

Food and Agriculture: Consumer Trends and Opportunities

Building a Base

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This publication describes the trends in consumption, nutrition, health, lifestyle, and marketing for the bread, cereal, rice, and pasta sector of the agricultural economy. This publication is part of a series that seeks to integrate the consumer aspects of food and agriculture in an effort to help Kentucky grain farmers. Each publication is organized around the USDA's Food Guide Pyramid. The series is designed to bridge gaps in understanding about the economics of food consumption, health and lifestyle trends, and food production and to provide a resource for food marketing efforts. The following information should be helpful for farmers who want to better understand consumers and their consumption patterns. Consumers may gain a better understanding of the nutritional implications of their diet.

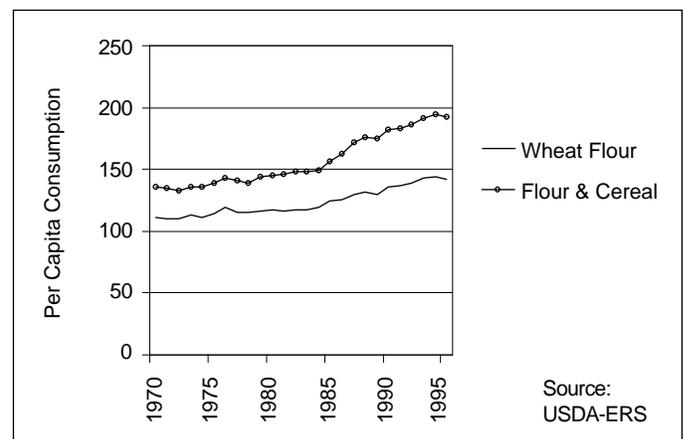
Per Capita Grain Consumption Trends

Which grain products do consumers purchase? Figure 1 shows the trends of domestic per capita consumption (in pounds) for both wheat flour and total flour and cereal products from 1970 to 1995. These data are based on the disappearance¹ of the grain supply, rather than actual grain consumption. Generally, disappearance data overestimate consumption. However, by keeping track of disappearance trends over time, researchers can determine relative changes in grain products consumed.

The wheat flour series includes white and wheat flour used in breads as well as durum flour used in pasta, where durum flour makes up approximately 11 percent of total wheat flour consumption. Consumption of wheat flour increased roughly 28 percent, from 110.9 to 141.7 pounds per capita in the last quarter century. However, total flour and cereal products combined increased at a faster rate. In the same 25-year period, per capita flour and cereal product consumption increased 42 percent from 135.6 to 192.4 pounds.

Figure 2 shows per capita consumption trends of four separate grain products, including durum flour, corn products, oat products, and rice from 1970 to 1995. The most notable consumption gains were

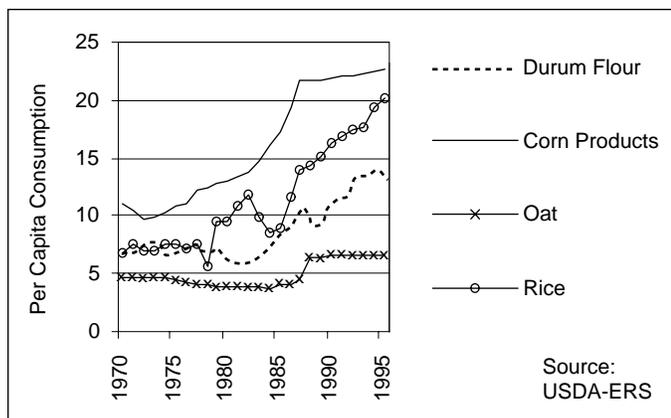
Figure 1. Per Capita Flour Consumption (Pounds), Disappearance Data: 1970-1995



observed in corn products and rice. Consumption of corn products, including flour, meal, hominy, grits, and starch, more than doubled from 11.1 to 22.7 pounds. Rice consumption, while more volatile than corn products, grew 200 percent from 6.7 to 20.1 pounds.

¹ This term, as defined by the USDA-ERS, means beginning food stocks, production, and imports minus exports, shipments to the U.S. territories, and ending stocks. So it is a reasonable proxy for consumption, given that data for consumption is not collected overall.

Figure 2. Per Capita Grain Consumption (Pounds), Disappearance Data: 1970-1995



Modest gains in per capita consumption were realized in both durum flour and oat products. Consumption of durum flour increased six pounds in the last 25 years to 12.9 pounds. In 1988, oat product consumption rose to a new plateau of roughly 6.5 pounds due to media coverage of the health benefits of oat bran. Changes in relative prices, income, preferences, and the marketing mix have largely shaped these trends.

Fortified grain foods contribute significantly to the U.S. intake of thiamin, riboflavin, niacin, and iron.

Other Forces Driving Grain Consumption Trends

Health, taste, and convenience are the factors driving the changes in the consumption of grains and grain products. Demand for wheat, corn, rice, and oats and for products using these grains and grain products has increased during the last 25 years. Rice consumption has grown dramatically. Cereal, pasta, and flour products are popular with consumers. Consumers are demanding more variety breads and in-store baked items. The increased consumption of fast foods includes products like breakfast cereals, buns, dough, and tortillas. Grain mixtures form popular snacks, such as popcorn, pretzels, crackers, and corn chips. Convenience packaging makes consuming grain products

easier. For example, quick-cook oats and grits are available in individual, small-portion sizes for single or dual households. Pre-packaged, pre-seasoned, pre-cooked breads and dough appeal to busy consumers. These trends reflect consumers' demand for fast, nutritious food and for smaller serving sizes. The increase in population also accounts for some increase in the total demand for grain products.

Although a greater number of Americans now eat more food away from home and consume more processed foods, there are also opposing trends that marketers focus on. For example, a number of products are aimed at consumers interested in organic and specialty flours. Specialty bake shops touting high-grain breads are appearing. Market research studies identified changes in consumer attitudes toward environmental issues regarding food production and safety. Consumers seek more information from food labeling to make their food choices.

Examples of Grain Marketing

Consumers also have a number of market venues for purchasing grain products. The number of health food, gourmet, and ethnic food stores is rising. Markets that sell directly to consumers are also growing. Bakery shops are reappearing and providing a variety of fresh, specialty breads for consumers. Baked goods are also popular at local farmers' markets.

Many farmers are identifying ways to increase the sale of their grain products and to promote the attributes of health and freshness of their farm products. Several direct marketing mechanisms have been developed or expanded, such as buying clubs, community farmers' markets, grain export markets, and marketing cooperatives. The Kentucky Department of Agriculture offers an organic certification program for farmers wishing to promote their grains as organically produced.

As the market and production segments continue to consolidate, many farmers will form partnerships or expand their operation to compete in the wholesale and retail markets. Others will look for opportunities in the local direct sales. While direct marketing can be a way for farmers to keep a larger share of the profit from their produce, it may also limit the growth potential in their operation.

Consumers can benefit from the selection of fresh, locally grown products at retail and direct market outlets. The *Kentucky Food Products Directory* lists a number of food grain products.

Diversity in the Marketplace Means Opportunities for Consumers and Farmers:

- Weisenberger Mill, located in Midway, Kentucky, has been in business for six generations since 1865. The company offers a variety of flours to meet different baking needs for the home baker or retailer. According to information obtained from its Web site storefront, <<http://www.Weisenberger.com>>, the mill offers more than 70 items, including pastry and cake, bread, specialty, and organic flours; several grain products from grits to cornmeal; and breading blends for chicken, fish, meats, and vegetables. Its products are sold in convenience mix packets for home baking or in bulk quantities for bakeries or restaurants. In addition to its Web storefront mail-order sales, the company offers retail and institutional wholesale sales.
- Allen Overby, a western Kentucky farmer, has made a living exporting his food-grade grain to Mexico and South America since 1991. He contracts and buys grains from other farmers to supply the demand. He started arranging his own contracts to increase income from his farm. He sees the markets opening overseas offering more opportunities for Kentucky farmers. He credits the transportation system in Kentucky with enabling him to export effectively.
- Other western Kentucky farmers like Steve and Lisa Stanley of Happy Hollow Farms are exploring alternative crops and enterprises to add to their operation. About ten years ago, they wanted to try something different and established a new alternative crop, popcorn. They grow between 300 and 500 acres of popcorn each year on their farm of 2,200 acres, which is mostly corn and soybeans. They sell through their own brand, Hans-On Popcorn, designed for microwave and bulk sales. Most of their sales are made by word-of-mouth, mail-order, and a few local retail stores in their area.
- Kentucky distilled spirits, such as Maker's Mark Bourbon and Jim Beam Bourbon, also use grain products in their products.

Grain Nutrition and Health

In 1997, Americans consumed 100 fewer pounds of flour and cereal products than their ancestors in 1909. However, consumption of grain products has increased by 40 percent since the late 1970s. During the period from 1994 to 1996, Americans, on average, ate the minimum of the recommended 6 to 11 servings of grain products daily. Calories from grain products have increased 33 percent during the last 25 years. Grain products now contribute nearly 25 percent of daily protein to the U.S. food supply, compared to 19 percent in 1970. Fortified grain foods contribute significantly to the U.S. intake of thiamin, riboflavin, niacin, and iron. Since January 1, 1998, all enriched grain foods, including ready-to-eat breakfast cereals, pasta, bread, rolls, flour, cakes, and cookies, have been fortified with folate.

Further consumer education is needed if more U.S. consumers are to understand that a healthy diet is built on a base of grain foods.

Consumers are seeking more convenient ways to include grains in their diet. Baked goods and grain-based mixes are in demand. Ready-to-use pasta, rice, and pizza crusts are popular with today's food consumer.

Consumption of grain mixtures, such as pizza and lasagna, increased 115 percent between 1977-78 and 1994. Consumption of snack foods, such as crackers, popcorn, pretzels, and corn chips, increased 200 percent during this same time period. Although consumption of ready-to-eat cereals was up 60 percent during this period, the trend appears to be reversing. Fewer than one out of seven grain servings were whole grain, and the U.S. intake of dietary fiber remains well below the recommended intake of 20 to 30 grams per day. For the period from 1989 to 1993, grains contributed 51 percent of dietary fiber, 62 percent of iron, and 27 percent of folate in the U.S. food supply.

Consumer attitudes about the importance of grain nutrition to health appear to be less enthusiastic than attitudes about fruits and vegetables or dairy. Although 67 percent consider it very important to choose a diet with plenty of fruits and vegetables and 37 percent consider it very important to consume two dairy servings

daily, only 34 percent consider it very important to choose a diet with plenty of grains. It appears many consumers are not convinced that grains are an important part of a healthy diet, perhaps because they do not have an understanding of the health value of grains or because they hold conflicting beliefs. According to a 1995 survey by the Wheat Foods Council and American Bakers Association, 40 percent of consumers think bread is fattening and 35 percent think starches should be avoided. Further consumer education is needed if more U.S. consumers are to understand that a healthy diet is built on a base of grain foods.

As consumers learn more about the health benefits of grain consumption, we can expect consumption of rice and pasta to increase as part of the current U.S. trend to include more ethnic foods. Wheat continues to be the primary grain consumed in the U.S., with pizza crust contributing significantly to the diets of many people, notably teenage boys. The health benefits of oats and barley, associated with their soluble dietary fiber content, may prompt consumers to demand more products with oat and barley ingredients. Soluble dietary fiber helps lower elevated blood cholesterol levels and control blood sugar levels in people with diabetes.

Consumers can be expected to look for greater variety and a good source of dietary fiber in the grain foods of the future. Specialty breads, muffins, bagels, and snack foods offer opportunities to deliver nutrition, convenience, and good taste to consumers.

What You Can Do

The food choices we make within our food and agricultural system impact our local, state, and national economy, the environment, and the well-being of our communities, as well as our own personal health. Here are some practical things you can do:

As a Consumer

Learn more about your community food system and the origins of your food purchases. Determine if your neighborhood food stores and restaurants use and sell

Kentucky farm products. Read food labels for health and nutrition information.

As a Community Leader

Establish a local farmers' market. Work with your local Cooperative Extension Service office or chamber of commerce to promote local agricultural educational and economic development activities.

As a Farmer

Learn about your customers' needs and wants. Educate consumers about farming and the farm products you market. Join community organizations that foster interest and support in farming. Learn more about the costs and benefits of value-added agricultural opportunities.

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