



Consumer Willingness to Pay for Specialty Meats

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Introduction

As demand for organic and natural foods increases in the U.S., it is important to understand consumer preferences and willingness to pay in terms of premiums for specialty or non-traditional products. This information can assist specialty meat producers, such as organic, natural, and grass-fed producers in selecting sustainable pricing and production management practices, leading to long term profitability.

Willingness to pay is the maximum amount a consumer is willing to pay in order to obtain a good, which can be marketable or non-marketable, or to avoid an undesirable good. Specialty meat products are marketed through a number of channels and are common in direct marketing strategies, including farmers' markets and on-farm sales. Hence, the market for specialty meat products is spotty and not well tracked by current price reporting systems. Producers selling specialty meat products must look to a variety of sources when determining pricing strategies. For example, a 2011 web-survey of grass-fed meat products for sale in the West found price spreads of up to \$400 for a half cow or \$5.25/lb for NY steak cuts (Table 1). This publication provides an overview of studies

conducted in the U.S. to better understand consumer willingness to pay for specialty meat products.

Consumer Willingness to Pay

There are several studies which address the issue of how much consumers are willing to pay for organic and natural meats. The Acevedo, Lawrence and Smith's (2006) study entitled "Organic, Natural and Grass-Fed Beef: Profitability and constraints to Production in the Midwestern U.S." shows that consumers are actually willing to pay a premium for meat produced through non-conventional methods. Grannis and Thilmany (2000) published two similar reports concerning willingness to pay for natural meats. One analyzed consumer willingness to pay for natural beef products, and the other analyzed consumer willingness to pay for natural pork products. Both reports were based on a 1998 mail survey by the National Family Opinion Survey Group. The survey was sent to 1400 people in Colorado, Eastern Utah, and Northern New Mexico. The survey sought to establish what production practices consumers valued more in order to help producers determine adequate production and marketing plans for natural or organic beef, as well as understanding consumers' willingness to pay for natural meat.

Table 1: Grass-Fed Meat Pricing by Product/Cut

Product Type/Cut	Unit	Low Price	High Price	Average Price
Half Cow	Animal	\$850	\$1,256	\$1,053
Half Cow	Pound	\$4.50	\$5.99	\$5.25
NY Steak	Pound	\$13.75	\$18.99	\$16.37
Ground Beef	Pound	\$4.00	\$5.99	\$5.00
Pork Chops	Pound	\$8.00	\$8.99	\$8.50
Whole Lamb	Animal	\$250.00	\$315.00	\$282.50
Leg of Lamb	Pound	\$10.49	\$10.99	\$10.74

Source: Internet Survey of Grass-Fed Meat Producers, 2011.

The 1,400 survey respondents were asked how much they would be willing to pay for natural beef. The base prices given for ground beef and steak were \$1.69 and \$4.99 per pound, respectively. Of the 1,400 respondents, 521 consumers (38%) were willing to pay a 10% price premium for natural steak and 197 consumers (14%) were willing to pay a 20% premium. For ground beef, 912 consumers (67%) were willing to pay a 12% price premium. At a 23% price premium, 403 consumers (29%) were willing to buy the natural ground beef.

This study shows that well over half of the respondents were willing to pay at least a 10% premium for natural ground beef, and close to 40% were willing to pay a 10% premium for natural steak. Therefore, this supports the existence of a market for natural grass-fed beef. From the study, it can be concluded that a higher proportion of consumers are willing to pay more for natural ground beef than for natural steak.

The study also investigated where consumers shop for meat products. The majority bought their meats at supermarkets, 14% purchased meat at a meat shop, 6% at natural shops and 6.1% bought directly from producers. In addition, the survey respondents were asked how much they would be willing to pay for natural pork. The base prices given for ham and pork chops were \$3.30 and \$3.90 per pound, respectively. Of the 1,400 participants, 406 consumers (29.7%) were willing to pay a 10% price premium for natural pork chops and eighty-four consumers (6.25%) were willing to pay a 20% price premium. At a 10% premium, 545 consumers (40%) would buy natural ham, and at a 20% price premium, 195 consumers (14.2%) were willing to

buy natural ham. Of all the natural meat products, pork chops had the smallest proportion of consumers willing to pay a 10% premium (30%). The statistics for natural ham are similar to those for natural steak: 40% of consumers were willing to pay at least a 10% premium.

The survey shows that not only consumers that shop at specialty food stores are concerned about traditional production methods. Those who shop at traditional grocery stores rank environmentally friendly production methods higher than traditional production methods.

Another study by Abidoye et al. (2011) used a choice-based experiment completed in 2005 and 2006 to sample U.S. consumers to determine consumer's preferences for quality attributes in beef products. The study showed that consumer's preference for growth hormone-free beef depended on the level of education and their knowledge levels concerning product attributes. Consumers were aware of credence attributes, especially traceability. Results also showed that consumers were willing to pay an average price premium of 34% for grass-fed beef.

Lusk and Parker (2009) surveyed a random sample of 2,000 households throughout the United States in April of 2007. The survey asked questions on consumer's preferences for beef products with different amounts and types of fat, as well as purchase decisions among two ground beef options. Out of the 2,000 mailed surveys 241 surveys were returned, accounting for a 12.7% response rate.

Results showed that consumers did not like increases in total fat, saturated fat, Omega 6:3 ratio (which is better for health when the ratio is small), and price. The study showed that consumers were willing to pay \$2.06 to reduce total fat from 20% to 10% when saturated fat accounted for 30% of the total fat. If saturated fat was 50% of total fat, they would be willing to pay \$0.58. Therefore, the willingness to pay for a 1% decrease in total fat content was \$0.21, given that saturated fat was 30%, and \$0.06, given that total fat was 50%. In order to improve fat content in ground beef, 40% of the respondents considered grass feeding as the preferred method to improve fatty acid. Also sorting and labeling were preferred, but less than grass feeding. The study showed no support for cloning as the most preferred method to improve fatty acid content.

Results showed that willingness to pay was tied to the level of saturated fat and Omega 6:3 ratio in ground feed, and consumers would prefer grass feed beef in order to improve the level of fat and Omega 6:3 ratio. This study supports the existence of a market for healthy beef products, especially natural grass feed beef.

The goal of the study conducted by Wang, Curtis, and Moeltner (2011), was to determine the effects of information on consumer willingness to pay for grass-fed natural and organic meat products. The meat products included in the survey included prime rib, tri-tip steak, ground beef, pork chops and leg of lamb. In the 2009 in-person survey of 650 Nevada residents, consumers were presented with a series of questions asking them to choose among three production methods for five meat cuts. The only differences per cut were the price given and the production method (traditional, organic, natural grass-fed). The survey was broken into four sections. In the first section, no information was given to consumers. They made a choice based on their own preferences and knowledge about organic and naturally produced meat. In the second section, consumers were provided information about the cattle feeding procedures for conventional, natural, and organic meat production. In the third section, more information about differences in these three methods of livestock production was presented. The description also focused on whether the method

involved using chemical pesticides or antibiotics. In the last section, aside from the information provided in the first two rounds, the differences among certification for organic and naturally produced meat products is emphasized.

Not only is it important to consider how much consumers are willing to pay for each type of meat, but the proportion of people who want to buy one production type over another should also be taken into account. For example, if only 1% of the population prefers organic meat, only a small number of producers would be able to profit from organically produced meat no matter how much consumers are willing to pay. Table 2 shows the percentage of survey respondents who chose the conventional, natural, or organic production method across the four meat types. The respondents' choices were distributed similarly for the four different meat types. In the first section, the highest proportion of respondents chose the conventional product, and the lowest proportion of respondents chose the organic product for all meat types. By the fourth section, with the exception of tri-tip steak, naturally produced meat came to account for the largest proportion across all meat types. For tri-tip steak, more consumers still preferred the conventional product over naturally or organically produced meat.

Table 3 presents the mean chosen bid for grass-fed naturally produced and organic meats. In the first section, which provided no production information, tri-tip steak and pork chops had a higher mean bid for naturally produced products over organic. The survey respondents chose naturally produced pork chops and were willing to pay the highest premium for them over any of the products (18.6%). Organic ground beef average values were greater than the natural ground beef value in the first section. The respondents were willing to pay the lowest premium for both natural and organic prime rib (7.5%).

The results from section 4 show that survey respondents' willingness to pay for natural and organic products increased after receiving the production information. For all meat types, the willingness to pay for natural production increased from the first section, and except for ground beef, the natural product was valued more to the

respondents than the organic product in each case. Natural grass-fed prime rib showed the greatest increase in willingness to pay, rising from a 7.5% premium to an 11.6% premium. Those choosing

natural pork chops were still willing to pay the biggest premium at 19.6%. The highest valued organic product was organic tri-tip steak with a 13.4% price premium.

Table 2: Consumer Purchase Frequency by Information Sections

Meat type	Production Method	Section 1	Section 2	Section 3	Section 4
Tri-tip	Conventional	43.7%	41.2%	38.0%	40.0%
	Natural	35.8%	38.2%	39.0%	36.1%
	Organic	20.5%	20.6%	23.0%	23.9%
Prime Rib	Conventional	43.7%	39.8%	36.7%	36.2%
	Natural	33.6%	38.5%	39.6%	39.0%
	Organic	22.7%	21.8%	23.6%	24.8%
Ground Beef	Conventional	42.2%	40.6%	38.0%	37.7%
	Natural	37.6%	38.5%	39.8%	38.8%
	Organic	20.3%	21.0%	22.2%	23.6%
Pork Chops	Conventional	43.9%	39.8%	39.8%	37.3%
	Natural	33.8%	38.1%	39.4%	38.5%
	Organic	22.3%	22.1%	20.8%	24.2%

Table 3: Consumer WTP Pre and Post Information Effects

Meat Type	Base Price	Production Method	Section 1	Premium	Section 4	Premium
Trip-tip	\$5.99	Natural	\$6.82	13.9%	\$6.96	16.2%
		Organic	\$6.72	12.2%	\$6.79	13.4%
Prime Rib	\$9.99	Natural	\$10.74	7.5%	\$11.15	11.6%
		Organic	\$10.74	7.5%	\$10.64	6.5%
Ground Beef	\$3.99	Natural	\$4.35	9.0%	\$4.37	9.5%
		Organic	\$4.45	11.5%	\$4.39	10.0%
Pork Chops	\$4.69	Natural	\$5.56	18.6%	\$5.61	19.6%
		Organic	\$5.17	10.2%	\$5.26	12.2%

Conclusions

Knowledge regarding specialty meat production, such as organic, natural, and grass-fed has been shown to command a price premium by health and environmentally conscious consumers. This information can help producers to select sustainable pricing and production management practices which can lead to long term profitability.

These studies designed to estimate consumer willingness to pay for specialty meat products show that there is a potential for large price premiums for these products, especially when consumers are well informed regarding differences in organic, natural, and grass-fed production strategies. Abidoye et al.

(2005) showed that consumer preference for growth hormone-free beef is linked to information received about the advantages of natural and organic meat production. Likewise, Wang, Curtis, and Moeltner (2011) concluded that willingness to pay increased when consumers had full information about natural and organic production methods, especially for higher priced or quality cuts.

Producers producing organic or natural grass-fed meats should provide their customers with information concerning production methods, as well as food safety and environmental standards on their farm. Newsletters, brochures, labeling, ranch visits or tourism activities, as well as pictures and information distributed through social media are potential suggestions.

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