

“Organically Grown” Vegetables: U.S. Acreage and Markets Expand During the 1990’s

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Abstract: Organic farming systems, which focus on ecologically-sound production practices, have been gaining ground among U.S. vegetable growers during much of the 1990’s. Over 5,000 U.S. farmers were operating under organic methods in 1995, and the majority of these growers were producing fruits and vegetables. With 18,000 acres, Texas is the leading organic vegetable State with over 10 percent of vegetable acreage certified organic in 1995. Organic produce generally receives a price premium.

Keywords: Organic, vegetables, markets, certified acreage, price premium.

Organic farming systems, which focus on ecologically-friendly production practices, have been gaining ground among U.S. vegetable growers during much of the 1990’s. By 1995, over 5,000 U.S. farmers were operating under organic methods, and the majority of these growers were producing fruits and vegetables (Dunn).

Over 1 percent of total vegetable acreage in the United States was certified by State and private agencies as organically grown in 1994 (table A-1). There are currently no national standards for certified organic production. There are approximately 11 state and 33 private organic certification agencies in the United States that conduct “third party” certification to confirm that growers are adhering to organic production standards (USDA). Many certification agencies have similar standards, especially for crop production. Congress passed the Organic Foods Production Act of 1990 in order to establish national standards for organically grown commodities, assure consumers that these commodities meet a consistent standard, and to facilitate interstate commerce in organically grown fresh and processed food. This legislation requires that all except the smallest organic growers will have to be certified by a State or private agency accredited under national standards currently being developed by USDA.

Farmers who use organic methods, but don’t use certifying agencies to confirm that they are using these methods, are not included in these estimates, and would likely increase the number of organic farmers in the United States substantially. According to the Organic Farming Research Foundation, a nonprofit organic research organization, at least 6,000 additional farmers meet general organic certification requirements in the United States but do not certify their crops.

Certified Acreage Increasing

The top seven vegetable States ranked by 1994 cash receipts—California, Florida, Washington, Idaho, Michigan, Wisconsin, and Texas—each have certifying agencies working with organic growers. In California, the largest certifier

is California Certified Organic Farmers (CCOF), which has been operating for over 24 years and is the oldest certifier in the United States. In Wisconsin, a State chapter of the national Organic Crop Improvement Association is the largest certifier. The major certifiers in Florida and Michigan are also private agencies—Florida Certified Organic Growers and Consumers and Organic Growers of Michigan—while the major certifiers in Washington, Idaho, and Texas are the State Agriculture Departments which began operating organic certification programs during the late 1980’s.

Five of these major certifying agencies in the top vegetable States are currently able to provide estimates or reports on the vegetable acres that they certified during the 1990’s

(table A-2). Only the largest certifier in each State is included in the table. Half a dozen national certifying agencies operate in multiple States, making organic acreage estimates based on the major certifier in a State a lower bound estimate. For example, five national and international certifiers provide services in California in addition to CCOF, and some of these agencies certify organic vegetable acreage in the State.

The Organic Growers of Michigan, Washington Department of Agriculture, and Quality Assurance International, a national private certifier which certifies several hundred vegetable growers in dozens of States, were unable to report acreage because they do not currently maintain a database or for other reasons. When the Organic Foods Production Act of 1990 is implemented, public access to certification documents and laboratory analyses that pertain to certification will be required.

Total organic vegetable acreage certified by the five reporting agencies in California, Florida, Idaho, Wisconsin, and Texas was a little over 1 percent of total vegetable acreage in 1994, and increased to 1.5 percent in 1995. Acreage certified by CCOF in 1995—which doesn’t include uncertified organic acreage or acreage certified by a national certifier—was a little over 1 percent of total California vegetable acreage. Certified acreage in Florida, Idaho, and Wisconsin was well under 1 percent, while Texas organic

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Table A-1--Certified organic and total vegetable acreage, major States and U.S., 1994-95

State	Total 1/		Certified Organic 2/		Certified Organic/Total	
	1994	1995	1994	1995	1994	1995
	-- Acres --				-- Percent --	
California	1,095,000	1,107,840	8,842	12,811	0.81	1.16
Proc tomatoes	311,000	317,000	1,382	1,654	0.44	0.52
Carrots	62,400	68,600	1,330	1,264	2.13	1.84
Florida	223,000	206,600	--	--	--	--
Idaho	440,400	427,600	400	1,046	0.09	0.24
Wisconsin	400,250	374,510	503	827	0.13	0.22
Texas	168,300	168,400	12,237	17,000	7.27	10.10
Subtotal	2,326,950	2,326,950	24,694	34,602	1.06	1.49
Total U.S. 3/	4,811,320	4,775,760	--	--	--	--

-- = not available.

1/ Includes potatoes. 2/ California Certified Organic Farmers; Florida Certified Organic Growers and Consumers; Idaho Dept. of Agriculture; Wisconsin Organic Crop Improvement Assn.; and Texas Department of Agriculture; 3/ USDA, 1995.

Sources: USDA, NASS and AMS surveys, and ERS, based on information provided by certifiers.

Table A-2--Certified organic vegetable acreage, top vegetable States, major certifiers, 1993-96

State	Major Certifiers	1993	1994	1995	1996	1993-96
		Certified Organic Acreage				% Change
California	California Certified Organic Farmers	7,550	8,842	12,811	13,765 e	82
Florida	Fl. Cert. Org. Growers and Consumers	741	897	1,085	1,312	77
Washington	Washington Department of Agriculture	--	--	--	--	--
Idaho	Idaho Department of Agriculture	820	400	1,046	905	10
Michigan	Organic Growers of Michigan	--	--	--	--	--
Wisconsin	Wisconsin Org. Crop Improvement Assn.	245	503	827	912	272
Texas	Texas Department of Agriculture	14,392	12,237	17,000	18,000	25
Total		23,748	22,879	32,769	34,894	47

-- = Not available. e = estimated.

Source: USDA, ERS, based on information provided by certifiers.

acreage was over 10 percent of the total vegetable acreage (table A-1). In California, the proportion of organic production varied by commodity market, with CCOF certified carrot acreage accounting for about 2 percent of the total and organic tomatoes for processing at only about 0.5 percent.

Texas has more certified organic vegetable acreage than the other top vegetable States (18,000 acres in 1996) (table A-2). California was second with 13,765 organic vegetable acres certified by CCOF in 1996. Florida Certified Organic Growers and Consumers certified 1,312 acres in organic vegetables last year, and Idaho and Wisconsin certifiers each had just over 900 acres.

All five of these States showed increases in certified organic acreage between 1993 and 1996 (table A-2). Increases ranged from 10 to 25 percent in Idaho and Texas to about 80 percent in California and Florida, and organic acreage nearly tripled in Wisconsin during this period. Certified organic green peas and sweet corn for processing in Wisconsin rose from virtually no acreage in 1993 to 288 and 242 acres, respectively, last year. Demand for organic vegetables for processing—for baby food, frozen dinners, and other markets—is also growing in the organic industry.

“Organically Grown” Labels: Promoting Ecological Farming

In 1995, the National Organic Standards Board (NOSB), which was appointed by the Secretary of Agriculture to help implement the Organic Foods Production Act of 1990, developed a recommendation for the definition of organic agriculture. The NOSB definition says: “Organic agriculture is an ecological production management system that promotes and enhances biodiversity, biological cycles, and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony. ‘Organic’ is a labeling term that denotes products produced under the authority of the Organic Foods Production Act. The principal guidelines for organic production are to use materials and practices that enhance the ecological balance of natural systems and that integrate the parts of the farming system into an ecological whole” (NOSB, April 1995).

Organic farming systems focus on biological and cultural methods for pest management and use organic processes such as ‘green manure’ (legumes), animal manure, compost, and crop rotation to provide the major source of crop

nutrients. These systems virtually exclude the use of synthetic pesticides and fertilizers.

Emerging research on consumer food demand in the United States and Europe suggests that many organic consumers are interested in environmental protection. Recent consumer surveys of food shoppers in various parts of the United States found that their concerns about the potential impacts of pesticide use on the environment, groundwater, wildlife, and/or agricultural workers, were generally ranked as high or higher than other concerns (Bruhn, et al., 1992; Weaver, Evans and Luloff, 1992; and Cuperus, Owen, Criswell and Henneberry, 1996). Two consumer surveys that included large percentages of organic food purchasers, one targeting shoppers at a New York natural foods cooperative (Goldman and Clancy, 1991) and the other targeting people who purchase environmentally friendly products in Northern Ireland (Davies, Titterington and Cochrane, 1995), found that environmental protection was a high-ranking concern. And a survey of retailers and wholesalers of produce in New Jersey found that "the environment" and "lowering health risks" were their two leading reasons for carrying organic produce (Morgan, Barbour and Greene, 1990).

Price Premiums In Wholesale Markets Vary by Commodity

Organic produce receives a premium but it varies by commodity. Using the Organic Wholesale Market Report data from September 1990, Morgan, Barbour, and Greene reported wholesale price premiums for organic vegetables ranging from 5 percent for green chard to 183 percent for eggplant. Organic lettuce price premiums ranged from 7 to 79 percent for different varieties and the organic carrot price premium was 122 percent. The Organic Wholesale Market Report was published from September 1985 to the early 1990's by the Committee for Sustainable Agriculture in California.

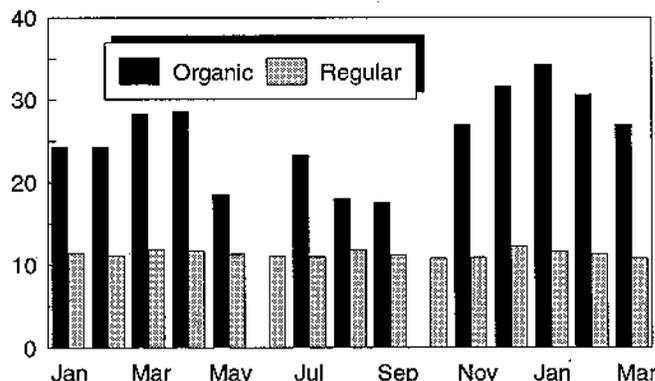
To correctly assess current organic premiums, price data need to be collected for products that are otherwise similar, except for the organic determination. Both regular and organic products are sold in wholesale markets, but with one exception, USDA does not record comparable prices. For several years, USDA's Agricultural Marketing Service (AMS) has collected data on prices for organic mesclun mix (salad mix of baby lettuces and greens), carrots, and occasionally other commodities in the Boston wholesale market. While there is at least one private source of data on organic produce prices, this AMS example is the only current source of public information.

Data for organic mesclun and carrots were collected because these two products have the largest volume of all organic produce in the Boston wholesale market. The data are collected for the same type of product, on the same day, in the same market. These data are unique but any conclusions must be qualified. The supply of organic produce is smaller than the volume of regular produce, therefore, the organic prices are based on a very thin market. Much of the organic produce, like regular produce, is sold directly to large retail-

Figure A-1

Regular and Organic Carrot Wholesale Prices, Jan. 1996-Mar. 1997 1/

\$/24 2-pound film bags



1/ Prices observed by USDA/Market News in the Boston Wholesale Market.

ers, further reducing the volume of product in the wholesale market.

Organic mesclun prices are higher than regular mesclun, but not by much (figure A-1). In 1996, regular mesclun from California or Arizona cost an average of \$8.64 per 3-pound carton (ranging from \$7.50 to \$10.00) and organic cost \$9.72 per 3-pound carton (ranging from \$7.75 to \$10.75). The monthly organic premium averaged 14 percent, ranging from 8 percent in November to 22 percent in December.

Mesclun is a relatively new commercial crop in the United States. Initially mesclun was a very small market; it was produced organically and garnered high prices. Other producers entered the mesclun market, attracted by high returns. The new growers expanded into both the organic and regular mesclun market. AMS observes that currently perhaps 30 percent of the mesclun in the Boston wholesale market is organic. Mesclun prices declined and the premium between organic and regular mesclun narrowed. Industry insiders say that as long as there is a large supply of regular mesclun, organic prices will continue to be low too. The market will bear a very small premium for organic mesclun.

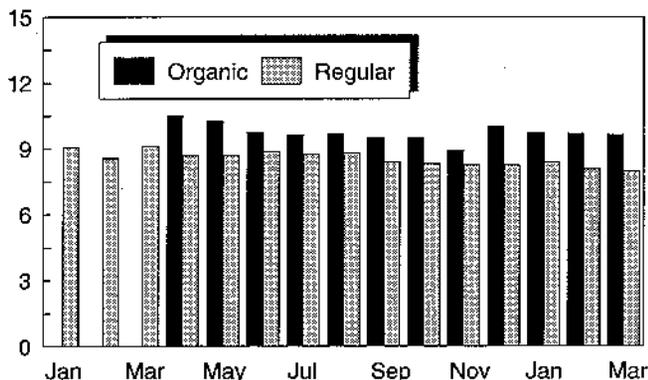
As the gap between organic and regular mesclun prices decreased, many organic mesclun producers could remain in the market because variable production costs are not much higher than for regular mesclun. Since the lettuces and greens are harvested when quite small, they aren't in the ground very long and are less prone to insect and disease problems than other organic crops. Some industry experts think the organic share of the mesclun market will continue to decrease, as other organic crops, which yield a higher return on relatively expensive certified organic land, become more attractive.

The price premium for organic carrots is much larger (figure A-2). Regular carrot prices are fairly constant throughout the year; the 1996 price for a container of 24 2-pound film bags of California medium-large carrots averaged \$11.43 and ranged from \$9.75 to \$13.00. The organic

Figure A-2

Regular and Organic Mesclun Wholesale Prices, Jan. 1996-Mar. 1997 1/

\$/3-pound carton



1/ Prices observed by USDA/Market News in the Boston Wholesale Market.

prices varied more than regular carrot prices. Organic carrots of the same size from California were not available in all time periods, and not at all in the months of June and October. The 1996 organic price averaged \$25.83 and ranged from \$17.50 to \$33.50. The monthly organic premiums in 1996 averaged 110 percent, ranging from 52 percent in August to 157 percent in December.

Demand for organic carrots is strong and the supply relatively small, with occasional shortages reported in the Boston wholesale market. AMS observes that perhaps 10 percent of the carrots in the Boston wholesale market are organic, but industry experts report that organic carrot acreage is increasing.

The supply of California organic carrots is not consistent, which explains the high price variability compared with regular carrots. Carrots require specific types of soil, unlike mesclun which is a much more flexible crop. When certified organic acreage is in scarce supply, acreage with the specific type of soil appropriate for carrots may be even more limited. Carrots are a root crop and they tend to be exposed to many more pest problems than the lettuces and greens in mesclun mix.

Organic Market's Appeal Includes Diverse Opportunities

Many certifying agencies in the United States are reporting larger average sizes for organic operations. In Texas, for example, there were 134 certified fruit and vegetable producers with 15,327 acres in 1993 compared with 104 producers with nearly 20,000 acres in 1996. Idaho had 64 certified organic vegetable growers with 820 acres in 1993, and 32 growers with 905 acres in 1996. And both CCOF and the California Department of Agriculture, which registers organic growers who are certified as well as those who aren't, report increases in the average acreage per grower managed organically during the 1990's.

At the same time, many organic producers across the United States are remaining small and growing vegetables

to market directly to consumers. Along with the renaissance in farmer's markets during the 1990's, a new form of direct marketing—consumer supported agriculture associations (CSAs)—has taken off. In CSAs, consumers generally contract with producers before the farming season starts for a set fee in exchange for weekly provisions of produce during the upcoming season. The number of CSAs in the United States has risen from 397 in 1993 to 523 in 1996, with over 50 each in California, New York, and Wisconsin (Bio-Dynamic Farming and Gardening Association, 1996). Vegetables are the most prevalent type of commodity grown in CSAs, and the majority of them are managed under organic production systems.

Implementation of national organic standards under the Organic Foods Production Act of 1990 will reduce information and transaction costs in the organic food market, and will facilitate interstate and international trade. And increased USDA and other research on biological pest management and nutrient cycling will help lower costs of production for organic producers in the United States. As vegetable processors and others less familiar with organic production methods begin to enter the market, the public sector could fill an important educational role by providing mentoring and other assistance to transitioning conventional growers. For example, new public/private demonstration programs, such as the Biologically Integrated Orchard Systems project in California and the Agricultural Research Service area wide program in the Pacific Northwest, are providing technical assistance, financial incentives, and other support to help growers learn to use less chemical-intensive management systems.

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