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The Market for Hawaii-Grown Natural and Organic Beef

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Producers in Hawaii are currently marketing "natural" beef, and many people feel that this product has the potential to increase the market share of local beef. To determine how best to realize this potential, beef producers and marketers need more information about natural and organic products, and this publication presents some information to meet this need. General information on U.S. and Canadian beef consumption is presented first. The USDA definitions for natural and organic beef are discussed, along with an overview of the local market for natural and organic beef. Finally, results are presented from a survey of 50 managers of health food stores in major cities on the U.S. mainland.

Demand for natural and organic products

The demand for natural and organic foods in the USA has increased in recent years. The average annual growth rate for the sale of organic products from 1998 to 2001 was 24.1 percent, with sales reaching almost $9.3 billion in 2001. By 2005, the sale of natural and organic products is estimated to be $18 billion (source: Whole Foods Market, hereafter WFM). The same trend is found in Canada, with the retail market estimated at 200 to 500 million Canadian dollars in 1999 and a growth rate of about 15 percent per year (source: Government of Alberta, hereafter "Alberta"). The Hawaii beef industry may conclude that this is a growing market.

The word "organic" is used here as a generic term, although the U.S. Department of Agriculture (USDA) has standards about what can be labeled as "organic" and what can be labeled as "natural." "Organic" does not have the same meaning to all consumers, as Table 1 indicates. At the same time, buyers who regularly purchase organic foods do not feel that the foods' attributes are the same as those that purchase rarely, particularly for quality and taste. Consumers would likely benefit from more information about the attributes of natural and organic products, because they do not know exactly what the word "organic" means.

In 2002, 55 percent of households in the USA said that they used organic products (WFM), while in Canada, 71 percent of consumers in 2000 had tried them (Alberta). As Table 2 shows, consumers in the USA are more likely to make occasional purchases compared to Canadians, while U.S. consumers are less likely than Canadian consumers to make regular purchases.

Table 1. Consumers' perceptions about the attributes of organic food.

Attributes	Percentage selecting this attribute
Without pesticides	78
Without antibiotics or growth hormones	72
Found in gourmet or specialty section	69
Without genetically modified organisms	68
Fresh	59
Not irradiated	59
Grown by a small producer	52
More nutritious	47
Better quality	47
Better tasting	34
Low in calories	19

Source: Whole Foods Market

Table 2. Frequency (%) of purchasing organic foods in the USA (year 2002) and Canada (2000).

Purchase frequency	USA, households	Canada, consumers
Regularly	6	18
Occasionally	22	16
Rarely	31	32
Never or do not know	29	41

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Those that purchase organic food products regularly have incorporated the use of organic foods into their lifestyle and therefore are loyal consumers. The traditional organic consumer defines these products as part of an environmentally sound lifestyle. People in this group generally put a higher priority on environmental protection than on financial success and as a result may have lower incomes. More recently, consumers switching to organic and natural products are making lifestyle choices that are intended to lead to better personal health.

Price and availability are the two most important barriers to increasing purchases of organic foods (Table 3). Convenience and nutrition are becoming increasingly more important as the health-conscious market segment grows. Price is less of a concern to regular and occasional buyers.

Consumers of natural and organic products have slightly higher incomes than the national average in the USA and Canada. However, research has found that those in Canada with very low incomes—less than C$20,000 per year—and those between C$60,000 and C$80,000 are less likely to buy organic products than those in other incomes categories (Alberta).

Overall, organic food products consumers in the USA are more educated than the average American (WFM), while in Canada a close and positive correlation exists between increasing educational levels of consumers and the amount of organic food purchased (Alberta). In the USA the median age for organic food consumers is 42 years old, compared to 36 years for the average American (WFM). Those individuals buying the most natural and organic products in Canada are most likely to be women under 30 years of age earning between C$20,000 and $60,000 per year (Alberta). The infrequent buyers are very close demographically to the average population in both the USA and in Canada (Alberta).

Table 3. Barriers to the purchase of organic products.

Likely to buy more organic products if . . .	Percent of respondents
Prices were lower	86
Could buy more of them in supermarkets	76
Could buy a broader range of products	75
They tasted better	60
Quality was higher	58

Source: Whole Foods Market

Sixty-three percent of consumers in 2001 were buying organic and natural products at mainstream grocery stores, compared with 56 percent in 1999 (WFM). Over half of the organic purchases in the USA were made at mass-market outlets, with supermarkets capturing 44 percent of the organic food sales (Alberta). This trend has led to the development of major food chains that specialize in natural and organic foods. For example, Whole Foods Market, founded in 1980 in Texas, is now the largest retailer of natural and organic foods in the world, with 144 stores in the USA and Canada.

The majority of consumers (68 percent) look for information about organic products on the product label or by going directly to the food manufacturers. The second most frequently cited source of information (for 35 percent of consumers) includes books, magazines, newspapers, and TV (WFM). Clearly, the marketing behavior of producers, processors, and retailers has an important influence on the purchases of natural and organic foods.

USDA standards for natural and organic products

The USDA has standards for products that are labeled as organic (USDA 2002) and natural (USDA 1999). The organic label requires that the operation producing the food and all those that handle and process the food must be certified by a USDA-approved inspector.

Organic meat must meet the following criteria:

1. The animal must be raised following organic protocols from the last third of the gestation period.
2. The animal is given no antibiotics or growth hormones.
3. The animal must have access to pasture, although it may be temporarily confined.
4. The animal must be fed only organic products and may receive approved vitamin and mineral supplements. Organic food is produced without using most conventional pesticides, fertilizers made with synthetic ingredients or sewage sludge, bioengineering, or ionizing radiation.
5. The animal can receive only approved preventive treatments, such as vaccines.
6. All sick or injured animals must be treated, although those treated with a prohibited medication may not be sold as organic.

Handlers of organic foods must ensure that:

1. All non-agricultural ingredients are on the National List of Allowed Synthetic and Prohibited Non-Synthetic Substances.
2. The commingling and contact of organic with non-organic products and contact with prohibited substances is prevented.
3. All agricultural ingredients are organically produced, unless the ingredient is not commercially available in organic form.

USDA has strict guidelines about how processed products made with organic ingredients must be labeled (Table 4).

"Natural" products contain no artificial ingredients, coloring ingredients, or chemical preservatives. Minimally processed products that do not contain these types of ingredients, such as fresh meat, automatically qualify. Some livestock producers have elected to raise their animals without the use of subtherapeutic levels of antibiotics or growth stimulants. Although some producers may include these as a condition for labeling as natural, the policy on the use of the term "natural" on product labeling does not require these conditions (USDA 1999).

The Hawaii market

Hawaii producers have already begun producing and marketing a natural beef product successfully. For example, Hawaii Natural Meat Company began in 1992 as a partnership with producers on the island of Hawaii to sell beef raised using a common set of standards. Beef sold under the Kamuela Pride label must come from animals 30 months or younger, free of subtherapeutic levels of antibiotics or growth stimulants, with carcasses graded Select to Mid-Choice and aged for two weeks. In addition to these specifications, the carcass from which each piece of beef came can be identified. Strict adherence to these standards has increased the product's quality level and reduced product variation.

The degree to which other Hawaii producers adopt such a protocol as part of their marketing strategy for forage-finished beef varies. At present, locally produced beef is merchandised using a variety of production and marketing strategies. At one end of the strategy spectrum is the approach of trying to maintain low price as a means of remaining competitive with imported beef. This strategy has no quality control protocol. At the other end is the strategy that focuses on high quality beef at a premium price. The producers striving for the ability to command higher prices are more likely to market natural beef and develop a quality control system. In general, forage-finished natural beef is merchandised as a healthier alternative to imported beef. However, the marketing strategies in Hawaii are not comparable to the strategies that one would see for a large integrated meat operation on the U.S. mainland.

Table 4. USDA standards for labeling of organic processed products.

Standard	Label: 100% Organic	Organic	Made with Organic Ingredients	Some Organic Ingredients
Percentage of organic ingredients[1]	100	95	70	< 70
Percentage of nonorganically produced agricultural ingredients and other allowable substances[2]	0	5	30	> 30
Added sulfites[3]	No	No	No	Yes
Name and address of handler for finished product	Yes	Yes	Yes	No
Name of certifying agent and Internet address or telephone number	Yes	Yes	Yes	No
USDA Organic Seal and/or certifying agent's seal	Yes	Yes	Yes	No
Identification of organic ingredients	Yes	Yes	Yes	No

[1]Added salt and water excluded. [2]Other allowable substances are listed in 7CFR205.605. [3]Wine may contain added sulfur dioxide.

A Hawaii beef price survey analysis (Cox and Bredhoff 2003) indicated that the product is generally not sold in health food stores and that the prices are competitive with beef sold in supermarkets. A few producers are able to command a premium price for some cuts. The vendors have few if any point-of-purchase materials. The packaging is serviceable but is likely to contain little promotional detail. Progress is being made by some producers to develop a deeper marketing strategy.

To get specific information about consumer attitudes toward natural beef from Hawaii, research on the attitudes of consumers was undertaken. Contact information for around 150 health food stores was assembled from the Internet. From this population, representative stores that were larger in size and located in major cities, primarily in the western USA, were contacted either by phone or in person during June–July 2003.

All 50 stores participating in the survey sell fresh natural beef, with 80 percent selling fresh grass-fed or range-produced beef, and 53 percent selling organically produced beef. Ninety-four percent of the stores identified their beef products' sources and methods of production on the labels. Range beef is mainly imported from New Zealand. Organically produced beef is generally frozen. Seventy-seven percent of the stores carry a brand of beef produced in their local area.

Store managers indicated that natural and organic beef was priced higher than grass-finished or commercially produced beef. The per-pound price premium varied, ranging from 10 to 50 percent above commercially produced beef (average 19 percent).

Fifty-seven percent of store managers said that Hawaii beef could be sold at a higher price than their local beef, given identical quality. Among the remaining survey participants, 36 percent indicated that they were unsure if Hawaii beef would sell at a premium, and 7 percent indicted that they would market Hawaii beef at a lower price.

Ninety-seven percent of store managers felt that health concerns were the primary reason that consumers buy natural beef. Sixty-three percent of store managers cited better taste, and 44 percent cited tenderness. As far as the customers' preference for grass-fed beef, 66 percent of store managers cited health concerns, 38 percent cited taste, and 34 percent cited animal welfare issues as the major factors.

Conclusions

As consumers become more interested in maintaining healthy lifestyles, some may feel that red meat is something to be avoided. Others, however, may welcome the availability of types of beef considered more healthy, and within this segment the market for natural beef has potential. Some Hawaii producers have already begun to develop a marketing strategy to realize this potential, and they may want to further refine their strategy to focus on this group of consumers. Other small producers of forage-finished beef who currently are focused on being price-competitive with imported beef in the local market may want to consider a production-marketing strategy aimed at the growing health-conscious segment of Hawaii's market.

Consumers rely most on product labels and other information supplied by manufacturers for making purchasing decisions on organic and natural products. The development of a brand and the associated point-of-purchase material is costly and should not be undertaken unless a quality control system with trace-ability is instituted at the same time. A strategy that allows deeper market penetration through the development of product recognition would lead to more exposure in retail supermarkets and should boost the product's ability to command higher prices. At the same time, development of processed products would add value and be consistent with the consumers' interest in convenience. Given the success of private beef brands such as Oregon Country Beef, a targeted production-marketing strategy can be an effective means of selling beef.

References

Cox, Linda J., and Soot Bredhoff. 2003. The Hawaii beef industry: situation and outlook update. Univ. of Hawaii, College of Tropical Agriculture and Human Resources, publication LM-8. 11 pp.

Government of Alberta, Canada. 2003. Organic consumer profile. <http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/econ4930>.

U.S. Dept. of Agriculture, Food Safety and Inspection Svc. 1999. Natural and organic claims. <http://www.fsis. usda.gov/oppde/larc/Organic_Claims.htm>.

USDA. 2002. Organic food standards and labels: the facts. <http://www.ams. usda.gov/nop/indexIE.htm>.

USDA. 2003. Labeling packaged products <http://www.ams.usda.gov/nop/ProdHandlers/LabelTable.htm>.

Whole Foods Market. 2002. Whole Foods Market nationwide survey reveals more than half of Americans have sampled organic foods and that food labels matter. <http://www.wholefoods.com/company/pr_organicsurvey.pdf>.