

**The New Horizon for Organics:
A Market Outlook of the Effects of Wal-Mart on the
International Organic Market**

CNAS 2007-03

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Introduction

Wal-Mart has never been accused of not knowing what its customers want. The company has consistently introduced new products to their consumers at a highly successful rate. The latest announcement, that Wal-Mart plans to double its line of organic products during 2007, has surprised many people. The organic market has not historically been a sector for the masses. Small production by local farmers has dominated organic production in the past, but not any longer. Corporations are jumping at the opportunity to work with Wal-Mart to produce organic products and enter the mainstream like never before.

Under Wal-Mart's expert guidance, companies are creating items like 'organic Rice Krispies™' and 'organic cotton baby clothes.' The spectrum of organic products soon to be offered by Wal-Mart will create quite an array of choice for the consumer.

Wal-Mart is now creating an interest in organic products by focusing media attention on it. Many people had no idea what 'certified organic' meant, or that it even existed. Now, people are taking a second look. When polled, 90 percent of people chose organic over non-organic foods. This shows that other factors must influence the demand for organics, such as prices and awareness.

Availability of organic product has also been an issue, but Wal-Mart is changing that as well. Known for large distribution systems and pioneering just-in-time inventory methods, it is possible for Wal-Mart to revolutionize the organic industry as well.

Problem Statement

The organic products market is one of the fastest growing components of world agriculture (Dimitri and Green). In the United States, organic food has consistently shown annual growth rates of 15 percent to 21 percent since 1997, leading the country to become the second largest producer of organics in the world (Oberholtzer). The U.S. organic foods market was estimated at \$13.8 billion in consumer sales in 2005, doubling since 2000 (OTA). Conventional retail stores accounted for 44 percent of organic sales in 2003, while natural product and health food stores represented 47 percent of sales (Dimitri and Oberholtzer).

These sale shares are expected to shift dramatically toward retail stores in the very near future as Wal-Mart joins the ranks of organic retailers. As announced, Wal-Mart began expanding its assortment of organic foods in spring 2006 and plans to continue its organic product diversification to include brands such as organic Oreos™, Rice Krispies™, and Frito-Lay™. Since the marketing channels used by Wal-Mart incorporate agricultural imports from developing countries that can supply goods at low prices, it is reasonable to expect that the same conditions will apply to organics.

Unlike the EU, the United States' government regulations on organic production are geared to a free market, meaning producers are freer to export their organic goods to the United States than to the EU. The U.S. organic market is also less mature than other developed countries, implying higher growth rates and an opportunity for producers to reach a market that is not yet saturated. Although the costs of switching to organic production may be high, it is expected that more farmers will switch from conventional production methods to organic to capitalize on the growing market sector.

Objectives

The objectives of this paper are to:

- Determine the impacts of organic U.S. demand due to Wal-Mart's expected presence on foreign and domestic suppliers, such as business expansions.
- Provide a market outlook of the organic agricultural sectors in key Wal-Mart-affected countries: Mexico, China, and Brazil.
- Explore how organic commodities will adapt under the influence of such a large private sector retailer, from evolving government regulations to new innovations and products.

Procedures

There are few government data on organic markets. Most available indicators are provided by private sector organizations and the information varies widely. With limited reliable data, it is difficult to determine quantitative conclusions. In order to address larger topics, such as which commodities will be most impacted and how producers will be affected, qualitative analysis will be used.

An analysis of current government policies and events, such as the Mexican government organic certification program in 2006, will help to elucidate the current conditions of the international organic industry and prospects for the future. Many studies have been performed on organic markets and policies that mirror current situations. For instance, the USDA's organic certification program began in 2002 and greatly increased consumers' awareness of organic products, which has led to an increase

in demand. Also, the new national organic standards in Mexico may increase consumer awareness there. Such policies promote international trade in organics by enforcing one set of standards that consumers can identify with and trust.

Government publications, such as USDA agricultural attaché reports, provide insights into foreign organic markets. Research publications currently available attempted to analyze current and forecast future organic market demand. It has been shown that organic supply is often limited in the United States and a supply increase is needed to satisfy the market (McTaggart).

U.S. Demand

Wal-Mart is considered so influential that it not only supplies what consumers demand, but influences what consumers demand as well. Supply control and large market access combine to make Wal-Mart itself a desirable marketing tool for individual companies' products. 'Organic' products were once viewed as expensive, elite, and up-scale items, but are quickly transforming into more common, even mainstream, items in the United States (Lohr).

Conventional supermarkets have been responsible for almost half of all organic food sales in the United States (Norris). Since Wal-Mart has declared that it will double its current offering of organic products within the year, companies are scrambling to be able to provide Wal-Mart with the lowest-priced, high-volume organic items.

Essentially, a bidding war has begun between organic producers. Wal-Mart has left the door wide open for producers to offer their goods by not providing any specifications as

to what types of products they are looking for, and openly declaring that the types of organic products offered will vary from store to store.

In efforts to meet the U.S. and Wal-Mart's demands, companies are merging and outsourcing from abroad (Organic Monitor). American companies are scouring the globe for any organic ingredient that is readily available. Ronnie Cummins, director of the Organic Consumer's Association, says "Wal-Mart already sources a majority of its products from China, because it's so cheap to produce anything there. Why not foods?" Silk soy milk, which is owned by the \$10 billion giant Dean Foods, is made from organic soybeans that are bought in China and Brazil. Kraft owns the popular brand Boca Burger and Cascadian Farms, which produces organic cereal, frozen fruits, and other products, is a brand of General Mills (Gogoi). China is now a major world supplier of organic beans and edible seeds (Organic Monitor).

Organic fruits and vegetables are often shipped in from Mexico. Compared to the United States, Mexico is a low-cost supplier but still close enough for perishable goods to reach stores in the United States in decent condition. Organic regulations result in fresh produce that is not as durable and long-lasting as conventionally produced goods.

However, price remains the largest barrier to consumers buying organics and Wal-Mart is directly addressing this issue by focusing on attaining a low price for organics as well.

The United States is the largest and most affluent market for organic products in the world, valued at \$13 billion in sales in 2006. This makes the United States accountable for over 40 percent of the world's \$33 billion organic sales in 2005 (Willer). Most sales of organic foods continue to occur in countries where consumers have high disposable incomes. According to the U.S. National Organic Program (NOP) standards,

all products sold as organic must bear the USDA organic seal. (figure 1) The use of the certified USDA seal has greatly improved consumer awareness and credibility for the organic industry. Whole Foods Market found that in 2003 almost 50 percent of the consumers surveyed reported that they consume more organic foods than the previous year, crediting clear, credible, organic labeling for making them more likely to purchase organic foods.

Figure 1: U.S. and Chinese organic seal

	<p>USDA certified organic seal</p>
	<p>Certified Organic OFDC China seal</p>

Market Outlook

Mexico

Mexico's organic market is relatively limited, but its economic impact is considered very significant. Lack of information on new production technologies and certification and regulation processes imposed by the Mexican government have been a barrier to the development of organic production (Market Brief). Most Mexican consumers have been unaware that organic certification exists, and even have a negative connotation with the term 'organic'. 'Organico' is mostly used to label organic chemicals or organic trash, not organic vegetables or organically produced clothing. Thus, Mexican consumers view products related to 'organicos' as bad for the

environment or unhealthy. However, most certification companies have the word 'organic' in their name that is placed on their certification, so language ambiguities and differences in perception have become an obstacle for sellers of organics to overcome in Mexico (OTA Landry).

Organic producers have historically had a difficult time exporting certified goods to the United States. In order for a farm to get USDA certification, it needed to have a designated U.S. buyer. This is changing, allowing for easier access to certification, by the formation of the Organic Products Laws in Mexico.

The Mexican government passed the laws in 2006 and included the requirement for products to be certified by an internationally recognized organization. The National Organic Production Council (CNPO) was created to promote organics in Mexico as well (Chavez). In 2000, Mexico exported US\$70 million of organics to the United States. There is not an equivalency agreement between Mexico and the United States, but there is a USDA accredited certifying agent in Mexico.

Since public acceptance of organic products is low, up to 98 percent of the organic production is for export. Many individual organic crops in Mexico, such as avocados, bananas, tomatoes, and corn, have experienced very high growth rates since 1996. Coffee is also an excellent organic crop for Mexico, with 25 percent of all coffee produced organically in 2004.

Wal-Mart has 889 retail units in Mexico, including restaurants, supercenters, and others. The first unit, a Sam's Club, was built in 1991 in a joint venture with Cifra. Wal-Mart later acquired Cifra and formed Wal-Mart de Mexico. Wal-Mart planned to open 120 retail units in 2006 alone, with an estimated growth in installed capacity at 14

percent. Sales at Wal-Mart in 2005 netted over \$15.4 billion, an increase of 13.7 percent from the previous year. Comparable stores in the region experienced an increase of 5.8 percent (Wal-Mart).

Wal-Mart is growing rapidly and gaining market share every year. The company now controls around 30 percent of all supermarket food sales in Mexico and approximately 6 percent of all retail sales. It is the largest private employer in Mexico (Weiner). Wal-Mart's influence over Mexican farmers may push the farmers to produce more organics to supply the U.S. market. This may cause a spill-over effect, creating demand for organics in Mexico and resulting in the sale of organic products in Wal-Mart retail stores in Mexico. While Mexican consumers are not very concerned about organics right now, they are interested in buying local produce. If more local produce is organic, this may spur interest in the products.

China

Seventy percent of China's 1.3 billion people are farmers. Most of the certified organic farmers operated organically due to the high cost associated with pesticides and technologically advanced tools anyway (McKinna 2006). In 2003, roughly 41 percent of total consumer spending was attributed to food. This high proportion leads consumers to demand products at the lowest possible price. As a result, many food-related issues have sprung up across the country.

Consumer confidence in Chinese food safety is reported at below 50 percent, and cases such as illness and poisons found in vegetables are common. Pesticide poisoning affects half a million Chinese, causing over 500 fatalities, per year. The World Bank

blames air pollution for more than 400,000 premature deaths annually (Organic Monitor China). Consequently, Chinese consumers are developing a desire for organics. More than 60 percent of China's 562 million living in urban areas are willing to pay a premium for produce "certified safe or organic", according to research commissioned by the Ministry of Commerce.

'Green Food' is a certification program that ensures foods are grown in a safe and ecologically sound manner. The program began in 1991 but focuses on the final product, not the organic farming process itself. Retail sales of the Green Food label make it one of the largest of such sectors in any country of the world, nearing US\$12 billion. This makes the market for Green Foods almost as large as the U.S. certified organic label. Green Foods are not necessarily certified as organic, though. The Green Food label has four different food standards: basic 'non-poisonous', Green Foods A, Green Foods AA, and organic standard.

In terms of 'organic' standards, demand is still greater than supply. Total organic food and beverage consumption in China adds up to less than one percent at sales of \$150 million. Most organic products produced in China are for export. China leads Asia in certified organic farmland with over 300,000 hectares in 2005 (McKinna). (figure 2) China has established the Organic Food Development Centre to promote organic products, but consumers have trouble determining if the certification is authentic. All certificate holders who have products up to the OFDC Organic Certification Standards can apply for and will be granted the right to use the logo after being approved by OFDC Certification Committee. (figure 1) However, approval for certification may rely heavily on politics with free trade agreements. As the Chinese government has pledged more

support for the organic food industry, production of organic crops is expected to rise (Organic Perspectives). Greater domestic demand for organics is also likely as standards of living and purchasing power of Chinese consumers rise.

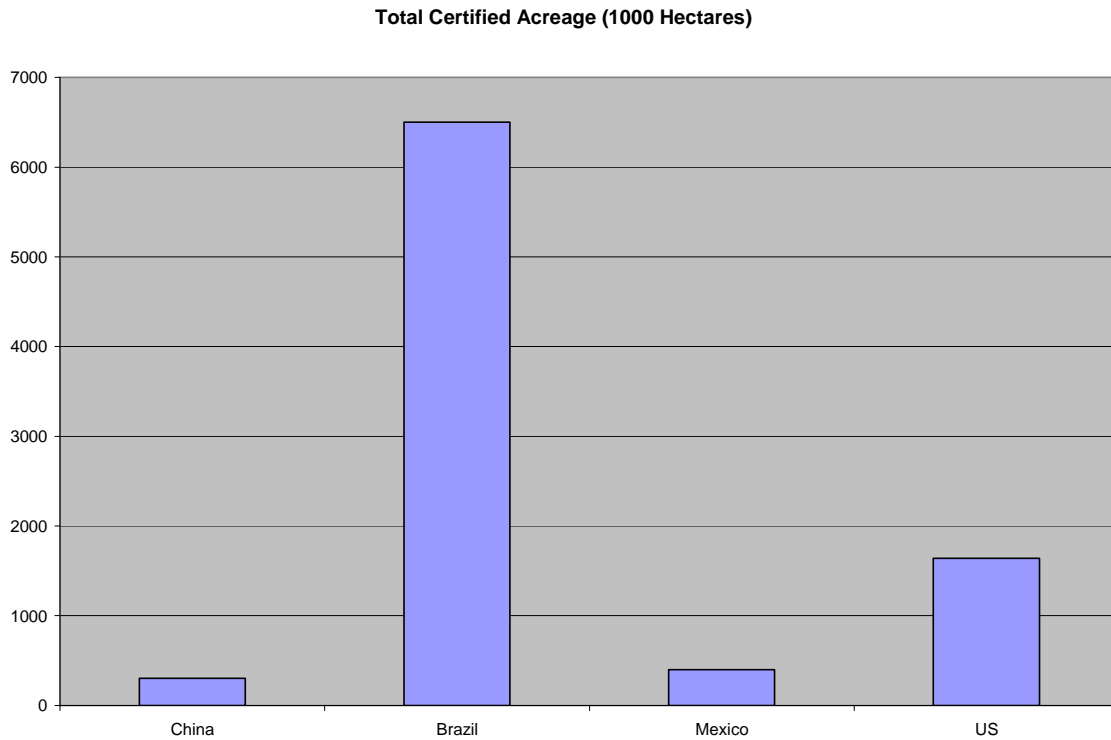


Figure 2. Source: Organic Monitor.

Wal-Mart entered the Chinese market in August 1996 and currently has 73 operations in China with 68 supercenters. Wal-Mart China planned to build 18 to 20 new stores in 2006 alone (Wal-Mart). By gaining market presence and building close ties with Chinese companies, Wal-Mart is working hard to ensure future success and influence in China. This will allow Wal-Mart to be a strong factor in the Chinese organics market, especially since they are expected to import large amounts of organics for the U.S. market.

Brazil

Brazil's government-certified organic production began in 1999 when the Normative Instruction #7 (NI7) was published. The NI7 established national organic standards and created a stronger push for more organic production. Seventy percent of organic production is exported, of which 41.2 percent went to the United States in 2006. (figure 3) Brazil became the second largest organic producer in the world in 2005, with 6.5 million hectares of certified organic products cultivation in 2005 (Organic Monitor Brazil). (figure 2) However, much of the land is certified organic due to the considering of native plants used for sustainable plant gatherings as part of the Brazilian organic agriculture area (Organic Perspectives).

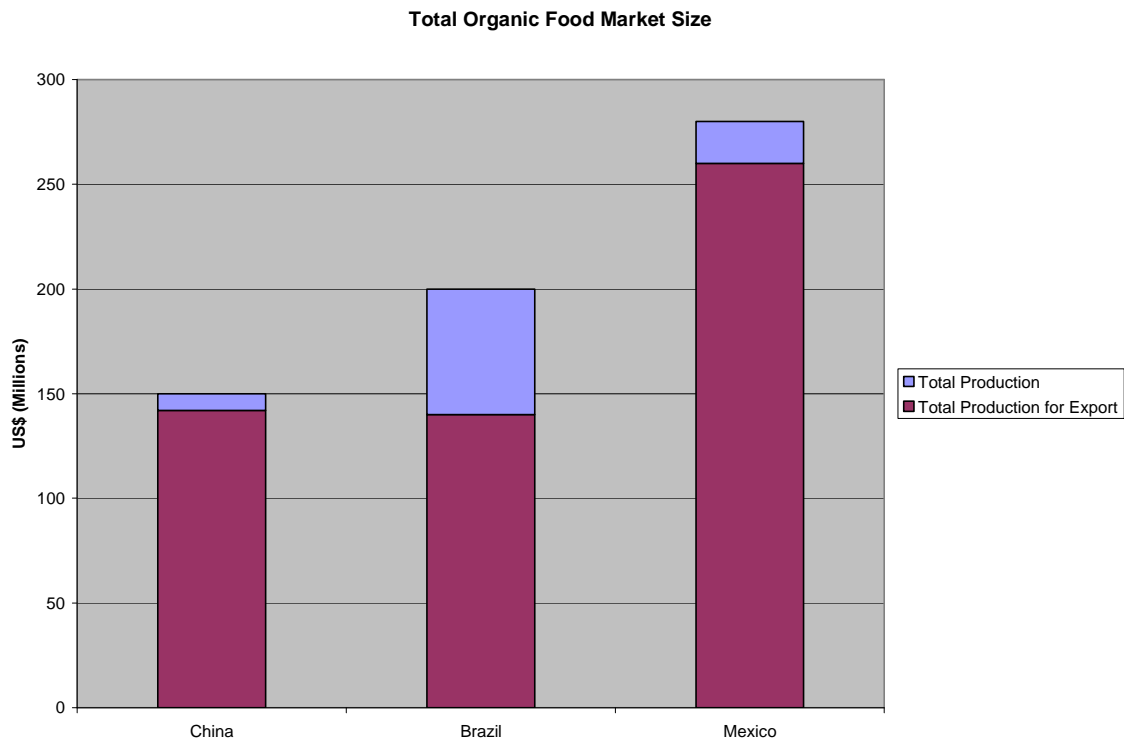


Figure 3. Source: Organic Perspectives, Brazil Organic Products, McKinna et. al.

The NI7 defines organic standards for production, manufacturing, classification, distribution, packaging, labeling, importation, quality control and certification. Imported organic products must follow current Brazilian legislation and already be certified at the country of origin, in addition to previous analysis and authorization from a certifying agent accredited by the National Council for Organic Production. There is currently no equivalency agreement between the United States and Brazil's national organic standards, but there are USDA accredited certifying agents in Brazil.

Sugar is Brazil's main organic product, accounting for 67 percent of organic exports. Butter is the second largest organic export, at 7.9 percent of all organic exports. Brazil has become a major producer of organic coffee, sugar cane, oranges, soybeans, manioc flour, corn, cacao, beef, pork, poultry, and milk.

Around 80 percent of Brazilian organic sales are distributed through supermarkets. Organic producers are also focusing on hotel and restaurant services. Growth in organic sales in Brazil has been exponential and is considered to be still developing, valued at \$200 million in 2006. Wal-Mart was the 6th largest retailer in Brazil in 2002, and has market access in many large urban areas. Wal-Mart plans to open 28 new units in 2007, but has yet to open 4 of the 14 stores it had planned to open during 2006. In December 2005, Wal-Mart was recognized as the fastest growing company in Brazil by the magazine "Grandes Grupos." Unlike the branded company in the United States, Wal-Mart has expanded in Brazil through several different company names and buy-outs (Wal-Mart).

With 302 retail units, Wal-Mart is large enough to spearhead a campaign in Brazil for organics if it is deemed to be profitable. The typical consumer of organic foods in

Brazil is not an extremist, but a shopper that is pursuing balance in their life against bad eating habits. In 2000, a study by Gallup determined that 7 out of 10 consumers in Sao Paulo would be willing to pay 30 percent more for organic products if the origin and characteristics were unquestionable. Most organic buyers tend to remain in the very high-end cluster of consumers. Though product pricing and availability varies widely in Brazil for organic products, retailers seem to prefer to hit a niche market at a very high price premium. Some organic products sell with margins at over 300 percent (Brazil Organic Products).

Changing Organics

A retailer such as Wal-Mart, with large sourcing capabilities, will dramatically affect the supply capabilities of organic producers worldwide. There are strong implications of how the growth in organic products will affect international trade. U.S. imports of organic products currently represent around 10 percent of U.S. organic food consumption (Pollan). Wal-Mart is expected to hasten the globalization of organic food. An increase in awareness, fueled by the emergence of national standards, has led to a highly demand-driven organic market that is expected to increase supply over time. The world price for organics is expected to fall proportionately with the increase in supply and technology.

Wal-Mart aims to provide organic products at a 10 percent average price mark-up, but organics are currently selling for a much higher premium on average in the United States (table 1):

Table 1. Average Price Premium for Organic Foods in the United States

	Price Premium
Milk, Butter	50-100%
Fruit	0-50%
Vegetables	50-150%
Beef, Chicken	100-150%
Corn, Soybeans	100-150%

Source: Foreign Agricultural Service, U.S. Market Profile for Organic Food Products

Whether or not Wal-Mart will be able to stick to their goal of having such a small price increase is undetermined. Organic producers will likely not be able to meet such demanding restrictions, as there is still more demand than supply for organics.

Fruits and dairy products seem to have the best prospect for Wal-Mart's consumers. These two industries are able to produce organics at a low price premium and in large quantities. Vegetables may also be a viable product for Wal-Mart to focus on, depending on variables like weather conditions and sanitation issues. Products that have a higher premium now though, like beef, are under supply limitations and will most likely continue to be sold at a premium of more than 10 percent for the foreseeable future. Increasing supply for organics may decrease the price, but will depend on whether demand continues to outgrow supply or not. Wal-Mart will most likely increase both supply and demand. In the long-run, once the initial shock of high demand and limited supply is balanced, the average prices for organics should be lowered by the effects of Wal-Mart.

Countries that export agricultural commodities to the United States may transition a portion of their production to organic standards to meet U.S. demand. In the past, many countries faced difficulties in exporting organic products to the United States due to high organic standards. It takes an average of 3 to 5 years to gain accredited certification under the USDA organic standards. Gaining certification was problematic but is now

becoming much more accessible to international producers. USDA foreign accredited certifying agents are becoming more common worldwide - Mexico gained its first accredited agent in July 2006. At the same time, USDA organic standards are making it easier for producers to meet the requirements. In 2006, a new federal law was enacted, allowing certain synthetic ingredients to be included in products labeled as organic.

Dairy products experienced the largest growth in the U.S. organic market (23.6 percent), followed by bread and grains (19.2 percent). Many of these commodities are produced domestically whereas products like fruits and vegetables are imported to the United States to meet seasonal demands (Lohr). Beverages are also popular imports to the United States, such as the recent surge in organic soy milk produced in Brazil and China (OTA).

Currently, fruits and vegetables represent the largest portion of organic sales in the U.S. with \$5.369 billion in 2005. (figure 4) Dairy is second with \$2.14 billion in sales.

% U.S. Food Organic Sales

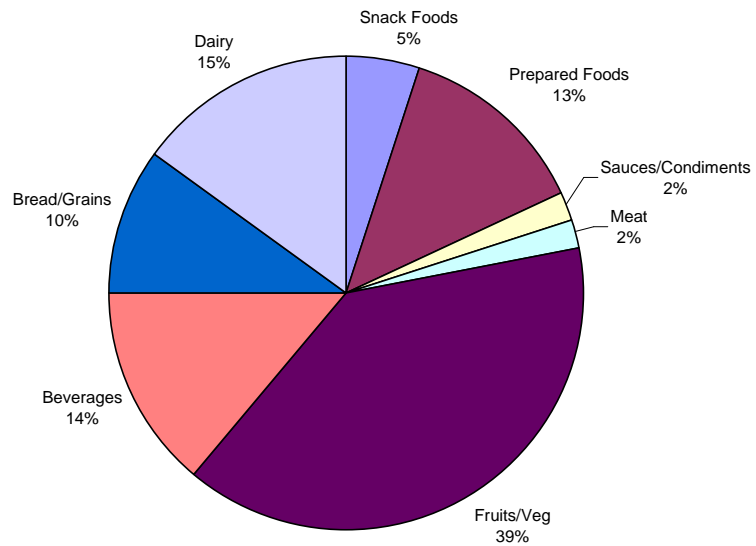


Figure 4. Source: OTA's 2006 Manufacturer Survey

Non-food organic sales are highest for personal care, with \$282 million in 2005, and a growth rate of 28 percent. (figure 5) Organic supplements are second with \$238 million, and have a growth rate of 29 percent. Organic flowers are experiencing the highest growth rate of 50 percent, followed by organic pet food at 46 percent and organic fiber (linens and clothing) at 44 percent.

% U.S. Non-food Organic Sales

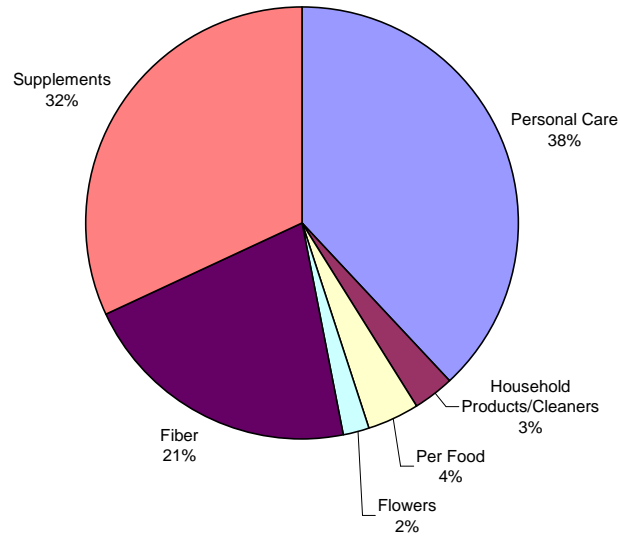


Figure 5. Source: OTA's 2006 Manufacturer Survey

Conclusions

The policies regulating organic products in the United States, combined with increasing demand and potential international markets, are affecting the way that organic products are being marketed. Promotion of organic products is now easier than ever through the USDA organic seal and the availability to larger consumer bases through Wal-Mart. Approximately 45 percent of U.S. consumers shop at Wal-Mart and now the corporation is hoping to tap into an even larger consumer base by offering organics. This situation provides an opportunity for international organic producers worldwide to access the U.S. market, as well as for domestic producers to reach mass customers. The increased availability of organic products in both new and traditional forms will help to meet the increasing demand for organics in the United States and other countries. The

organic market is transforming from a small, local, privately-owned business to a large, global, corporate industry.

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