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Department of Agricultural and Resource Economics, Fort Collins, CO 80523-1172
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CONSUMER RESPONSE TO BEEF DUE TO THE DECEMBER 2003 BSE INCIDENT IN THE U.S. [1]

Dawn Thilmany, Wendy Umberger, and Amanda Ziehl [1]

- *22% of survey respondents reported they changed their beef purchase behavior since the December 23, 2003, U.S. BSE incident.*

- *When asked to rank price, natural, traceable to the farm, grass-fed, and tested for Mad Cow Disease as important attributes of beef, 46 percent of the respondents indicated that price was the most important attribute while 34 percent indicated the attribute of tested for mad cow disease was most important (with smaller shares for the remaining 3 attributes).*

Consumer awareness of a vast array of food safety concerns may be at an all-time high, due to the increasing availability of up-to-the minute media and rapid information dissemination on food related outbreaks. Consumers are acutely aware of threats to the animal product industry after a decade of *E. coli* O157:H7 occurrences and numerous animal health scares (BSE in the United Kingdom and Japan, and most recently two isolated incidences in North America, Foot and Mouth Disease among international trading partners). The National Cattleman's Beef Association website released findings from their own consumer surveys that found the Canadian BSE outbreak raised consumer awareness of BSE, but consumer confidence in the food supply remained high. The consumer response to the U.S. BSE incident (6 months after the conference) confirms this message. Awareness among consumers of BSE was at 96 percent following the U.S. discovery, compared with 61 percent in Fall 2003. Similarly, a survey conducted in January 2004 by the Food Policy Institute at Rutgers University found that 85 percent of the 1,001 continental U.S. consumers surveyed were knowledgeable of the December U.S. BSE case (Hallman, Schilling, Turvey). Nevertheless, consumer confidence remained strong, going from 88 percent in September 2003 to 89 percent in January 2004 (http://www.beef.org/).

Public response to the BSE scare was rapid and continues to evolve. One of the first actions taken by the USDA was a new set of regulations (primarily related to feeding protocols and advanced meat recovery systems) released on January 12, 2004. More recently, the United States Department of Agriculture's Animal and Plant Health Inspection service (USDA-APHIS) announced an enhanced BSE surveillance program substantially increasing the number of animals tested for BSE. There is little information on what assurances this additional testing might give consumers, thereby the impact of additional testing on beef

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[2] Associate Professor, Assistant Professor and Graduate Research Assistant, in the Department of Agricultural and Resource Economics at Colorado State University, Fort Collins, CO 80523-1172.

demand is unknown. Following Piggott and Marsh's 2004 research, there may not be long-term effects from this isolated case of BSE, even if there are short-term impacts.

However, there has been little analysis of how BSE has changed beef purchases among US consumers, what current U.S. consumer perceptions are of the risks related to beef, and how much U.S. consumers might value products that give assurances to mitigate those perceived risks, such as testing of beef products for BSE. This fact sheet presents the initial analysis of a national consumer survey conducted by Colorado State University to investigate a number of issues affecting consumer preferences, willingness to pay and purchase decisions, including the effects of the BSE incident.

The survey was collected by the National Family Opinion research group using their online survey distributed randomly among their respondent pool (but stratified to include a relatively high share of Coloradans). The final data represent 1288 complete responses from non-vegetarian consumers who completed the survey in the Spring (March/April) of 2004.

Figure 1 shows that about 22% of the 1288 total survey respondents reported they changed their beef purchase behavior since the December 23, 2003, U.S. BSE incident. To ascertain the type of beef purchasing changes being made, respondents who said "yes" were asked to indicate the types of purchasing changes they made. Of those who have changed their behavior (n = 283), over half (57.2 percent) are buying less beef, indicating that approximately 13 percent of our surveyed population had reduced their beef purchases as of March/April 2004. The Rutgers University Food Policy Institute Survey conducted a few months earlier (in January 2004) found that nearly 17% of their respondents had reduced their beef consumption after the December BSE incident. A small share of respondents indicated they are buying more meat (mostly due to their perceptions of more affordable prices), 27.6% have not made changes, and 12.7% are buying different types of beef (Figure 2). Going even further with this line of questioning, the respondents who said they were buying different types of beef were then asked about the primary change in type of beef (see Figure 3). There are four major categories for how consumers (n=32, or less than 3% of all respondents) reported that their purchases changed, including cut of beef (28.1%), purchase location (31.3%), brand (25%) and production practice (15.6%).

An even greater number of respondents shared detailed responses in an open-ended question on why their purchases changed. The greatest number (31) said it ncreased their concern and fear about the chance of BSE in the food system, another 23 mentioned something about beef being unsafe or unhealthy for their families and themselves, and 9 were skeptical of current regulations and testing methods. Although these comments were given by a small percentage of respondents (less than 5%), any loss in consumer confidence may be of concern to the beef industry. Another set of consumers (27) responded that they were eating less beef and changing their diets to other meat products, but 4 resumed purchases after the initial scare was over.

Another line of reasoning in the consumer panel was that they could change purchase behavior to manage the risk of BSE fears. One group of consumers (13) stopped purchasing ground beef, while another group (17) now has changed to purchasing only special types of beef in response to the incident. Others altered the marketing channels they use, including a switch to natural/organic producers (6), buying from the same local producer/source (5) and seeking more information on where the meat is coming from (8).

Finally, survey respondents were asked to rank from 1 to 5 a set of five beef attributes (price, natural, traceable to the farm, grass-fed, and tested for Mad Cow Disease) and to rate (1 = most desirable, 5 = least desirable) several different attributes that could be provided and/or altered in the beef products they purchase. Of the five specified beef attributes, 46 percent of the respondents indicated that price was the most important attribute while 34 percent indicated the attribute of tested for mad cow disease was most important. The remaining 20 percent of respondents indicated either grass-fed, traceable to the farm, or natural were the most important beef attribute (Figure 4). Figure 5 shows the average ratings by desirability category for a number of these beef-related attributes, including the assurance that meat was tested for mad cow disease. This attribute received the highest number of extremely desirable ratings (even above good value for price), illustrating the derived demand for safety assurances among consumers. While the desirability of the "tested for mad cow disease" attribute is high, the costs of the currently available BSE tests are estimated to be $20 to $30 per head.

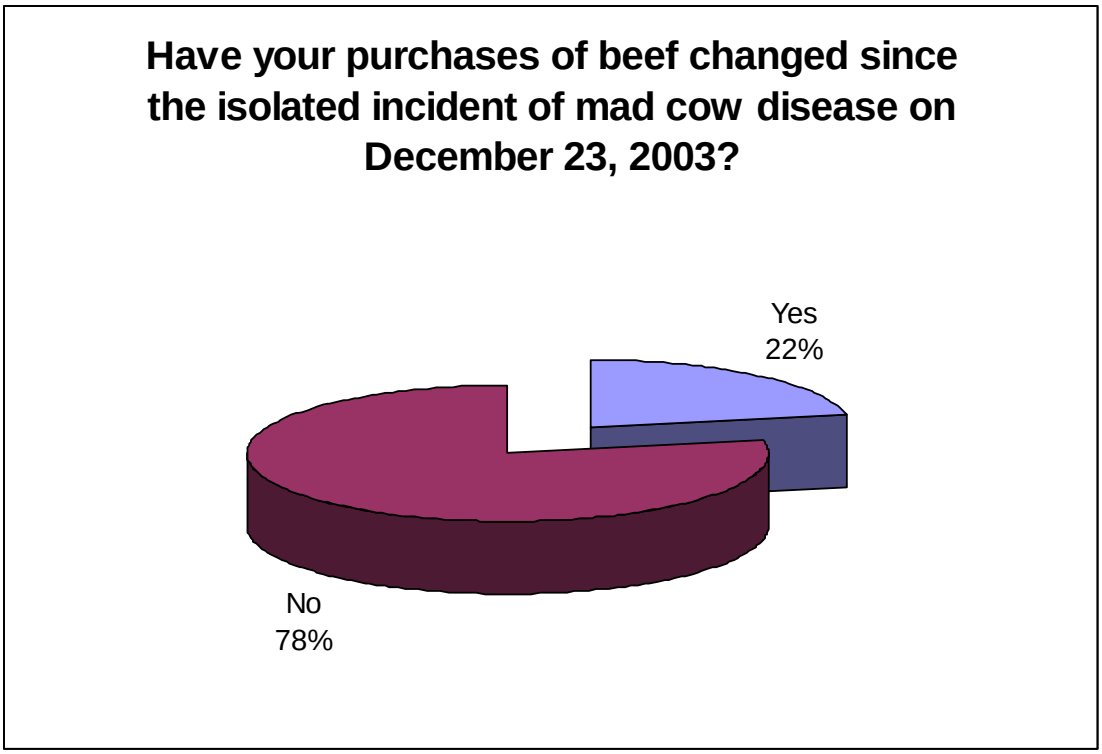


Figure 1. Percent of Respondents Changing their Purchases of Beef Since the December 2003 U.S. BSE Incidence.

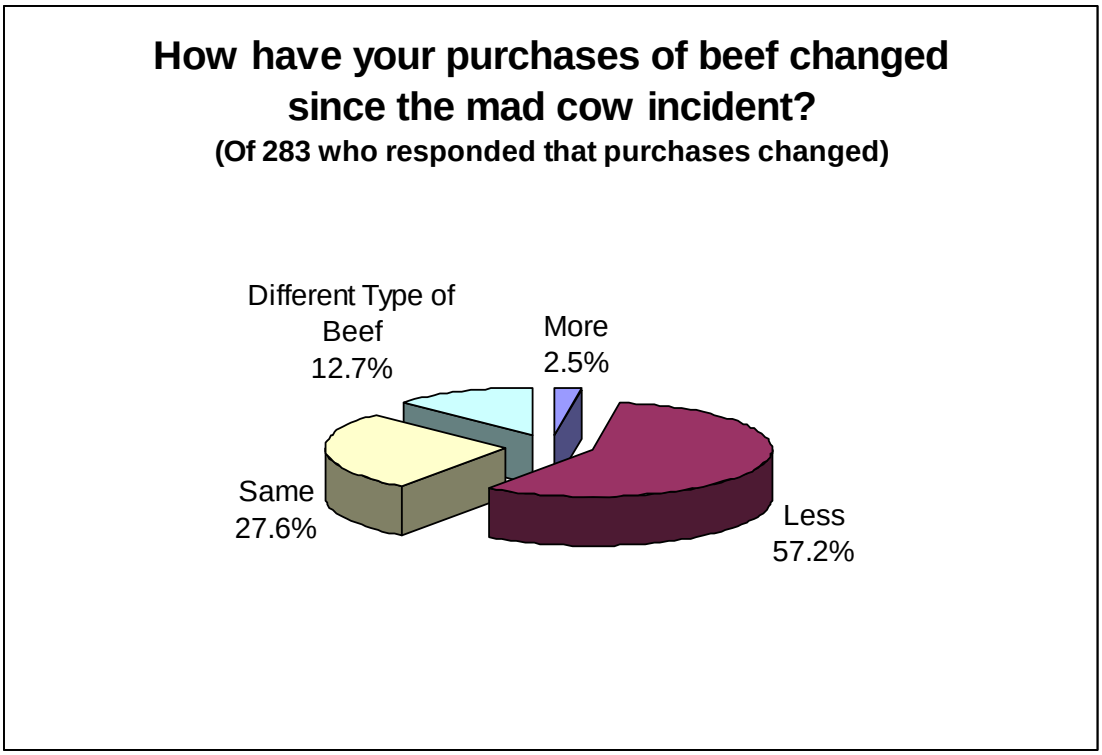


Figure 2. How Respondents Have Changed their Purchases of Beef Since the December 2003 U.S. BSE Incidence.

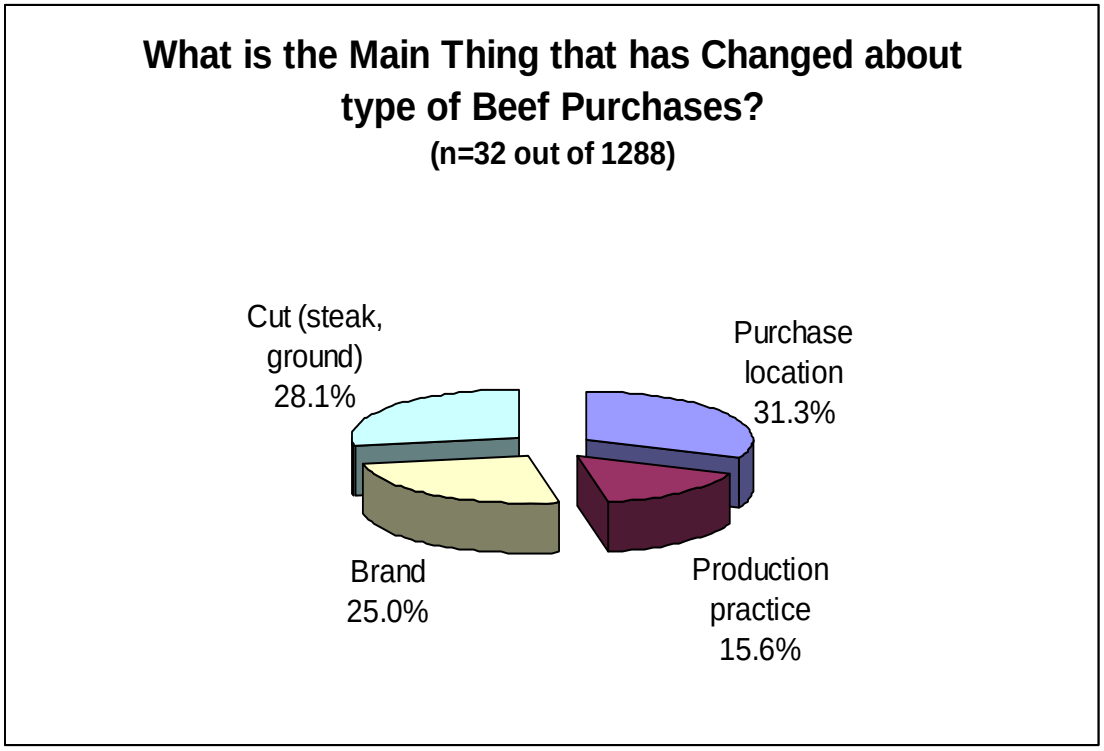


Figure 3. Main Changes in Beef Purchases Since the December 2003 U.S. BSE Incidence.

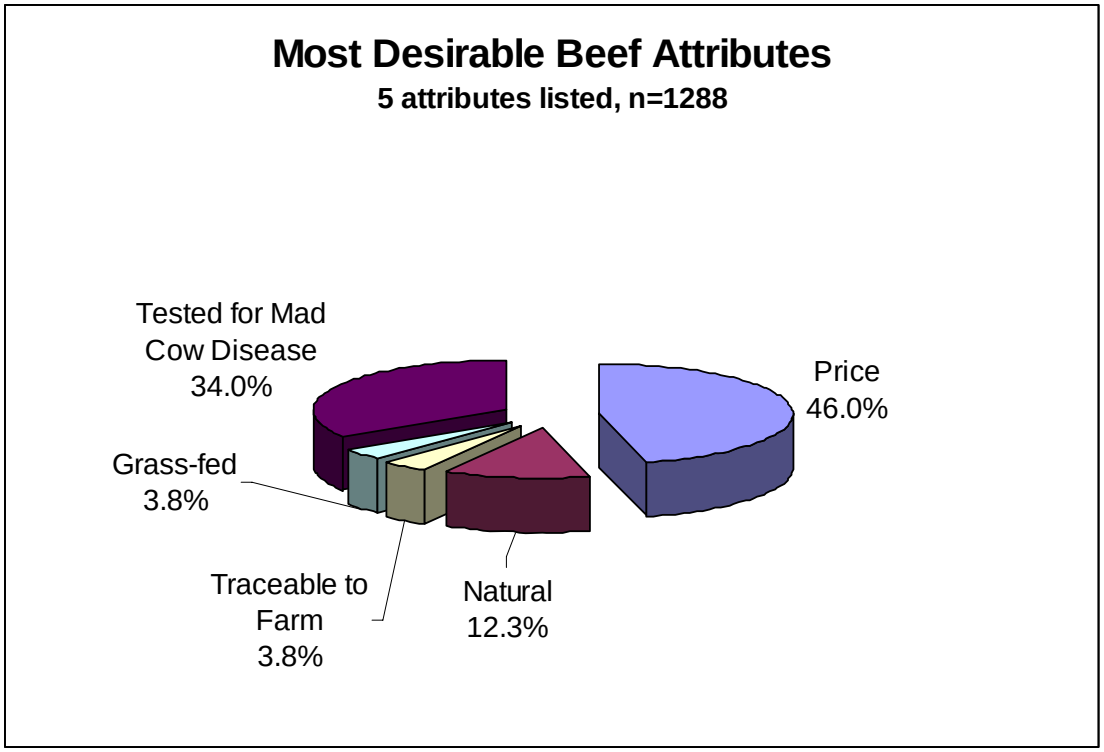
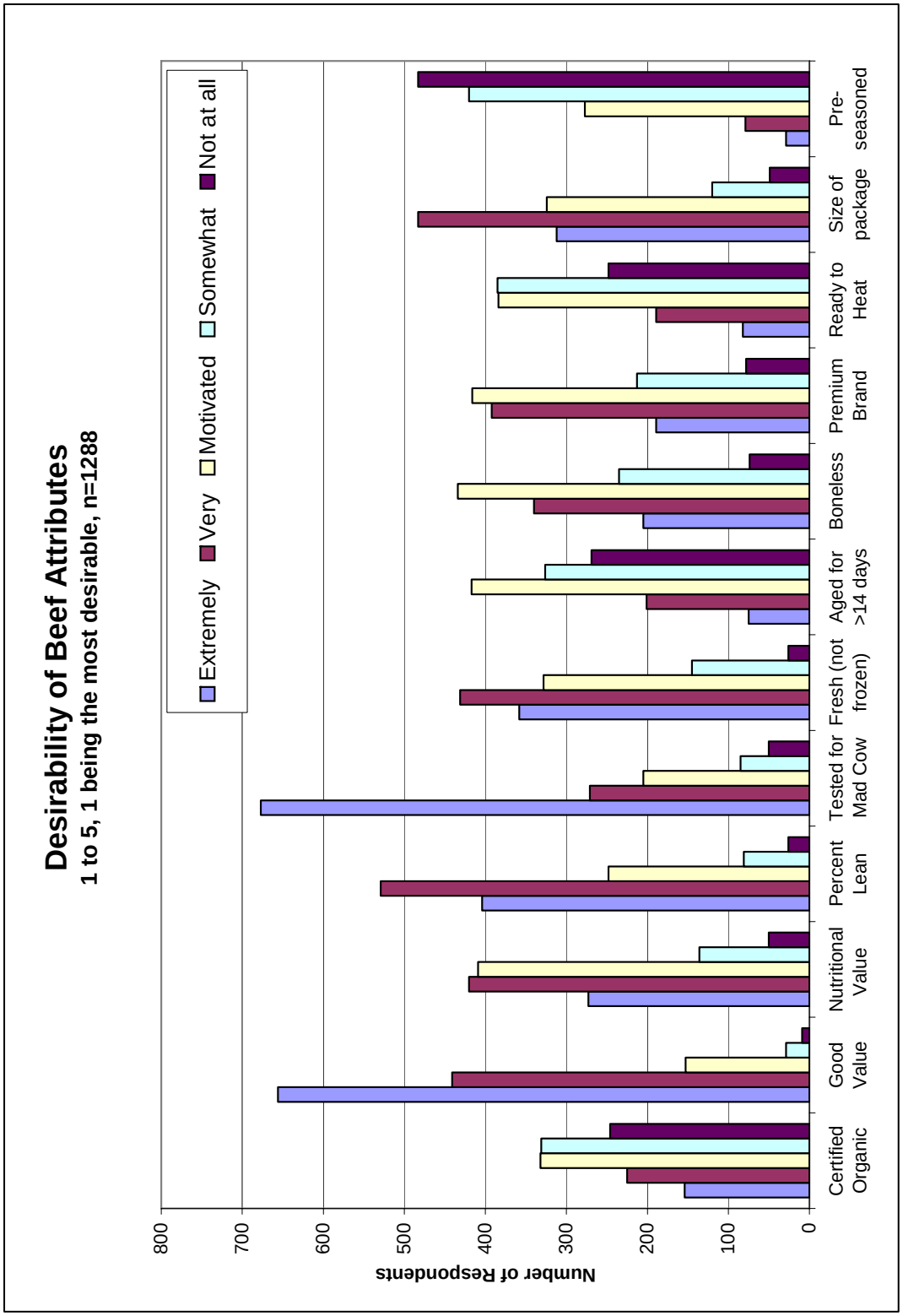


Figure 4. Respondents Most Desirable Beef Attributes.

Figure 5


Desirability of Beef Attributes
1 to 5, 1 being the most desirable, n=1288
Extremely
Very
Motivated
Somewhat
Not at all
Number of Respondents
0
100
200
300
400
500
600
700
800
Certified Organic
Good Value
Nutritional Value
Percent Lean
Tested for Mad Cow
Fresh (not frozen)
Aged for >14 days
Boneless
Premium Brand
Ready to Heat
Size of package
Pre-seasoned

There is no evidence that consumers are willing to pay for the additional costs of BSE tests. Furthermore, there are limitations and concerns associated with the currently available BSE testing methods (Ray; American Meat Institute).

Future analysis by the CSU research team will focus on the willingness to pay for beef tested for mad cow disease using conjoint analysis, and also use cluster analysis and other statistical models to better describe the set of consumers who have changed their beef purchase behavior after the December 2004 BSE incident. These subsequent analyses will focus on whether there are market-based programs that may be economically feasible, and effectively targeted, as a means to counter remaining concerns about the safety of the beef supply in the current environment.

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