



United States
Department
of Agriculture

VGS-301-01



Electronic Report from the Economic Research Service

www.ers.usda.gov

Organic Produce, Price Premiums, and Eco-Labeling in U.S. Farmers' Markets

Amy Kremen, Catherine Greene, and Jim Hanson*

Abstract

The number and popularity of farmers' markets in the United States have grown concurrently with organic production and consumer interest in locally and organically produced foods. This research describes the significance of farmers' markets as market outlets for many organic farmers, and recent shifts in relationships between organic growers, market managers, and customers. Market managers in more than 20 States answered questions by phone pertaining to the 2002 market season. Their responses provide insight into recent grower, manager, and customer decisionmaking and attitudes about foods advertised and sold as organic at farmers' markets. Specific areas of interest include participation of organic farmers in markets, demand for organic products, advertising strategies used to highlight organic products, and price premiums charged for organic products.

Acknowledgments

The authors gratefully acknowledge the comments and reviews of Kitty Smith, Joy Harwood, and Keith Wiebe (ERS); John Love (WAOB); Barbara Robinson (AMS); and Gail Feenstra (University of California, Davis) and Garry Stephenson (Oregon State University, Corvallis). The authors also thank Chris Dicken for excellent geographic information system support and Dale Simms for valuable editorial assistance. We are also indebted to the farmers' market managers and State representatives who shared their observations and expertise with us for this project.

*Amy Kremen is a graduate student and Jim Hanson is an economist in the College of Agriculture and Natural Resources, the University of Maryland; Catherine Greene is an economist in the Resource Economics Division, Economic Research Service.

Introduction

Farmers' markets have been growing in number and popularity over the past decade, providing valuable opportunities for thousands of full- and part-time farmers. While the volume of produce sales via farmers' markets is small—less than 2 percent of U.S. sales overall (Handy et al.)—the number of farmers' markets in the U.S. has increased by 79 percent since 1994 to more than 3,100 in 2002. Consumers representing a wide range of socioeconomic backgrounds are demonstrating growing interest in and support for local agriculture (Stephenson and Lev).

Participation by growers at farmers' markets depends on several factors, including a market's popularity, location, and management. Customer participation depends primarily on a market's location, since most customers tend to shop at markets close to where they live (Brown). Ultimately, markets that attract and retain vendors and shoppers are those that satisfy the needs of both (Brown). Market success can depend on how attuned managers are to customer demand and farmers' interests, and on how well they can satisfy these needs.

Previous studies indicate that freshness, high quality, fair pricing, pleasant social interaction with farmers and market shoppers, and locally grown foods are attributes commonly sought by customers attending farmers' markets (Lockeretz, Brown). Vendors at farmers' markets also frequently provide heirloom and specialty produce varieties, hand-crafted products, and other items valued by customers but difficult to mass-produce and are rare at other markets (Lyson et al.). This study shows that many customers at farmers' markets also appreciate having direct access to farmers that use ecologically sensitive agricultural techniques—such as organic production methods—on their farms.

Research on the marketing habits of organic growers indicates that they tend to use direct marketing outlets, such as farmers' markets, much more often than the general U.S. farmer population (Walz, Fernandez et al.). Although the marketing channels for organic food have expanded in recent years, farmers' markets remain an accessible, low-cost, and flexible sales outlet for many organic producers. Insufficient infrastructure—a lack of established purchasing, storage, and distribution channels, for example—may still hinder growers interested

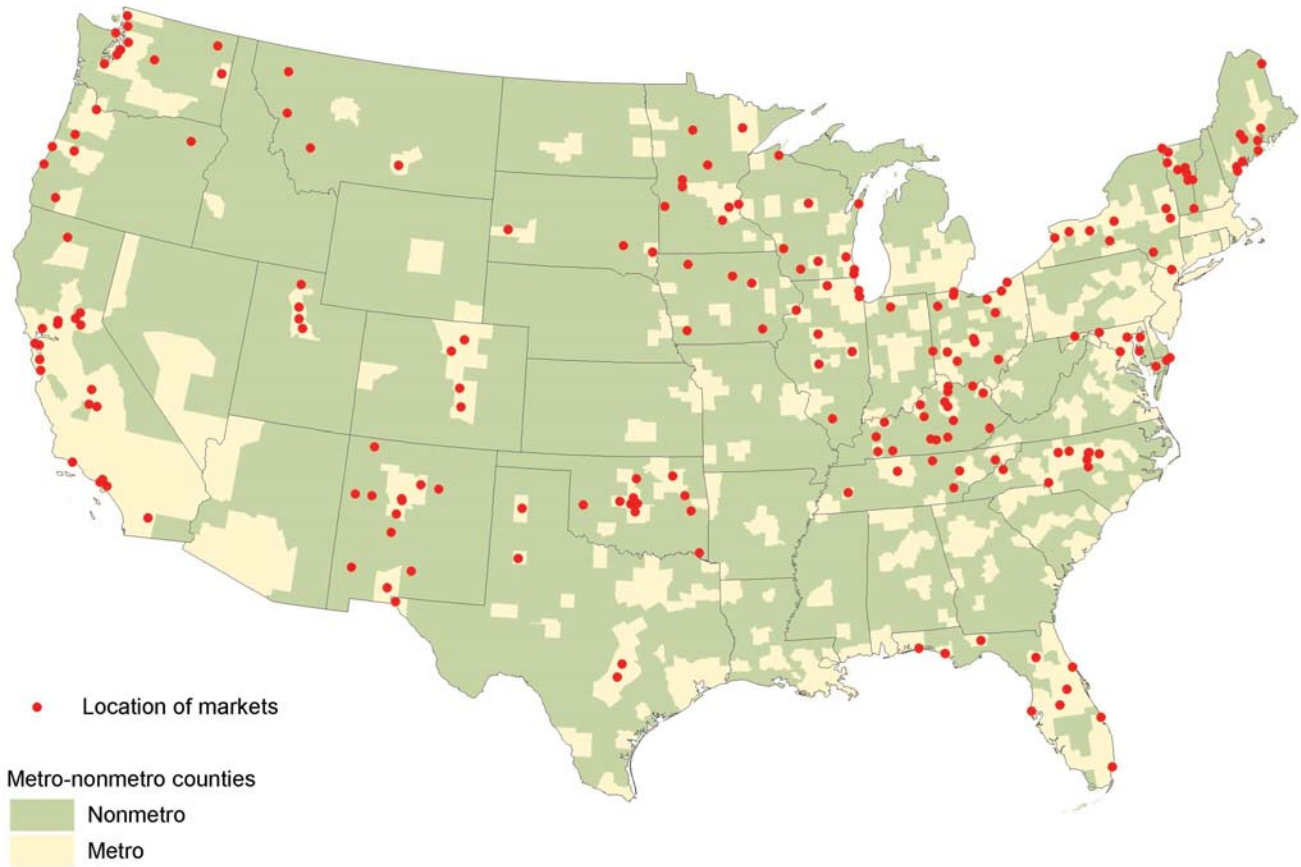
in expanding or coordinating their production to serve other local market outlets (Slama, Birkerts). Several market managers interviewed for this study indicated that organic farmers routinely play a significant role in creating farmers' markets, and often serve as manager or board member.

For this study, farmers' market managers in more than 20 States answered questions by phone pertaining to the 2002 market season. Market managers were interviewed in late 2002 and early 2003 about participation by organic growers and customer demand for organic products. Questions about the 2002 market season (14 total) were modeled on the market manager questionnaire being used in an ongoing study of U.S. farmers' markets by USDA's Agricultural Marketing Service. The AMS study, initially conducted in 1994 and repeated in 2000, surveys all farmers' market managers in the United States, and has shown that farmers' markets are “a growing marketing tool for farmers” and that “customers can benefit from direct contact with the producers of their food” (Payne).

The AMS study collects a wide range of information on farmer and customer demographics and market characteristics. This study focuses more narrowly on the role of farmers' markets as a marketing tool for organic growers and on current customer attitudes about organic products at these markets.

The group of market managers interviewed was selected with guidance from AMS-appointed State farmers' market representatives who maintain lists of managers and markets. State representatives were asked to provide a list of approximately 15 markets that would represent the diversity in size, “feel,” and location of their State's markets. Interviews were conducted with 210 market managers located in 23 States and Washington, DC (map 1). Although market sampling was not random, the data generated provide useful information for understanding the current role of organic growers at markets within a wide range of communities. The data collected in this study for many market characteristics—including market type, average levels of farmer attendance, and customer distances traveled to market—correspond closely to data collected for those characteristics by AMS in its much larger study of U.S. farmers' markets.

Map 1 - Distribution of 210 U.S. farmers' markets interviewed, 2002



Organic Farmers Participate Widely in U.S. Farmers' Markets

Organic growers participated at more than four-fifths of the 210 markets in this study, and represented approximately one-third of regularly attending farmers during the 2002 season (table 1). Such broad participation highlights the disproportionately high use of farmers' markets as a sales outlet by organic growers. While only one or two organic growers participated in about half of the markets with organic growers, 11 percent of these markets had more than ten participating organic growers (table 1). Many of these farmers had already acquired third-party organic certification, or had developed alternative eco-labels to promote their products, even though Federal rules requiring organic certification had not yet taken effect (see box).

The data collected in this study are not conclusive about whether organic growers are more likely to attend urban (metro) or rural (nonmetro) farmers' markets. Organic farmer participation was sometimes limited or negligible at several large, highly popular urban markets, but was significant at several smaller metro and rural markets, a few of which had exclusively organic vendors.

Managers were able to provide general estimates of gross sales (not necessarily limited to sales at the market) of the organic farmers participating at the markets in this study. Nearly 90 percent of the certified organic growers, and slightly over half of the noncertified growers, were likely to be grossing more than \$5,000 per season from their farming operations. According to managers, market sales of organic farmers were comparable to or better than sales of other growers in the markets in this study.

Managers at several smaller markets in rural areas commented that some growers—full-time farmers as

Table 1—Organic grower participation in 210 U.S. farmers' markets, 2002

Organic farmer participation	
Number of farmers in 210 farmers' markets	4,681
Number of participating organic farmers	1,416
Markets with organic farmers (percent)	82
Number of organic farmers present (percent):	
1-2 growers	46
3-10 growers	43
11-40 growers	11

well as hobby gardeners—are developing an interest in organic production, even though they may be marketing in areas where customer demand is low or where experience with organic production among farmers and extension is limited. According to managers, this budding farmer interest is driven by personal, financial, and environmental motivations, as well as a desire to position themselves for a burgeoning customer base.

Most managers indicated that organic farmer participation has either increased or remained constant since the 2000 season, usually for two reasons. First, more farmers than in previous years were choosing to sell directly at farmers' markets while opting simultaneously to farm using organic methods. Second, the rapid growth in size and popularity of many markets was a drawing force for organic farmers, especially in situations where customer demand was compelling managers to search for additional organic growers.

Participation at the markets by certified organic growers had generally increased by one or two farmers within the previous 3 years, while participation by non-certified organic growers rose by one or more farmers yearly. Ten percent of markets studied either gained organic growers for the first time within the previous 3 years or had increased participation by organic growers. Markets with several organic growers often had a strong tendency to attract additional organic growers. Most markets without any participation by organic growers did not tend to gain any organic growers within the previous 3 years. Managers indicated that customer interest in organic products at those markets was generally low.

Just over half of the managers indicated that the participation level of organic growers at their markets remained constant over the previous 3 years. In most cases, organic growers were reportedly successful at their markets and were likely to continue participating. At some markets where limited stall space was preventing the addition of other vendors, managers were planning to make room for organic growers to help meet strong customer demand. Some markets simply lacked organic farmers nearby who were not already committed to other markets.

In markets where the participation of organic growers was decreasing, managers explained that their organic farmers were moving on to bigger or wholesale markets, or were ceasing to farm for personal reasons not

related to age. Managers often noted that organic farmers seemed younger than conventional farmers, and that they tended to drop out of markets for age-related reasons less frequently than conventional farmers.

Organic Standards and Certification

Congress passed the Organic Foods Production Act of 1990 to establish national standards for organically produced commodities, and USDA promulgated final rules that implemented this legislation on October 21, 2002. These regulations require that all 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 a 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.

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 (excluding water and salt) only organically produced ingredients. 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. 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 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.

For further information, visit USDA's Agricultural Marketing Service/National Organic Program (NOP) website at www.ams.usda.gov/nop/, or contact NOP staff at (202) 720-3252.

Demand for Organic Products

Market managers reported that demand for organic products was strong in nearly 40 percent of the markets that had organic farmers, medium in 47 percent of these markets, and low in only 13 percent. Farmers' markets near major urban areas tended to have strong demand for organic products (map 2). Market communities near universities and other centers for higher education, near certain religious communities, or near facilities for holistic health care were also likely to exhibit strong demand. Markets with concentrations of organic growers, or one or two large-scale organic growers, tended to be associated with strong demand for organic products, regardless of setting. In rural areas, some markets had strong customer demand for organic products, according to managers, because they provided access locally to well-priced, fresh, organic foods otherwise only available in cities or towns some distance away. According to managers, customers with strong demand for organically grown products were most likely to exhibit interest in the social and environmental issues within agriculture, such as the relationship of agriculture to human and animal health, sustainable development, water scarcity, environmental pollution, and wildlife protection.

Growing interest in organic products led several managers to search for additional organic farmers to participate at their markets. Managers in California and Florida, in particular, indicated that there were not enough organic growers available to supply the quantity and variety of organic products needed to meet customer demand. Managers in many other States—including Colorado, Illinois, Maryland, Minnesota, North Carolina, New York, Tennessee, Utah, and Wisconsin—indicated that favorable opportunities for organic growers existed at their markets.

According to managers, customer interest in organic products has developed through customer contact with organic growers at farmers' markets, other direct marketing relationships, and influences such as increased volume and visibility of organic products in other market venues. Managers indicated that it was typical for organic farmers to exert a strong influence at their markets by bringing a wider range of specialty products than other market vendors. Organic farmers have historically played the role of the reliable, "cornerstone" vendors at some markets, which was also influ-

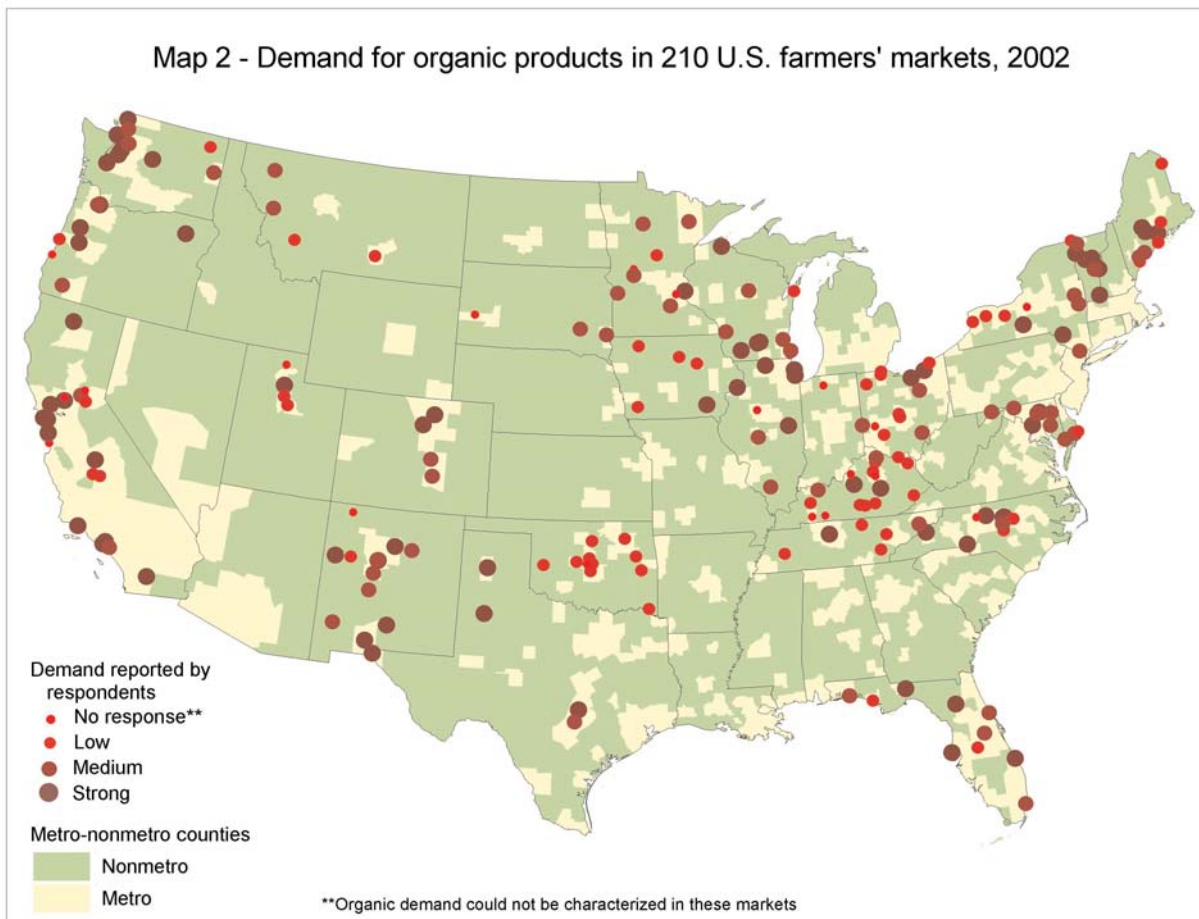
ential in generating demand for organic products, according to managers.

Managers noted that customers did not usually decide to buy from organic farmers simply because their products were organically grown. According to managers, organic farmers tended to excel at markets if they also satisfied customer desire for other attributes, such as consistently high product quality, access to specialty crop varieties, and excellent customer service. For example, one manager from Liberty, New York, indicated, "Partly because of the wide variety and sheer beauty of their stands, organic growers do well at my market." Managers in Illinois explained that "[conventional] farmers will typically bring peas, beans, cabbage, and squash, while organic growers will bring lettuce mixes, sprouts, spinach, cauliflower, and edamame (edible soybeans)" and "different things like parsnips and leeks."

Managers indicated that organic farmers are likely to converse with customers who ask how to prepare specialty food items, or inquire about organic farming techniques and associated costs of production. Such communication, they noted, can foster relationships between farmers and customers that may persist, especially if a customer is also satisfied with a farmer's product quality. One manager at an all-organic market in Vermont explained that "the most important thing is establishing a relationship between the customers and the growers. New growers take 3 to 4 weeks to gain solid interest from customers who are waiting to see if a grower is going to be reliable with product quality and attendance... That connection is more important than [a] label."

At some markets in this study, customer demand for organic products has had a strong influence on some farmers who recently decided to transition to organic farming or lower-input farming practices. For example, at a few markets in western Washington, several large-scale vegetable and fruit farmers who were switching from wholesaling to direct marketing at farmers' markets found that transitioning to organic production could enhance their marketing potential. "Are you organic?" and "Are you certified?" are the most frequently asked questions" at one market in Seattle, according to the manager. The influence of

Map 2 - Demand for organic products in 210 U.S. farmers' markets, 2002



customer demand for organic products on growers' production methods was most prominent at markets in Washington and New Mexico.

Markets characterized in this study as having “medium” levels of demand for organic products had a small, often fast-growing, group of regular customers for organic products. Half of these markets were in towns or cities of less than 20,000 people, and had about half as many participating farmers as the average market in this study. A majority of the remaining markets with medium levels of demand were in cities of less than 100,000 people. Tourists visiting some markets in resort/vacation areas in Minnesota, New Mexico, and Washington contributed significantly to customer demand for organic products.

Markets where customers and farmers had little interest in—or negative opinions about—organically grown products were often in areas that managers described as being rural or still in early stages of organic food awareness. These markets had higher attendance by customers with limited incomes, compared with other markets. While customers had not developed much interest in organic products at these markets, several

managers said that their customers had shown some interest in foods produced using fewer inputs. A few managers indicated that customers were reluctant to purchase organic products either due to previous negative experiences or expectations with regard to the quality or prices of organically grown products, or because organic growers had attended their markets too sporadically. Some market managers, particularly in the South, indicated that their farmers perceived organic farming as difficult, labor-intensive, and uneconomical due to pressures of weeds, pests, and diseases.

Education—about farming systems, sustainable agriculture, and how to prepare fresh food—was perceived by managers as the element most likely to generate additional interest in organic products and production from customers and conventional farmers. Several managers also suggested that relieving the short supply of organic products at their markets would likely stimulate interest and demand. For example, as one manager from New York explained, “People tend to think that everything at the market is organic, and when they find out that everything isn’t, they are disappointed and want more. It’s easier to make the market grow with more supply [of organic products].”

Eco-Labels and Dialogue Educate Market Consumers

Farmers' markets often receive coverage by the popular press, which helps offset small advertising budgets. Most managers interviewed for this study said they used very simple, low-cost techniques—such as articles, flyers, public service announcements for radio broadcast, websites, and notices for church and non-profit newsletters—to attract farmers and customers to their markets. Managers generally promoted organic farmers and products only when organic farmers comprised over half of the vendors. Managers were reluctant to risk alienating their conventional growers with organic advertising or to inadvertently create a false impression that all products at their markets were organic. A small group of managers in nonmetro areas noted that advertising organic products and farmers would not be particularly effective, either due to negative perceptions or because the term organic was not “part of the community’s vocabulary.”

Markets with a strong history of organic farmer participation were more likely to advertise organic products and growers, as were those markets supported by non-profit organizations. At some markets, where organic growers were a recent addition or where customer demand for organic products had grown significantly, managers were considering the use of some organic advertising for the 2003 season. Managers used an array of techniques—including color-coded market banners and price tags, detailed brochures, and website profiles of growers—to help orient and inform customers about certified organic, transitional, “pesticide-free,” and other farming methods. Some techniques used by managers to promote their market, such as popular “Chef-at-Market” programs, often highlighted organic products and farmers.

Though some managers guide their farmers on how to successfully advertise their products, individual farmers' efforts vary. Some managers expressed surprise—or frustration—that organic farmers did not emphasize their organic attribute more, while others explained that only recently had shifts in customer awareness and interest in organic products made it more advantageous for farmers to advertise their organic growing practices. For example, one manager from Illinois indicated that her “customers feel like they can quit being afraid of organic, with more and more media being positive about it.” Managers at a

few markets, particularly in rural areas, indicated that organic product advertising was unlikely or still a few years away.

According to managers, talking was the main means of advertising used by non-certified organic growers to inform customers about products in 2002, while certified organic growers were more likely to use some kind of signage to promote their products. A range of signage types was used by growers, including individual labeling of products with the word “organic,” displaying banners or plaques from certification agencies and farmer associations, and incorporating the word “organic” in farm names. Managers observed that some conventional producers have been using signs to indicate which crops, like lettuce and some fruit crops, had been grown without synthetic inputs.

Slightly under half of the organic growers in the markets studied during the 2002 market season were certified. Federal organic regulations requiring certification of products labeled organic were implemented after the 2002 market season had ended (see box, p. 5). Even prior to implementation of these regulations, about 15 percent of the markets studied did not allow noncertified organic produce to be labeled as organic. Other labels being used by organic farmers and others using alternative production methods were:

- “Chemical-free,” “no chemical fertilizers,” and “no harmful insecticides”
- “Natural growing conditions” and “naturally-grown”
- “Healthy farming practices used”
- “No-spray”
- “Sustainably grown”
- “Authentic”
- “Free-range,” “pastured,” “grass fed,” and “no antibiotics or hormones”
- “Organically inclined”
- “Transitional”
- “Wisconsin organic grown” and other local foods labels
- “Good bugs at work here”
- “Ask me how I grow this.”

Organic farmers' advertising efforts also included picture displays of farms, recipes and business cards, websites, informational brochures, and farm tours.

Table 2—Advertising techniques used by organic growers in 210 U.S. farmers markets, 2002

Organic advertising techniques ¹	No. farmers
Talking (interaction)	187
Signs and labeling advertising organic methods	129
Posting of organic certification banners/plaques	100
Brochures, newsletters, business cards, and recipes	61
Photos	21

¹ Some farmers use multiple techniques.

Organic Price Premiums Differ Across Markets

According to managers, prices for organic products were determined both casually and formally by individual farmers or by organic farmers as a group, sometimes with the help of pricing services such as AMS *Market News*, State price reports, and agricultural publications such as *Growing for Market*, which publish some information on wholesale prices for organic crops.

The use of price premiums for organic crops depended on seasonality and individual farmer choice. At about 40 percent of the markets where they participated, organic farmers did not request premium prices. Organic farmers charged a premium for their products, often modest, at about half of the markets where they participated. In some markets, there was no basis for comparison because the markets were all-organic or the organic and conventional growers sold different items. According to managers, organic farmers tended to set significant premiums only for products they perceived as being of exceptionally high quality, especially rare, or for markets in upscale communities. Premiums

charged for poor quality product were unusual, and poorly received by farmers' market shoppers.

Organic farmers were more likely to ask for premiums when attending large markets where organic farmers represented half or more of the growers. Organic farmers participating at these markets generally had enough production to supply the market with a sizeable volume of product, and were likely to be full- or part-time growers earning a significant portion of their household income from their farm operations. Certified and noncertified organic growers were equally likely to charge premiums for organic products at these markets.

Based on this information about the rarity and modesty of price premiums, some customers' reluctance to purchase organic foods may have less to do with actual prices than with expected prices for organic products. According to one manager in Maine, for example, "people have an image that organic is more expensive and may pass you by if you advertise too much."

Conclusion

Farmers' markets are providing an important marketing outlet for many farmers, including organic farmers, who want to generate substantial income from high-value crops grown on minimal acreage. Fair pricing, product quality and consumer trust are essential to the overall success of both the conventional and organic farmers participating in these markets. It is not unusual for consumers to visit farmers' markets thinking that most or all of the fresh produce sold there is organically produced. Farmers' markets provide a natural arena where organic farmers can educate consumers about what distinguishes their crops from the others being offered.

Information collected from farmers' market managers for this study suggest that demand for organic products is substantial and growing in many U.S. farmers' markets. Demand for organic products and participation by organic growers at markets may be dampened by:

- Limited numbers of local organic farmers available to sell at markets,

- Limited awareness and interest of some consumers and farmers in organic production systems, and
- Negative perceptions of organic products or organic product pricing.

Many producers, even large-scale fruit and vegetable farmers, have become interested in incorporating organic production systems or direct marketing channels into their farming operations. Further investigation of direct marketing could shed light on the significance of net income derived from organic product sales at these markets, identify ways that organic growers acquire and use their direct marketing expertise, and clarify other poorly understood aspects of this marketing channel.

References

- Birkerts, Erik G. 2000. "The Local Market Opportunity for Organic Produce: An Objective Business Analysis," Prairie Partners Group, LLC.
- Brown, Allison. 2002. "Farmers market research 1940-2000: An inventory and review." *American Journal of Alternative Agriculture*, Vol. 17, No. 4, 167-176.
- Duram, Leslie A. 1999. "Factors in organic farmers' decisionmaking: Diversity, challenge, and obstacles," *American Journal of Alternative Agriculture*, Vol. 14, No. 1, 2-10.
- Dimitri, Carolyn and Nessa Richman. 2000. *Organic Food Markets in Transition*, Henry A Wallace Center for Agricultural and Environmental Policy, Winrock International.
- Federal Register. 2000. *National Organic Program; Final Rule*. Table 1- U.S. Organic Product Sales, 1990-1999, Vol. 65, No. 246, Dec. 21.
- Fernandez-Cornejo, Jorge, Catherine Greene, Renata Penn and Doris Newton. 1998. "Organic vegetable production in the U.S.: Certified growers and their practices," *American Journal of Alternative Agriculture*, Vol. 13, No. 2.
- Handy, Charles R., Phil R. Kaufman, Kristen Park, and Geoffrey M. Green, 2000. "Evolving Marketing Channels Reveal Dynamic U.S. Produce Industry," *FoodReview*, Vol. 23, Issue 2, U.S. Department of Agriculture, Economic Research Service, May-August.
- Lockeretz, William (ed.). 1987. *Sustaining Agriculture Near Cities*. Soil and Water Conservation Society, Ankeny, Iowa.
- Lyson, T.A., G.W. Gillespie, Jr., and D. Hilchey. 1995. "Farmers' markets and the local community: Bridging the formal and informal economy," *American Journal of Alternative Agriculture*, Vol. 10, No. 3, 108-113.
- Payne, Tim. 2002. *U.S. Farmers Markets-2000, A Study of Emerging Trends*, U.S. Department of Agriculture, Agricultural Marketing Service, Transportation and Marketing Programs, Marketing Services Branch.
- Slama, Jim. 2002. *The Land of Organic Opportunity-Steps to Building a Regional Organic Food System Serving Chicago*, Sustain Alliance, Chicago, IL, www.sustainusa.org/local/organic/.
- Stephenson, Garry, and Larry Lev. 1998. *Common Support for Local Agriculture in Two Contrasting Cities*, Oregon State University, OSU Extension Service, Oregon Small Farms Technical Report Number 1.
- Walz, Erica. 1999. "Third National Organic Farmers' Survey," Organic Farming Research Foundation, Santa Cruz, California.