Organic Marketing Features Fresh Foods and Direct Exchange

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fter struggling to build market recognition and supply capacity for many years, the organic farming industry is now one of the fastest growing segments of U.S. agriculture. USDA estimates that certified organic cropland more than doubled in the United States between 1992 and 1997, and two organic livestock sectors—eggs and dairy—grew even faster. Recent data suggest that this momentum continued or accelerated in 1998 and 1999. While processed foods made with organic ingredients and sold through national distributors account for much of this growth, fresh vegetables, milk, and other perishables marketed directly to consumers, chefs, and retailers are still a major focus of this sector.

Sales of organic products through natural food stores, direct markets, conventional grocery stores, and exports more than doubled between 1992 and 1996, to \$3.5 billion, according to industry data, mirroring the growth in acreage during this period. Exports accounted for about 5 percent of sales during this period and are currently under 5 percent. More recent industry data on organic sales through natural food stores, the largest outlet for

Greene and Dimitri are economists with the Resource Economics Division and the Market and Trade Economics Division, respectively, Economic Research Service, USDA. Richman is Associate Director of the Center for American Politics and Citizenship at the University of Maryland. organic products in the United States, showed sales continuing to grow at 20-25 percent annually through this channel and reaching \$4 billion in 1999. Fresh fruits and vegetables are still the top product category for organic sales in natural food stores.

The World Trade Organization/ United Nations International Trade Centre estimates that combined retail sales of organic food and beverages in major world markets—the United States, Japan, Denmark, France, Germany, the Netherlands, Sweden, Switzerland, and the United Kingdom—was \$11 billion in 1997 and more than \$13 billion in 1998. Organic food sales in 1997 accounted for 1-2 percent of total food sales in most of these countries, including the United States, and annual growth rates are forecast at 20 percent or more for the next 5-10 years for most of these countries, according to the International Trade Centre.

Organic Farming Highest for Fruits and Vegetables

A study by USDA's Economic Research Service (ERS) reports that farmers in 49 States used organic production methods and third-party organic certification services on 1.35



Organic livestock production systems attempt to accommodate an animal's natural and behavioral requirements, requiring dairy cows, for example, to have access to pasture.

Credit: Photo courtesy of www.organicvalley.com.

million acres of farmland in 1997. About two-thirds of the certified U.S. organic farmland was used for crops, and the rest was used as pasture. The ERS study analyzed data from 40 State and private certification services and excluded uncertified organic production, even though it may represent a large segment of organic production, because of the difficulty in determining the production criteria used by uncertified growers (see box on organic standards and certification).

Organic farming has made deeper inroads in the fruit, vegetable, and other high-value specialty crop industries than in the major grain and oilseed industries. While less than two-tenths of 1 percent of the U.S. corn, soybean, and wheat crops were grown organically in 1997, over 1 percent of the dry peas and tomato crops and about 2 percent of the apple, grape, lettuce, and carrot crops were organic. Nearly onethird of the U.S. herb and "mixed vegetable" crops were grown organically in 1997. A mixed vegetable crop is a mixture of horticultural crops (mostly vegetables) grown on a small farm or parcel.

The U.S. markets for organic vegetables, fruits, and herbs have been developing for decades. These crops are grown organically in more States than any other type of commodity. State and private groups certified over 180,000 acres of these crops in 44 States in 1997, more than double the amount certified in 1994. Cultivated and wild-harvested herbs, such as St. John's Wort, showed the biggest gains.

Large farms produced processed tomatoes, organic wine grapes, and other high-value crops on a commercial scale, while numerous small farms specialized in mixed vegetable production for direct marketing to consumers and restaurants. California was the top producer of organic fruits and vegetables. Arizona, Florida, Texas, and Washing-

ton were also leading States for these crops.

In 1997, U.S. farmers certified nearly 3,000 acres of organic mixed vegetables on farms or parcels that were 5 acres or less, and over 14,000 acres on farms and parcels over 5 acres. New York organic producers had over 1.400 acres in the 5-acresor-less category. Mixed vegetable producers often target farmers markets, consumer-supported agriculture subscriptions (see box on farmer-to-consumer connections), restaurants, and other direct marketing outlets. USDA producer surveys indicate that organic vegetable growers are smaller than conventional growers, and a much higher percentage of organic growers use direct marketing.

Organic farmers also grow major grains and oilseeds on a small scale in the United States. Organic wheat was grown on over 125,000 certified acres in 1997, organic corn was grown on over 42,000 acres, and organic soybeans were grown on about 82,000 acres. Other field crops produced organically in 1997 include barley, oats, sorghum, rice, spelt, millet, buckwheat and rye, dry peas, lentils, dry beans, flax, and sunflowers.

Thirty-nine States had certified organic hay and silage production, with most acreage in Idaho, Wisconsin, New York, North Dakota, Minnesota, Montana, Vermont, and South Dakota. Acreage of these crops expanded 51 percent between 1995 and 1997, as the number of certified organic milk cows more than doubled during that period.

Organic meat and poultry markets have lagged behind those for crops partly because meat and poultry could not be labeled as organic until February 1999, when USDA approved use of a provisional label. The U.S. Food and Drug Administration regulates nonmeat animal foods (eggs and dairy products), and these products were allowed to carry an organic label throughout

the 1990's. While the number of certified organic beef cows, hogs, sheep, and lambs declined during the study period, 1992-97, the number of organic dairy cows and layer hens increased sharply. The market for organic meat products is growing now that organic labeling is permitted, and the growing market for organic milk and eggs has increased the demand for certified organic pasture and certified organic feed grains.

Farmers and ranchers in 23 States raised a small number of certified organic cows, hogs, and sheep in 1997. Dairy cows were raised organically in 13 States in 1997, and New York, Wisconsin, and Minnesota were the top three producers. The number of certified organic milk cows in the United States nearly tripled between 1992 and 1994 and more than doubled between 1994 and 1997. Organic dairy sales in mainstream supermarkets were up 200 percent or more in several major markets-including Baltimore, Phoenix, Detroit, and Boston between December 1997 and December 1998, and jumped over 500 percent in the Houston market, according to industry sources. California was the leader in organic poultry production, followed by New York and Virginia. Other organic animal specialties, including goats, fish, and honeybees, were certified in several States.

State and Federal Government efforts to facilitate organic production have focused primarily on developing national certification standards to assure consumers that certified organic commodities meet consistent standards. Now, however, a small number of new programs and pilot projects are under way to help organic producers with production problems and risks. Several States have programs that help producers meet the cost of organic certification, and USDA is planning to expand crop insurance coverage to organic producers. USDA's

Organic Standards and Certification

Organic farming systems rely on ecologically based practices, such as biological pest management and composting; virtually exclude the use of synthetic chemicals, antibiotics, and hormones in crop production; and prohibit the use of antibiotics and hormones in livestock production. Under organic farming systems, the fundamental components and natural processes of ecosystems, such as soil organism activities, nutrient cycling, and species distribution and competition, are used as farm management tools. For example, food and shelter are provided for the predators and parasites of crop pests, planting and harvesting dates are carefully planned and crops are rotated, and animal manure and crop residues are cycled in organic production systems. Organic livestock production systems attempt to accommodate an animal's natural nutritional and behavioral requirements, requiring dairy cows and other ruminants, for example, to have access to pasture.

Private organizations, mostly nonprofit, began developing certification standards in the early 1970's as a way to support organic farming and thwart consumer fraud. Some States began offering organic certification services in the late 1980's for similar reasons. The resulting patchwork of standards in the various certification programs, however, caused a variety of marketing problems. Congress passed the Organic Foods Production Act of 1990 to establish national standards for organically produced commodities, and USDA promulgated final rules for implementing this legislation in December 2000. These regulations require that all except the smallest organic growers and handlers (including food processors) be certified by a State or private agency accredited under the uniform standards developed by

USDA, unless the farmers and handlers sell less than \$5,000 per year in organic agricultural products. Retail food establishments that sell organically produced agricultural products but do not process them are also exempt from certification.

The national organic standards address the methods, practices, and substances used in producing and handling crops, livestock, and processed agricultural products. Although specific practices and materials used by organic operations may vary, the standards require every aspect of organic production and handling to comply with the provisions of the Organic Foods Production Act. Organically produced food cannot be produced using genetic engineering and other excluded methods, sewage sludge, or ionizing radiation. These standards include a national list of approved synthetic, and prohibited nonsynthetic, substances for use in organic production and handling.

USDA organic standards for food handlers say that all nonagricultural ingredients, whether synthetic or nonsynthetic, must be included on the national list. Handlers must prevent the commingling of organic with nonorganic products and protect organic products from contact with prohibited substances. In a processed product labeled as "organic," all agricultural ingredients must be organically produced unless the ingredient(s) is not commercially available in organic form.

The labeling requirements under the national standards apply to raw, fresh products and processed foods that contain organic ingredients and are based on the percentage of organic ingredients in a product. Agricultural products labeled "100 percent organic" must contain only organically produced ingredients (excluding water and salt). Products labeled "organic" must consist of at least 95-percent organically produced ingredients. Products labeled "made with organic ingredients" must contain at least 70-percent organic ingredients. Products with less than 70-percent organic ingredients cannot use the term organic anywhere on the principal display panel but may identify the specific ingredients that are organically produced on the ingredients statement on the information panel. The USDA



organic seal—the words "USDA organic" inside a circle—may be used on agricultural products that are "100 percent organic" or "organic." A civil penalty of up to \$10,000 can be levied on any person who knowingly sells or labels as organic a product that is not produced and handled in accordance with these regulations.

USDA is currently implementing these organic regulations, and all agricultural products that are sold, labeled, or represented as organic must be in compliance with the regulations after the 18-month transition period is completed in late 2002. For further information, visit USDA's Agricultural Marketing Service/National Organic Program (NOP) Web site at www.ams.usda.gov/nop/, or contact NOP staff at (202) 720-3252.

Sustainable Agriculture Research and Education program has funded research on sustainable and organic programs since the early 1990's, and USDA is developing a new pilot research project on organic pest management.

Natural Food Stores Play Lead Marketing Role

Organic food is sold to U.S. consumers through three main venues—natural food stores, conventional grocery stores, and direct-to-consumer markets—and a small amount is exported to foreign markets. USDA does not have national statistics on organic retail sales, but

a New York-based market research firm, Packaged Facts, has reported total organic retail sales since 1996. Packaged Facts and other industry sources estimated that total organic sales through all marketing outlets rose steadily from about \$1 billion in 1990 to \$3.3 billion in 1996, and Packaged Facts estimates that organic food sales reached \$7.8 billion in 2000.

Natural food stores began growing in size and product selection during the early 1990's, making organic food increasingly available to U.S. consumers. Conventional grocery stores began integrating a wider selection of organic products in the late 1990's and now account

for 49 percent of total organic sales, about the same as natural food stores (48 percent), according to Packaged Facts. Direct markets (such as farmers markets) captured 3 percent of total organic sales to U.S. consumers in 2000.

Purveyors of natural products have been a primary sales force for organic food since the organic food movement began over half a century ago. While natural food stores have historically been small, independent outlets, large natural food supermarket chains have begun to emerge, helping to push growth in organic food sales. Growth in the number of natural food supermarkets is substantially outpacing

Making Farmer to Consumer Connections: Four Types of Markets

Organic farmers market their food directly to consumers much more frequently than conventional farmers, and the last decade has seen a renaissance in the use of farmers markets across the country. Farmers also entice consumers to farms with an increasing array of fruits, vegetables, herbs, plants, crafts, and other goods available for purchase, and music, hayrides, wine tasting, cider making, and other activities offered for fun. Organic farmers in the United States have pioneered new forms of direct marketing, such as consumer-supported agriculture (CSA) farm subscriptions. At the same time, natural food stores are an important outlet for organic food purchases. The case studies that follow illustrate four types of market techniques that are used especially for organic food sales.

A Day in the Country: Farm Visits

Walker Farm is a 200-year-old family farm that markets certified organic produce directly to consumers in its seasonal farm stand and sells annual and perennial plants in its garden center. The farm is located in southeastern Vermont about 2 hours from Boston, Massachusetts, and 1½ hours from Hartford, Connecticut. The current generation began farming the property in 1973 and traces family ownership of the Walker Farm back to 1770, when Captain Issac Miller selected the 100-acre lot with "good flat tillable land."

Walker Farm produces certified organic fruits and vegetables on 30 acres of land and raises annual and perennial flowers in 14 greenhouses. Flower sales begin in mid-April and produce sales begin in June. Sales continue through Thanksgiving. Specialty products, product quality, and friendly service are the focus of the Walker Farm's retailing operations. Display gardens and scenic views of the Connecticut River Valley are also major attractions that draw consumers to Walker Farm.

Sharing Production Risks and Bountiful Harvests Through CSAs

From the Ground Up, a farmerrun CSA near Washington, DC, formed in 1992 with the intent to provide fresh, affordable produce to low-income neighborhoods in the city. This CSA grows and distributes organic produce to people who have purchased "shares" in the farm at the beginning of the growing season for a set price, based on the costs of production and distribution. A full share, enough fresh produce to feed a family of four during the CSA's 6-month season, is \$355. Some shares are sold at half price to low-income families

In 2000, From the Ground Up had about 300 shareholders and delivered fresh produce to 11 different distribution points in the Washington, DC, area from late May until Thanksgiving. In addition to running the CSA, From the Ground Up also sponsors a farmers market in a low-income city neighborhood and donates surplus products to the Capital Area Food Bank. From the Ground Up holds seasonal festivals and other special events, invites members to volunteer in the gardens, and hosts tours of its farming operation.

Connecting Through Public Markets

The Takoma Park Farmers Market in Takoma Park, Maryland, started 19 years ago and is now one of the most successful farmers markets in growth in independent natural food shops and health food stores, although there is still a much higher number of small, independent shops. An industry trade publication, the Natural Foods Merchandiser, reports that 221 national natural food supermarkets operated in 1999, up 58 percent from the previous year. The number of independent natural food and health food stores rose to 6,900 in 1999, up 5 percent from the previous year. ERS estimates that natural food supermarkets account for about 1 percent of all U.S. supermarkets.

With sales of \$833 million, fresh organic fruits and vegetables edged out cereals, pasta, canned food, and

other packaged grocery items (sales of \$692 million) in 1999 as the top-selling organic food category in natural food stores. Other top-selling organic food categories in 1999 were bulk foods (nuts, grains, dried fruit, and candy), with \$437 million in sales, frozen and refrigerated foods (\$323 million), dairy products (\$171 million), and nondairy beverages (\$157 million). Organic dairy was the most rapidly growing segment, with sales up over 500 percent between 1994 and 1999.

As consumer demand for organic food has expanded, more and more conventional retailers have become interested in selling organic foods. Conventional grocery stores and

supermarkets have used a variety of retail formats to market organic food, including sequestering organic foods inside "natural food" sections and integrating organic foods with other foods on the supermarket shelves.

In 1999, sales of selected organic foods (fresh fruits and vegetables were not included) in conventional supermarkets totaled \$383 million, according to Spence Information Services, a private marketing information company. Sales of organic milk, half & half, and cream in conventional supermarkets jumped from \$51 million in 1998 to \$80 million in 1999. Conventional retailers have begun to outsell natural food

the Washington, DC, area. In 1999, 22 farmers had permits to sell at the market and most came regularly. Each Sunday from April to December, part of the town's main street is closed to traffic for the market.

As the season gets under way in early April, and with only a few products ready for harvest and sale, a farmer may make only \$300 for his or her efforts. At the height of the harvest, however, when offerings are bountiful, a farmer can earn as much as \$3,000 per Sunday. Total market sales range from about \$7,000 on slow days to about \$39,000 on good days.

Organic and conventional farmers alike receive permits to sell at the Takoma Park Farmers Market. In 1999, about half the farmers were organic (many of these are not certified) or "no-spray" (they don't use any pesticides), a quarter were "lowspray" (reduced pesticide use), and a quarter were conventional. Most of the farmers at this market own or lease between 10 and 20 acres, although not all the land is in production, and most limit themselves to direct sales outlets. In addition to participation in the Takoma Park Farmers Market, they may use other

farmers markets, sell shares of their produce through CSA operations, sell directly to restaurants, and use other direct-to-consumer venues.

Stores That Emphasize Fresh and Natural Foods

As small natural food stores grew into large natural food supermarkets during the 1980's and 1990's, they greatly expanded marketing opportunities for organic farmers and extended the selection and availability of organic foods for consumers. Whole Foods Market started in 1980 with one store in Austin, Texas, and is now the largest natural food retailer in the United States, and the largest purveyor of organic foods in the world. The company began its rapid expansion with the acquisition of Wellspring Grocery in 1991, followed by the acquisition of Bread & Circus in New England, Mrs. Gooch's in California, Fresh Fields in the Mid-Atlantic, and other natural food stores and chains across the country. By 2000, Whole Foods was operating 120 stores nationwide. Now a \$1.6 billion business, it plans to have 200 stores by 2003, including outlets in such cities as New York (Manhattan), Denver, and Atlanta.

Target areas increasingly include cities, such as Albuquerque and Denver, which were once commonly believed to be unable to support large natural food supermarkets.

Whole Foods Market carries a wide selection of organic food and has a private label for organic and premium food. The "Whole Foods" label covers more than 400 products, including organic pasta, organic chocolate bars, and organic beer. Whole Foods works with hundreds of other businesses to ensure that it has the products, services, and retail environment that its customers desire. When choosing which suppliers to work with, the company tests products to make sure they meet Whole Foods quality standards for taste, nutrition, and freshness. The company refrains from stocking products with artificial flavors, colors, or preservatives, sells only meat and seafood that are free of chemicals and hormones, and requires produce to carry a country of origin flag because some food-exporting nations lack strict pesticide regulations and farmer training. Whole Foods also conducts activities to support organic agriculture and encourage the development of uniform organic standards.

retailers in several organic food products. Conventional retailers totaled more than half of industrywide sales of organic milk, half & half and cream, nondairy beverages, cold cereals, cookies and snack bars, and tofu in 1999.

Conventional retailers are expected to continue giving natural food retailers stiff competition in the organic food sector, while natural food retailers are beginning to adopt some marketing techniques that are popular with conventional retailers. Nearly all conventional supermarkets use private labels to increase profits and enhance consumer loyalty through store brand recognition. A few large natural food retailers now have begun to develop private labels for organic foods and other products. Some industry analysts believe that natural food retailers have an edge on conventional retailers in the private-label area because consumers who shop in natural food stores have greater trust in the store itself. Conventional retailers, however, have the advantage of more knowledge and experience with the private-labeling process.

Direct Markets Gaining in Popularity

A higher proportion of total organic sales are made through direct markets, such as farmers markets, roadside stands, and mail order sales, than for conventional sales. Researchers at Cornell University recently estimated that only about 1.6 percent of fresh produce sales in the United States are transacted directly between the producer and consumer. For organic sales, direct markets accounted for 3 percent of total organic sales during 2000, according to Packaged Facts.

Many organic growers market directly to grocery retailers and restaurants as well as to individual consumers. A 1997 survey of certified organic producers in the United States conducted by the Organic Farming Research Foundation—a California nonprofit group that sponsors research on organic farming—found that direct market use is extensive and varies by commodity sector, with fruits and vegetables the highest. Organic producers reported selling produce from about 23 percent of their vegetable acreage directly to consumers through onfarm sales (9 percent), farmers markets (8 percent), consumer-supported agriculture subscriptions (4) percent), and other types of directto-consumer outlets (2 percent). Producers marketed about 20 percent of the organic fruit and vegetable acreage directly to grocery retailers and restaurants.

A 1994 USDA survey of certified organic vegetable producers in the United States found that the use of direct-to-consumer markets varied with farm size, with 60 percent of the growers with under 10 acres (three-quarters of the respondents) using this channel compared with 12 percent with 10 acres or more. A higher percentage of the smaller growers also marketed directly to grocery retailers (11 percent versus 6 percent) and through grower cooperatives (10 percent versus 3 percent), while larger growers marketed more heavily to vegetable packers/shippers, brokers, and food processors.

Organically grown food is widely available in farmers markets across the United States. In fact, organiconly farmers markets operate in Oregon, Illinois, Missouri, and other States. The 1990's renaissance in farmers markets in the United States—fostered by State and local municipalities wanting to revitalize neighborhoods and preserve regional farmland and open space has been a boon to organic farmers, who tend to use this marketing outlet more heavily than conventional farmers. States are also producing directories of farm stands and pickyour-own farms, including organic

directories, and developing logos like "Jersey Fresh" to promote locally grown food.

Consumer-supported agriculture (CSA) is an innovative direct-marketing arrangement that U.S. organic farmers have been using for about 10 years. Consumers "subscribe" to the harvest of a CSA farmer for an entire season and pay for their produce in advance. Under a CSA arrangement, consumers share the production risks and variable harvests of the farmer—including especially abundant harvests and sometimes participate in festivals and other social activities at the farms. Over 800 CSA farms currently operate in the United States, according to the Robyn Van En Center, Wilson College, Pennsylvania, and most use organic production systems.

Organic farmers are active in efforts to improve the quality and availability of locally grown food in low-income communities and play an active role in such programs as **USDA's Community Food Security** Initiative (see "Community Food Security Programs Improve Food Access" elsewhere in this issue). Activities of these networks of organic farmers include starting gardens in elementary schools, holding gardening and nutrition workshops, gleaning from farm fields, running farm apprenticeship programs, establishing community gardens in housing projects, and facilitating the use of locally grown food in schools.

Regional Co-ops and Initiatives Promote Organic Sales

Unlike conventional agriculture, in which cooperatives focus on jointly buying farm supplies as well as marketing products, organic cooperatives focus mostly on marketing and distributing organic products. Northeast Cooperative, for example, distributes a full line of

organically grown and natural products to retail cooperatives, retail stores, and buying clubs in the Northeast. First formed in 1984, the cooperative's sales have grown steadily since 1988. Part of its recent growth has resulted from filling in supply gaps created when supply channels were disrupted following a large merger of food distributors.

One of the fastest growing cooperatives in the United States is the Coulee Region Organic Produce Pool (CROPP), headquartered in La Farge, Wisconsin. CROPP is the Nation's first cooperative dedicated to distributing organic vegetables and dairy products and is made up exclusively of small and midsized family farmers. It began in 1988 with only seven vegetable farmers and has since become the largest organic farmers cooperative in the United States, representing 330 farm families in 13 States and employing over 350 people. CROPP has doubled its revenues in the last several years and sells products in all 50 States and Japan. It currently manages a pool of produce, dairy, poultry, and meat producers and sells a wide variety of milk, cheese, butter, egg, and vegetable products under its own brand, Organic Valley.

CROPP has taken several steps toward becoming a value-added, vertically integrated enterprise including purchasing warehouses and cutting and wrapping machines, and managing a creamery and a reloading operation—which have lowered operating costs and improved quality control. Several dozen small to midsized plants across the United States help manufacture its line of dairy products, and independent milk haulers and truckers deliver its milk. All of CROPP's livestock, crops, manufacturing plants, and processed products are certified organic by an independent certification organization. CROPP establishes farmer-determined prices to reflect fair return and to use these prices to guide the cooperative's marketing.

About 60 percent of Organic Valley products are distributed through natural food warehouses, and most of the rest goes through conventional grocery warehouses. Although CROPP receives most orders by fax machine, it recently started using electronic data interchange to accept orders from some of its larger customers. One of the cooperative's primary goals is to market food as directly as possible to the consumer.

Nonprofits and government agencies are also developing activities, alone and collectively, to promote regional production and marketing of organically grown food. The Colorado Organic Producers Association was formed over a decade ago to promote and facilitate the production, distribution, and consumption of Colorado organic food products and is supported by membership dues. The Midwest Organic Alliance, a nonprofit organization funded by the Pew Charitable Trusts, was founded in 1995 to increase the amount of organic production in the Upper Midwest and to conduct consumer marketing efforts throughout the region. The Alliance has developed a training program for grocery employees, an organic farming curriculum, and an organic meat-marketing infrastructure for its five-State region.

Public/private research partnerships include a new consortium of four universities—the Ohio State University, North Carolina State University, Iowa State University, and Tufts University—with the Organic Farming Research Foundation to work on USDA-funded research to revitalize small and midsized farms through organic research, education, and extension. Many industry observers believe that the sector of small and midsized organic producers, who emphasize fresh, high-quality farm products, local markets, and direct exchange with consumers, will remain strong even as the organic industry expands and larger growers, processors, and retailers enter the market.

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