

Consumer Demand for High-Selenium Beef

Scott Hovde, Cheryl Wachenheim, William
Nganje, Robert Hearne, and Tim Petry

North Dakota State University

WERA 072

June 2006

Las Vegas, Nevada

Introduction

- One out of every four deaths in the U.S. is caused by some form of cancer (American Cancer Society).
- Availability of and interest in functional foods continues to grow.
 - “Foods or dietary components that may provide a health benefit beyond basic nutrition.”
 - Forecasts vary but all indicate we will eat, and purchase more functional foods.

Expert Excerpts

- “It is widely accepted that the future for functional foods is assured because of consumers’ interest in how their diets can positively impact health.”

J. Mellentin, 2002

- “However, this industry is also loaded with hurdles, including a high rate of product failure, difficulty in defining the type of food and product labeling for functional products, and tricky marketing tactics.”
 - International Food Ingredients, 2003.

Selenium

- “Hitch-hiker” element.
- Reduces risk of several cancers.

Objective

- Determine consumer's stated preference for high-selenium steak and hamburger; specifically to identify willingness to pay.

Assessing Consumer Demand

- Product
 - Type (hamburger, steak)
 - Labeling (style, content including selenium effect description and support for such, and other benefits)
- Consumer Segments

Selecting a Model

- Limited to hypothetical retail environment
- Stated preference
- Revealed preference
 - Experimental auction
 - Choice experiment with conjoint analysis
 - Advantages – appropriate for new product, discrete choice, lower cost
 - Disadvantages – hypothetical (no money involved), limited features identified

Focus Groups

- Department staff
- University faculty and staff
 - Recruited females between 25 and 55; primary shoppers
- Objective was to eliminate endogenous complexity.

Focus Group “The Who”

- Average age = 41 (30 to 49)
- All married
- Average of 1.8 children (two without)
- Average age of youngest child = 9
- Average of 3.5 persons in household
- Five had M.S. or MBA; all had college
- Three secretaries, 2 lecturers, 1 researcher, 2 specialists; 15 year average
- Grocery shop 7.5 times / month (3 to 20)
- Eat 5 pounds meat / week (1 to 9)
- Half take supplements
- Five of eight overweight
- Half had cancer in family

Focus Group Outline

- Functional foods
- Selenium
- Product labels (using visual aids)
 - Design, origin on package
 - Information provided
- Beef product preferences
- Willingness to pay

Focus Group “Results” -- Variables

- Selenium label
 - None; research-based; government approved
- Source of selenium
 - Natural; naturally-produced in North Dakota; fortified
- Willingness to pay (10% maximum)
 - Follow-up with cancer-exposed increased

What else we learned

- Shoppers with specific “issues” pay attention to those on label (e.g., calcium-enriched orange juice).
- “Contains selenium” may seem negative.
- Government, trusted organization approval important
- “Art work” is key
- Purchasing beef is different.

For Discussion

- Value of Focus Groups
- Efficacy of Choice Experiments
- Product characteristics to include