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Are there quality differences between “naturally raised” beef and conventional beef?

A new original research article in *Applied Animal Science* compares beef that is marketed as “naturally raised” and commodity beef.

Philadelphia, PA, March 30, 2020—Increased public interest in livestock production has led to the introduction of “naturally raised beef” and “organic beef” in the marketplace. Consumers have many choices when selecting beef at the grocery store, and often, they are willing to pay a premium for beef that is marketed and labelled as “naturally produced.” These “naturally produced” beef products are recognized as a healthier option. Dr. Jason K. Apple, an author of the article, points out that “there are well-defined production standards for USDA certification of organic beef, but there are no official standards for ‘naturally raised’ marketing claims.” Apple and researchers at the University of Arkansas (UA) and the UA System Division of Agriculture compared beef labelled as “naturally raised” and conventional beef to see if there were differences in meat quality. They evaluated steaks from five branded beef programs making marketing claims of “no dietary antibiotic or ionophore inclusion” and “no growth promotants” and steaks from two major beef commodity packing companies.

High-quality beef is the result of a combination of many factors. The article compares numerous aspects of the two types of beef. “The growth-promoting technologies and feeding practices that differentiate ‘naturally raised’ from conventional beef produced varied effects on fresh beef color, fatty acid composition, and cooked beef palatability,” Apple said. “Consumer sensory ratings, fresh meat color, fatty acid profiles, pH, antibiotic residues, cooking loss, cooked beef palatability, and shear force tenderness were compared,” added David K. Beede, editor-in-chief of *Applied Animal Science*.

The two types of beef showed few differences in the characteristics studied. When fresh beef was compared, “naturally raised” beef and conventional beef were similar in pH and moisture and intramuscular fat content, although conventional steaks were darker in color. Conventional steaks also had greater cooking losses, but the two types of beef were similar in fatty acid composition; shear force tenderness; and consumer sensory ratings for flavor, tenderness, texture, and overall acceptability. Other than these few, small differences, “naturally raised” beef and commodity beef were strikingly similar in quality.

The article appears in the April issue of *Applied Animal Science*.

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NOTES FOR EDITORS

“Comparison of meat quality and health implications of branded and commodity beef,” by Cari A. Keys, Jason K. Apple, Janeal W. S. Yancey, Ryan J. Stackhouse, Tim M. Johnson, Lindsey N. Mehall, and Michael L. Looper (DOI: <https://doi.org/10.15232/aas.2019-01904>), *Applied Animal Science*, Volume 36, Issue 2 (April 2020), published by FASS Inc. and Elsevier Inc.

Full text of the article is available to credentialed journalists upon request; contact Brittany Morstatter at +1-217-356-3182 ext. 143 or arpas@assoqh.org to obtain copies. To schedule an interview with the authors, please contact Dr. Jason K. Apple at Jason.Apple@tamuk.edu.

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