



# Consumer Issues and Demand

Helen H. Jensen

*JEL Classification: D12, F13*

Consumers worldwide are driving changes in animal agriculture. Rising consumer income, changing demographics and lifestyles, and shifting preferences due to new information about the links between diet and health all contribute to new demands for foods. At the same time, technological changes in production, processing and distribution, structural change and growth in large-scale retailing, and expansion of trade worldwide have contributed to a rapidly changing market for food products. Changes in demand for meat and other animal products reflect these developments.

## Current Situation

Population growth in North America and the rest of the world is a major factor that drives demand for livestock and meat products. Population growth is expected to slow during the next 15 years (Table 1). Although in-migration and increased ethnic diversity have reduced the general slowdown of population growth in Canada and the United States, with slower natural population growth, future demand for North American food products will increasingly come from other parts of the world.

In addition to population growth, household income is also an important determinant of the amount and types of foods purchased. Higher income allows consumers to spend more on food and have greater discretion in spending, especially on such preferred foods as animal protein sources and specialized food products. On average, U.S. consumers spend only about 10% of disposable personal income on food; Canadian consumers spend approximately 14% of personal disposable income on food; and in Mexico, consumers spend an average 27% of total expenditures on food.

In general, higher income consumers have diets that are more varied and have a higher share of protein from animal sources. Higher income also leads to increased

demand for other food attributes, such as variety, added food preparation and convenience, and intrinsic characteristics of the product, such as taste and how the food was produced and processed. Although per capita consumption of meat in Canada has remained relatively stable since 1990, consumption in the United States has increased by about 12% (Figure 1). The largest share of meat is from red meat sources. In contrast, consumption of meat in Mexico has increased more than 50% since 1990, and consumption of poultry has increased in importance (Figure 1). Demand for small-serving muscle cuts is the common preference in industrialized, urban regions. In contrast, demand for roasts, legs and quarters, especially of sheep and lamb, is strong by consumers with more time and less income available to purchase more processed muscle cuts. The global nature of the food market today expands market opportunities and allows markets to take advantage of consumers' varied preferences for meat cuts.

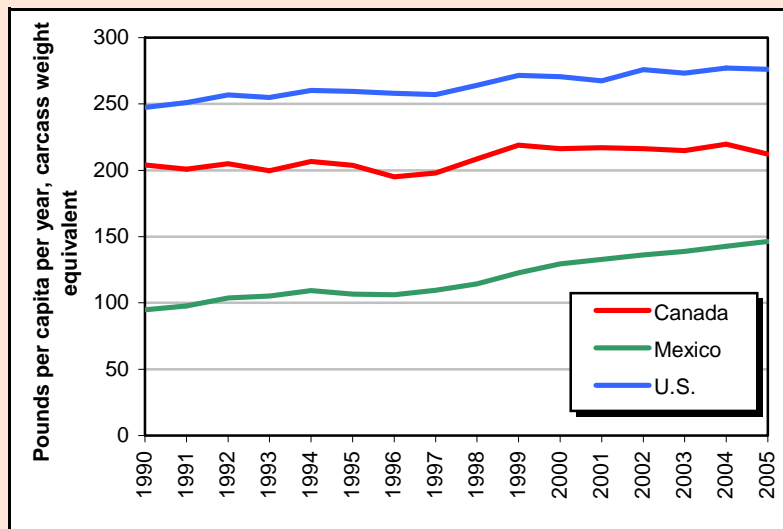
Major changes are occurring in retail markets. Twenty years ago, traditional groceries in the United States represented 90% of at-home food purchases; today, they represent less than 70%. Wal-Mart is the largest food retailer in both the United States and Mexico. In Canada, increased consolidation and concentration in retail food markets has

**Table 1.** 2005 Population and recent and projected growth.

	2005 Population Million	1990-2005 (%)	2005-2020 (%)
NA	438	19	14
Europe	728	1	-2
Africa	906	43	36
Asia	3905	23	17
SA	561	27	19
Oceania	33	24	18

Source: Population Division of the Department of Economic and Social Affairs of the United Nations.

©1999–2006 CHOICES. All rights reserved. Articles may be reproduced or electronically distributed as long as attribution to *Choices* and the American Agricultural Economics Association is maintained. *Choices* subscriptions are free and can be obtained through <http://www.choicesmagazine.org>.



**Figure 1.** Meat consumption in Canada, Mexico, and the U.S. (1990–2005).

Source: USDA Foreign Agricultural Service (Production, supply & distribution data -- PS&D data). Note: Poultry is in RTC (ready to cook equivalent).

meant that the large retailers control a larger share of retail sales than in the United States or in Mexico. The increased power of nontraditional grocery retailers, combined with consumer preference for convenience, easy-to-handle, prepackaged meat and other food products, have resulted in low-cost, nearly-identical-quality products available to all customers. In addition, the food service industry has increasingly demanded prepackaged products and cuts to substitute for costly labor input at the service end.

Food retailing through the food-away-from-home category has also grown to meet the needs of higher income and time-starved consumers in North America who demand more convenience with their meals. In the United States, nearly 50% of food expenditures today are for food eaten away from home; in Canada the share of food expenditures spent on meals away from home has risen to 34% today (USDA-ERS, 2005; Zafiriou, 2005). In Mexico, consumption of traditional foods, such as tacos and tortas, has declined, and consumption from fast-food places

has risen, especially in the rapidly growing urban areas.

Although the major change in retailing has been the dominance of large retail giants in the food retailing industry, new segmentation of the retail market is reflected in small retail units becoming an increasingly vigorous segment of the food retail market. Specialty stores, Internet-based markets, smaller-sized retail markets, and direct marketing methods for meats have strengthened the presence of this niche market segment of food retailing. Organics have become one of the fastest growing segments of the food market and, although organic meat and poultry have lagged behind in other areas, organic dairy and eggs are sold widely in conventional markets.

### Forces and Drivers of Change

Several major trends affect consumption of animal products and are worth noting.

**Income.** As income levels increase, consumers buy more food and change the form and quality of food they purchase. The entry of women

into the labor force contributes to the rise in consumer income. Consumers devote less time and effort to food preparation and reallocate spending away from raw food products to foods that are easy to prepare, require little preparation, and are convenient to eat.

**Rising Obesity Rates.** Prosperity, increased amounts of food, and less physical activity involved in work have contributed to the major dietary and health challenge today: obesity. Over 30% of adults in the United States, 14% in Canada, and 24% in Mexico are obese. Although the problem, and likely solutions, are very complex, the health problem has led new dietary guidelines, nutrition and health policies to focus on guidance that includes encouragement to consume fruits and vegetables, increase variety in the diet, increase whole grain consumption, and use low-fat dairy products. Other recommendations are to limit fats, especially saturated fats and trans fats. The recommendations and related policies are likely to affect the amount and type of animal products consumed.

**Population Growth and Changing Demographics.** With a slowdown in population growth and aging of the population, aggregate demand for food is slowing in North America and other developed countries. Increased labor market participation of women has brought significant social and economic change and reduced the amount of time women have available in households for meal preparation. More than 60% of women are in the labor force in the United States and Canada today, and time-use surveys estimate that the average amount of time that meal preparers spend in food preparation and

cleanup during a week is less than one hour a day (Zafiriou, 2005; Statistics Canada, 1999; U.S. Department of Labor-Bureau of Labor Statistics, 2005). Consumers continue to look for ways to cut time in food and meal preparation. In Mexico, traditional homemade corn tortillas have given way to commercially processed corn tortillas. Roasts and broiler chickens have been replaced by steaks, ground beef, and chicken breasts.

During the next two decades, population growth in the United States and Canada will be strongly influenced by immigration. The growth of more ethnically diverse populations in the United States and Canada will result in new demand for different types of meat, including lamb and goat, and introduce changes in the types of foods and food preparations consumed throughout the population both at home and away from home.

**Changing Food Markets and Foods.** Increased consolidation and concentration in retail food markets and changes in food distribution channels mean retail food stores are larger, offer more variety and services, and are open more hours. At the same time, retail chains exert increasing control in the market, especially in Canada where the five largest supermarket chains have 90% of supermarket sales (Conference Board of Canada, 2005).

While the retail shopping experience seems to be losing its diversity, there is some evidence of an increase in market segmentation across a variety of products. In many markets, though primarily in metropolitan areas, there is growth in specialty stores for breads, coffees and deli items. Farmers' markets, which offer fruits, vegetables, and some animal-

sourced products, meet the preferences of some consumers for local suppliers, organic foods, or other fresh products.

Technological innovations, as well as improved information and transportation technologies, have significantly changed the way food is produced, processed, transported, and delivered to consumers. Buyers are now associated with large retail food networks, where reputation, quality, and delivery are important attributes of the transactions. Larger, more coordinated systems enable food retailers to track food inputs through supply networks and demand products with more specific attributes. In such systems, retailer and brand name are often used to assure consumers of attributes that are difficult to observe or measure.

Fundamental attributes that drive consumer demand for animal products are that the foods are safe and provide nutrition, taste good, provide variety in the diet, are convenient, and contribute to good health. In general, consumers in both the United States and Canada are confident in the safety of their own country's food supply. Changes in retail food marketing are likely to lead to a more diverse market for animal products. Growing populations and incomes in developing economies will increase demand for safe, wholesome, and affordable animal protein products. Developed economies with higher, but still rising, incomes are expected to fuel demand for niche market products that are produced and marketed to deliver specific attributes for the consumer.

### **Implications**

Where will these forces take North American animal agriculture?

**1. Food safety will continue to be a paramount consumer expectation.** While being relatively uninformed about how safe food is produced, consumers are intolerant of food safety failures. Regulation and product processing and packaging will continue to evolve to provide more guarantees of food safety. For many consumers, information on and the ability to trace product attributes (product and process) will substitute for food safety in product selection, leading to a wider variety of food safety/quality indicators—from home-grown, local farm, or animal welfare-friendly to contracted international suppliers. Although consumers in the United States and Canada have relatively high expectations for the safety of products and generally consider domestic production to be safe, Mexican consumers, especially those with less income, are less sensitized to issues of food product safety and choose animal products primarily on the basis of price. This may change with continued growth of supermarkets, greater control on marketing channels, and standardized inspection services (TIF), especially if the pricing differences in markets begin to narrow.

**2. As North American incomes continue to increase, consumers will choose products on the basis of varied attributes, including taste, variety and convenience.** Animal-sourced food product and process attributes have become very important for North American consumers. Though consumers may not be familiar with production methods, higher income consumers are likely to choose products on the basis of attributes related to production process, such as natural, organic or "family-farm," associating that process with product quality. Production methods, especially at the producer level, have become a shortcut for

consumers to high-quality attributes and safe food products. However, despite relatively high incomes and education levels, U.S. and Canadian consumers still demand low-priced food.

Labeling is an important tool to communicate product attributes, including food safety. To some extent, increased use of labels reflects the public's interest in informed choice regarding complex, and sometimes controversial, new agricultural technologies and the growing market for imported foods. Informing consumers may be a complicated and costly task. If labels provide large amounts of product information, or when the information is complex or requires understanding of nutritional and other science-based relationships, consumers may not be fully informed. Complex food ingredients or processes would require consumers to become more sophisticated in understanding product comparisons.

**3. Continued concentration of large-scale processing, food distribution and retailing may reduce consumer choice in markets.** Today's producers and processors are well-equipped to meet consumers' demand for quality, low-price food. Transnational firms have been growing and have advantages for providing lower costs and standard food quality sourced from around the globe. Large retailers will offer a variety of foods, though their market power presents the potential to restrict consumer choices and increase prices. Some newer retailers, such as Whole Foods and Wild Oats, have increased market share by offering alternative products to some—often high-end—consumer segments. In some markets, large firms will dominate food retailing and food distribution. At the same time, it is

important to recognize that not all stores will be larger stores; small producers and retailers may serve specific markets, especially in urban areas. Where smaller store formats exist, the stores may be owned by large retailers, raising the potential for lack of competition in food markets.

### Policy Options

There are four options for addressing the challenges facing the North American animal agriculture industry relative to consumer issues and demand.

**1. Make product standards and certification programs more uniform across North America.** Food safety is a public good across national borders. As production, processing, and distribution systems for animal-sourced foods become more integrated, food safety problems in one country can quickly pose problems in another country. One approach is to strengthen governmental regulation and public involvement in setting product standards, mandating testing, certification, and process control. Harmonization of standards across North America would enable firms within the three nations to operate on a level playing field with greater market transparency and maintain credibility within the integrated food systems. At the same time, increased governmental regulation imposes costs and does not allow firms the flexibility to develop their own food safety systems.

Alternatively, the growth of strong retailing chains can support private systems for food safety and quality control through internal mechanisms, e.g., vertically integrated food supply chains or private mechanisms such as brand names, contracting arrangements, animal identification and tracking systems.

New technologies have allowed more rapid measurement of product attributes (e.g., fat content, drug residue) allowing the buyer to specify attributes of interest and better match consumers' tastes. It is important to recognize consumer preferences for food products are different in the three countries. Mexican consumers prefer animal cuts and products that differ from those preferred in Canada and the United States. Trade that takes advantage of differences in consumer preferences is likely to benefit consumers in all three countries.

**2. Enhance the ability of consumers to obtain information on products and make use of labeling information.** There is increased competition in providing various product and process food attributes, but consumers may not understand the attributes. Lack of or imperfect information leads to markets that do not work well and consumers who may lose confidence and trust in the quality of the food system. A challenge is to present a large amount of information, both in quantity and variety, to consumers in forms they can understand. This includes information on health and nutrition attributes, food handling and warnings, and product attributes such as country of origin. New methods and technologies (e.g., electronic information in the retail store environment) may provide alternatives to traditional media for educating consumers and allow highly motivated consumers to move from summary information on the label to more complete information available through the internet, for example. Although much of the information is regulated through federal agencies, private companies and brands also have incentives to promote desired food attributes through labels and

advertising. Public agencies may serve the role of deciding what type of information to provide to the general consumer.

**3. Educate consumers about production agriculture.** Consumers have become distant from production agriculture. Lack of information can lead to consumer misconceptions about production methods and techniques. At the same time, production agriculture is under increasing scrutiny from consumer groups. Both sources may threaten continued growth in animal product consumption and perpetuate lack of understanding about issues surrounding production agriculture. Educating consumers about commercial agriculture and enhancing the public's knowledge and awareness of food production methods may have long-term benefits in maintaining consumer confidence and growth in demand for animal food products.

The challenge is to use effective methods for communicating about the increasing scientific complexity of food production and processing, and to help consumers in making choices concerning more complex issues regarding nutritional content and health when there is scientific uncertainty.

**4. Promote a competitive retail and distribution environment.** Different food retailing environments exist within the North American market. The dominance of four or five large firms characterizes both the Canadian and U.S. markets, and nontraditional retailers are having a significant effect on retailing. This type of environment provides increased consumer product choice at low prices; however, it may reduce consumer choice over other products (or cuts) that may serve smaller consumer segments. In some markets, the presence of large merchandisers co-exists with

smaller, niche segments. In other cases, the presence of large firms may limit the ability of smaller market segments, such as specialty meat markets with store-based operations, to survive. Some suggest that governments be more aggressive in preventing concentration in food retailing to preserve consumer choice. However, it is not clear that government action would actually result in more choice than is produced by an industry in rapid transition.

In addition to weighing policy options, there are continuing needs for information to allow informed policy choices. In an increasingly competitive and global environment, do consumers benefit or lose with consolidation of retailing? Consolidation among food retailers is relatively high in Canada and the United States and is increasing in Mexico. Yet, compared to other nonfood industries, concentration is not very high. Can smaller niche markets co-exist in the current retail environment, and under what conditions?

Many consumers have indicated a willingness to change eating habits to reduce weight, but so far the efforts have been relatively short-lived. What are the most effective approaches to reining in weight gain? How can long-term gains be made that meet consumers' preferences for variety, as well as food that is safe, tastes good, is convenient and meets more limited calorie requirements? Understanding how consumers obtain and process information is a major challenge. What will improve the consumer's ability to balance new information and conflicting messages from many different sources about complex scientific information?

### For More Information

Agriculture and Agri-Food Canada. (2005, September). *An overview*

*of the Canadian agriculture and agri-food sector.* Available online: [http://www.agr.gc.ca/cb/apf/pdf/bg\\_con\\_overvu\\_e.pdf](http://www.agr.gc.ca/cb/apf/pdf/bg_con_overvu_e.pdf).

Conference Board of Canada. (2005, Spring). *Canada's retail trade industry: Industrial outlook.* Canada: The Conference Board of Canada. ISSN 1713-7594.

Farm Foundation (2006). *The future of animal agriculture in North America.* Available online: <http://www.farmfoundation.org>. Oak Brook, IL.

Statistics Canada. (1999). *Overview of the time use of Canadians in 1998*, Catalog No. 12F0080XIE. Ottawa, Canada.

U.S. Department of Agriculture - Economic Research Service (USDA-ERS). (2005). ERS Briefing Room on *food cpi, prices and expenditures.* Available online: <http://ers.usda.gov/Briefing/CPIFoodAndExpenditures/>.

U.S. Department of Labor-Bureau of Labor Statistics. (2005). *American time use survey - 2004 results announced by BLS.* Available online: <http://www.bls.gov/tus/home.htm#news>.

Zafiriou, M. (2005, May). *Food retailing in Canada: Trends, dynamics and consequences.* Agriculture and Agri-Food Canada. Paper presented at the Pacific Economic Cooperation Meetings, Pacific Food Systems Outlook. Kunming, China.

*Helen H. Jensen (bhjensen@iastate.edu) is Professor, Department of Economics, Iowa State University, Ames, IA. I would like to thank Jennifer Grannis, Wendy Umberger, and Margaret Zafiriou for their contributions and suggestions on the material presented here.*

