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How Much are Consumers Willing to Pay for Local, Organic, and Nutrition Attributes?

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Introduction

Product labels often include health claims, nutrient content, details describing production methods, and information about where the food was produced. Many states have promotion programs for “Locally Produced” foods in order to support products grown in their state. Are consumers more interested in organic products, locally produced products, or nutritional products? Specialty crop producers interested in pursuing niche markets need more information to describe the benefits of various labels.

Consumer response to your product’s label information should have important implications for product differentiation strategies. We distributed a mail survey to examine consumers’ willingness to pay (WTP) for four attributes—USDA Organic, Pennsylvania (PA) Preferred, No Sugar Added, and Low-Fat—in applesauce. Consumer responses to label information on processed fruit products are not well studied, yet these products can easily accommodate labels regarding nutritional traits as well as organic and locally grown attributes. Furthermore, the per capita consumption levels of processed fruit products have fallen between 1998 and 2008 and there is significant interest in ways to increase sales in this category.

The Survey

Our survey was mailed to 3,000 households in Pennsylvania with a response from 1,521 residents. Table 1 shows that our respondents were older and more educated than the state’s population but were a reasonably close representation.

A series of questions on the mail survey examined how consumers might “choose” among applesauce products differentiated by label information and by price. One question from the study is shown in Figure 1; here the respondent is asked to select which of four applesauce products differentiated by price and product attributes they would buy. Respondents were presented with four of these choice sets, and each choice set included four applesauce products.

The prices of the products ranged from \$1.59 to \$2.49, in 30-cent increments. This price range was designed to overlap with prices of 24-ounce applesauce products observed in grocery stores at the time the survey was distributed.

Table 1. Socio-demographic Characteristics of the Study Sample and Total Population

Sociodemographic Characteristics	Study Sample	Population of All 67 Counties in PA
	<i>percent</i>	
Gender		
Male	53.2	47.3
Female	46.8	52.7
Age		
Less than 45 yrs	25.5	47.2
45–59 yrs	35.8	25.8
60 yrs & over	38.7	27.0
Education		
< High school grad	8.0	18.1
High school grad	29.0	38.1
Some post high school	29.6	21.4
College grad & over	33.4	22.4

Figure 1. An Example of a Choice Set Used in the Consumer Survey

SITUATION 1: If the following types of applesauce were available, which **one** would you buy?



Results and Implications

The findings from the study were used to calculate WTP values for the various attributes; economists use WTP measures to describe the additional value that consumers place on an attribute found in a product. Here the WTP values refer to the additional dollars per 24 ounce container of applesauce. A negative WTP indicates that the respondent would have to be compensated in order to choose a product with the attribute. Since preferences for food products vary among consumers we decided to split our sample into four subgroups. The four subgroups were developed based on responses about past purchase patterns, and include consumers that purchased i) neither local or organic products, ii) local but not organic products, iii) organic but not local products, and iv) local and organic products.

The WTP values are shown in Table 2 for the four market segments. The first column highlights how different consumers are often willing to pay different amounts for the same attribute. Some consumers would need to be compensated to accept the organic trait; however, other consumers were willing to pay as much as \$0.35 for the organic attribute, about a 20% premium. The PA Preferred attribute had a positive and large effect on the likelihood of a product being selected by all consumers. The WTP for the PA Preferred attribute ranged between \$0.28 and \$0.51, a price premium of between 15% and 30% relative to the range of prices included in our survey. Consumers had a positive WTP for the No Sugar Added attribute and this result was most important for consumers that purchase organic products. The Low-Fat attribute was expected to have an insignificant impact on the likelihood of a product being selected, since applesauce is naturally low in fat; however, the results show that including a “Low-fat” label would decrease the likelihood of the product being selected.

Table 2. Willingness to Pay for Product Attributes

Consumer Characteristic	Product Attribute			
	USDA Organic	PA Preferred	No Sugar Added	Low-Fat
No Local and No Organic Purchases	-0.01	0.28	0.09	-0.29
Local yet No Organic Purchases	-0.10	0.42	0.06	-0.51
Organic yet No Local Purchases	0.31	0.41	0.35	-0.34
Local and Organic Purchases	0.28	0.51	0.45	-0.36

This study has shed some light on the effects of product attributes on consumer choices among applesauce products, and how those effects vary among four market segments. While further study would be required to determine if the relationships found here apply to other products or other consumers, several findings may be useful to producers that are exploring market opportunities for specialty crops. Our findings suggest that the locally produced attribute (PA Preferred) was by far the most important to consumers, followed by the No Sugar Added and then USDA Organic.

“Smart Marketing” is a marketing newsletter for extension publication in local newsletters and for placement in local media. It reviews elements critical to successful marketing in the food and agricultural industry.

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