

Effects of acerola fruit extract on sensory and shelf-life of salted beef patties from grinds differing in fatty acid composition

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Abstract

The effects of added acerola fruit extract on sensory and shelf-life of beef patties were evaluated. Ground beef was obtained from young bulls fed one of four diets (CON: control, LIN: linseed, CLA: conjugated linoleic acid, LINCLA: LIN plus CLA). Pre-salted (1.8% w/w) beef patties (7.7% fat) with (0.15% w/w) or without acerola were packed in modified atmosphere (80% O₂:20% CO₂) and displayed in a retail case for 8 days. There were no interactions between diet and antioxidant treatments. LIN and/or CLA had no effect on color and lipid stability during display. However, LIN increased *n*-3 fatty acids in beef and tended to increase intensity of rancid flavor. Addition of acerola extended shelf-life by at least 3 days by improving color and lipid stability and a decreased trend in intensity of rancid flavor of patties without affecting microbial counts. Thus, the use of acerola as a natural antioxidant can be considered an effective method to retard color and lipid oxidation in beef patties.