ESTIMATING U.S. CONSUMER BEEF DEMAND
DIFFERENTIATED BY USDA QUALITY GRADES

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ABSTRACT

A historically low U.S. cattle inventory combined with record cattle prices create potential for herd expansion. Many in the livestock industry are discussing the need to restructure beef production and debating over what the correct strategy might be to sustain and continue building beef demand as the industry moves forward. Schroeder, Tonsor, and Mintert (2013) identified beef quality as an important and feasibly influenced driver of consumer beef demand. However, few studies have done research on beef demand disaggregated by quality type.

The objective of this study is to provide empirical estimates of demand elasticities for beef quality types including USDA Prime, USDA Choice/Branded, and USDA Select beef by means of OLS regression procedures. This approach allows for comparison of these estimated elasticities to help determine the best production focus for the future of the beef industry.

Estimation results show Prime beef to be the most own-price elastic (-2.33) which suggests a change in the Prime quantity supplied will elicit a smaller change in price premiums. Additionally, Select beef is found to be the most sensitive to changes in the prices of competing meats. Finally, a trend term suggest there are additional factors other than those explicitly included in the model that are increasing demand for higher quality beef which could have positive implications for the future of the beef industry.

Given these results, an increased focus on beef quality appears to be a viable plan to build and sustain beef demand down the road.