Foreword

Special Issue on Promotion through Consumer Information on Food Product Credence Attributes

Harry M. Kaiser

This special issue of *Agricultural and Resource Economics Review* has the theme "Promotion through Consumer Information on Food Product Credence Attributes." Consumers are increasingly interested in a wide variety of credence-good attributes in the foods they purchase. These credence attributes include production practices that are consistent with sound environmental, fair trade, and animal welfare practices. Food credence attributes also include place of origin, organic, locally grown, environment friendly, food safety, and health claims.

The special issue features thirteen articles on food labeling; country of origin labeling; geographic indicators; animal welfare; food safety; organic, green, and sustainable foods; and health promotion. Two of the articles deal with generic promotion evaluation. The refereed articles are a subset of papers presented at a conference in San Diego, California in March 2009, jointly sponsored by the Research Committee on Commodity Promotion (NEC-63) and the Food and Agricultural Policy Section (FAMPS) of the American Agricultural Economics Association.

A variety of interrelated topics are addressed involving credence attributes of food products. The articles can be categorized into four general areas. The first set of papers deals with food safety and health attributes, and features the following five papers.

Payne, Messer, and Kaiser investigate the impact of the 2003 U.S. outbreak of mad cow disease on consumer demand for beef. Using experimental economics and classification and regression tree analysis, the authors identify which consumer groups, based on behavioral, psychological, and demographic characteristics, are the most and least prone in demand response to negative media on mad cow disease. Results from this study suggest that, by focusing on subgroups of consumers based on frequency of consumption and perceptions of fear and risk, the interventions can have the greatest impact—thereby reducing the likelihood that exposure to mad cow disease information will dramatically impact beef demand.

Li and Hooker examine the impact of food safety claims on product price premiums. Using parametric and nonparametric hedonic models along with two product innovation databases, the authors find a premium of 5 cents per ounce for a "preservative free" claim in spoonable yogurts. The authors do not find a statistically significant impact for "*E. coli* free" messages on meat and poultry products, but find a significant price premium (19.3 cents and 25.7 cents per ounce in the two models) for "antibiotic free" claims in this category.

Mutondo, Brorsen, and Henneberry examine the welfare impacts of mad cow disease-induced trade bans. The authors use an international equilibrium displacement model of the beef sector, and find

the welfare loss to U.S. beef producers due to both Japanese and South Korean bans to be $565.31 million.

Utilizing outbreak surveillance data from the Centers for Disease Control and Prevention, Zheng and Kaiser look at the potential impact of dairy-borne disease outbreaks on the demand for fluid milk in New York State. An additional person sickened due to the ingestion of tainted cheese products at home is found to decrease per capita milk demand in New York State by 0.13 percent (or 0.07 pound), while milk- and ice cream-borne disease outbreaks, occurring at home or in public places, are found to have no impact on fluid milk demand.

Lee and Brown examine the impacts of retail promotions and flu/cold incidences on the demand for orange juice, using weekly Nielsen grocery orange juice sales data and flu/cold incidences reported by Surveillance Data, Inc. The cross-section time-series pooling technique proposed by Parks is used to estimate the demand parameters. The authors show that flu/cold incidences increased the effectiveness of retail promotions on the demand for orange juice.

The second set of articles investigates the impact of product attribute claims on consumer demand. These attributes include locally grown, organic, and other socially responsible claims. Four articles are included in this category.

McCluskey, Durham, and Horn examine three food products with different socially responsible production attributes: minimal-pesticide strawberries, fair-trade bananas, and milk from pasture-fed cows. Survey data are collected for the purpose of this study in Minnesota, Oregon, Rhode Island, and Washington. A model based on random utility theory is estimated to evaluate the relative strengths of consumer preferences and motivations to purchase these products. In terms of shopping habits, shoppers who frequent farmers' markets and natural foods stores are willing to pay more. In terms of mean willingness to pay, fair-trade bananas had the highest percentage premium, but they also have the lowest base price.

James, Rickard, and Rossman analyze the results of a consumer survey that asked respondents to choose an applesauce product from a list of products differentiated by price, and by labels that described fat content, nutrition content, and whether the product was grown organically and/or

locally. Their analysis indicates that consumers were willing to pay more for locally grown applesauce compared to applesauce that was labeled USDA Organic, Low Fat, or No Sugar Added. Furthermore, the authors find evidence that increased knowledge of agriculture decreases the willingness to pay for organic and locally grown applesauce.

Tonsor and Shupp evaluate consumer perceptions of what "sustainably produced" food labels imply and estimate the corresponding demand for products carrying these labels. Their results suggest that the typical U.S. consumer is not willing to pay a positive premium for beef, tomatoes, or apple products labeled as "sustainably produced." Demand is particularly sensitive to inferences consumers make regarding what a "sustainably produced" food label implies.

Dentoni et al. analyze why consumers value "locally grown," which is a credence attribute receiving increasing attention in the market. Specifically, the authors propose a distinction between the direct effect and the indirect effect of "locally grown" on consumers' attitudes towards agri-food products, to explain consumers' preferences for locally grown products. Data are collected from an experiment with university students and are analyzed with a structural equation modeling methodology.

The third set of articles examines the impacts of country of origin labeling (COOL) on agricultural and food markets. There are two papers in this category. Jones, Somwaru, and Whitaker use estimated costs provided by the U.S. Department of Agriculture's Agricultural Marketing Service (AMS) to simulate the impacts of mandatory COOL on U.S. and global agricultural markets, using a global static general equilibrium model (STAGEM). The results show resource adjustments that lead to decreases in production, consumption, and trade flows. The results assume no demand premium for labeled commodities relative to unlabeled commodities.

Chung, Zhang, and Peel examine the impacts of implementing mandatory COOL programs on producer and consumer welfare in the U.S. meat industry. An equilibrium displacement model with twenty-nine equations representing retail-, processing-, and farm-level equilibrium conditions for the beef, pork, and chicken industries is used

to simulate impacts. Empirical results show that without a significant increase in domestic meat demand, producers are not expected to benefit from the mandatory COOL implementation. Results of sensitivity analysis indicate that consumers tend to bear more COOL costs than producers as the own-price elasticity becomes more inelastic, and producers' benefits increase as the elasticity of domestic demand with respect to the price of imported product becomes more elastic.

The final two articles are generic promotion evaluation studies. Henneberry, Mutondo, and Brorsen use an equilibrium displacement model of the U.S. meat markets to measure the potential impacts of promotion investment. The model differentiates meats by type and by supply source, takes into account the U.S. participation in global meat markets, and considers imperfect competition in the meat industry. The increase in U.S. producer welfare resulting from a 10 percent increase in promotion ranges from -$1.29 million to $2.60 million for U.S. beef producers and from -$0.96 million to $1.67 million for U.S. pork producers, depending primarily on the advertising elasticity used.

Thomas and Canter assess the benefits to Florida orange growers of generic orange juice advertising using additive, non-linear, regional econometric models measuring the impact of category and brand marketing efforts on category demand, while controlling for pricing and various other factors. The study shows that generic marketing efforts increased orange juice category demand by 8.3 percent, resulting in increased orange prices and a benefit-to-cost ratio to Florida growers of 3.5 to 1. Branded promotional activity is found to primarily fuel brand switching and pantry-loading, with only modest impacts on overall category demand.

Several people helped make this special issue possible, and they deserve recognition. Shida Henneberry was the chair of the conference planning committee, which also included Joe Balagtas, Chanjin Chung, Harry Kaiser, Joe Parcell, and Tim Richards. Four individuals, Harry Kaiser, Chanjin Chung, Shida Henneberry, and Joe Balagtas, served as editors for the special issue. All authors, as well as several additional individuals, provided on-time reviews through a two-round review process and met all self-imposed deadlines. Anita Vogel organized all the logistics of the conference, as well as assisting in the editorial review process. Thanks to all these individuals for making this special issue possible, and thanks to Editors Josh Duke and Titus Awokuse for allowing us the opportunity to publish this special issue.