulation, characteristic changes, hot-boned beef brisket, potential tenderness

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