

Organic Agriculture in Wisconsin: 2003 Status Report



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Introduction

Organic food sales in the US have grown 20% or more annually throughout the last decade and remain strong. Organic products are now available in 73% of supermarkets nationwide, particularly in urban and suburban regions. While organic sales currently account for less than 2% of total food sales in the U.S., organic sales are stronger in European markets. Sales growth for organic products has caught the eye of business giants such as Dole, General Mills, Dean Foods, Unilever, and other market-savvy processors. Some states, such as Minnesota, Iowa and Michigan, are following these trends by investing in organic marketing, research, and extension to support entrepreneurial growth in this value-added industry.

Wisconsin farmers are leaders in organic food production, particularly in dairy. Wisconsin boasts the third-most organic farms in the country, behind California and Washington. Wisconsin dairy producers raise 22% of the nation's organic milk cows, and they enjoy a price premium ranging from 80-115% over conventionally produced milk. Employing 240 people at their rural southwest Wisconsin headquarters, Organic Valley cooperative is the nation's second-largest organic milk marketer, and the company has consistently ensured an above-average return to its member-producers (see case study on page 5).

Clearly, organic production is adding value to the state's economy and has the potential to grow as Wisconsin urbanizes, nearby metro areas thrive, and demand from more distant markets grows.

The following report focuses specifically on organic agriculture as a distinct value-added marketing strategy separate from, though related to, initiatives such as sustainable agriculture and locally produced food. The report is based largely on USDA data from the Economic Research Service. Since the USDA Organic Standards went into effect in 2002, organic farmers have been faced with a decision of whether or not to obtain organic certification under the new USDA rules. Certification is cost effective for larger growers who market regionally, nationally, or internationally, but it may not be economically viable for smaller farms that rely on predominately local markets. For this reason, the USDA data may not accurately reflect the efforts of smaller growers who raise food organically but do not participate in the certification process. Another limitation of the data is that food-grade products are lumped together with feed-grade products, thus stretching the numbers for organic soybeans and corn. The USDA data is the best available for Wisconsin and certainly reflects the leadership of Wisconsin farmers in this production sector. More importantly, the data hint at the potential boon to Wisconsin's economy that could result from well-considered public and private investment in organic agriculture and marketing.



Not to be confused with the more general term "sustainable agriculture," certified organic agriculture now has a specific legal definition. According to the USDA National Organic Program, "Organic food is produced by farmers who emphasize the use of renewable resources and the conservation of soil and water to enhance environmental quality for future generations. Organic meat, poultry, eggs, and dairy products come from animals that are given no antibiotics or growth hormones. Organic food is produced without using most conventional pesticides; fertilizers made with synthetic ingredients or sewage sludge; bioengineering; or ionizing radiation."

Organic Agriculture in Wisconsin

Organic Crop Production

Wisconsin is third in the nation for the number of certified organic farms, behind only California and Washington (see Figure 1). These Wisconsin farms cover over 91,000 acres, or 4% of the total organic acres in the nation. Furthermore, this acreage represents nearly a 100% increase in Wisconsin's organic acreage since 1997. When all organic acres are broken into cropland and pasture, Wisconsin ranks fourth in the nation in terms of acres of organic cropland, behind California, North Dakota, and Minnesota (see Figure 2).

Figure 1: Certified organic farms by state, 2001

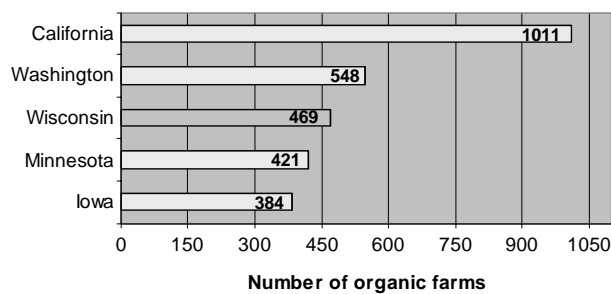
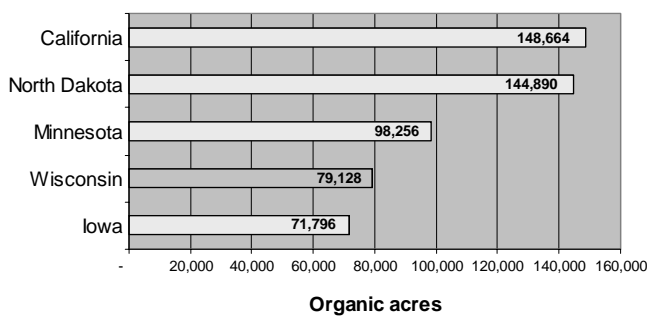


Figure 2: Certified organic cropland by state, 2001



Source: USDA ERS

Other national rankings for Wisconsin include:

- #1 for total organic livestock
- #1 for organic milk cows, with 22% of the nation's total
- #2 for acres of organic hay and silage, with 14% of the nation's organic alfalfa hay
- #3 for acres of organic corn, with 14% of the nation's crop
- #3 for acres of organic soybeans, with 13% of the nation's crop
- #3 for acres of organic oats and organic barley
- #3 for number of organic turkeys

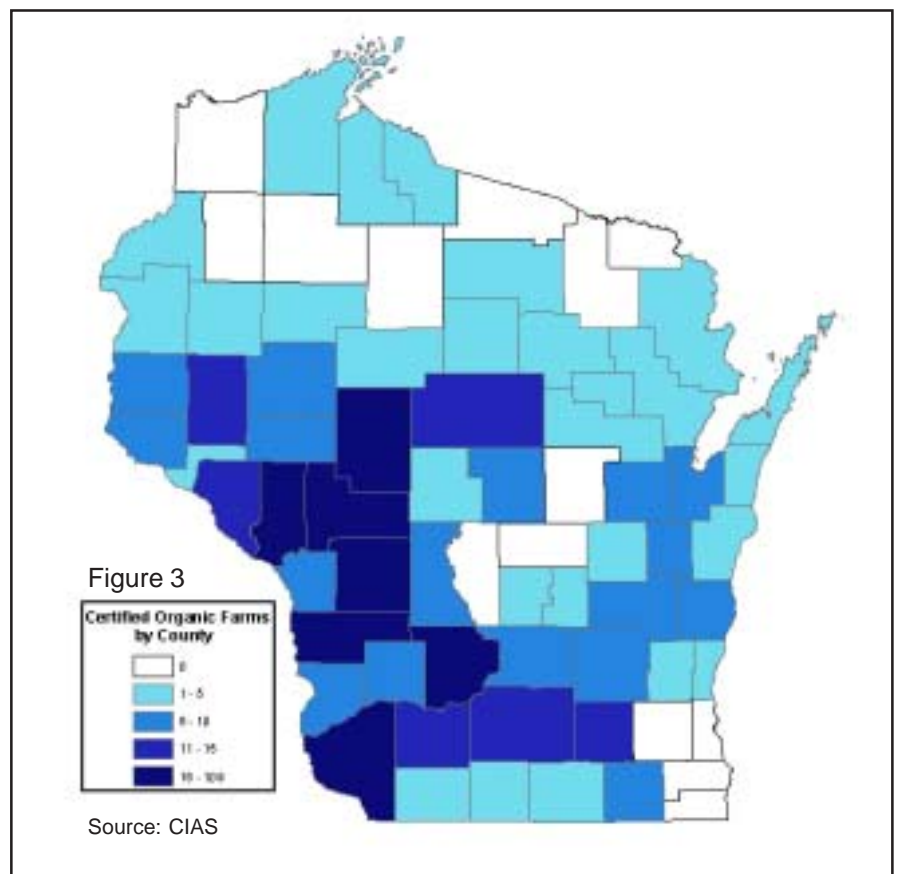
The greatest concentration of organic farms occurs in the southwest quadrant of the state. Seven counties have over 15 certified organic farms, and Vernon County claims over 100, nearly four times the next closest county (see Figure 3).

In the five years spanning 1997-2001, USDA documents a 92% growth rate in Wisconsin organic production. Organic soybean production is up 235%, organic grain rose 105%, and organic hay production climbed 96%. The most impressive growth can be seen in organic livestock production, where beef is up 1,298%, milk cows 331%, and poultry layers an astounding 2,559% (see attached tables in Appendix A, page 18). The reader should bear in mind, however, that organic acreage accounts for only a fraction of total farmland, both in the state and the nation as a whole. In Wisconsin, acres of organic corn and vegetables represent less than 1% of the respective total acres, while acres of organic soybeans represent roughly 2.5% of total soybean acres. Organic livestock, too, comprise less than 1% of the state's total.

Organic Food Processing

In keeping with growth figures for the organic industry as a whole, organic food processing is on the rise in Wisconsin, representing a significant area of opportunity for entrepreneurial business development. Exact numbers are difficult to obtain because many of the food processing businesses are small, and organic operations are not identified separately in census data. However, some glimpses of the organic food processing industry can be gleaned from other sources. Several organic certifying agencies certify processors in addition to individual farms. The Midwest Organic Services Association (MOSA), Wisconsin's largest organic certifying agency, has currently certified 41 organic processors in 32 cities, while international certifying agency Quality Assurance International lists 16 more Wisconsin processors in 12 cities. The Organic Trade Association, a Massachusetts organization, lists 15 additional organic processors operating in 13 communities around Wisconsin. There are at least five different grain merchants in the state that handle organic grains either exclusively or as part of their business. DeLong Company of Clinton, WI – one of the Midwest's largest grain handlers – currently devotes around 5% of its business share to organic corn and soybeans, or well over 100,000 bushels in total.

Wisconsin's most prominent organic processor is the Cooperative Regions of Organic Producer Pools (CROPP), which markets products under the Organic Valley label. CROPP also sells milk through other labels, such as Dean Foods-owned Horizon Organic Dairy. See case study, page 5.



Organic Food Marketing

Wisconsin organic farmers benefit from their proximity to Chicago, the Twin Cities, and Milwaukee. However, the metro Milwaukee market ranks 48th out of the top 52 national markets for sales of organic milk, thus representing both a current barrier to sales and a future growth opportunity. Comparatively, Chicago ranks 19th and the Twin Cities market is 32nd.

A growing number of cooperatives, both farmer co-ops and consumer food co-ops, provide sales outlets for organic producers. The most recent directory of food cooperatives in Wisconsin, published by the University of Wisconsin's Center for Cooperatives, lists 31 natural foods cooperatives in 28 different towns. All feature some organic products. In 1999 they collectively took in over \$100 million in sales and counted more than 40,000 members and 900 employees. The natural foods web site GreenPeople lists an additional 14 privately owned natural foods stores in 13 different Wisconsin towns. The world's largest retailer of natural and organic foods, Whole Foods, also features a store in Madison. Finally, Wisconsin-based grocery chains such as Cops and Woodman's now carry organic produce and food products.



Photo: Doug Wubben, MACSAC

Many organic growers rely on direct marketing. Wisconsin is a national leader in the number of farmers' markets, with over 150. Wisconsin is also a leader in the number of "community supported agriculture" (CSA) farms, a system in which consumers become members of a farm and receive weekly deliveries of seasonal produce. Farmers' markets, CSA, you-pick farms, and roadside stands are an important economic activity throughout the state involving thousands of farms and millions of dollars. The USDA places Wisconsin in the top 10 nationally in number of direct market farms and value of direct market sales (\$21.8 million). It is unknown what percentage of these farms or sales are organic. Many of these farms may be organic but not certified due to the costs involved. Direct contact with customers can make certification unnecessary for some growers. As a result, many direct market organic farms are not included in state and national data on numbers of farms or value of sales.



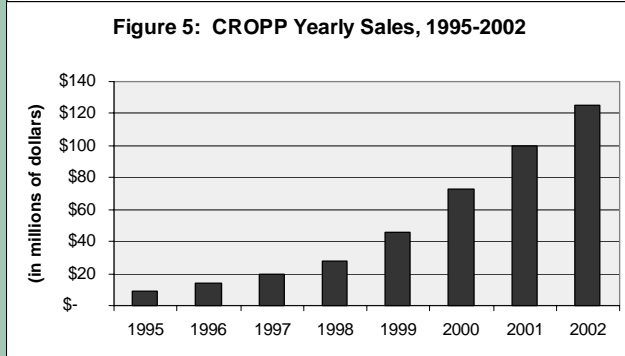
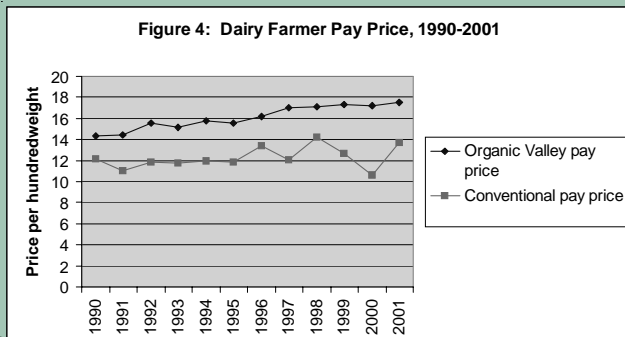
Photo: John Greenler

Case Study: CROPP



Organic Valley – the brand name of the Cooperative Regions of Organic Producer Pools (CROPP) – is a prime example of the importance of the organic market to Wisconsin’s agricultural economy. CROPP started in 1988 in La Farge, Wisconsin, where its headquarters remain to this day. The cooperative employs 240 employees and encompasses over 500 organic farms in 17 states. Products include certified

organic milk, cheese, butter, spreads, creams, eggs, produce, juice and meat. Last year the co-op added 15,000 organic acres to bring its national total to 75,000 acres, welcomed 121 new farmers for a national total of 515, and realized the best sales in its history at \$125 million. In a year that saw conventional milk prices fall to as low as \$11 per hundredweight, CROPP achieved a pay price nearly double that in November 2002.



Source: UW Center for Cooperatives

Sales have grown steadily every year since its inception (see Figure 5). In 1995, sales were \$9 million. By 2002, they stood at \$125 million, an increase of over 1,200%. Projected sales for 2005 are \$212 million. It is estimated that their products are now found in 25,000-30,000 stores nationwide, including such retail giants as Wal-Mart.

In 1998, Governor Thompson recognized the cooperative as the state’s #1 Rural Initiative. As a further symbol of their importance to the local economy, they recently broke ground on a new, \$4 million headquarters in La Farge (see photo below).

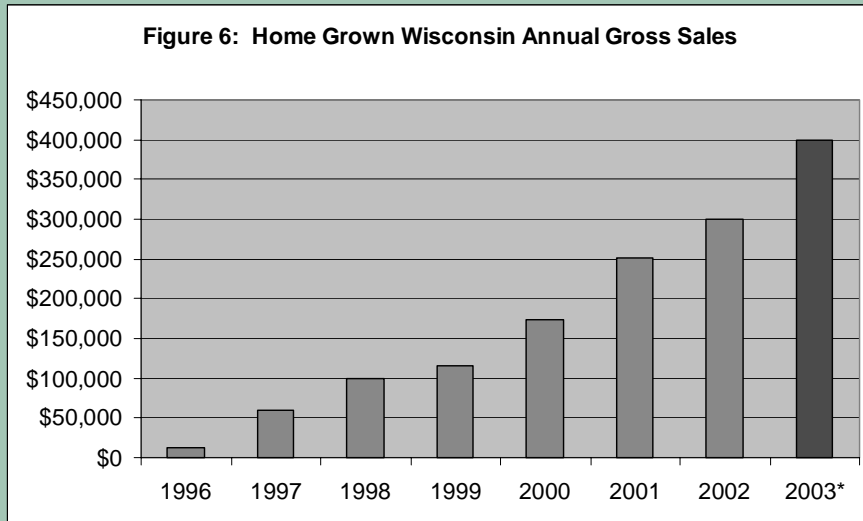
Present at the July 12, 2003, Organic Valley Headquarters groundbreaking were, L to R: WI State Senator Mark Meyer; US Congressman Ron Kind; Jay Robiadek, WI State Coordinator for US Sen. Russ Feingold; David Storey, Deputy Secretary, WI Dept of Commerce; Rachel Reisgraf, Organic Valley farm family member; Marcy West, Exec. Dir., Kickapoo Reserve; Katherine DiMatteo, Exec. Dir., Organic Trade Association; Mark Brodziski, Community Business Dir., US DA; George Siemon, CEO, Organic Valley; Ella Swenson, Organic Valley farm family member; Angela Swenson, Fluid Production Manager; James Frantzen, Organic Valley farm family member; Carmen Stout, former landowner of building site; Wayne Nowlan, Architect; and Bill Boshard, President, First National Bank of Bangor. *Photo reprinted with permission of CROPP.*



Case Study: Home Grown Wisconsin



Initially formed by 25 southern Wisconsin farmers in 1996, Home Grown Wisconsin is a wholesale business that markets organically grown produce from its member farms to restaurants in Madison, Milwaukee, and Chicago. Its goal is to expand the market for this fresh produce through professional distribution of the highest quality products, and through a consumer education effort that will convey the quality, variety, value, and bounty of Wisconsin’s seasonal harvest.



*projected

Source: Home Grown Wisconsin

The cooperative has witnessed a phenomenal rate of growth since its inception, from \$12,000 in gross sales in its first year to a goal of \$400,000 this year (see Figure 6). The number of restaurants and other institutions served by Home Grown has climbed to 40 and now includes establishments in Beloit and Sheboygan, as well as the larger urban centers.

A feasibility study is currently underway to assess the market benefits of a proposed “shared agricultural facility” in Madison. The facility would have four main components: an indoor retail market, a food processing kitchen, cooler/freezer space and a loading dock, and office space. The proposal is a joint effort by Home Grown Wisconsin, the Dane County Farmers Market, the Madison Area Community Supported Agriculture Coalition, and other organizations. The project arose out of the great perceived potential for increasing the market share of organic produce in the region.

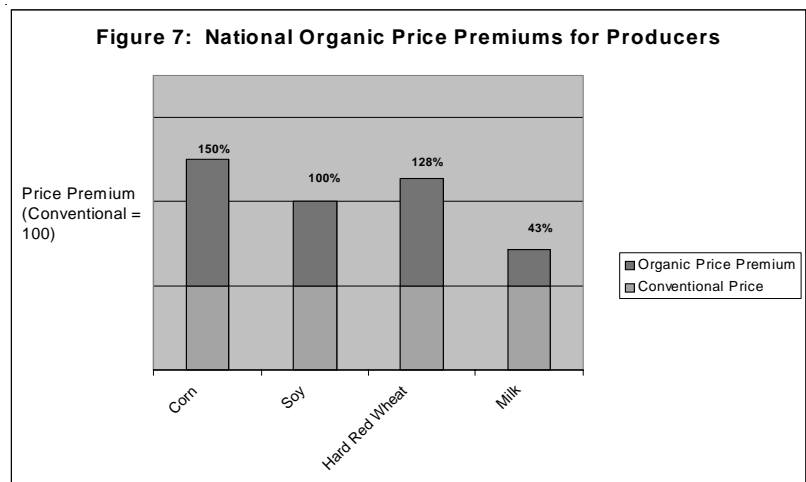
Organic Production

Total certified organic acreage in the United States rose by 74% between 1992 and 2001, from 914,800 to 2,341,482 acres. According to the most recent data from the USDA's Economic Research Service, current organic acreage in the US stands at 1,304,766 acres of cropland and 1,039,505 acres of pasture. The number of certified organic operators has only recently been tracked, but it rose over 5% between 2000 and 2001, from 6,592 to 6,949.

Examining organic corn and soybean acreage specifically, a June 2003 report by the ERS predicts increasing production of both commodities in the coming years, in large part to meet rising demand for organic animal feed. Corn acreage is expected to increase from 96,662 in 2002 to 141,962 by 2004, an increase of 47%. Soybean acreage is expected to increase from 200,046 last year to 508,823 in 2004, a jump of 154%.

Organic acreage remains a tiny fraction the total cropland in the country, however. The following numbers represent the *minimum* percentages for organic acreage¹: organic cropland represents 0.3% of total cropland nationwide, organic corn acres are 0.13% of total corn acres, and organic soy acres are 0.26% of total soy acres. Only organic vegetables pass the 1% mark, representing 1.9% of total vegetable acres in the country.

The price premiums received by organic producers continue to spur farmers to transition to organic. The premiums paid by CROPP cooperative to its dairy farmers have already been documented. The Rodale Institute, a national organic farming research organization, also maintains weekly price data for a variety of organic and conventional foods in major national markets. Examples of the premiums received by organic farmers for certain crops particularly relevant to Wisconsin are shown in Figure 7. Of course, the cost of production for organic agriculture may be higher than that of conventional agriculture due to smaller scales of production and increased labor requirements.



Source: Rodale Inst. (corn, soy, wheat); CROPP 5-year avg. (milk)

¹Organic acreage data is from 2001 while combined acreage is from 1997; total farmland has decreased since 1997 while organic acreage has increased.

The Market for Organic Food

The rise of the organic food market in the United States has been nothing short of phenomenal over the last decade. Growth in retail sales has equaled 20 percent or more annually since 1990, compared with a growth rate of less than 5% for the overall US retail food market. Retail sales of organic products through all marketing outlets reached \$9 billion in 2002, up from \$1 billion twelve years before (see Figure 8).

Fresh produce is the top-selling organic category, followed by nondairy beverages, breads and grains, packaged foods (frozen and dried prepared foods, baby food, soups, and desserts), and dairy products. Of particular significance for Wisconsin, organic dairy products were the most rapidly growing segment during the 1990s, with sales up over 500% between 1994 and 1999.

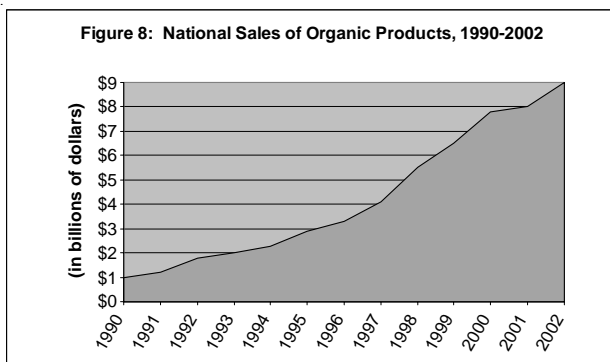
Who buys organic food? According to the 2000 Organic Consumer Profile prepared by the Hartman Group, the typical organic consumer is a

married woman in her forties with a household size of 2.7 and a mean income of \$47,000. Organic consumers also tend to be predominately urban and suburban. New organic products targeted to these consumers are being rapidly developed and introduced. In the first six months of 2000, processors introduced more than 800 new organic products nationwide.

In addition, a growing body of research shows that many consumers are willing to pay higher prices for food that is grown locally and/or organically. A team of researchers from several universities nationwide found that nearly

three-quarters of respondents were willing to pay more for food that is produced locally. The same number of people are also willing to pay a premium for food that is produced in an environmentally sound manner. Another survey carried out at the University of Nebraska found that fully one-third of respondents are willing to pay a premium for organic food. Furthermore, over two-thirds of respondents who currently do not buy locally grown organic fruits or vegetables indicated that they would do so if such products were available.

Organic products are now available in nearly 20,000 natural foods stores and are sold in 73 percent of all conventional grocery stores. In fact, a threshold was crossed in 2000, when for the first time more organic food was purchased in conventional supermarkets than in any other venue. In 1990, supermarkets accounted for only 7% of organic sales, while by 2000 their share had risen to 49%, compared with the 48% share captured by natural foods stores.



Source: Dimitri and Greene

Support for Organic Agriculture

Federal Support

Concomitant to the explosion of interest in organics at both the producer and consumer end of the food chain in the past decade, the federal government has stepped up various initiatives to help support production, research, and marketing efforts. The most prominent recent example is the formation of a federal Organic Caucus in the US Congress. Formed in April 2003 as a bipartisan association of US Representatives whose mission is to “enhance availability and understanding of information related to the production and processing of organic agricultural products,” the Organic Caucus consists of 16 Democrats, 5 Republicans, and 1 Independent, including Wisconsin Representatives Ron Kind (a co-chair) and Tammy Baldwin. Representative Kind is also the co-author of a recent House bill that would provide grants of up to \$100,000 to the nation’s schools to purchase locally grown food as part of the Child Nutrition Act—a move that would further strengthen local agricultural economies.

The most recent federal Farm Bill illustrates the increase in support for organics at the national level. A provision in the 2002 bill will provide \$3 million annually for the next four years for competitive research grants on organic agriculture. Research priorities will include: determining desirable traits for organic commodities; identifying marketing and policy constraints on the expansion of organic agriculture; and conducting advanced research on organic farms, including production, marketing and socioeconomic research. The Farm Bill also provides \$5 million for a national cost-share program to help defray the costs of certification incurred by organic producers and handlers.



Additionally, the USDA Sustainable Agriculture Research and Education Program (SARE) has funded nearly 1200 projects since 1988, including research and education grants, producer grants, and professional development grants. The North Central branch of SARE alone has awarded over \$10 million in grant money, including 68 projects in Wisconsin (7 in 2001). While the projects supported were not exclusively organic, many had a direct impact on organic production.



State Support

The Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) has funded an Agricultural Development and Diversification (ADD) grant program for over 10 years. ADD grants are awarded to proposals that may create opportunities within Wisconsin agriculture through new value-added products, new market research, new production or marketing techniques, or alternative crops or enterprises. The program has strategically supported Wisconsin's organic industry, with \$238,410 awarded to 15 organic projects to date—7 in the last two years alone.

Additionally, with the help of \$300,000 received from the USDA's organic certification cost-share program described above, DATCP is running a statewide Organic Cost Share Program. Any certified organic farmer or handler in the state can recover up to three-fourths of the cost of becoming certified under the federal organic guidelines, to a maximum of \$500 per applicant. To date, 100 farms or companies have completed the certification process through this program, with another 300 still in the process.

Finally, the Wisconsin Land and Water Conservation Association (WLWCA) passed Resolution #7 in December, 2002, entitled "Supporting Interdisciplinary Research Team Development Between the WLWCA, UW-Extension, DNR, NRCS, DATCP and Other Groups to Support Sustainable and Organic Agriculture in Wisconsin." For a full text version of the resolution, visit <http://wlwca.org/Pages/2002Resolutions.htm>.

University Support

In its capacity as a land grant university dedicated to serving the statewide population of farmers, the University of Wisconsin has seen a modest but growing interest in research on organic agriculture.

Examples include:

- **Organic Research by Individual Researchers:** A number of researchers in both the natural sciences and the social sciences have conducted recent or ongoing projects on some element of organic agriculture. Natural scientists include Leslie Cooperband in Soil Science; Douglas Rouse, Patricia McManus, John Andrews, and Jessica O'Mara in Plant Pathology; Kenneth Albrecht in Agronomy; Matt Stasiak at Agricultural Research Stations; Dan Mahr in Entomology; Brent McCown, A.J. Bussan and Karen Delahaut in Horticulture; John Hendrickson and Michelle Miller at the Center for Integrated Agricultural Systems; and Kevin Shelley at the Nutrient & Pest Management Program. Social scientists include Jack Kloppenberg and Michael Bell in Rural Sociology; Lydia Zepeda in Human Ecology; Marcia Caton-Campbell in Urban and Regional Planning; and Jeremy Foltz in Agricultural and Applied Economics. Some of these projects have been funded through federal Hatch grants. For more information, see Appendix B on page 19.

- **Organic Acreage at University Research Stations:** Four research stations in the UW system are in the process of developing organic sites—Spooner, Hancock, West Madison, and the Horticulture Farm.

- **Center for Cooperatives:** An interdisciplinary unit founded in 1962 to study, promote, and research cooperative action as a means of meeting the economic and social needs of people. The Center has worked closely with food and agricultural cooperatives throughout the state for decades, often providing direct training on such issues as co-op management and product marketing, including organic products. The Center for Cooperatives web site: <http://www.wisc.edu/uwcc>

- **Center for Integrated Agricultural Systems (CIAS):** CIAS is a sustainable agriculture research and outreach organization within UW-Madison's College of Agricultural and Life Sciences. Created in 1989, the Center builds sustainable agriculture research programs that respond to farmer and citizen needs and involves them in setting research agendas. CIAS has published over 60 Research Briefs on various topics related to sustainable agriculture, many covering organic production, community supported agriculture, and pasture-based dairying. The Center also



coordinates the Wisconsin School for Beginning Market Growers with a strong emphasis on organic production and marketing. Working with Extension horticulture specialist Karen Delahaut, the Center offers a guide for growers interested in transitioning to organic. Other projects include the College Food Project and the Wisconsin Homegrown Lunch program, both of which have opened up institutional markets for Wisconsin organic farmers, and Profit by Planning, a two-year profitability study of fresh market vegetable farms. Finally, the Center collaborates with REAP (see below) and the Dane County Farmers Market to produce the annual *Farm Fresh Atlas*, a guide to organic and other value-added farms in southern Wisconsin. The CIAS web site: <http://www.wisc.edu/cias>

• **Program on Agricultural Technology Studies (PATS):** PATS

conducts research and outreach programs on the impacts of new agricultural technologies and public policies on family farming in Wisconsin. Current work includes a large survey designed to assess the scope, diversity, and performance of value-added agriculture in Wisconsin, with specific attention paid to organic producers. The PATS web site: <http://www.wisc.edu/pats>



• **Wisconsin Integrated Cropping Systems Trial (WICST):** Since

1989, WICST has compared the productivity, profitability, and environmental impacts of high, medium and low input cropping systems. Although the project is not organic in its entirety, several of the field-sized plots are managed with no chemical inputs, and a recent decision was made to seek organic certification in order that the project more closely conform to the challenges faced by organic growers. A 10-year assessment of the project can be found at: <http://www.wisc.edu/cias/wicst/pubs/sare.htm>



Non-profit Organizational Support

The state of Wisconsin is home to a number of non-profit organizations dedicated to a variety of political, social, and environmental causes. Organizations whose primary purpose is researching or promoting organic agriculture are flourishing. Some examples include:

- **Midwest Organic and Sustainable Education Service**

(MOSES): MOSES is a nonprofit education-outreach organization working to promote sustainable and organic agriculture. MOSES publishes the Upper Midwest Organic Resources Directory, a guide to organic resource groups, certification agencies, suppliers, buyers, processors, consultants, publications, and events in seven states, including Wisconsin. The group is renowned for organizing the annual Upper Midwest Organic Farming Conference, the largest organic agriculture conference in the nation. The 3-day conference meets in La Crosse and is now in its 14th year. MOSES web site: <http://www.mosesorganic.org>



- **Michael Fields Agricultural**

Institute: A public nonprofit education and research organization committed to promoting resource-conserving, ecologically sustainable

and economically viable food and farming systems. Its mission is “to enhance the fertility of the soil, the quality of food, the health of animals and the strength of the human spirit by revitalizing the culture of agriculture.” The Institute deals largely, though not exclusively, with organic and biodynamic agriculture. Web site: <http://michaelfieldsagainst.org>

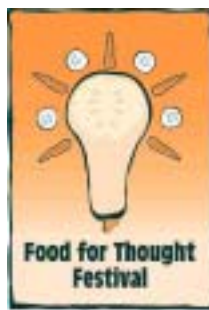
- **Organic Alliance:** A non-profit organization headquartered in St. Paul, MN, founded in 1995 with funding from the Pew Charitable Trust. The Alliance works primarily on increasing recognition of and markets for organic products, especially those of the Upper Midwest. A current project is the development of an organic meat marketing infrastructure for the five-state region of Minnesota, Wisconsin, Iowa, and North and South Dakota. The web site: <http://www.organic.org>



- **Madison Area Community Supported**

Agriculture Coalition (MACSAC): MACSAC is an organization composed of consumers and organic CSA farmers in south central Wisconsin working together to build sustainable relationships among farms, local communities, and the land. The MACSAC web site: <http://www.macsac.org>

• **Farmers' Markets:** The 150+ farmers' markets throughout Wisconsin provide a valuable outlet for direct marketers of organic produce and an important source of organic products for consumers. The largest market in Wisconsin—and rated as one of the largest and finest markets in the country—is the Dane County Farmers' Market in Madison. There are over 300 active vendors at this market and the 20,000 visitors to the market each Saturday invest an estimated \$200,000 into the local farm economy. Exact numbers are difficult to come by, but a significant portion of the market's producers are organic. Markets in towns and villages across Wisconsin are important venues for community and economic development as well as educating consumers about the benefits of fresh, local produce and organic farming. The Dane County Farmers' Market web site: <http://www.dcfm.org>



• **Other Grassroots Organizations:** From local and regional farmer networks to groups of consumers and chefs, there are many efforts underway in Wisconsin to promote local, sustainable, and organic agriculture and food systems. One example is the Research, Education, Action, and Policy Food Group (REAP) located in Madison, Wisconsin. REAP is a registered nonprofit organization that promotes the development of an environmentally sustainable, economically just, and healthful food system in and around Madison, Wisconsin. They undertake community action, research, organizational development, education, and policy work. Organic agriculture plays a large role in their work. REAP co-administers the annual Food For Thought Festival along with the Dane County Farmer's Market, and the Wisconsin Homegrown Lunch program along with the Center for Integrated Agricultural Systems. The REAP web site: <http://www.reapfoodgroup.org>.



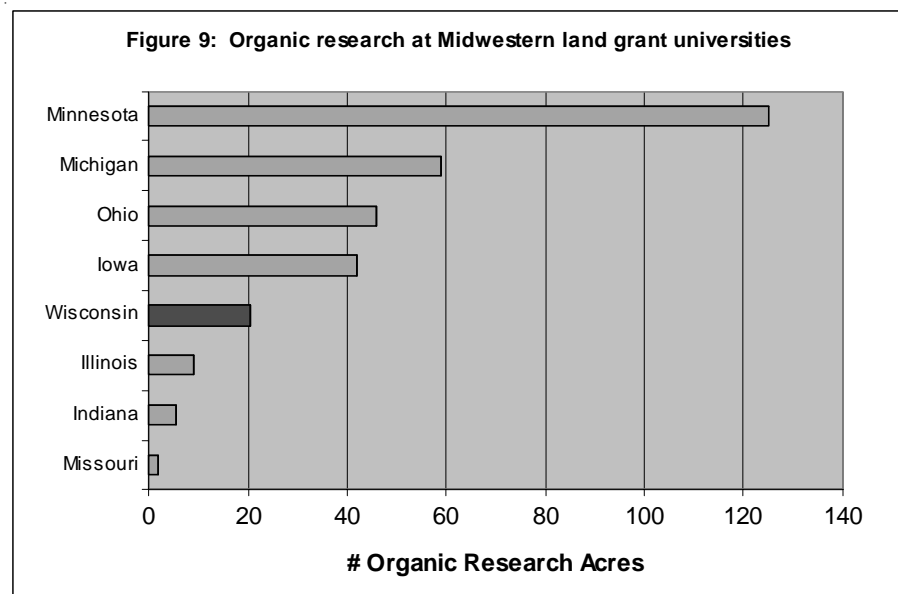
Challenges

In spite of an increased presence on the national political agenda, rapidly expanding markets, and growing interest from state agricultural agencies and land grant colleges, institutional support for organics in Wisconsin remains at a fairly rudimentary level.

Unlike Minnesota, Wisconsin does not have a Memorandum of Understanding between relevant state agencies to promote organic products and support organic entrepreneurs, or a specific organic program in its state Department of Agriculture. Unlike Michigan, Wisconsin does not have an Organic Advisory Committee. Unlike Iowa, Wisconsin does not have an organic certification program and an active demonstration program.

The Wisconsin DATCP does not feature an extensive program to support organic marketing or report on the status of organic agriculture, nor does it currently fund any effort to gather more detailed information on organic production or processing.

A 2003 report by the Organic Farming Research Foundation ranks Wisconsin's state university system in the bottom half of Midwestern states for number of organic research acres – above a few states such as Illinois and Indiana, but far below states such as Minnesota and Michigan (see Figure 9). The status of organic agriculture at the university level would benefit from a state-supported effort to credit researchers for investigating organic practices and fund the Extension system to explicitly assist organic growers. Further examples of what other Midwest states are doing to support organic agriculture are detailed in Appendix C on page 22.



Source: Organic Farming Research Foundation

There are a number of additional hurdles faced by the state's organic sector that prevent the full flowering of its economic potential.

First, contamination of organic produce by pesticides and/or genetically modified organisms (GMOs) means that a given product cannot be certified organic. A July 2003 article in the *Proceedings of the Royal Society of London* reports on a recently developed mathematical model that studied "genetic drift" from genetically modified plants to populations of their wild relatives and found that crop genes can rapidly take over the wild populations, causing "demographic swamping" in as few as 10 generations. Farmers are continually searching for ways to protect against contamination, such as increasing buffer zones to minimize pollen drift. UW scientist Jerry Kermicle is currently conducting research on hybridization barriers that exist between corn and its wild relative *teosinte*, with a view towards preventing cross-pollination of non-GMO corn by genetically altered corn. Following the lead of several European counterparts, growers in a number of states are also exploring legislative means to protect organic fields from genetic drift.

Second, market saturation and a concomitant decline in prices represent a growing threat, given the dynamic nature of the organic production sector. If growth in supply of organic products continues while demand plateaus, the entire sector will see a drop in prices, thus shrinking the price premiums organic growers currently receive over conventional products. While representing a possible future barrier to the continued growth of organic agriculture, this fact also illustrates the potential for increased marketing, advertising, and promotional efforts to access untapped or underserved markets.

Capturing Market Share

With the steady, significant growth of organic sales forecasted to continue both here and in Europe, there is enormous potential for entrepreneurial Wisconsin farmers, processors, and retailers to capture organic market share. Wisconsin is expected to continue to urbanize, which has the potential to expand markets within the state. Demand is expected to increase in nearby urban centers such as Milwaukee, Chicago, and the Twin Cities; from the East and West coasts, where demand for organic is already strong; and from international trading partners.

State efforts to increase markets for fresh local produce will help to expand opportunities for organic production, as attested to by the experience of other Midwest states. One such effort to emulate is the Michigan Select program, where Michigan grown and processed products—organic and conventional—are aggressively marketed through Michigan stores, restaurants, schools, and corporate menus. A similar program in Wisconsin could take advantage of our proximity to the urban areas just mentioned.

Another strategy would be to increase support for Wisconsin's food processing sector, particularly for small and mid-size plants. Efforts to restore vitality to food processing enterprises are key to supporting a growing organic food production sector. Efforts to create community-based processing and storage facilities, such as Home Grown Wisconsin's work highlighted in this report, need to be augmented by programs that buttress the declining meat, vegetable, fruit, and grain processing industry in the state.

Minnesota's commitment to aggressively market organic grains both at home and abroad is another strategy that would benefit Wisconsin farmers. Organic rules now require that livestock be fed organically when feasible. This creates a relatively new market for cash grain producers interested in growing organically. Further, international markets in Europe and Asia for food grade organic grain remain strong.

Organic production, processing, and marketing offer a real and growing opportunity for rural Wisconsin entrepreneurs to thrive. Modest institutional support for the value-added organic industry, such as that offered in other neighboring Midwest states, has the potential to make a significant difference in Wisconsin's economy.

Researcher: Leslie Cooperband, Soil Science

Project Title: Creating Compost from Apple Pomace

Project Description: This ongoing project is being carried out in collaboration with Turkey Ridge Orchard, a commercial organic apple orchard in Crawford County. Cooperband is investigating two approaches to composting the apple pomace that remains after pressing cider. The compost will be analyzed for its benefits as a soil amendment and its nutritive value to an organic orchard.

Researcher: Douglas Rouse, Plant Pathology

Project Title: Identification and Characterization of Potato Clones for Organic Production Systems.

Project Description: The project will evaluate a large number of older and heirloom potato cultivars for pest and disease resistance and tolerance under organic conditions on two organic farms.

Researchers: Patricia McManus, John Andrews, and Jessica O'Mara, Plant Pathology; Kenneth Albrecht, Agronomy; Matt Stasiak, Agricultural Research Stations.

Project Title: Development of Sustainable Practices for Integrated Management of Apple Diseases

Project Description: The main objective was to develop a biologically based program to control the major fungal diseases of apple fruit and foliage in the northern USA. Research on organic controls for flyspeck and sooty blotch in organic apples was conducted on-farm in 1998-1999 and 1999-2000. In every year and on every cultivar, the control treatment significantly reduced flyspeck and sooty blotch as well as or better than sulfur.

Researcher: Dan Mahr, Entomology

Project Title: Using Perennial Flower Plantings to Attract Beneficial Insects to Control Pests in Organic Apples.

Project Description: Thousands of row feet of perennial flowers like Echinacea were planted between rows of trees at an organic apple orchard. The plants bloom throughout the season, providing food and shelter for ladybugs, lacewings, and parasitic wasps from early spring until late fall. Preliminary findings show that beneficial insect populations increased where the flowers were planted.

Researcher: John Hendrickson, Center for Integrated Agricultural Systems

Project Title: Profit by Planning: Helping Fresh Market Vegetable Growers Meet Financial Goals and Improve Their Quality of Life

Project Description: This project will engage 24 organic and low-input vegetable growers in a process of on-farm data collection, analysis, and multi-farm comparison enabling them to better understand their farming systems and make informed decisions leading toward financial security and an improved quality of life. The centerpiece of the project is a set of ratios based on economic and labor data. Profitability analysis will be augmented with quality of life issues and goals.

Researcher: Brent McCown, Horticulture

Project Title: Breeding Low-Input Cranberry Genotypes

Project Description: Wisconsin cranberry growers are not only the world's leading producers, they have also been exemplary in adopting IPM and other low-impact practices for this intensively managed native fruit crop. McCown has been developing strategies for selecting new genotypes of cranberries tolerant of low-input practices that will complement general production and may be critical in making organic production of cranberries economically feasible.

Researcher: Kevin Shelley, Nutrient and Pest Management Program

Project Title: Production Practices on Organic Cash Grain Farms

Project Description: Currently conducting informal interviews with producers of certified organic agronomic crops such as corn, soybeans, small grains, and hay to collect information about the production practices they use in the areas of fertility management, seed selection, seeding rates, planting dates and weed and other pest management. The objective is to combine this information with limited existing research-based knowledge pertaining to organic crop production as well as standard agronomic principles for conducting broader educational outreach on organic farming systems. It is also intended to help compile a list of research and educational needs in the area of organic crop production.

Researcher: Jack Kloppenberg, Rural Sociology

Project Title: Wisconsin Homegrown Lunch: Piloting a Midwestern Model for Farm-to-School Initiatives.

Project Description: Wisconsin Homegrown Lunch is a grassroots program whose goal is to enhance the Madison public schools' existing meal programs by introducing fresh, nutritious, local and sustainably grown food to children, beginning in the city's elementary schools.

Researcher: Michael Bell, Rural Sociology

Project Title: Farm Family Success in Diversified Agriculture: A Comparative Study of Wisconsin Family Farms.

Project Description: The growth of diversified agriculture will depend in part on the ability of farm families to integrate a more diverse

agriculture into the dynamics of the farm household. The principal goal of this project is to determine the social and economic factors that lead to the relative success or lack of success that Wisconsin family farms have in the integration of a diversified agriculture into the diversity of their family life.

Researcher: Lydia Zepeda, Human Ecology

Project Title: The Demand for Alternative Foods: Perceptions and Characteristics of US Shoppers.

Project Description: The goal of this research project is to determine the characteristics and motivations of US consumers for buying alternative foods. Alternative foods are defined for this project as organic, eco-label, and/or local foods, including farmers' markets and direct buying. The purpose is to identify the potential size of the market for alternative foods in the US and to determine what are the characteristics of the customers who buy them.

Researcher: Marcia Caton-Campbell, Urban and Regional Planning

Project Title: Troy Gardens Project

Project Description: Initiatives including organic community gardens, an urban, organic community supported agriculture farm, prairie and woodland restoration, and edible landscape gardens will be implemented on a 31-acre site in Madison's North side neighborhoods. The purpose of this project is to help bring Wisconsin's agricultural heritage into the lives of urban residents while involving citizens in preserving an area of great natural beauty. The project will also contribute to increased community food security for low- and moderate-income households in Madison's North side neighborhoods. Projects will be planned and implemented in joint partnership with the community.

Researcher: Jeremy Foltz, Agricultural and Applied Economics

Project Title: Specialty Labeled Milk and Consumer Buying Behavior

Project Description: The study analyzed consumers' actual buying behavior during a five-year period. By studying milk purchases in 12 key metropolitan markets, it was found that consumers pay up to \$1.50 per gallon more for milk labeled rBST-free and \$3 per gallon more for milk labeled organic.

Appendix C

Appendix C: What are some of Wisconsin's neighbors doing to advance organic agriculture?

Minnesota

- Officials from the Minnesota Department of Agriculture, NRCS, College of Agricultural, Food, and Environmental Sciences, UM Extension, and the Farm Service Agency signed a Memorandum of Understanding on April 21, 2003, in which all the agencies agreed to work together to enhance economic opportunities for Minnesota's organic farmers.
- The University of Minnesota has created the Minnesota Organic Farmers Information-Exchange (MOFIE), a program which provides information on how to successfully run an organic farm. Specific MOFIE programs include:
 - The MOFIE mentor hotline lists experienced organic producers who have agreed to answer questions about organic production and marketing from other interested producers.
 - The Elwell Agroecology Farm has had over 100 acres certified organic since 1998.
 - The Organic Conversion Project is collecting data and knowledge from over 40 farmers in the state who are converting to organic production in order to put together a comprehensive manual for farmers seeking such information.

Iowa

- Iowa State University has one of the most aggressive organic research programs in the country, ranked in the top five by the OFRF. They feature an organic crops specialist in a joint appointment between the departments of Horticulture and Agronomy. ISU Extension has organized three all-day Iowa Organic Conferences. ISU has 20 certified organic research acres and 22 additional acres that are managed organically, for a total of 42 acres at 5 different sites.

Michigan

- Michigan State University personnel have conducted numerous experiments relating to both organic production and economics, including research on organic apples, tart cherries, pears, alfalfa, and pork. The University also helps organize and manage the annual Michigan Conference on Organic Agriculture. They have 29 certified organic research acres, 28 acres in transition, and 2 acres that are managed organically.

Ohio

- In 1998, the Ohio State University's Ohio Agricultural Research and Development Center initiated a research and outreach program to serve organic farmers. This program is called the Organic Food and Farming Education and Research program. The first task was implementing a survey to assess the needs of organic producers as well as producers who are in transition to organic. Members of the group are now studying many aspects of organic farming, such as soil quality, pest management, and germplasm adaptability in a number of agronomic and horticultural commodities.

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<http://www.agriculture.state.ia.us/organicAg.htm>

Iowa State University. Organic Agriculture website.
<http://www.agriculture.state.ia.us/organicAg.htm>

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http://www.michigan.gov/mda/0,1607,7-125-1567_1600—,00.html

Minnesota Department of Agriculture. Memorandum of Understanding.
<http://www.mda.state.mn.us/esap/organic/mou.htm>

Minnesota Department of Agriculture. Programs and information for organic growers. <http://www.mda.state.mn.us/esap/organic/>

Organic Farming Research Foundation. <http://www.ofrf.org/>

Organic Trade Association. <http://www.ota.com/index.html>

USDA - Foreign Agricultural Service “Organic Perspectives” newsletter
<http://www.fas.usda.gov/agx/organics/news2003.html>

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