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Consumer Demand for Organic Foods Denise Mainville and Karen Mundy

Tremendous growth is occurring in the organic food sector. Demand for organic food is growing at 16 percent while demand for all foods is growing at only 3 to 4 percent annually (Troller). The Natural Marketing Institute predicts that in 2006 sales will reach \$14.7 billion, up 15 percent from 2005 (Sloan). "By 2010, sales of organic foods are estimated to rise to \$23.8 billion, or 3.5 percent of total retail food sales in the United States" (Dimitri and Oberholtzer).

The current demand for organic food has exceeded production in the U.S. Imports are now exceeding exports of organic foods by a large margin. "USDA's Foreign Agricultural Service estimates that the value of U.S. organic imports was \$1.0-\$1.5 billion in 2002, while the value of U.S. organic exports was \$125-\$250 million" (Greene).

Organic foods use to be available only from health food stores and farmers' markets; but now the supermarket chains, warehouse clubs, and super-centers are selling organic products. Grocery chains are introducing their own organic brands. Companies like General Mills (Cascadian Farms, Muir Glen, and Nature Valley) and ConAgra's Hunts are adding organic products to their selections. Wal-Mart announced it will expand its organic section so that organic is available to lower income consumers. Organic Valley and Horizon Dairy are looking for dairy farmers in Virginia to become certified organic so that they can produce milk locally to meet the growing demand.

Who Buys Organic Food?

Since 2003, Whole Foods Market has hired an independent agency to conduct an annual consumer survey about organic foods. In 2005, 65 percent of the survey respondents said they had tried organic products—an increase of 20 percent from 2004. Of those consuming organic foods, 27 percent

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said they had consumed more in 2005 than in the previous year. Ten percent reported consuming organic products several times per week. The common factor limiting consumption of organic foods was price (Whole Foods Market). Availability and loyalty to non-organic brands were also cited. Brand loyalty raises the question, "If you knew that the makers of Cheerios also made Purely O's, an organic version of Cheerios, would you buy the organic version?"

In the past, surveys showed that high income, highly educated Caucasian females were the predominant consumers of organic foods. While these consumers still buy organic foods, a 2003 study by The Hartman Group found that African Americans, Asians, and Hispanics actively purchase organic foods too. ACNielsen's 2002 Consumer PreView study found that 33 percent of American households purchased organic foods. Of these, 48 percent were Asian and 35 percent were African Americans (Montuori).

Though older age groups are still buying organic foods, the most rapidly growing consumer segment is younger consumers, particularly those aged 18 to 24. Although organic foods are often more expensive than conventional products, this younger age group, with lower incomes, are willing to pay the difference. The potential exists for processors to develop product and brand loyalty among this younger group and their children.

Why Do Consumers Buy Organic Foods?

Numerous studies have investigated why consumers buy organic foods. Although the numbers differ for each study, common themes emerge. Nutritional value¹ was the most often cited reason for buying organic foods: 81 percent of respondents (Table 1). Health and nutrition were also cited by several studies as being important reasons for buying organic foods, as was avoiding pesticide residues.

¹ The research on the relative nutritional value of organic versus conventional foods is highly debated. European researchers have done more in that area than American researchers.



Table 1. Reasons for purchasing organic products

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Reason	Percent	Survey and date		
Nutritional value	81	Food Marketing Institute, 2006 (Sloan)		
Long-term health	77	Food Marketing Institute, 2006 (Sloan)		
Avoid pesticides	70	Organic Trade Association, 2006 (Walker)		
Freshness	68	Whole Foods, Organic Trade Association, 2006 (Walker)		
Health and nutrition	67	Whole Foods, Organic Trade Association, 2006 (Walker), Food Marketing Institute, 2006 (Sloan)		
Prefer for children	57	Food Marketing Institute, 2006, (Sloan)		
Avoid genetically modified food	55	Whole Foods, Organic Trade Association, 2006 (Walker)		
Better for environment	52	Whole Foods 2004, 2005		
Better quality	42	Whole Foods 2004, 2005		
Avoid antibiotics	35	Packaged Facts, 2005, (Sloane)		
Support small farms	32	Whole Foods 2004, 2005		
Avoid hormones	32	Packaged Facts, 2005 (Sloane)		
Avoid preservative	32	Packaged Facts, 2005 (Sloane)		
Avoid food coloring	24	Packaged Facts, 2005 (Sloane)		
Avoid nitrites/nitrates	22	Packaged Facts, 2005 (Sloane)		

What Do Consumers Buy?

Fresh produce is the biggest organic food category, accounting for 73 percent of the value of organic foods sold in 2005, up 7 percent from 2004. All other products contribute significantly smaller shares to the organic market (Table 2). However, the most quickly growing market segments are baked goods, non-dairy beverages, and soups and pastas.

Table 2. Organic products purchased in 2004 and 2005

Product	2004	2005	Change
Produce	68	73	7.4
Baked goods	26	32	23.1
Non-dairy beverages	26	32	23.1
Eggs	26	(not given)	?
Dairy	22	25	13.6
Soup, pasta, etc.	18	22	22.2
Meat	22	22	0.0
Frozen foods	18	17	-5.6
Prepared and ready-to-go	14	12	-14.3
Baby food	7	3	-5.7
Snacks	(not given)	22	?

Where Do People Shop for Organic Foods?

Supermarkets have overtaken natural foods stores as the primary source of organic foods. In 1991, only 7 percent of organic food sales were through supermarkets with 68 percent through natural food stores (Dimitri and Greene). Today, many grocery stores have their own private label for organic foods. For example, Kroger offers Naturally Preferred; Whole Foods offers 365 Organic; Giant has "natural" and organic labeled Nature's Promise; Safeway is using O, Organic; and Sam's Club started offering Member's Mark in January 2006 (Gray). Grocery stores also carry a variety of national brands with organic labels.

Why Do Organic Foods Cost More Than Non-organic?

A number of factors make up the higher cost of organic products. Although in a situation of market shortages any producer can receive a premium for his/her product, much of the price difference between organic and conventionally produced food reflects differences in costs of production. The requirements for being able to label a product "organic" are strict, and certification is costly. Organic production is labor intensive compared to non-organic production because most of the chemicals available for conventional production are not allowed for organic. Therefore, much of the work becomes hand labor for vegetables and fruit. Organic food is often produced

and marketed on a smaller scale than conventional food, making the cost per unit higher. Preservatives cannot be used on organic products resulting in their deteriorating more quickly than conventionally produced foods. Furthermore, unlike many conventionally produced commodities, organically produced foods have no subsidies that help keep the market price low. Historically, USDA has funded little research to promote the development of organically produced crops and markets, though this situation is beginning to change (Organic Trade Association).

What Do the Labels Mean?

In 2002, the National Organic Standards went into effect. These regulations set limits on production and processing practices. As a means of identifying certified organic products and differences among these products, the USDA developed a labeling system. Regardless of whether certified farms and processors use the USDA organic seal, all claims regarding the organic content are regulated.

- 1. "100 Percent Organic"—may carry the USDA Organic Seal.
- 2. "Organic"—at least 95 percent of content is organic by weight (excluding water and salt) and may carry the USDA Organic Seal. Last



year, this part of the regulation was challenged in court (PBS). 3. "Made With Organic"—at least 70 percent of content is organic. The front product panel may display the phrase: "Made with Organic" followed by up to three specific ingredients, but it may *not* display USDA organic seal.

4. If less than 70 percent of content is organic, labels may list only those ingredients that are organic on the ingredient panel with no mention of organic on the main panel (may *not* display the USDA Organic seal) (USDA (b)).

Limitations of Buying Organic Food

The precepts underlying the organic movement were focused on a holistic production system. The diverse standards existing prior to the implementation of the National Organic Standard promoted numerous other aspects associated with organic production such as local production, small family farms, biological diversity, pastured livestock, humane treatment of animals, environmentally sound production practices, and social justice (fair wages and working conditions). With so many players entering the game to provide organic foods, consumers; the Organic Trade Association; and the Organic Consumers Association are becoming concerned that the standards are being weakened as the result of insufficient oversight and lobbying by big business.

Respondents to a survey by the Consumers Union and another survey commissioned by Center for Food Safety expressed their dissatisfaction with "organic" dairy products where the animals were not grazed on pasture but fed solely in feedlots (Rangan and Margulis). Seafood is sometimes labeled organic, but no standards exist for it. Cosmetics labeled organic are also questionable. "USDA regulations allows shampoos and body lotions to carry an organic label if their main ingredient is 'organic hydrosol,'... water in which something organic, such as a lavender leaves, has been soaked" (Consumer Report, p. 14). For more information about cosmetics see The non-profit Environmental Working Group's (EWG) Skin Deep report at http://www.ewg.org/reports/skindeep2/.

Shoppers Guide to Pesticides in Produce

The EWG developed a shoppers' guide to pesticide residues in produce from the results of more than 100,000 tests for pesticides on produce collected by the U.S. Department of Agriculture and the U.S. Food and Drug Administration between 1992 and 2001. The EWG shoppers guide lists the 12 lowest and 12 highest fruit and vegetables with pesticide residues (Table 3). A wallet size version can be downloaded from their website. If the reason for buying organic products is to reduce pesticide residue and cost is a limiting factor, consumers can use this list to decide how to prioritize their purchases of organic fruits and vegetables.

Conclusion

Organics are growing rapidly and becoming a part of mainstream Americans' lives and shopping baskets. As awareness of organics grows, we can expect to see continued change and expansion in the market. Increasing competition

Table 3. Shopper's guide to pesticide in produce

Lowest in pesticides	Highest in pesticides—buy organic
Asparagus	Apples
Avocados	Bell peppers
Bananas	Celery
Broccoli	Cherries
Cauliflower	Grapes (imported)
Corn (sweet)	Nectarines
Kiwi	Peaches
Mango	Pears
Onions	Potatoes
Papaya	Red raspberries
Pineapple	Spinach
Peas (sweet)	Strawberries

Source: Environmental Working Group. Found at

http://www.ewg.org/foodnews/walletguide.php/. Used with permission. Accessed 9 May, 2006.

among retailers will lead to new product development but not necessarily lower prices (Markert, 2005). For consumers, the growth will provide more alternatives and a larger selection. The downside may be for consumers who are buying for social reasons. As the demand increases, the small scale, local organic farm will fall further behind in its ability to meet the demand. Large corporate farms are increasingly stepping in to fill this gap. To permit large scale production of organic foods, these farms are adopting production practices that many industry experts see as not holding to the holistic values that underlie the organic movement.

The implications of this growth for growers will vary. These growing markets offer new opportunities for value-added production and a regeneration of land resources; however, the market will become increasingly competitive, with a tendency to transition from niche to commodity status, which will affect the long-term competitiveness of many small scale producers in this market.

References

Bender, Kristin (2005). "Women lead demand for what's really organic," Women's e-News. Found at www.womensenews.org/article.cmf/dyn/aid/2270/context/archiveHealth_&_Environment.

Consumer Reports, (2006). "When it pays to buy organic," Consumer Reports. (71:2) pp. 12-17. February, 2006.

Consumers Union. Found at http://eco-labels.org/focus.cfm?FocusID=24. Accessed 9 May 2006.

Dimitri, Carolyn and Catherine Greene (2002). Recent growth patterns in the U.S. organic foods market. Agriculture Information Bulletin No. (AIB777) 42 pp, September 2002. Found at http://www.ers.usda.gov/publications/aib77. Accessed 10 May 2006.

Dimitri, Carolyn and Lydia Oberholtzer (2005). "Organic price premiums remain high," Amber Waves (3:4), 2-3. Found at http://www.ers.usda.gov/AmberWaves/September05/. Accessed 9 May 06

- Environmental Working Group. Shopper's guide to pesticide in produce. Found at http://www.ewg.org/foodnews/walletguide.php /. Accessed 9 May, 2006
- Gray, Steven (2006). "Organic Food Goes Mass Market," The Wall Street Journal. 4 May 2006. Found at http://article.adp?id=20060505095709990001&cid=1712. Accessed 10 May 2006.
- Greene, Catherine (2006). "U.S. Organic Farm Sector Continues to Expand," Amber Waves. USDA (April 2006). Found at http://www.ers.usda.gov/AmberWaves/April06/Findings/Organic.htm. Accessed 15 May 2006.
- Markert, Tom (2005). "Americans believe organics healthier." Found at http://hotlineprinting.com/obn/archives/2005/2005-12/OrganicsHealthier.html. Accessed 9 May 06
- Ontouri, Don (2003). "Organic consumers: they may not be who you think they are." Packaged Facts (May 2003) Found at http://www.packagedfacts.com/editor/viewcontent.asp?prid=205. Accessed 10 May 2006.
- Organic Trade Association (2000). "Buying organic: considering the real costs," What's New in Organic? Issue 16. Nov/Dec 2000. Found at www.ota.com.
- PBS (2006). NewsHour Extra: Organic Food Fight. Found at http://www.pbs.org/newshour/extra/features/jan-june06/organic 2-08.html. Accessed 18 May 2006.
- Rangan, Urvashi and Charles Margulis (2006). "New surveys project drop in organic milk market if federal agency fails

- to fix pasture standards." Survey results from The Center for Food Safety and Consumers Union. Found at http://eco-labels.org/focus.cfm?FocusID=24 and http://www.centerforfoodsafety.org/press_release4_12_2006-2.cfm. Accessed 9 May 2006.
- Sloan, A. Elizabeth (2006). "Top 10 functional food trends," Food Technology (60:4) 22-40, April 2006. Found at http://members.ift.org/IFT/Pubs/FoodTechnology/Articles/. Accessed 10 May 2006.
- The Environmental Working Group. "Shoppers' guide to pesticide in produce." Found at http://www.ewg.org/foodnews/walletguide.php/. Accessed 9 May 2006.
- Troller, Susan (2005). "Organic spreads to mainstream grocers," Organic Consumers Association. Found at http://www.organicconsumers.org/organic/grocery.cfm. Accessed 11 April 2006.
- USDA (a). Food Safety and Inspection Service Glossary.. http://www.fsis.usda.gov/Help/glossary-n/index.asp
- USDA (b). Organic food standards and labels: the facts. Found at http://www.ams.usda.gov/nop/Consumers/brochure.html. Accessed 10 May 2006.
- Walker, Devona (2006). "Demand for organic outruns supply," Herald Tribune. Found at www.heraldtribune.com/apps/pbcs.dll/section?CATEGORY= ARCHIVES&template=ovr2. Accessed 9 May 06
- Whole Foods Market (2004, 2005). Whole foods market organic food trend tracker. Found at www.wholefoodsmarket.com/company. Accessed 14 April 2006.

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