

# UF-Gainesville Beef Cattle News Corner

## Beef nutritional content...how important is it for consumers to have the correct information?

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Those of us within the beef cattle industry understand the value of our product and strive daily to provide a healthy, wholesome food product to consumers. Beef provides many health benefits in just a three-ounce serving. According to the USDA National Nutrient Database for Standard Reference, a three-ounce serving of beef contains half of our recommended daily protein requirement and several essential nutrients including: iron, zinc, and vitamins B12 and B6.

There has been a growing controversy, however, concerning the fat content of beef and its healthfulness in the diet. Although much of the fatty acid content in beef is considered “healthy fat”, recent research at the University of Florida shows many consumers are confused about the different classifications of fatty acids, including those found in beef. But wait, there is good news! A recent study conducted showed once consumers were informed of the nutritional difference of the fat content, they better understood beef nutritional value and ultimately were willing to pay a higher price for such beef.

### Consumer Survey

A national survey, funded by The Florida Beef Council, was administered online to over 1,000 respondents. The study began with a set of seven questions and each question asked the respondent to choose between two strip steaks that varied by polyunsaturated and saturated fatty acid levels, iron content, and price (**Figure 1**). Following the seven choice questions, respondents were asked to categorize “Trans Fat,” “Saturated Fat,” “Monounsaturated Fat,” and “Polyunsaturated Fat,” as either “Healthy Fats” or “Unhealthy Fats.”

Shown below are two steaks. Imagine you were really shopping in the grocery store and had to pay the price associated with one of the steaks below. Which steak would you choose?

<b>Polyunsaturated Fat:</b> 50% more than a typical steak <b>Saturated Fat:</b> 10% less than a typical steak <b>Iron:</b> 70% more than a typical steak <b>Price:</b> \$13 per pound	<b>Polyunsaturated Fat:</b> 100% more than a typical steak <b>Saturated Fat:</b> 20% less than a typical steak <b>Iron:</b> 35% more than a typical steak <b>Price:</b> \$16 per pound	I would not choose either option
 <input type="radio"/>	 <input type="radio"/>	<input type="radio"/>

**Figure 1.** Example of a question included in the national survey designed to measure the willingness-to-pay for increased nutritional value of beef.

After completing the initial set of questions, respondents were given information explaining the fatty acid classifications (**Figure 2**). No information was provided regarding iron, as it is widely understood that iron is an essential nutrient in a healthy diet. After receiving the educational component, respondents were re-asked the seven steak choice questions and the fat-categorization question.

## Results

The results from the survey confirmed that many consumers are confused about the differences in beef nutritional value, specifically fatty acid content. In the past, much controversy surrounding fat content of red meat and its role in the diet led to many health professionals recommending cutting such food from the diet. This led to many consumers perceiving red meat to be a less healthful food. In recent years, various work has been done to study the different classifications of fats to determine that, in fact, not all fat is bad. Some fats are considered beneficial in their effect on human cholesterol levels, while others are known to have a less favorable affect. As seen previously in **Figure 2**, the Centers for Disease Control and Prevention currently encourages the consumption of healthy fats, such as monounsaturated and polyunsaturated fats, while limiting consumption of unhealthy fats, including saturated and trans fats.

The change in categorization of healthy and unhealthy fats from before the educational excerpt to after can be seen in **Table 1**. As observed from the data, a favorable shift in correctly categorizing the various fatty acid classifications occurs for every classification once the respondents were provided the educational excerpt.

**Table 1: Percentage of respondents categorizing different classes of fatty acids correctly into healthy or unhealthy, before and after reading the educational excerpt.**

Fatty acid class	Percentage of respondents categorizing correctly	
	Before	After
Monounsaturated	66.40%	94.32%
Polyunsaturated	69.05%	93.54%
Saturated	79.14%	91.67%
Trans	79.24%	94.42%

**What are the different types of fat, and which are healthy?**

There are four main types of fat:

1. Monounsaturated fat
2. Polyunsaturated fat
3. Saturated fat
4. Trans fat

HEALTHY fats

UNHEALTHY fats

The goal is to try to choose more of the healthier fats, eat fewer unhealthy fats, and stay within your fat gram goal.

**Figure 2.** Educational component provided during the survey explaining the fatty acid classification.

### **What does this mean for the beef industry?**

These results are extremely important to the beef industry. Our industry does an excellent job promoting the high protein content and essential nutrients within our product. There has even been lots of work to promote the recent years of findings regarding beneficial fats in beef. Despite this, there is plenty of work to be done since consumers are still overcoming the confusion from past propaganda of beef nutritional content, specific to fat.

These results provide insight for innovative marketing opportunities. According to the USDA National Nutrient Database for Standard Reference, nearly 50% of the fat content of beef is monounsaturated fatty acids, or healthy fats. Beyond this, research surrounding this study at the University of Florida shows there is variation among cattle for polyunsaturated and saturated fatty acids. This provides opportunity to identify cattle with a favorable fatty acid composition and market such product to the increasing population of health-conscious consumers.

As seen in the example of the steak choice question, various price options were provided along with the nutritional content. This was included to study consumers' willingness-to-pay for a healthier product. The results of such data are currently being analyzed and will be further discussed in the future. We can tell you now, however, that once consumers learned the differences in healthy versus unhealthy fats, many were willing to pay a premium for beef with a more healthy fat composition.

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