ORGANIC AGRICULTURE IN WISCONSIN: 2012 STATUS REPORT

Prepared by the UW-Madison Center for Integrated Agricultural Systems and the Wisconsin Department of Agriculture, Trade and Consumer Protection

Authors: Erin Silva, Laura Paine, Matt Barnidge, Cris Carusi and Ruth McNair

February, 2012

This report is a joint effort of:

The **Center for Integrated Agricultural Systems** (CIAS) is a research center for sustainable agriculture in the College of Agricultural and Life Sciences, University of Wisconsin-Madison. CIAS fosters multidisciplinary inquiry and supports a range of research, curriculum and program development projects. It brings together university faculty, farmers, policy makers and others to study relationships between farming practices, farm profitability, the environment and rural vitality. For more information, visit www.cias.wisc.edu or call 608-262-5200.

The **Wisconsin Department of Agriculture, Trade and Consumer Protection** (DATCP) works to make Wisconsin a world leader in agriculture, food safety and consumer protection. DATCP is responsible for food safety, animal and plant health, protecting water and soil, and monitoring fair and safe business practices. The DATCP Organic Agriculture Program is housed in the Division of Agricultural Development and provides individual technical assistance and education to organic farmers and those wishing to begin farming organically, as well as to businesses processing organic products. For more information, visit datcp.state.wi.us or call 608-224-5120.

Media contact: Cris Carusi, CIAS: cecarusi@wisc.edu or 608-262-8018

Authors: Erin Silva, Laura Paine, Matt Barnidge, Cris Carusi and Ruth McNair

Edited by Cris Carusi and Ruth McNair, CIAS. Publication design and layout by Ruth McNair, CIAS. Photos by CIAS unless noted otherwise.

Editorial review provided by Spencer Black, Amanda Gevens, Altfrid Krusenbaum and Brent McCown.

Photos by CIAS, Hay River Pumpkin Seed Oil (page 23) and Cedar Grove Cheese (page 25).

This report is printed on recycled paper. It is available online at www.cias.wisc.edu.

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FOREWORD

Enclosed you will find the 2012 status report on the organic agricultural industry of Wisconsin. We are pleased to present an organic industry profile and the impact of the organic programs in place. The growth in the state organic industry has been surprisingly dramatic. The number of Wisconsin certified organic farms grew 157 percent from 2002 to 2007. Wisconsin is second only to California in the number of organic farms and ranks in the top five states in certified organic acreage. The state is also among the top five in production of most major organic crops and livestock types.

Producers have a great responsibility to feed customers varying from local to international. Many organic businesses have increased their profit margins by direct marketing to their consumers through CSA shares, farmers markets or roadside stands. From fresh produce to specialty meats to organic cheeses, producers are able to offer consumers a great product while educating them on where their food comes from. Income from sales of organic crops and livestock products in Wisconsin totaled over $132 million in 2008. While direct marketing has grown, it is very promising that more than half of organic food sales occur through mainstream grocers. Organic purchases are becoming more and more a part of routine consumer buying habits.

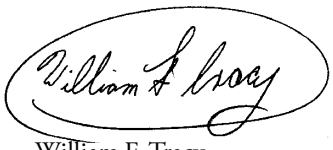
The organic industry has the ability to expand its businesses by selling products worldwide. With 96 percent of the world's population living outside of the United States' borders, our export market potential is constantly growing. Wisconsin agricultural exports hit a record high in 2010 with a total value of $2.4 billion, and 36 percent growth over 2009. Wisconsin has a strong reputation for producing safe, wholesome and nutritious products. From organic grains to prepared foods, Wisconsin products can be found around the world. The passion and drive of Wisconsin's organic producers will allow this method of production to prosper.

Wisconsin agriculture's diversity, innovation and quality better position us to meet challenges and take advantage of opportunities to be more competitive in the marketplace. In these difficult economic times, we all have the task of doing more with less. Farm, businesses, universities and government agencies must take the time to evaluate their current procedures while maintaining their core missions and goals. We are committed to working together in a public and private partnership to maintain agriculture as a leader. Wisconsin's agricultural industry has a $59 billion impact on our state's economy, employing 10 percent of the workforce or 353,991 people. These jobs include organic on-farm production, processing, marketing and more.

We offer our thanks to the contributors to this report. We are hopeful you will find it informative and that it will provide you with the necessary facts to understand and appreciate this important segment of our state's agricultural industry. Together, we will be able to build on research and experience to grow Wisconsin's organic agriculture industry.

Sincerely,

Ben Brancel
Secretary
Wisconsin Department of Agriculture,
Trade and Consumer Protection



William F. Tracy
Interim Dean and Director
College of Agricultural and Life Sciences
University of Wisconsin-Madison

STATEMENT BY THE WISCONSIN ORGANIC ADVISORY COUNCIL

Many advocates of organic agriculture use the word "resilient" when describing crops and livestock managed organically. Research from the University of Wisconsin and Iowa State has shown that, by building organic matter in the soil and promoting pasture, forages and cover crops, organic farms tend to recover from and adjust relatively easily to misfortune or change, which is the definition of resilience.

The past two years have presented our state with many economic challenges. Organic farmers and processors face the same downturn as other individuals and businesses. However, Wisconsin's organic industry has demonstrated its resilience through its continued rapid growth. Consumer demand for organic food is growing, providing more opportunities for farmers and processors to enter the organic market. Young and beginning farmers are enthusiastic about organic agriculture, providing a base for future growth and long-term stability in this sector. Wisconsin's agricultural diversity is mirrored in the organic sector, with our national leadership seen in everything from cranberries to cheese and milk to beer.

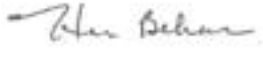
The Wisconsin Organic Advisory Council (OAC), a standing committee under the Wisconsin Agricultural Board, is comprised of organic producers, certifiers, processors, consumers and nonprofits. We work closely with state and federal agencies such as the USDA Natural Resources Conservation Service, Wisconsin Department of Natural Resources and Wisconsin Department of Agriculture, Trade and Consumer Protection, as well as a variety of educational institutions. Our goal is to enhance opportunities for organic production in Wisconsin, build markets, provide assistance with infrastructure needs and facilitate economic growth through sales within Wisconsin and beyond.

Research and education are important priorities for the Wisconsin Organic Advisory Council. Our technical colleges and university system offer education and research in organic agriculture that aid not only organic producers, but also provide low-input and environmentally friendly alternatives that all producers can incorporate into their farming systems.

Within the pages of this report, we hope you enjoy learning more about where organic has been, where we stand now and where we our future opportunities lie. Feel free to contact the Wisconsin Organic Advisory Council with any of your comments, suggestions or concerns.

As representatives of the organic community, we on the OAC have the opportunity to see a lot of excitement and enthusiasm among organic farmers, especially young ones. With the knowledge, commitment and determination of our diverse organic producers and a strong infrastructure for our value-added products, the future of Wisconsin's organic sector is bright.

Organically yours,



Harriet Behar
Midwest Organic and Sustainable
Education Service
Organic Advisory Council Member

Jerry McGeorge
Organic Valley
Organic Advisory Council Member

EXECUTIVE SUMMARY

The 2008 USDA Organic Agriculture Census ranks Wisconsin second in the U.S. in total number of organic farms. The census reports 2,714 organic farms in California, which is the top-ranked state, and 1,222 organic farms in Wisconsin.

Wisconsin has experienced dramatic growth in organic agriculture since the National Organic Program was enacted in 2002. The number of organic farms in Wisconsin grew 157 percent from 2002 to 2007.

The 2008 USDA Organic Agriculture Census shows significant sales of organic agricultural products in Wisconsin. The state ranks sixth in the nation for total organic product sales, at $132.8 million, capturing 4.2 percent of total organic sales in the U.S.

Wisconsin ranks second in the nation for organic milk sales, with its $85 million in sales representing 11.4 percent of the U.S. total. Milk from cows accounts for 64 percent of sales of organic farm products in Wisconsin.

Consumer interest in organic food is on the rise. While total U.S. food sales were nearly flat in 2010, the U.S. organic food and beverage industry grew at a rate of 7.7 percent, posting total sales of $26.7 billion.

Organic fruits, vegetables and dairy experienced the most growth in the domestic organic food industry in 2010. As Wisconsin is among the top-rated states in the number of organic farms raising these foods, our state is well-positioned to take advantage of the growing organic market.

Wisconsin ranks second in the number of farms transitioning to organic farming after California, positioning the state well to grow its future capacity for organic agriculture.

Wisconsin tops the ranks in organic livestock, field crops and produce

Wisconsin leads the nation in the number of organic dairy and beef farms. Wisconsin also ranks first for the number of farms raising organic hogs and pigs, layer chickens and turkeys.

Wisconsin ranks third in the U.S. in the number of organic vegetable and melon farms. Our state ranks in the top five for organic berry farms and in the top six for organic fruit and tree nut farms.

Wisconsin ranks first in the number of farms raising several organic field crops including corn, oats, barley, winter wheat, hay and silage. Many of these crops are fed to livestock on the farms where they are raised. Home-grown feed grains and forages help make Wisconsin's organic dairy farms more profitable than their counterparts in other parts of the U.S., where most of these inputs are purchased.

Organic feed grain shortage poses challenges

In the midst of the worst economic downturn since the Great Depression, consumer demand for organic food continues to grow and organic commodity prices are strong. Yet many organic foods, including dairy products, are in short supply due to a dearth of organic grain. A combination of market forces and challenging weather conditions in 2011 negatively impacted organic grain production.

In mid-December 2011, organic feed corn sold for $11-12 per bushel in the Midwest. Organic dairy farmers who raise corn can make more money selling it at this price than feeding it to a dairy cow. Midwestern organic dairy farmers need a pay price of $30 per hundredweight to turn a profit when the price of corn reaches $12 per bushel. It is doubtful that the marketplace will support this price, despite soaring demand for organic milk.

Organic beef producers are in an even tighter spot, economically, than dairy producers. Finishing organic cattle on grain is not profitable at current prices. While organic beef producers can potentially survive in this market by finishing cattle on grass, this requires superior management skills.

Organic dairy and livestock farmers can improve their profitability in this market by growing their own feed and increasing the nutritional quality of the feed they produce. Contracts guaranteeing a stable price to organic grain producers can mitigate market risks and increase organic grain supply.

Organic vegetable farms create opportunities

A 2011 survey by the University of Wisconsin-Madison found that Wisconsin's organic vegetable farms run the gamut from small market gardens growing a wide variety of vegetables to larger farms growing a few crops for processing. They serve a wide-ranging marketplace, from farmers' markets to retail stores.

Because produce production and harvest is labor intensive, Wisconsin's organic vegetable farms create employment opportunities. The survey found that a typical Wisconsin organic vegetable farm employs two full-time workers and one part-time, year-round worker. Some farms hire up to 20 employees. In addition, the surveyed farms employ three to five seasonal workers. The survey did not ask farmers to distinguish between paid employees and volunteers exchanging their labor for a share of the farm's produce.

This survey found that Wisconsin's organic vegetable farms tend to be small and adopt a diverse range of production strategies. Seventy-five percent plant fewer than 12 acres, and slightly over two-thirds do not depend on outside loans for capitalization. Seventy-one percent own the land they farm.

Processing adds value and profit

Organic processing, which adds value to the organic milk, meat, produce and other commodities raised in Wisconsin, enables businesses to capture a bigger share of the $26.7 billion spent by U.S. consumers on organic food and beverages.

A 2011 survey by the Wisconsin Department of Agriculture, Trade and Consumer Protection found that gross income for Wisconsin organic processors ranged from over $100 million to under $10,000. Most well-established, organic processing businesses reported sales growth from 2008 to 2011, despite the recession. Newer companies did not fare as well, with only one company launched since 2008 reporting sales growth.

ORGANIC AGRICULTURE IN WISCONSIN BY THE NUMBERS

Wisconsin has experienced dramatic growth in organic agriculture since the National Organic Program was enacted in 2002. The number of organic farms in Wisconsin grew 157 percent from 2002 to 2007.[1]

Wisconsin's growth in organic farming mirrors global and national growth in this sector. Organic production in the U.S. is a small but rapidly growing part of worldwide organic production. Globally, 87 million acres were farmed under organic management in 2008, representing almost 1.4 million producers in 154 countries. This represents a nine percent increase in the acreage in organic production over 2007.[2] U.S. certified organic acreage reached more than 4.1 million acres and 14,540 producers in 2008.[3]

The National Agricultural Statistics Service collected in-depth 2008 data about organic agriculture in the U.S. as a follow up to the 2007 agricultural census.[4] The survey included farms that were certified organic, transitioning to organic and exempt from certification.[5] The 2008 USDA Organic Agriculture Census illustrates that Wisconsin has a well-rounded organic portfolio, ranking highly in number of farms and sales for a diverse range of agricultural products.

Number of organic farms

The 2008 USDA Organic Agriculture Census ranks Wisconsin second in total number of organic farms (Figure 1). The census reports 2,714 organic farms in California, which is the top-ranked state, and 1,222 organic farms in Wisconsin.

Wisconsin is also in the top five states for organic acreage, with a total of 195,603 acres. In addition, Wisconsin ranks second after California in the number of farms transitioning to organic farming, positioning the state well to grow its future capacity for organic agriculture.

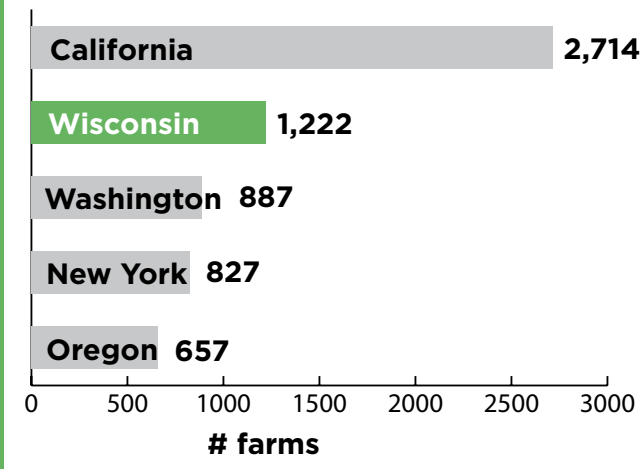


Figure 1. Top five states in number of organic farms, 2008
Source: USDA. 2008. *Organic Production Survey*, Table 1.

[1]USDA. 2002, 2007. *Census of Agriculture.* (www.nass.usda.gov/index.asp). Accessed 11/28/11.

[2]Willer, H. and L. Kilcher (Eds.) 2010. *The World of Organic Agriculture — Statistics and Emerging Trends 2011.* IFOAM, Bonn, and FiBL, Frick.

[3]USDA. 2008. *2007 Census of Agriculture: 2008 Organic Production Survey.* (www.agcensus.usda.gov/Publications/2007/Online_Highlights/Fact_Sheets/organics.pdf). Accessed 11/28/11.

[4]USDA. 2008. *Organic Production Survey Wisconsin.* (www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/WI_Organic_Release.pdf). Accessed 11/28/11.

[5]Some farms are exempt because their sales total less than $5,000 per year. The 2008 census data used in this report covers the certified and exempt farms.

Top states in number of farms producing organic products, 2008

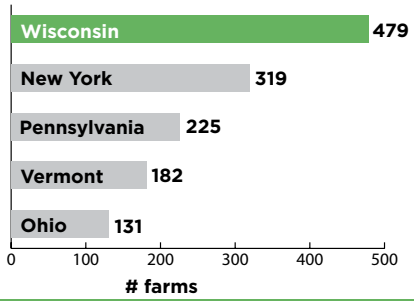


Figure 2. Dairy farms
Source: USDA. 2008. *Organic Production Survey*, Table 10.

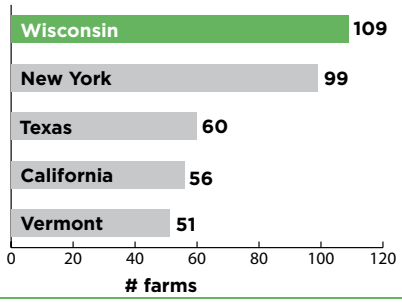


Figure 3. Beef farms
Source: USDA. 2008. *Organic Production Survey*, Table 10.

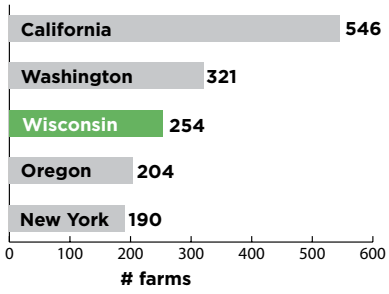


Figure 4. Vegetable/ melon farms
Source: USDA. 2008. *Organic Production Survey*, Table 4.

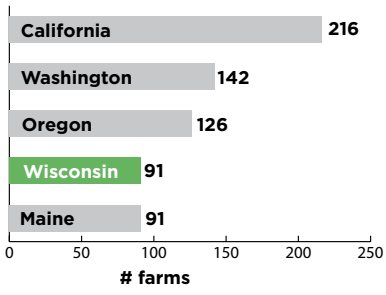


Figure 5. Berry farms
Source: USDA. 2008. *Organic Production Survey*, Table 6.

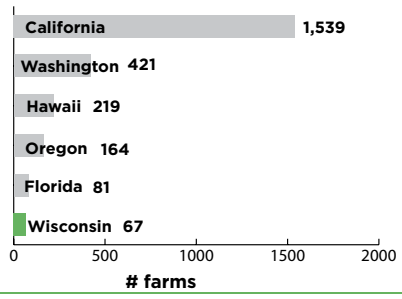


Figure 6. Fruit/ tree nut farms
Source: USDA. 2008. *Organic Production Survey*, Table 5.

Wisconsin leads the nation in the number of organic dairy and beef farms (Figures 2 and 3), with a total of 479 dairy farms and 109 beef farms.

Wisconsin also ranks first for the number of farms raising organic hogs and pigs, layer chickens, and turkeys, and second in broiler chicken farms and sheep/lamb farms.

Wisconsin ranks third in the number of organic vegetable and melon farms (Figure 4). The census reports 254 farms in the state growing organic vegetables and melons. Wisconsin ranks in the top five states for organic berry farms, with 91 farms, and in the top six for organic fruit/tree nut farms, with 67 farms (Figures 5 and 6).

Wisconsin ranks first in the number of farms raising several organic field crops including barley for grain or seed; corn for grain or seed; corn for silage or greenchop; hay; haylage, other silage and greenchop; oats for grain or seed; rye for grain or seed; and winter wheat for grain or seed. Since these crops are often consumed by livestock on the farms where they are raised rather than sold, there can be a significant difference between the number of farms raising these crops and the number of farms selling them in organic markets (Figure 7, page 3). These home-grown organic feed grains and forages help make Wisconsin organic dairy farms more profitable than their counterparts in other parts of the U.S., where more of these inputs are purchased.[6]

[6]Blazek, K., E. Silva, L. Paine and T. Atwell. 2010. *Organic Agriculture in Wisconsin: 2009 Status Report.* UW-Madison CIAS, p. 14.

The USDA National Organic Program (NOP) provides more recent data on the number of certified organic farms and businesses/processors in Wisconsin. While the USDA Organic Agriculture Census figures include certified and transitioning organic farms, as well as those exempt from certification, the NOP data only includes certified farms. 2011 data from the NOP show 170 certified organic businesses/processors in Wisconsin and 1,159 certified organic farms. Figures 8 and 9 (pages 4 and 5) show where these farms and businesses are located in Wisconsin. Certified organic farms are particularly dense in the area closest to the headquarters of Organic Valley in southwestern Wisconsin. Figure 10 (page 7) shows the steady increase in the number of organic farms in Wisconsin, as reported by the NOP.

Organic product sales

The 2008 USDA Organic Agriculture Census shows significant sales of organic agricultural products in Wisconsin. The state ranks sixth in the nation for total organic product sales[7] at $132.8 million, capturing 4.2 percent of total organic sales in the U.S. (Figure 11, page 7). California leads the nation with $1.15 billion in total organic sales, or 36.3 percent of U.S. sales, followed by Washington, Pennsylvania, Oregon and Texas.

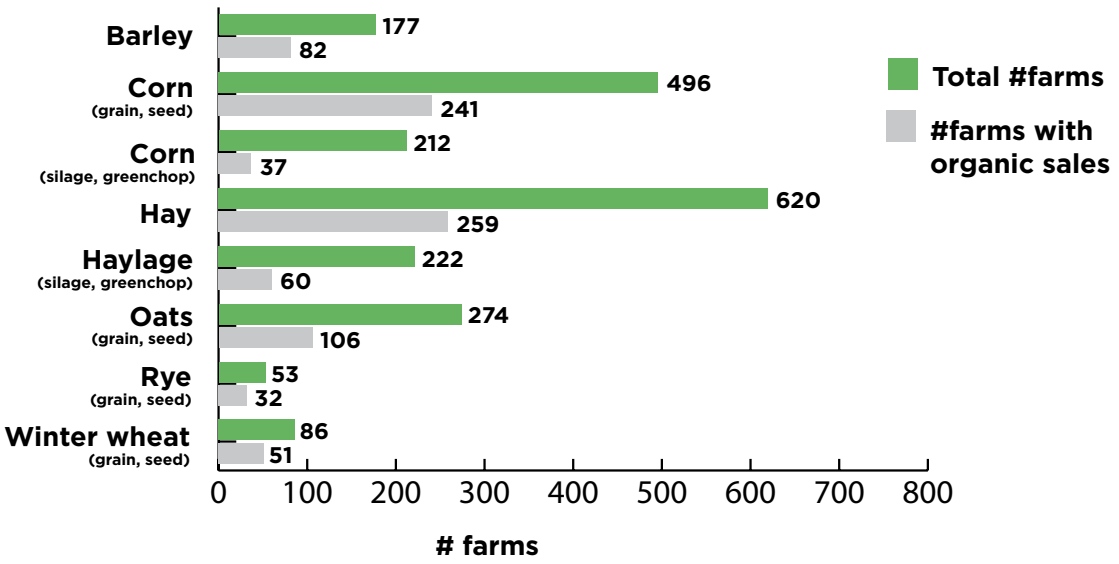


Figure 7. Field crops for which Wisconsin ranks first in total number of farms, showing total number of farms and number of farms with organic sales, 2008

Source: USDA. 2008. *Organic Production Survey*, Table 7.

[7]This includes sales from all categories of products and markets.

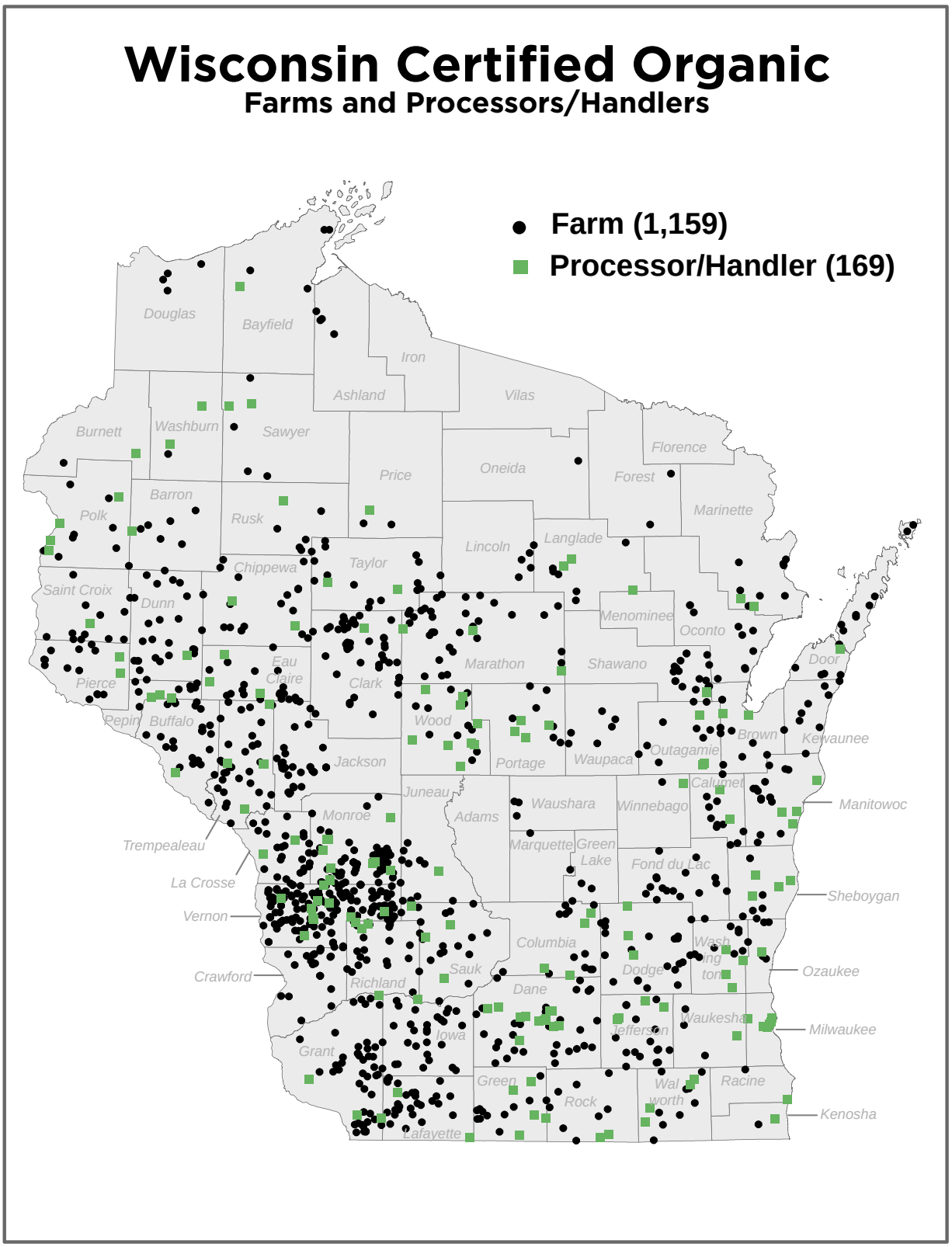


Figure 8. Wisconsin Certified Organic Farms and Processors/Handlers

Source: USDA NOP data, 2011, unpublished.

Map by Lisa Morrison, DATCP, 12/19/2011.

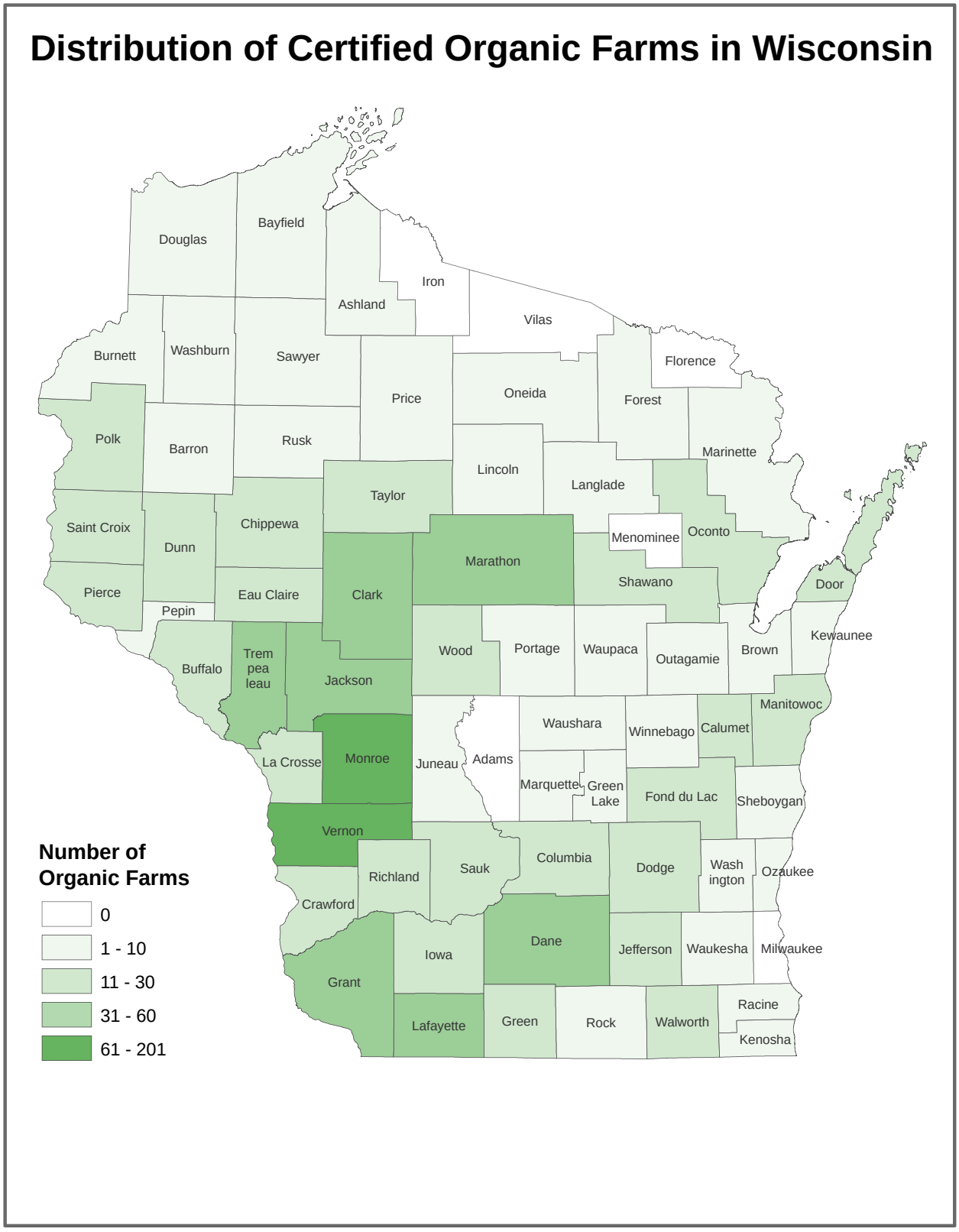


Figure 9. Distribution of Certified Organic Farms in Wisconsin.

Source: USDA NOP data, 2011, unpublished.

Map by Lisa Morrison, DATCP, 12/19/2011.

Dairy comprised the largest share of organic sales in Wisconsin (64 percent) at $85 million (Figure 12, page 7). Crop sales, including $18.1 million from field crops, $6.5 million from vegetables, $2.7 million from berries and $282,000 from fruit made up 23 percent of organic sales in Wisconsin. Organic cranberries made up 88 percent of Wisconsin's organic berry sales. The remaining 13 percent of organic sales were livestock and poultry (seven percent) and other livestock and poultry products (six percent).

Wisconsin ranks second in organic milk sales, with its $85 million in sales accounting for 11.4 percent of the U.S. total (Figure 13, page 7). California leads organic milk sales with 17.8 percent of the U.S. total.

Wisconsin ranks first in the nation in sales of organic beef brood cows and all other organic cattle and calves, a category that includes organic bulls, beef calves and replacement dairy heifers.

Wisconsin ranks fourth in both total organic livestock and poultry sales and organic egg sales. It had $6 million in organic livestock and poultry sales, or 2.2 percent of total sales in the U.S., and $7.5 million in organic egg sales amounting to 4.8 percent of the U.S. total.

Wisconsin ranks tenth in organic vegetable and melon sales, with 0.9 percent of the U.S. total (Figure 14). In organic berry sales, Wisconsin ranks fourth (Figure 15, page 7), with 3.2 percent of the U.S. total. Wisconsin ranks fifteenth in organic fruit and tree nut sales (0.7 percent of the U.S. total) and thirteenth in organic field crop sales (3.6 percent of the U.S. total). Taken together, these figures indicate that Wisconsin has a well-rounded, diverse organic agricultural portfolio that draws income to our state.

Figures 16 and 17 (page 8) show the leading states in number of farms and the value of sales for all organic products and organic milk. Why are the rankings for number of organic farms and organic sales so different? Several explanations are possible. States ranking high in the number of farms do not necessarily have top sales

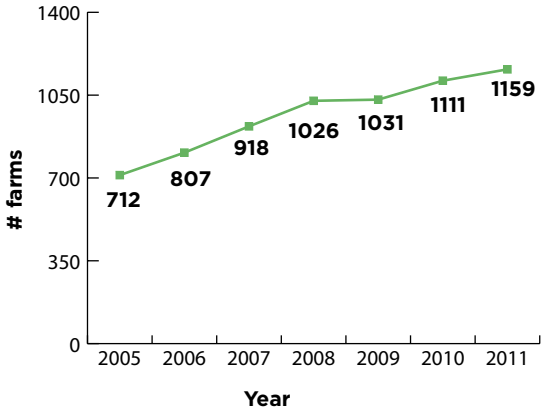


Figure 10. Growth in number of certified organic farms in Wisconsin, 2005-2011
Source: USDA NOP data, 2005-2011, unpublished.

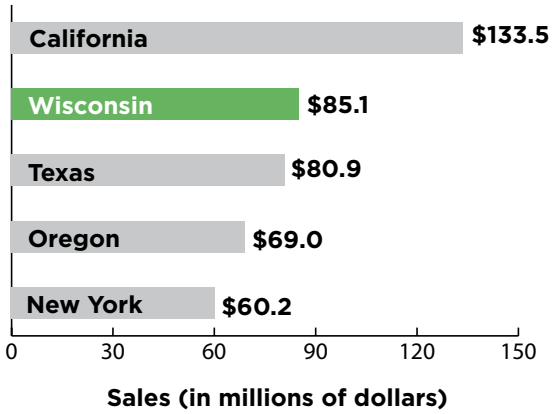


Figure 13. Top five states in organic milk sales, 2008
Source: USDA. 2008. *Organic Production Survey*, Table 11.

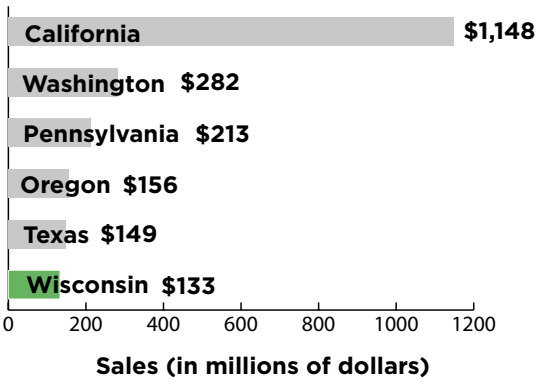


Figure 11. Top six states in organic sales, 2008
Source: USDA. 2008. *Organic Production Survey*, Table 1.

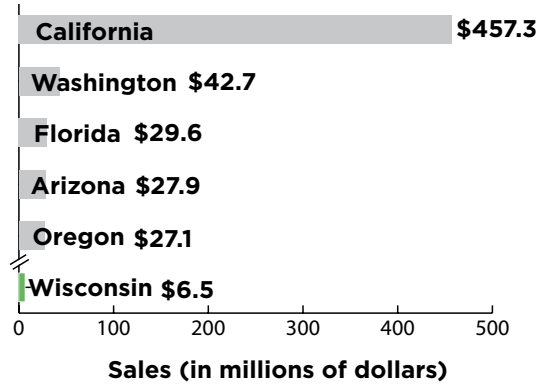


Figure 14. Top five states in organic vegetable/ melon sales plus Wisconsin (#10), 2008
Source: USDA. 2008. *Organic Production Survey*, Table 4.

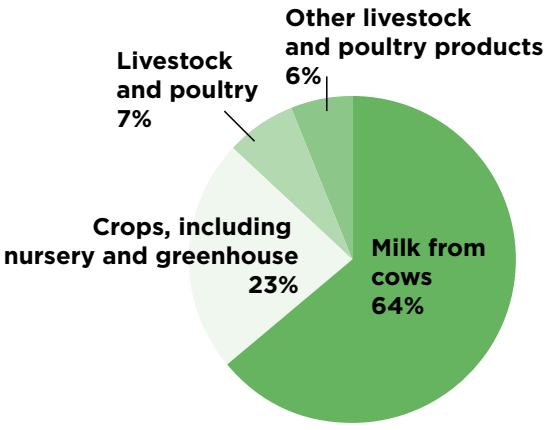


Figure 12. Wisconsin organic sales by product, 2008
Source: USDA. 2008, *Organic Production Report.*

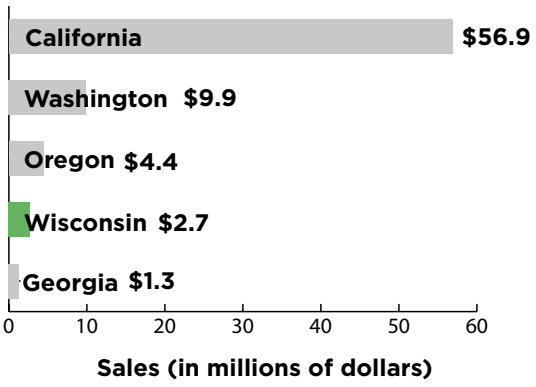


Figure 15. Top five states in organic berry sales, 2008
Source: USDA. 2008. *Organic Production Survey*, Table 6.

figures because the farms or herds are small and not producing large volumes of product. Product values can differ greatly; one state can have fewer farms selling high-value products and show greater total sales than another state with many farms selling lower value products.

Marketing

The 2008 Organic Census counted how many farms market their products through local sales within 100 miles of the farm; regional sales 100 to 499 miles from the farm; national sales 500 miles or more from the farm; and international sales. Three states ranked among the top at all of these scales: California, Wisconsin and Washington (Figure 18, page 9). A common characteristic of each of these states is market diversity, which is crucial for the industry's economic and market resilience.

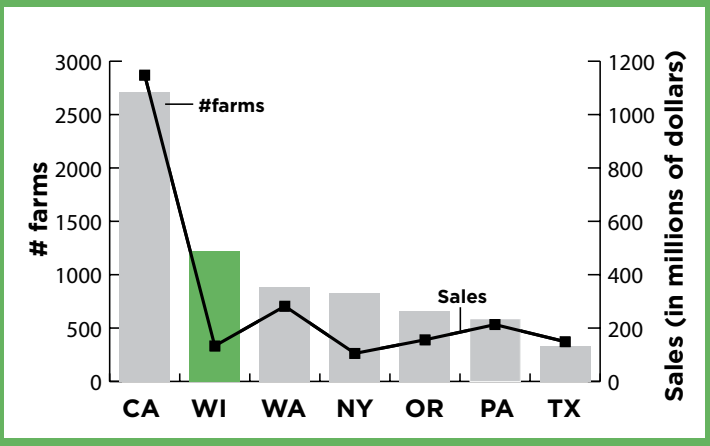


Figure 16. Top states in total number of organic farms and total value of organic sales, 2008

Source: USDA. 2008. *Organic Production Survey*, Table 1.

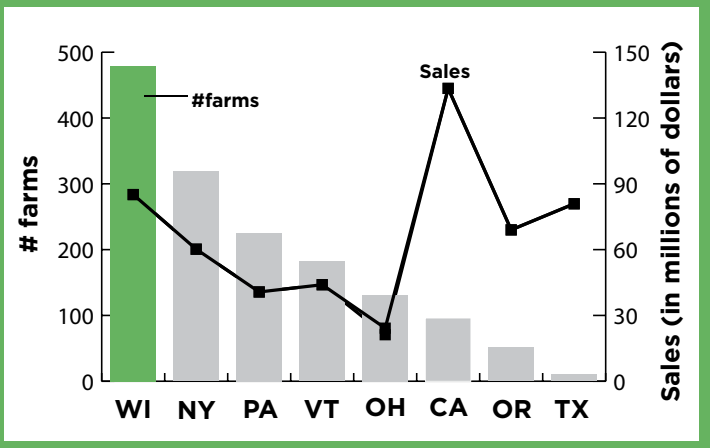


Figure 17. Top states in number of dairy farms and value of organic milk sales, 2008

Source: USDA. 2008. *Organic Production Survey*, Tables 10 and 11.

Over 10 percent of organic sales in Wisconsin were either made directly to consumers or through retail channels, such as grocery stores. Most organic product sales in Wisconsin were through wholesale markets, with 33.5 percent of sales made to processors, mills or packers, and 34 percent made to grower cooperatives. Many organic products are sold as value-added products. Wisconsin ranks seventh in organic, value-added product sales, with $2.1 million in sales or one percent of the U.S. total (Figure 19).

Economic impacts of organic agriculture

Agriculture is an economic engine in Wisconsin, creating jobs and generating other economic activity. In 2009, Dr. Steve Deller calculated production agriculture's overall impact on Wisconsin's economy.

Every job in agriculture supports an additional 0.89 jobs elsewhere in the state economy, and every job in dairy farming and processing supports an additional 1.23 jobs elsewhere (Deller 2009).[8]

Agriculture has an multiplier effect on income as well as employment. Deller found that for every dollar of agricultural income, an additional $1.24 of economic activity occurs elsewhere in the state economy through the purchasing of inputs and other spending.

A study comparing the economic impact of organic and conventional crop production was conducted at Iowa State University in 2007.[9] The study compared a conventional corn-soybean rotation to an organic corn-soy-oats-alfalfa rotation. Although results would probably differ for organic dairy, vegetable and livestock farms in Wisconsin, the study suggests that organic systems in general may contribute more economic activity to local economies, primarily as a result of their more labor-intensive nature. For every $100,000 of direct farmgate income, conventional farms generated a total economic impact of $139,500 with 1.4 total jobs created; organic farms generated a total economic impact of $157,834 with 1.7 total jobs created. While conventional farming created more economic activity related to purchased inputs, organic farming created more economic activity around labor and local spending.

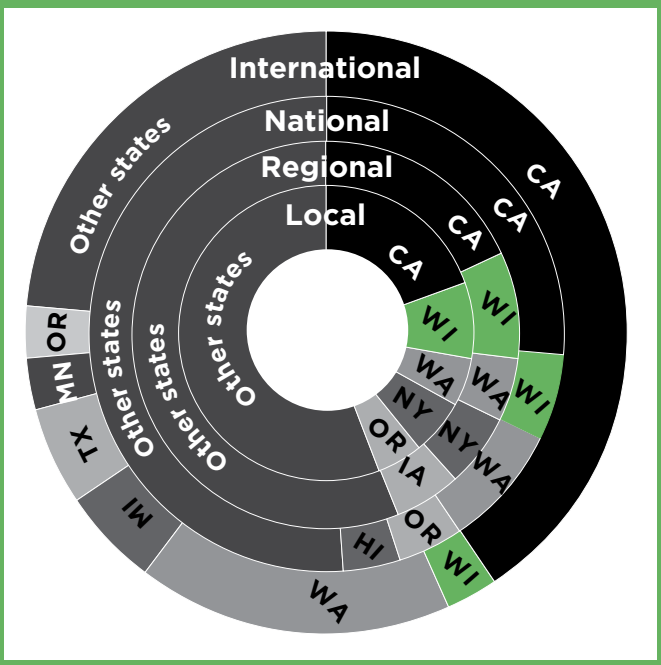


Figure 18. Top states in number of farms selling at the local, regional, national and international scales, 2008

Source: USDA. 2008. *Organic Production Survey*, Table 14.

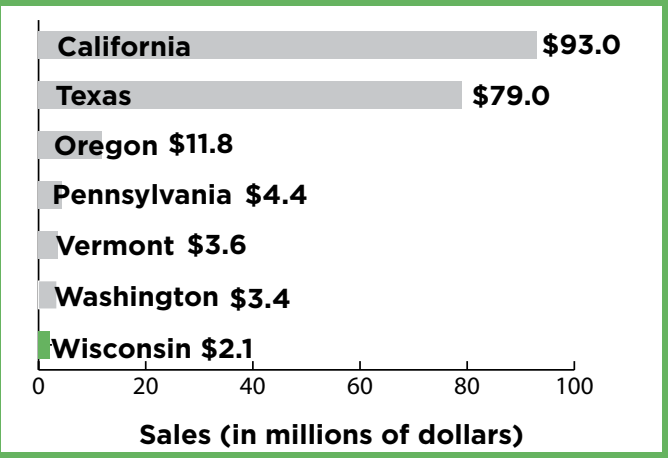


Figure 19. Top seven states in dollar value of value added organic sales, 2008

Source: USDA. 2008. *Organic Production Survey*, Table 3.

[8]Deller, S. and D. Williams. 2009. *The Contribution of Agriculture to the Wisconsin economy*. (www.uwex.edu/ces/ag/wisag). Accessed 01/03/12.

[9]Swenson, D., L. Eathington and C. Chase. 2007. *Determining the Methods of Measuring the Economic and Fiscal Impacts Associated with Organic Crop Conversion in Iowa.* (http://www.leopold.iastate.edu/pubs-and-papers/2007-03-determining-methods). Accessed 01/03/12.

USDA organic agriculture programs

USDA National Organic Program
http://www.ams.usda.gov/AMSv1.0/nop

The mission of the National Organic Program is to ensure the integrity of USDA organic products in the United States and throughout the world. The National Organic Program oversees and enforces the national organic standards. Visit their website to find information on all aspects of organic certification, including organic standards, regulations and guidance on certification, production, handling and labeling of USDA organic products, the national list of approved substances, the National Organic Standards Board, third-party agents around the world authorized to certify operations to USDA organic standards, and compliance and enforcement.

Organic Certification Cost Share Program
On the NOP homepage, look under: Organic Certification & Accreditation/Financial Assistance

The Organic Certification Cost Share Program reimburses eligible producers and handlers for a portion of the cost of organic certification. The funding is administered through state departments of agriculture. After entering into cooperative agreements with the USDA, the state agencies process applications for cost share funds and the USDA reimburses them. Applicants typically submit a one-page application form, along with proof of certification and an itemized invoice, to their state's department of agriculture. After the state agency reviews the application, they may reimburse the applicant for 75 percent of the cost of certification, up to a maximum of $750 per year. The program is administered on a first-come, first-served basis until funds are exhausted.

In 2011, Wisconsin received $640,000 in cost-share dollars and reimbursed $589 per farm, on average. About 500 to 700 applicants per year apply for this funding in Wisconsin.

USDA Economic Research Service: Organic Agriculture Briefing Room
http://www.ers.usda.gov/Briefing/Organic/

This briefing room covers the scope of ERS work on organic agriculture and provides economic research, analysis and information about the production and marketing of organic products. It includes frequently updated data on organic acreage and livestock, prices and cost of production, plus special articles, reports, maps and charts on organic production, distribution, markets, trade and policy.

Organic Agriculture Research and Extension Initiative (OREI) Grant Program
http://www.csrees.usda.gov/fo/fundview.cfm?fonum=2120

2011 total program funding: $19,000,000

The OREI seeks to solve critical organic agriculture issues, priorities or problems through the integration of research and extension activities. This program funds projects that enhance the ability of producers and processors who have already adopted organic standards to grow and market high

quality organic agricultural products. Priority concerns include the biological, physical and social sciences, including economics. The OREI is particularly interested in projects emphasizing research and outreach that assist farmers and ranchers with whole farm planning. Projects should deliver applied production information to producers. Fieldwork must be done on certified organic land or on land in transition to organic certification, as appropriate to project goals and objectives.

Organic Transitions Competitive Grants Program
http://www.csrees.usda.gov/fo/fundview.cfm?fonum=2480

2011 total program funding: $3,750,000

The overall goal of the Organic Transitions Program (ORG) is to support the development and implementation of research, extension and higher education programs to improve the competitiveness of organic livestock and crop producers, as well as those who are adopting organic practices. In FY 2011, this program focused on environmental services provided by organic farming systems that support soil conservation and contribute to climate change mitigation. Practices and systems addressed included those associated with organic crops, organic animal production (including dairy) and organic systems integrating plant and animal production.

Natural Resources Conservation Service: EQIP Organic Initiative
http://www.wi.nrcs.usda.gov/programs/eqip.html

Begun in 2001, the EQIP Organic Initiative provides a special pool of cost share dollars for certified organic producers, and those transitioning to organic production, to implement resource conservation practices on their agricultural operations. Applications are accepted on a continuous basis, with ranking dates set each year. Some individual practices receive higher payments than regular EQIP practices, in recognition of the higher cost of organic seeds or fertilizers. Details about sign up, participation eligibility and reimbursement rates are announced each year. Eligible farmers can receive $20,000 per year—up to $80,000—over no more than six years. Cover crops and crop rotations, intensive grazing infrastructure (grazing plans, fencing, walkways, water lines), wildlife and pollinator habitat, and high tunnels are examples of potential practices available for funding under this program.

In 2011, $50 million was available nationally for this program. Wisconsin has one of the top application rates in the U.S. In 2011, about 160 organic farmers from our state applied to participate in this program.

GROWING DEMAND FOR ORGANIC FOOD: A BRIGHT SPOT IN A TOUGH ECONOMY

With U.S. consumers pinching pennies, cutting corners and seeking out the lowest prices, one might think that demand for organic food would have fallen since the start of the economic downturn in 2007. Instead, the opposite is true. While total U.S. food sales have been nearly flat, the organic food industry is growing and consumer interest in organic food is on the rise.

A 2011 survey by the Organic Trade Association found that more than three-quarters—78 percent—of U.S. families are buying organic food, up from 73 percent in 2009. Forty percent of families say they are buying more organic food now than they were a year ago.[10]

In 2010, the U.S. organic food and beverage industry grew at a rate of 7.7 percent, posting total sales of $26.7 billion. In comparison, growth in total U.S. food sales stagnated at 0.6 percent. Organic food accounted for four percent of the $673 billion food industry in 2010.[11]

Since 2000, the U.S. organic food industry has grown exponentially. In 2000, organic food sales totaled $6.1 billion and represented a mere 1.2 percent of total food sales. From 2000 to 2010, the organic food industry grew at an average rate of 16.5 percent per year, compared to 3.25 percent average annual growth in the overall food industry.[12]

Organic food sales in the U.S. comprise nearly half of global organic food sales. The global organic market reached $54.9 billion in 2009, more than triple the $18 billion recorded in 2000.[13]

Organic fruits, vegetables and dairy experienced the most growth in the domestic organic food industry in 2010. This is significant for Wisconsin, which tops the nation in the number of organic dairy farms and ranks third in the number of organic vegetable and melon farms.[14] U.S. organic fruit and vegetable sales reached nearly $10.6 billion in 2010, representing nearly 12 percent of total fruit and vegetable sales. This is an 11.8 percent increase over 2009 sales. Organic

[10]Organic Trade Association. November 2011. *Seventy-eight percent of U.S. families say they purchase organic foods.* (www.organicnewsroom.com/2011/11/seventyeight_percent_of_us_fam.html). Accessed 11/22/11.

[11]Organic Trade Association. 2011. *U.S. Organic Industry Overview.* (www.ota.com/pics/documents/2011OrganicIndustrySurvey.pdf). Accessed 11/22/11.

[12]Ibid.

[13]Willer, H. and L. Kilcher (Eds.) 2011. *The World of Organic Agriculture - Statistics and Emerging Trends 2011.* IFOAM, Bonn, and FiBL, Frick. (www.organic-world.net/yearbook-2011-key-results.html). Accessed 11/23/11.

[14]USDA. 2008. *Organic Production Survey: Wisconsin.* (www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/WI_Organic_Release.pdf). Accessed 11/28/11.

dairy captured nearly six percent of the total U.S. market for dairy products, with $3.9 billion in sales.[15]

This growth translates into jobs. In 2010, 40 percent of U.S. organic companies surveyed by the Organic Trade Association added full-time jobs, with larger businesses more likely to add employees. About half of surveyed businesses with 50 or more employees experienced positive growth in full-time employment. Twenty-three percent of companies with fewer than five employees added full-time jobs. In 2011, 46 percent of the companies responding to this survey expect to add jobs. Fifty percent expect employment to remain steady, and only five percent expect to reduce their workforce.[16]

Most U.S. consumers purchase organic food at mainstream grocery stores. In 2010, mass market retailers captured 54 percent of organic food sales. Natural food retailers accounted for 39 percent of total organic food sales that year. Other markets for organic food include farmers' markets, community supported agriculture farms, the internet, mail order and specialty stores.[17] Interestingly, while most consumers buy organic food at supermarkets, 46 percent would prefer to purchase organic produce at farmers' markets. Thirty-two percent prefer supermarkets and 20 percent choose their own gardens as the preferred source for organic produce.[18]

Organic consumers tend to be young and well-educated. A Thomson Reuters-NPR poll found that Americans with a college degree are more likely than less-educated consumers to prefer eating organic food. Consumers over the age of 65 are less likely to prefer eating organic food than younger Americans,[19] and young adults between the ages of 25 and 34 are the most likely to express interest in buying organic food.[20]

Why do people buy organic food? Parents tend to be motivated by health concerns. The Organic Trade Association found that nearly half of parents surveyed—48 percent—were motivated to buy organic food because they believe

[15]Organic Trade Association. 2011. *U.S. Organic Industry Overview.* (www.ota.com/pics/documents/2011OrganicIndustrySurvey.pdf). Accessed 11/22/11.
[16]Organic Trade Association. 2011. *U.S. Organic Industry Overview.* (www.ota.com/pics/documents/2011OrganicIndustrySurvey.pdf). Accessed 11/22/11.
[17]Organic Trade Association. 2011. *Industry Statistics and Projected Growth.* (http://www.ota.com/organic/mt/business.html). Accessed 11/23/11.
[18]Thomson Reuters-NPR Health Poll. June 2011. *Organic Food.* (www.facts4healthcare.com/pressroom/NPR_report_organicFoods.pdf). Accessed 11/22/11.
[19]Ibid.
[20]Mintel. March 2010. *Consumer Attitudes Toward Natural and Organic Food and Beverage.* Mintel International Group Limited.

it is healthier for themselves and their children. Other motivators for parents include concerns over the effects of pesticides, hormones and antibiotics on children, and avoidance of highly processed food and artificial ingredients.[21]

When researchers look at a broader population than parents, however, they get different reasons for purchasing organic food. Of the respondents in the NPR poll who prefer organic food, 36 percent are motivated by a desire to support local farms. Thirty-four percent wish to avoid toxins in their food, 17 percent believe that organic food is better for the environment, 13 percent say that organic food tastes better and 11 percent believe organic food is safer.[22]

Based on these numbers, the organic food and beverage industry presents an opportunity for growth in both revenue and jobs during the downturn. As a national leader in both organic dairy and vegetable farms, Wisconsin is in an excellent position to capture more of this expanding market.

[21]Organic Trade Association. November 2011. *Seventy-eight percent of U.S. families say they purchase organic foods.* (www.organicnewsroom.com/2011/11/seventyeight_percent_of_us_fam.html). Accessed 11/22/11.

[22]Thomson Reuters-NPR Health Poll. June 2011. *Organic Food.* (www.facts4healthcare.com/pressroom/NPR_report_organicFoods.pdf). Accessed 11/22/11.

ORGANIC DAIRY AND LIVESTOCK MARKETS IMPACTED BY ORGANIC GRAIN SHORTAGE

In the midst of the worst economic downturn since the Great Depression, consumer demand for organic food continues to grow. Organic commodity prices are strong, yet all kinds of organic food are in short supply due to a dearth of organic grain.

"We didn't realize how much influence organic grain farmers had on the organic market until now," says Mike Schulist, organic dairy farmer and marketing director of the Wisconsin Organic Marketing Association. "Right now, demand is high and supply is tight. It'll take some time to balance out."

Kevin Kiehnau, a regional pool manager for Organic Valley, says that the organic grain shortage is the result of a "perfect storm" of market forces and bad weather.

Markets and weather

In mid-2008, organic feed corn sold for more than $11 per bushel,[23] offering organic farmers a significant premium over conventional corn prices. This price slid downward throughout 2009 and 2010. By July 2010, the price of organic feed corn hit bottom, selling for $4.24 per bushel in the Des Moines market.[24] Average prices for organic and conventional feed-grade corn were nearly identical by September, 2010.[25, 26]

While these plummeting prices were difficult for all organic grain farmers, they were particularly tough on new farmers. Farmers making the switch from conventional to organic production are required to undergo a three-year transition where they use organic production practices, but receive conventional prices. Equipment and labor costs often increase when grain farmers convert to organic production.

In a typical market, organic farmers are rewarded with premium prices at the end of this transition, when they sell their crops on the organic market. Grain farmers who were completing this transition in 2010, however, did not receive the premiums they had hoped—and budgeted—for. As a result, numerous transitioning grain farmers switched back to conventional production. Schulist says that many of these farmers do not intend to go back to organic production, despite a dramatic price increase in 2011.

[23]USDA Agricultural Marketing Service. Sept. 9, 2010. *National Organic Grain and Feedstuffs.* (search.ams.usda.gov/mndms/2010/09/LS20100909BNOF.PDF#xml=http://search.ams.usda.gov/mnsearch/hiliteinfo.aspx?i=3&docid=LS20100909BNOF.PDF). Accessed 12/9/11.

[24]USDA Agricultural Marketing Service. July 14, 2010. *Upper Midwest Organic Grain and Feedstuffs Report.* (search.ams.usda.gov/mndms/2010/07/NW_GR11320100714.TXT). Accessed 12/9/11.

[25]USDA Agricultural Marketing Service. September 17, 2010. *Daily National Grain Market Summary.* (search.ams.usda.gov/mndms/2010/09/SJ_GR85020100917.TXT). Accessed 12/9/11.

[26]USDA Agricultural Marketing Service. September 22, 2010. *Upper Midwest Organic Grain and Feedstuffs Report.* (search.ams.usda.gov/mndms/2010/09/NW_GR11320100922.TXT). Accessed 12/9/11.

In addition, established grain farmers have been getting out of organic production for reasons including retirement, strong prices for conventional grain, escalating rental prices for cropland and the hassle of organic certification and marketing. John Bobbe, executive director of the Organic Farmers' Agency for Relationship Marketing (OFARM), estimates that at least 35,000 acres of cropland, and perhaps as many as 50,000 acres, are no longer being farmed organically in the Midwest.

Adverse weather in 2011 impacted production on many of Wisconsin's organic grain farms. Many Wisconsin farmers experienced extreme wet, then dry conditions, and high winds. In many areas, a wet spring made early weed control challenging. Organic farmers control weeds through tillage, which is more time-sensitive than chemical weed control, especially in rainy weather. Because organic farmers couldn't till their muddy fields when weeds were emerging, yields suffered.

According to Bobbe, 2011 was a bad year for just about all organic grain crops including corn, soybeans, wheat, oats and field peas. With organic grain in short supply across the U.S., prices were extremely high in late 2011 and showed no signs of falling. In mid-December, organic feed corn was selling for $11-12 per bushel in the Midwest.[27] At the same time, conventional corn prices were also strong, with #2 yellow corn selling for close to $6 per bushel in the Midwest.[28]

Because organic livestock must be fed certified organic feed, high grain prices change the economics of organic milk, egg and meat production. Kiehnau says that it isn't profitable to feed organic grain to livestock in the current market.

Effects on organic dairy farms

While many Wisconsin organic dairy farmers grow their own feed—both forage and grain—they can make more money selling organic grain for $11-12 per bushel than feeding it to a dairy cow.

Both Bobbe and Schulist say that organic dairy farmers in the Midwest need $30 per hundredweight (cwt) for their milk to turn a profit when the price of organic corn reaches $12 per bushel. Both doubt that the marketplace will support that price, despite soaring demand for organic milk. Organic Valley currently pays its midwestern dairy producers $24.55 per hundredweight, with an additional $3/cwt premium in the winter months and a $2/cwt pay raise scheduled for March.

[27]USDA Agricultural Marketing Service. December 14, 2011. *Upper Midwest Organic Grain and Feedstuffs Report.* (www.ams.usda.gov/mnreports/nw_gr113.txt). Accessed 12/15/11.
[28]USDA Agricultural Marketing Service. December 14, 2011. *Daily National Grain Market Summary.* (www.ams.usda.gov/mnreports/sj_gr850.txt). Accessed 12/15/11.

Organic milk sales are surging, yet production is not currently keeping up with demand. Even though Organic Valley has added dairy producers, production per cow is down. Kiehnau says this is due to farmers reducing the amount of grain in feed rations. While cows are getting the grain they need to maintain body condition and reproduction, it is not enough for maximum milk production.

Effects on organic beef farms

Organic beef farmers are in an even tighter spot, economically, than dairy producers. According to Kiehnau, "Finishing cattle to USDA Choice grade with grain is not a profitable proposition right now." While grass-fed beef producers can potentially survive in this market, finishing beef to Choice grade on grass requires superior management skills.

"The only organic beef producers who have a chance right now are people finishing cattle on grass," said Bobbe.

Furthermore, with producers receiving similar prices for organic and non-organic grass-fed beef, there is less incentive for producers to go to the extra expense of certifying.

Effects on organic poultry farms

Because chickens eat mostly grain, and because laying hens require a consistent diet to maintain dependable egg quality, the organic grain shortage is potentially a bigger issue for poultry producers than for dairy or beef farmers. Kiehnau noted that Organic Valley egg producers are currently able to buy the feed they need, and Schulist confirmed that access to feed is not an issue for organic poultry producers, despite the national grain shortage.

As in dairy, demand for organic eggs is up and supply is down. As a result, Kiehnau says that Organic Valley has been able to increase the price they pay their egg producers. This pay bump is not enough to fully compensate for higher feed costs, however.

Improving profitability in the face of high grain prices

Organic dairy and livestock farmers can improve their profitability in this market by growing their own feed and increasing the nutritional quality of the feed they produce. When recruiting farmers, Organic Valley considers feed self-sufficiency. The co-op is working with its dairy and livestock producers to improve their soil fertility and build their management skills so they are growing more nutritious feed, increasing their use of pasture and other forages, and decreasing their dependence on grain.

Organic grain farmers, however, face limited options when dealing with market volatility, as their production systems are complex and they face a three-year transition before bringing new land into organic production. Unlike conventional growers, they cannot increase their acres under cultivation or intensify production on existing acres in response to falling prices.

Kiehnau and Bobbe agree that guaranteeing organic grain farmers a stable price is the ideal way, and perhaps the only way, to mitigate market risk. In order to increase the supply of organic feed available to dairy and livestock producers, Organic Valley is offering new grain producers a three-year contract that locks in at least some of their organic grain at a stable price. This contract will make the transition period more attractive to growers and lenders.

Both Schulist and Bobbe encourage farmers to diversify their crops and markets to cope with risk, and they suggest that farmers take advantage of the "buy local" movement. While most organic farmers can't sell all of their products locally, building local markets can provide some security when commodity markets are unstable.

Ultimately, Kiehnau thinks organic grain production and markets will stabilize. "It's a difficult time," he says. "We've had them before. We'll get through this."

WISCONSIN'S ORGANIC VEGETABLE FARMS: A SNAPSHOT

Organic vegetable farms in Wisconsin are as diverse and eclectic as a box of produce from a Community Supported Agriculture farm. They run the gamut from small market gardens growing a wide variety of vegetables to larger farms growing a few crops for processing. They serve a wide-ranging marketplace, from farmers' markets to retail stores.

In order to better understand what these farms have in common, as well as how they differ, in February 2011 a research team headed by Erin Silva at UW-Madison mailed a survey to all certified organic vegetable farms in Wisconsin. The survey asked questions about farm size, mechanization, employees, markets, finances and life satisfaction. One hundred thirteen of the 222 surveys that were mailed were returned.

Here is the picture of Wisconsin's organic vegetable farms that emerged from the survey:

Farm size: Wisconsin's organic vegetable farms tend to be small. Over half of the farmers responding to the survey plant five or fewer acres each year. Seventy-five percent plant fewer than 12 acres.

Irrigation: Six out of every 10 farms responding to the survey use drip irrigation. About half of the farms use garden hoses and sprinklers. Thirteen percent use aluminum pipe sprinklers, five percent use water cannons and nine percent use other irrigation systems.

Season extension: Using technology to produce vegetables before or after the regular growing season can increase farm profits. Nearly every farmer responding to this survey—92 percent—has a greenhouse, and 55 percent use a high tunnel to extend the growing season.

Mechanization: Most farmers responding to this survey depend on at least some human-powered technology, which is no surprise given the small acreages they farm. More than two-thirds—69 percent—use hand seeders to plant their crops, and 72 percent rely on wheel hoes or other hand cultivation for weed control. Almost half use a walk-behind rototiller. Almost three-quarters of the responding farms use tractors. Of these, 57 percent use a tractor-mounted rototiller and 49 percent use a mechanical cultivator and/or transplanter. A third or fewer of the responding farms use tractor-mounted or -pulled seeders or tractor-assisted harvesters.

Postharvest handling: Wash tubs are the only postharvest equipment found on most responding farms, with 84 percent using wash tubs to clean produce after harvest. Slightly more than half of the farms have a cooler and/or an enclosed packing shed. Fewer than half of the farms have a brush washer, a barrel washer or other postharvest equipment.

Finances: Organic vegetable farms tend to be financially self-sufficient. Forty percent of the responding farms operate solely on farm-generated income, with no off-farm income. Of the farms with non-farm employment, about half derive 50 percent or less of their income from an off-farm job. More than two-thirds—69 percent—are self-financed and do not depend on outside loans for capitalization.

Land ownership: Seventy-one percent of the survey respondents said that they own the land they farm, with only six percent owning none of the land they cultivate. About 30 percent owe no payments on their farmed land.

Employees: The survey showed that a typical Wisconsin organic vegetable farm employs two full-time and one part-time, year-round workers. Some farms hire up to 20 employees. In addition, the surveyed farms employ three to five seasonal workers. Twenty-six percent of these farms hire a manager. The survey did not ask farmers to distinguish between paid employees and volunteers exchanging their labor for a share of the farm's produce.

Life satisfaction: Despite long hours of physical labor, organic vegetable farmers tend to find their work satisfying. About three-quarters of the surveyed farmers are satisfied or very satisfied with their quality of life. Only five percent are dissatisfied with their quality of life, and fewer than one-quarter are dissatisfied with their farm profitability.

These results provide a snapshot of the many ways Wisconsin's organic vegetable farms contribute to the vitality of the state's agricultural community. With diverse production approaches, secure land ownership and high levels of satisfaction, organic vegetable farmers positively impact the strength and vitality of Wisconsin's agricultural landscape.

PROCESSING ADDS VALUE AND PROFIT TO WISCONSIN'S ORGANIC INDUSTRY

How can Wisconsin capture more of the $26.7 billion spent in the U.S. on organic food and beverages? Organic processing, which adds value to the organic milk, meat, produce and other commodities raised in Wisconsin, enables businesses to capture a bigger share of consumer spending on organic food.

In the spring of 2011, the Wisconsin Department of Agriculture, Trade and Consumer Protection informally surveyed 30 Wisconsin companies processing organic products. Nearly half of these companies were dairy processors. Other types of processed organic products represented in the survey included produce, meat and poultry, beverages, ingredients such as spices and seasonings, grain, hay and forage.

Seventeen of these companies produce products under their own label; of these, eight also provide contract processing for other companies. The remaining 13 companies only offer contract organic processing and do not have their own organic labels.

Gross annual income from organic sales ranged from over $100 million to under $10,000 among the 24 companies providing income estimates. Figure 20 provides a breakdown of these companies' gross income from organic sales.

Fourteen of the 30 companies started selling organic products before the initiation of the USDA National Organic Program in 2002. Of those well-established companies, 11 reported growth in organic sales in the last three years.

The picture was not as rosy for newer companies. Among the 12 companies established since 2002, five reported growth, three reported no change and three reported decreases in organic sales. Only one company launched since 2008 reported growth in organic sales.

Despite the challenges of these economically uncertain times, nineteen of the thirty companies expect growth in coming years, regardless of their current situation.

In order to better understand the challenges and opportunities faced by organic processors in Wisconsin, the UW-Madison Center for Integrated Agricultural Systems interviewed two companies that capture some of the diversity of this industry. Hay River Pumpkin Seed Oil is a five year-old business focused exclusively on one high-end, organic product. Cedar Grove Cheese is a well-established dairy processor that creates a wide range of organic and specialty cheeses for its own label and for other businesses. Cedar Grove has been selling organic cheese for 16 years.

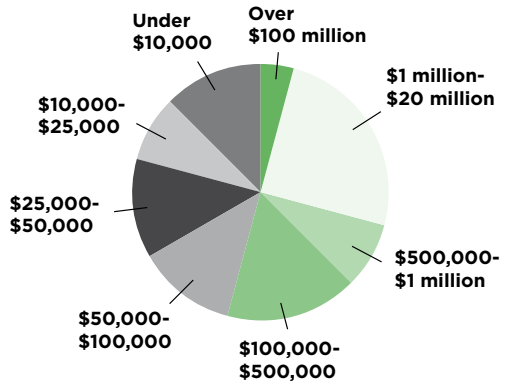


Figure 20. Wisconsin organic processors by gross annual sales

Source: WI DATCP. 2011. Organic processor survey.

Hay River Pumpkin Seed Oil: Prairie Farm, Wisconsin

Hay River Pumpkin Seed Oil is a small business with big aspirations. The makers of "America's First Pumpkin Seed Oil" not only want to produce a top-quality, organic product for their customers, they also aim to create good-paying jobs and enrich small family farms in rural, western Wisconsin.

Ken Seguine and his partner, Jay Gilbertson, were living in the Twin Cities when they purchased land in Prairie Farm, Wisconsin, in 2001. After hearing Mark Mueller of Botanic Oil Innovations, a specialty oil processor in Spooner, give a presentation on the viability of unique oil seed crops in the Upper Midwest, Seguine and Gilbertson were inspired to investigate the viability of starting a pumpkin seed oil business on their farm.

Austrians have raised pumpkins as an oilseed crop for more than three centuries. In Austria and other parts of Europe, pumpkin seed oil is widely used in salads, vinaigrettes and marinades. In the U.S., most pumpkin seed oil is consumed as an encapsulated dietary supplement. Seguine aims to change that, and appears to be succeeding.

Hay River regularly sells out of their limited, annual production, and demand for their product exceeds what they can supply at this point.

"I've worked in the natural products industry my whole life," says Seguine, "and this is the easiest sell ever."

Pumpkin varieties raised for oil production are not the same as those grown for jack-o-lanterns and pies. Seguine and Gilbertson raise naked seeded pumpkins. The seeds of these varieties don't have a tough outer coat, making them easier to press than ordinary pumpkin seeds.

In addition to growing these pumpkins on their own land, Seguine and Gilbertson contract with three local, organic farms, each of which grows a few acres of pumpkins for the oil seed company. Hay River provides these farms with greenhouse-raised seedlings, and harvests the pumpkins come fall. Raising pumpkins on several farms helps them manage production risks. "If pests or weather get the best of one field, we'll have another," says Seguine.

After a few years of harvesting pumpkin seeds by hand, in 2010 Seguine and Gilbertson invested in custom harvesting equipment that crushes the pumpkins and separates the seeds from the flesh. The equipment has turned out to be much too slow, especially in years where cold weather sets in early. In the future, they hope to invest in more efficient harvesting equipment from Europe.

Hay River hires eight part-time employees during the three- to five-week harvest season, and is committed to paying wages above the going rate for agricultural work. "One of our dreams and visions is to create sustainable jobs," says Seguine.

After harvest, the seeds are washed, dried and bagged. They are transported to Botanic Oil Innovations in Spooner, where they are lightly roasted. The oil is

then extruded through a cold-press system. Botanic Oil Innovations bottles the oil and returns it to Seguine and Gilbertson.

Hay River team

Botanic Oil Innovations, which helped inspire the creation of Hay River Pumpkin Seed Oil, is now a key part of its production process. "It may not have been possible for us to do this without Botanic Oil Innovations," says Seguine. "The legal and regulatory requirements of running a processing plant would have been a steep learning curve for a small startup."

Contracting with other businesses for processing is an effective way for new businesses to minimize debt. Organic Valley followed a similar startup strategy and, despite its enormous growth, now owns just one processing facility in Cashton.

Seguine and Gilbertson distribute their product through specialty stores in the Upper Midwest and through mail order via their website (hayriver.net). Hay River Pumpkin Seed Oil is available in most Wisconsin cities.

Their main competition is imported, European pumpkin seed oils. Their only domestic competitor is another regional company, based out of New York, selling a variety of oils derived from squash seeds. Seguine welcomes this competition. He believes that, at this stage of market development for their product, competition helps increase overall market share for everyone.

Hay River Pumpkin Seed Oil has always been certified organic. Seguine and Gilbertson are committed to organic production because they believe it is the right thing to do, and also because it is vitally important to their marketing. "When people who don't know us are buying our product, the USDA organic seal is a label the consumer can trust," says Seguine.

Hay River's marketing message and label focus on two key features of their product: organic and Wisconsin. Seguine emphasizes Wisconsin not only for local marketing purposes, but also because he believes that national customers associate our state with quality. "Wisconsin sells," he says. "We have a wonderful reputation within the United States. People associate purity, quality, truthfulness and other good attributes with Wisconsin."

Because they sell limited quantities of a high-end product, Hay River's business was not affected by the economic downturn. "In fact, we grew during the downturn," says Seguine. "Consumers who can afford our oil have the means and desire to support what we're doing." Seguine acknowledges that, as their business grows and their price point drops, a future downturn could affect their sales.

In coming years, Seguine anticipates growth in the domestic market for specialty oils: "These types of oils, with lots of omega-3s and carotenoids, will become a solid base of established nutrition and delicious eating over the next ten to twenty years."

Cedar Grove Cheese: Plain, Wisconsin

Bob Wills and his wife, Beth Nachreiner, purchased Cedar Grove Cheese from Beth's parents in 1989. After a few years of producing commodity Cheddar, they decided to focus their efforts on specialty cheese. They were the first U.S. processor to introduce rBGH-free cheese in 1993, and they launched their organic cheese line in 1996. Cedar Grove also processes kosher and artisanal cheeses, and manufactures organic sweet whey powder.

Wills got into the organic processing business for both practical and philosophical reasons. It was relatively easy and affordable for Cedar Grove to add organic cheese to its product offerings. Wills already had the infrastructure in place for organic processing, although he needed to make changes to some of his pest management and recordkeeping practices. He found that his customers understood organic more easily than rBGH-free.

Philosophically, Wills is committed to running a sustainable operation. Organic production is one way for him to make a long-term commitment to the environmental and economic health of his operation, the 20 organic dairy farms that supply him with milk and the rural communities that benefit from his business. In addition to supporting his organic milk suppliers, Wills has improved the energy efficiency of his plant through upgrades to lighting and refrigeration.

Wills naturally cleans wastewater from the plant using a biological treatment system, or "living machine." In this system, bacteria and wetland plants remove soap, caustic cleaners, cheese particles, milk and whey from Cedar Grove's wastewater, leaving the water clean enough to discharge into Honey Creek.

In order to grow and sustain his business, Wills focuses on customer service rather than marketing. He offers his contract customers flexibility in terms of adjusting recipes and ingredients to meet their unique needs. He also maintains a wide diversity of customers. "We try to maintain balance and have a rule that no one gets over 15 percent of our product," he says.

Wills observes that his organic market is not as stable as some of his other markets in terms of consistent demand. When the economy went sour in 2007-08, demand for his organic cheese plummeted. At that time, some of his customers contracting with him for organic cheese production switched to "natural" cheese, in order to cope with faltering demand for their organic products. The market for organic cheese has turned around over the past two years, and Wills reports that his organic sales are better now than they were before the downturn.

Not all organic dairy processors weathered the downturn this well. "Many companies getting into organic dairy have backed out or failed over the past three to four years," says Wills. In 2011, there were 33 processors with organic

dairy processing capacity in Wisconsin, down 54 percent from 72 organic dairy processors in 2010.[29]

Bob Wills

Wills feels that, in the organic cheese marketplace, he only faces competition from two other Wisconsin businesses. He faces national competition from organic cheese producers in California who, in his words, "…tend to seriously undercut the market."

Wills taps into the growing demand for local food by emphasizing Wisconsin on his Cedar Grove label, which he says provides a retail advantage. "I'm not sure if it is worth lots of money, but people associate Wisconsin with quality."

As for challenges faced by organic processors, Wills is concerned about "near organic" products encroaching on the organic market. These "natural" foods lack certification to back up the claims on their labels, sometimes bear labels that are nearly identical to organic foods produced by the same processor, and are often placed on grocery store shelves with organic products. Wills feels that this confuses customers and can leave them disillusioned with, and distrustful of, all kinds of product claims, including organic.

Wills is uncertain whether the state should take an active role in supporting organic processors. He appreciates the role of Wisconsin's Organic Advisory Council in providing the organic industry with a place to provide input into policy decisions and voice their concerns. But, at a time when state resources are extremely limited, he feels that there are more important needs than helping organic processors: "I'd rather see them help hungry people than businesses."

Overall, Wills is optimistic about the future strength of Wisconsin's organic dairy industry. But, the success of this industry depends on the supply of organic milk, which is currently tight across the U.S. Because of good prices for conventional milk and the high cost of organic feed grain, Wills doesn't see a lot of dairy farmers considering the switch to organic right now, and some organic farmers are switching to conventional production. "If raw material availability doesn't improve," says Wills, "short supply could constrain future growth."

[29]National Organic Program data reported by the Wisconsin Department of Agriculture, Trade and Consumer Protection. Laura Paine, personal communication, 12/22/11.

APPENDIX A: THE WISCONSIN ORGANIC ADVISORY COUNCIL

The 12-member, private-sector Wisconsin Organic Advisory Council includes organic farmers and businesses, as well as certifier, nonprofit and consumer representatives. The purpose of this council is to provide Wisconsin agencies with guidance on educational, market development, policy and regulatory issues as they relate to organic farming, food production and marketing. The council meets regularly with an interagency team including representatives of agriculture-related state and federal agencies. It is a standing council of the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) and is coordinated by DATCP Organic Specialist Laura Paine.

Background

The state's support for organic agriculture started in 2004, when Governor Doyle set a goal for Wisconsin to "lead the nation in organic agriculture." In 2005, the governor's office held an organic summit and convened a task force to develop recommendations for fostering growth in the organic agriculture sector.

Priorities identified by the task force included creation of an educational and promotional program for Wisconsin organic products; establishment of programs that facilitate networking among organic farmers; development of coursework, degree programs and research on organic agriculture at University of Wisconsin campuses and the state's technical colleges; and support and technical assistance for enhancing organic processing capacity. The task force's report to the governor can be found at www.organic.wisc.edu.

The first steps in accomplishing these priorities have been completed. They include:

- Creation of an organic agriculture specialist position in DATCP's Division of Agricultural Development in April 2006.
- Creation of an organic research and education coordinator position at the University of Wisconsin-Madison College of Agricultural and Life Sciences in August 2006.
- Establishment of the Wisconsin Organic Advisory Council and an interagency team in 2007.

The Advisory Council membership includes three organic farmers, three organic business representatives, a certifier, a representative of a non-profit educational organization, a consumer representative and three at-large members (page 28). Members are appointed by the DATCP Agriculture Board to three-year, staggered terms. The Advisory Council was initially seated in February 2007 and has since met three to four times annually. Agencies working with the council include DATCP, the Wisconsin Department of Natural Resources, the Wisconsin Economic Development Corporation, the USDA Natural Resources Conservation Service and Farm Service Agency, the University of Wisconsin-Madison College of Agricultural and Life Sciences, UW-Extension and the Wisconsin Technical College System.

Council members and agency staff work together to support and promote organic farming. Their activities can be divided into several broad categories, including projects undertaken under the auspices of the Organic Advisory Council and the council members' participation in the efforts of outside organizations and agencies. The Organic Advisory Council also provides input, recommendations and support for programs and policies made at the state and federal levels.

Organic Advisory Council Activities and Accomplishments

The Wisconsin Organic Advisory Council was formed in 2007. Since then, it has worked in a number of direct and indirect ways to support growth of organic agriculture in Wisconsin and nationwide. Below are several of the council's accomplishments.

Organic Advisory Council sponsored projects:

- Created and updated annually a directory of organic farms and businesses in Wisconsin (2010).
- Created an online registry of organic farms for pesticide applicators to reduce the potential for spray damage (2010).
- Developed marketing materials for organic farmers and marketers—*A Consumer's Guide to Organic Food*—supported by a $9,900 Specialty Crops Block Grant (2009).
- Supported and contributed to *Organic Agriculture in Wisconsin* biennial status reports (2007, 2009, 2011).
- Developed a report and recommendations for DATCP on the flooding in southwestern Wisconsin in 2007 and its impact on organic farmers (2007).

Organic Advisory Council member participation in committees and other efforts:

- Organic representative on the Wisconsin NRCS State Technical Committee (ongoing).
- Spearheaded efforts to make available CEU credits for the Organic Farming Conference (ongoing).
- Cooperated with UW-Extension to provide an organic session at the 2011 Crop Production Conference (2011).
- Provided input and technical assistance to DATCP staff on nutrient management planning for organic farms (2010).
- Organic farmer representative on the DATCP ATCP 29 pesticide rule advisory group (2010).
- Provided support and educational resources to assist DATCP staff in working with pipeline companies that cross organic farms (2008).

Written recommendations & letters of support:

- Supported a sustainable and organic agriculture focus to the CALS search committee for the new dean (2011).
- Supported exemptions for small, organic and specialty markets for certain provisions being considered by the USDA Dairy Industry Advisory Committee via Bob Wills, a member of the committee (2010).
- Supported Wendy Fullwider's successful application to the National Organic Standards Board (2010).
- Provided a letter of support for graduate student Martha Rideout's recommendation to add organic herd health management to the UW School of Veterinary Medicine curriculum (2009).
- Provided comments on the interim final rule for the NRCS Environmental Quality Incentives Program (Docket No. NRCS-IFR-08005) (2009).
- Provided comments on Docket No. APHIS-2008-0023: Importation, Interstate Movement, and Release into the Environment of Certain Genetically Engineered Organisms (2009).
- Initiated and supported an advertising complaint by DATCP's Consumer Protection Division against Wal-Mart regarding their shelf labeling of co-mingled organic and non-organic products (2007).
- Provided comments on the NOP organic pasture rule (2008-09) and recommendations on organic farming needs for the 2008 Farm Bill (2007).

Advice and recommendations to agencies and organizations:

- Support for and input on UW Organic Agriculture Field Days (ongoing).
- Provided technical input and advice to NRCS on training technical service providers for organic transition planning (ongoing).
- Participated in public comment period during NOSB meeting in Madison, Wisconsin in November 2010 (topics addressed included animal welfare standards, pasture rule, organic hops and organic certification cost share program).
- Suggested names for an organic representative for the Wisconsin Seed Law (ATCP 20) advisory group (2009).
- Provided input and recommendations to the Wisconsin Institute for Sustainable Agriculture interim chairs as they conducted their listening sessions (2009).
- Provided recommendations to DATCP on Wisconsin Seed Law state pre-emption wording, and got pre-emption of local ordinances removed from the final rule (2008).

Current Organic Advisory Council Members

Organic Farmers
Rebecca Goodman (term ends 4/30/14)
Northwood Farm
Wonewoc, WI

Chris Malek (term ends 4/30/12)
Malek Family Stewardship Farm
Stevens Point, WI

Rich Lange (term ends 4/30/13)
Lange Farms
Platteville, WI

Organic Business Representatives
Mike Schulist (term ends 4/30/13)
Wisconsin Organic Marketing Alliance cooperative
Custer, WI

Jerry McGeorge (term ends 4/30/12)
Organic Valley
La Farge, WI

Ken Seguine (term ends 4/30/14)
Hay River Pumpkin Seed Oil
Prairie Farm, WI

Non-Profit Representative
Harriet Behar (term ends 4/30/14)
Midwest Organic and Sustainable Education Services
Gays Mills, WI

Consumer Representative
Jennifer Casey, RD, CD (term ends 4/30/13)
Gerald L. Ignace Indian Health Ctr.
Milwaukee, WI

Certification Representative
Bonnie Wideman (term ends 4/30/12)
Midwest Organic Services Association
Viroqua, WI

At-Large Members
David Engel (term ends 4/30/12)
Rising Sun Jersey Farm
Soldiers Grove, WI

Christine Mason (term ends 4/30/14)
Standard Process, Inc.
Palmyra, WI

Altfrid Krusenbaum (term ends 4/30/13)
Krusen Grass Dairy Farm
Elkhorn, WI

Interagency Team
Pat Murphy
NRCS State Office

Laurie Makos
Iowa County FSA Office

Kevin Shelley
UW Nutrient & Pest Mgmt. Program

Jed Colquhoun
UW-Extension Horticulture

Molly Jahn
UW CALS

Duane Klein
DATCP-ARM

Erin Crain
WI DNR

Cate Rahmlow
WI Econ. Development Corporation

Randy Zogbaum
WI Technical College System

Don Jaworski
Assoc. Dean, Agriculture Services
Northeast WI Technical College

Val Dantoin Adamski
Northeast WI Technical College

Mike Powers
WI DATCP-Division of Agricultural Development

Jonathan Rivin
UW Stevens Point, College of Natural Resources

Coordinators
Laura Paine
Grazing & Organic Ag Specialist
WI DATCP-DAD

Erin Silva
UW-Madison Agronomy Department

APPENDIX B: ACTIVE UW-MADISON ORGANIC RESEARCH

The following information was gathered through a search of the USDA Current Research Information System and updates from researchers. This list may not include all organic research occurring at UW-Madison. If you know of other projects we should include, or if you have any questions about organic research at UW-Madison, please contact Erin Silva at 608-890-1503 or emsilva@wisc.edu.

Weed and Fertility Interactions in Organic Vegetable Crops

Researchers: A.J. Bussan (UW-Madison Department of Horticulture), 608-262-3519, ajbussan@wisc.edu; Matt Ruark (Department of Soil Science), Jed Colquhoun (Department of Horticulture) and Erin Silva (Department of Agronomy)

Description: The goal of this research is to develop effective weed management systems for large-scale organic production of sweet corn for processing. Specific objectives include optimization of weed and nutrient management in organic sweet corn and determination of weed interference and seed production under different organic management practices.

Strategies of pasture supplementation on organic and conventional grazing dairies: assessment of economic, production and environmental outcomes

Researchers: Victor Cabrera (UW-Madison Department of Dairy Science), 608-263-3308, vcabrera@wisc.edu; David Combs (UW-Madison Department of Dairy Science), Rhonda Gildersleeve (UW Lancaster Agricultural Research Station) and Michel Wattiaux (UW-Madison Department of Dairy Science)

Description: USDA National Organic Program (NOP) standards for dairy and livestock production require that 30 percent or more of dry matter intake is provided by pastures on organic farms during the grazing season. Managed pastures provide abundant, high quality forage, but also present challenges when balancing dairy rations. This project is designed to investigate the impacts of pasture supplementation decisions made by Wisconsin organic and conventional grazing dairy farmers on selected economic, production and environmental variables. Organic dairy producers, transitioning producers and even conventional producers will benefit from this project as it identifies the farm level factors that influence pasture supplementation decisions and feed resource management on dairy farms. Project results will be utilized to develop outreach materials and decision aids that will be useful to farmers, extension agents and other agricultural professionals as they assist organic, transitioning, beginning or grazing dairy producers with farm planning and risk management decisions.

Organic certified seed potato production in the Midwest

Researchers: Amy Charkowski (UW-Madison Department of Plant Pathology), 608-262-7911, amyc@plantpath.wisc.edu; Ruth Genger and Doug Rouse (UW-Madison Department of Plant Pathology), Russell Groves (UW-Madison Department of Entomology) and Shelley Jansky (UW-Madison Department of Horticulture)

Description: Use of certified, disease-free seed potatoes limits tuber-borne diseases in potato crops, improving yield and quality. Limited organic production of certified seed potatoes in the Midwest forces organic growers to import at least some of their planting stock from other regions and increases the risk of accidental introduction and spread of diseases. This project will support organic production of certified seed potatoes in the Midwest through field-based and economic research. Our research will provide growers with detailed agronomic, sensory and nutritional data on heirloom and specialty potato varieties that are likely to perform well under low-input, organic conditions and appeal to consumers. Heirloom potato varieties will be grown in on-farm trials and characterized for yield, quality, disease resistance, taste and nutritional quality. We will define best management practices for organic production of seed potatoes, testing strategies for control of aphid-transmitted viruses that are a major seed potato production problem. A microeconomic analysis will be conducted based on the results of on-farm trials, and will be complemented by a macroeconomic analysis of organic markets.

Crop plant nutrition and insect response in organic field crop production: linking farmer observation to university research and extension

Researchers: Eileen Cullen (UW-Madison Department of Entomology), 608-261-1507, cullen@entomology.wisc.edu; Kevin Shelley (UW-Madison Nutrient and Pest Management Program), Robin Mittenthal (UW-Madison Department of Entomology) and Paul Whitaker (UW-Marathon County)

Description: This project examines the link between crop plant nutrition and insect response, as well as the premise that organic soil fertility management plays a sizeable role in managing insect pests. The project has three components: 1) A long-term, controlled experiment at the UW-Madison Arlington Research Station comparing two methods of organic fertility management (soil balance with calcium additions, compared with a standard organic manure and legume source N-P-K sufficiency approach) in a four-crop rotation. The farmer-selected crop-insect associations examined include soybean-soybean aphid, alfalfa-potato leafhopper and corn-European corn borer; 2) Similar data collection on six established organic farms representing the two approaches to soil fertility management; 3) Undergraduate on-farm research partnerships with organic farmers and greenhouse experiment collaboration with UW-Marathon County.

Evaluation of organically approved fungicides for vegetable crops.

Researcher: Amanda Gevens (UW-Madison Vegetable Pathology), 608-890-3072, gevens@wisc.edu

This program evaluateds the efficacy of OMRI and organic-approved fungicides for control of diseases in potato and vegetable crops in Wisconsin. Evaluation of materials is carried out both in production fields and in university greenhouses and laboratories. Results are extended to producers at various educational sessions throughout the year and via the Vegetable Crop Updates newsletter from UW-Madison.

Evaluation of organically approved pesticides for organic vegetable crops

Researchers: Russell Groves (UW-Madison Department of Entomology), 608-262-3229, groves@entomology.wisc.edu

Description: This program evaluates the efficacy of organically approved compounds against some of the more commonly found vegetable insect pests faced by Wisconsin's organic vegetable producers.

Fertility strategies for hoop house-grown organic raspberries

Researchers: Rebecca Harbut (UW-Madison Department of Horticulture), 608-262-6452, harbut@wisc.edu and Jesse Dahir-Kanehl (Department of Horticulture)

Description: This project investigates the breakdown of organic fertilizers such as compost, manure and emulsions used in the organic production of raspberries in a hoop house. The higher humidity, higher temperatures and drip irrigation characteristic of hoop house production have the potential to alter nutrient availability. This project incorporates a transdisciplinary approach, addressing diverse topics such as high tunnel and greenhouse management, raspberry management, organic/sustainable agriculture, season extension, plant nutrition, soil microbiology and soil science.

On-farm research with organic graziers

Researchers: Janet Hedtcke (Department of Agronomy), 608-265-2948, jlrieste@facstaff.wisc.edu; Josh Posner (Department of Agronomy), Altfrid Krusenbaum (organic farmer), Ken Nordlund (UW-Madison School of Veterinary Medicine), Gary Frank (UW-Madison Center for Dairy Profitability) and Bob Van De Boom (organic farmer)

Description: Over the past two decades, research projects have been ongoing at the Krusen Grass farm in Elkhorn, Wisconsin, while it has transitioned from row crops to organic rotational grazing. Herd health, performance and productivity, farm financial and economic performance, and nutrient management have been monitored. More recently, heifers and steers are being weighed two to three times per year to evaluate weight gains with a custom grazier.

Organic and conventional production systems in the long-term Wisconsin Integrated Cropping Systems Trials: productivity, profitability and environmental impact

Researchers: Janet Hedtcke (UW-Madison Department of Agronomy), 608-265-2948, jlrieste@facstaff.wisc.edu; Josh Posner (UW-Madison Department of Agronomy), Jon Baldock (AGSTAT), John Hall (Michael Fields Agricultural Institute), Dwight Mueller (UW-Madison Agricultural Research Station), Darwin Frye (UW-Madison Agricultural Research Station) and Jean-Paul Chavas (UW-Madison Department of Agricultural and Applied Economics)

Description: In 1989, in response to the debate about the relative agricultural sustainability of low-input and conventional systems, a large-scale, long-term study entitled the Wisconsin Integrated Cropping Systems Trials (WICST) was initiated at two locations in southern Wisconsin to compare the productivity, profitability and environmental impact of a range of conventional and organic cropping systems.

Reducing risk associated with organic snap bean production in Wisconsin

Researchers: James Nienhuis (UW-Madison Department of Horticulture), 608-262-6975, nienhuis@wisc.edu

Description: In Wisconsin, organic snap bean production for processing meets less than one-third of current demand. In spite of price incentives, it is difficult for processors to contract sufficient acres to meet demand due to the high risk and low yields associated with larger-scale organic production. The principle limiting factors to organic snap bean production include: 1) root rot disease, 2) nitrogen management, 3) seed corn maggot and 4) the availability of certified organic seed. The objective of this proposal is to integrate technologies, strategies and experience to determine optimal levels of genotype, fertilizer type, fertilizer rate, seed treatment and seed source to optimize benefits and reduce risk associated with organic snap bean production in Wisconsin.

Impact of organic management on dairy animal health and well-being

Researchers: Pamela Ruegg (UW-Madison Department of Dairy Science), 608-263-3495, plruegg@facstaff. wisc.edu; Linda Tikofsky & Ynte Schukken (Cornell University); Mike Gamroth (Oregon State University)

Description: The overall objectives of this project are to assess cow health and well-being on farms that use organic management systems and evaluate, develop and disseminate recommendations for cost-effective, preventative health mangement programs. Animal health and management data will be collected on 200 organic and 100 conventional dairy farms located in Wisconsin, New York and Oregon. Management factors that influence animal well-being and farm profitability will be identified. This data will be used to develop cost-effective, preventative, health management programs. Indicators of herd health and milk quality will be identified and used to create herd performance benchmarks that will be provided to participating farms.

Developing carbon-positive organic systems through reduced tillage and cover crop-intensive crop rotation schemes

Researchers: Erin Silva (UW-Madison Department of Agronomy), 608-890-1503, emsilva@wisc.edu (in collabora-

tion with Iowa State, University of Minnesota, Michigan State and North Dakota State)

Description: Of the issues faced by row crop producers, those resulting from soil erosion, compaction and fertility loss remain the most challenging. In an effort to address these soil quality issues, many producers have successfully adopted a system that limits the number of field operations required to produce a crop. This system is commonly referred to as no-till or reduced-till, and relies on pesticides and synthetic fertilizers that are not allowed in certified organic production. The goal of this project is to design and execute a no-till system that will allow organic row crop producers to forego a suite of tillage operations that may reduce soil quality and drive up the cost of production. Soil quality will be enhanced by maximizing soil cover, minimizing erosion and improving soil organisms and biological processes. Improvement in soil health will be measured by tracking nutrient cycling and biological processes, microbial populations and nitrogen mineralization rates. Enhanced ecosystem services on organic farms will be determined by measuring carbon sequestration, soil moisture and crop microclimates, weed suppression and biological controls through cover crop-intensive systems. Economic benefits will be measured by accounting for returns to organic farmers resulting from lower production costs through reduced tillage.

Northern organic vegetable improvement cooperative (NOVIC)

Researchers: Erin Silva (UW-Madison Department of Agronomy), 608-890-1503, emsilva@wisc.edu (in collaboration with North Dakota State University)

Description: A national, collaborative network of organic vegetable breeders will benefit the organic community by developing improved vegetable varieties that are adapted to organic systems. These varieties will combine disease resistance, nutritional and flavor quality, and contemporary productivity traits crucial to modern markets. We will focus on four hubs in the Northern U.S. and five crops: pea, broccoli, sweet corn, carrots and winter squash. Variety trials and evaluation of material at various stages of development will provide key information regarding adaptability. We will solicit input from growers regarding the suitability of the vegetables to their needs and guidance for further improvement toward cultivar development. Outreach activities will make the results of this work more accessible. Graduate student training and summer internships at each hub will be key aspects of the work. Workshops will be conducted and media will be developed to reinforce grower collaborations regarding the breeding, trialing and seed saving methods for each crop.

Determination of perceptions and use of organic seed and varieties by midwestern organic vegetable growers

Researchers: Erin Silva (UW-Madison Department of Agronomy), 608-890-1503, emsilva@wisc.edu and Alexandra Lyon (UW Nelson Institute for Environmental Studies)

Description: The overall goal of this project is to expand organic vegetable seed adoption and usage by increasing our understanding of grower needs and perceptions while also exploring the potential of participatory plant breeding to improve vegetable varieties for organic production. We will investigate grower perceptions of organic seed, including 1) factors influencing their choices of vegetable varieties; 2) access to and quality of organic seed; 3) the influence of certifiers, seed companies and end markets on decisions about using organic seed; and 4) additional factors such as cost, impact on organic integrity, impact on consumer perceptions, etc. We will evaluate the potential of participatory plant breeding as a methodology for 1) advancing the quality and availability of organic seed; 2) developing productive relationships between organic farmers, university plant breeders and seed companies; and 3) empowering organic farmers to maintain and improve varieties for their own regional needs. We will develop a variety of media for a broad audience including growers, seed companies, regulators and academic peers.

Veggie Compass: which way will you grow?

Researchers: Erin Silva (UW-Madison Department of Agronomy), 608-890-1503, emsilva@wisc.edu; Paul Mitchell (UW-Madison Department of Agricultural and Applied Economics) and John Hendrickson (UW-Madison Center for Integrated Agricultural Systems)

Description: This project will create a farm business management tool specifically for diversified organic vegetable growers. Veggie Compass will improve the profitability of these growers by helping them better understand their own production costs, thus improving their decision making and whole-farm planning capabilities. We have created a strong outreach plan for the Midwest region though the development of ongoing, supportive communities of practice as well as grower workshops, presentations at organic farming conferences and webinars on the eOrganic website. This project will have strong economic and social benefits for organic farmers. Not only will this project assist growers in making effective business decisions to increase their efficiency and profitability, but also will assist farmers in effectively managing their labor.

Carrot improvement for organic agriculture with added grower and consumer value

Researchers: Philipp Simon (UW-Madison Department of Horticulture), 608-262-1248, philipp.simon@ars.usda.gov; Erin Silva and Jed Colquhoun (Department of Agronomy) (in collaboration with Organic Seed Alliance, University of California, Purdue University and Washington State University)

Description: The long-term goals of this project are to 1) develop and release carrot germplasm with improved disease and nematode resistance, marketable yield, nutritional value, flavor and storage quality for organic production, 2) improve our understanding of cultivar responses to organic production systems and identify desirable traits for organic producers, 3) inform growers about production and pest management schemes including cultivar selection to maximize carrot production, 4) inform consumers about the positive environmental impact of organic production systems and carrot nutritional quality and flavor and 5) train undergraduate and graduate students and postdocs in critical organic agriculture issues.

APPENDIX C: RESOURCES AND ORGANIZATIONS

The resources and organizations listed below provide support for farmers, students and others interested in organic agriculture. Please let us know about additional resources that we should include in future reports: cecarusi@wisc.edu, 608-262-8018.

College and University Resources

Lawrence University, Appleton
Contact: Jeff Clark, jeffrey.j.clark@lawrence.edu
www.lawrence.edu/sorg/slug/index.html
Lawrence University offers a course in sustainable agriculture that addresses the state of modern agriculture in the U.S. and the world. Students identify social, economic and environmental problems with current systems of agriculture, and explore viable solutions to these problems. The course includes hands-on instruction at the university's organically managed garden.

Northeast Wisconsin Technical College, Green Bay
Contact: Valerie Dantoin, 920-498-5568, valerie.dantoin@nwtc.edu
www.nwtc.edu/academics/ProgTeamSites/OSAFE/Pages/Home.aspx
NWTC offers a certificate in Organic and Sustainable Agricultural Practices comprised of eight different courses developed by professional educators and farmers. Individuals can choose among the courses.

Northland College, Ashland
academics.northland.edu/growing-connections/
Growing Connections is a nine-course sequence that focuses on the history, theories and practices of sustainable agriculture. Student participants work closely with faculty mentors and regional farmers in classrooms, labs and fields to develop a comprehensive understanding of the role that agriculture plays in the lives of individuals and their communities.

UW-Fox Valley, Menasha
1478 Midway Road, Menasha, WI 54952
Gregory Peter, Sociology, 920-832-2655, greg.peter@uwc.edu, www.uwfox.uwc.edu
UW Fox Valley's experiential learning opportunities provide students with opportunities to get involved in local and organic food events and resource preparation, community garden projects and school food and waste management, as well as a number of non-agricultural sustainability projects.

UW-Marathon County, Wausau
Contacts: Paul Whitaker, 715-261-6284, paul.whitaker@uwc.edu; Kat Becker, kat.becker@uwc.edu
www.uwmc.uwc.edu/
UW-Marathon County offers an interdisciplinary course on "Social and Scientific Aspects of Organic Agriculture," live at UW-Marathon County and via compressed video at UW-Fox Valley in Menasha.

UW-River Falls, Sustainable Agriculture Program
Contacts: Juliet Tomkins, 715-425-3176, juliet.tomkins@uwrf.edu;
William Anderson, william.anderson@uwrf.edu
www.uwrf.edu/PES/SustainableAgOption.cfm
UW-River Falls offers a sustainable agriculture option within its Crop and Soil Science degree. Courses developed for the program address environmental sustainability, organic agriculture, rural sociology, integrated pest management, sustainable agriculture law and sustainable animal production.

UW-Stevens Point, Sustainable Agriculture in Communities Society
800 Reserve Street , Stevens Point 54481
Contact: sacs@uwsp.edu
www.uwsp.edu/hphd/Pages/cpsCafe/default.aspx
This student society runs a campus organic garden and the campus CPS Café that uses organic and local food.

UW-Stevens Point, Global Environmental Management Education Center
800 Reserve St., Stevens Point Wisconsin 54481
Contact: John Sheffy, John.sheffy@uwsp.edu
www.uwsp.uwc.edu
The GEM program on Sustainable Agriculture and Forestry offers a "Farmer Incubator" class that provides opportunities for students to learn through farm visits, internships, hands-on projects and classroom learning.

UW-Madison, Agroecology Master's Program
139A King Hall, 1525 Observatory Dr., Madison WI 53706-1299
Contact: Chris Elholm, 608-890-1456, caelholm@wisc.edu
www.agroecology.wisc.edu
Agroecology at the University of Wisconsin-Madison aims to train analysts and researchers in a broadened vision of the possibilities of agriculture, including organic agriculture. Students can choose a public practice (project oriented) or research (thesis oriented) option for their master's degree work.

UW-Madison, Center for Integrated Agricultural Systems (CIAS)
1535 Observatory Dr., Madison, WI 53706
Contact: Erin Silva, 608-890-1503, emsilva@wisc.edu
www.cias.wisc.edu
CIAS creates flexible, multidisciplinary research and education/training projects with the goal of learning how particular integrated farming systems, including organic, can contribute to environmental, economic, social and intergenerational sustainability.

UW-Madison, F.H. King Students for Sustainable Agriculture
www.fhkingstudentfarm.com
F.H. King Students for Sustainable Agriculture is focused on establishing the connection between the land, food and community. The organization has a one-acre, organically managed, student-run farm where volunteers and students gain hands-on experience in small-scale sustainable agriculture. F.H. King also holds free educational workshops and events for the UW-Madison campus community.

State and Federal Agencies

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP)
Contact: Laura Paine, 608-224-5012, Laura.paine@wisconsin.gov
www.datcp.state.wi.us
The DATCP Agricultural Development division provides business development and marketing support and is home to the Wisconsin Farm Center. DATCP's Organic Agriculture program administers the USDA organic certification cost share program, coordinates the Wisconsin Organic Advisory Council and offers organic farmer education and market development assistance.

USDA Farm Service Agency (FSA)
State office contact: 608-662-4422
www.fsa.usda.gov
FSA administers federal farm commodity, crop insurance, credit, environmental, conservation and disaster assistance programs to both organic and nonorganic producers nationally. FSA's Non Insured Assistance Program, for which organic farmers are eligible, provides insurance for a wide range of crops.

USDA Natural Resources Conservation Service (NRCS)
State office contact: 608-662-4422;
www.wi.nrcs.usda.gov
Wisconsin NRCS provides technical assistance to land users and managers to assess environmental risk and develop conservation plans. NRCS provides cost sharing for conservation practices, including organic transition plans and a special sign-up for organic farmers, through the Environmental Quality Incentives Program (EQIP) and offers incentive payments to farmers who have installed a high level of conservation protection through the Conservation Stewardship Program (CSP).

Nonprofit Organizations

American Pastured Poultry Producers Association (APPPA)
Contact: 888-66-APPPA (2-7772), grit@apppa.org
www.apppa.org
APPPA encourages people to learn and exchange information about raising poultry on pasture. Membership in APPPA includes a quarterly newsletter with information and ideas for pastured poultry producers. APPPA hosts an annual meeting and field days.

Agriculture and Energy Resource Center (AERC)
www.wisconsinaerc.org
AERC formed out of a community's desire to protect a piece of its cultural heritage from private development. AERC's efforts include field research to help identify new crop and market opportunities; on-site demonstration projects to give the public a first-hand look at sustainable practices; educational workshops and seminars for both farmers and consumers; and the promotion of cooperative agribusiness models.

Central Rivers Farmshed
www.farmshed.org
Central Rivers Farmshed members are committed to making central Wisconsin a renowned local food community. Farmshed works to expand the connection between local residents and their food, and provides opportunities for participation, education, cooperation and action to support a local food economy in central Wisconsin.

Community Groundworks (Troy Gardens)
Contact: Claire Strader, 608-240-0409, info@troygardens.org
www.troygardens.org
Community GroundWorks manages 26 acres of open space. Their programs fulfill the goals of developing the land in a sustainable manner, improving food security for Madison's north side residents and providing educational programs on gardening, natural areas restoration, food preparation, nutrition and environmental education. They offer internships in sustainable and organic agriculture.

Fondy Food Center—Fondy Farm Project
Contact: Stephen Petro, 414-562-2282, stephen.petro@gmail.com
www.fondymarket.org
The Fondy Farm Project plans to create a secure, economically viable farm cooperative for small-scale, local immigrant and limited resource farmers providing fresh food for residents of Milwaukee's north side.

Farley Center
Contact: 608-845-8724, info@farleycenter.org
www.farleycenter.org
The Linda and Gene Farley Center for Peace, Justice and Sustainability created a farm incubator that supports new farmers with land, tools, education, and marketing assistance. Training takes place while maintaining full respect for the cultural crops and practices of the growers involved. All production is organic.

GrassWorks, Inc.
Contact: grass@granitewave.com
www.grassworks.org
GrassWorks is expanding the practice of managed grazing throughout Wisconsin and creating a thriving market for grass-fed products. GrassWorks organizes workshops, pasture walks, mentoring relationships and seminars, as well as an annual grazing conference. GrassWorks also participates in on-farm grazing research projects in order to advance the science of grazing.

Madison Area Community Supported Agriculture Coalition (MACSAC)
Contact: 608-226-0300, info@macsac.org
www.macsac.org
The Madison Area Community Supported Agriculture (CSA) Coalition works to create a sustainable, just and locally based food system in southern Wisconsin by promoting and supporting organic CSA farms, coordinating community and farmer education programs about the benefits of locally, sustainably grown foods and subsidizing CSA memberships for limited-income households.

Michael Fields Agricultural Institute (MFAI)
Contact: 262-642-3303, mfaiadmin@michaelfieldsaginst.org
www.michaelfieldsaginst.org
Michael Fields Agricultural Institute's applied research and breeding efforts benefit the organic agricultural community. MFAI offers a wide range of workshops, taught by farmers, of interest to organic farmers. MFAI is also involved in activities important to the continued vitality of the organic industry, including national and local policy, local food systems and urban agriculture.

Midwest Organic Dairy Producers Alliance (MODPA)
Contact: 715-265-4631, bdrinkman@hotmail.com
www.familyfarmdefenders.org
MODPA is an organic dairy producers group dedicated to improving communication, enhancing farm gate price and consumer confidence while upholding the highest organic dairy standards.

Midwest Organic and Sustainable Education Service (MOSES)
Contact: 715-778-5775, info@mosesorganic.org
www.mosesorganic.org
MOSES serves farmers who strive to produce high-quality, healthful food using organic and sustainable techniques. MOSES is best known for organizing the largest organic farming conference in the country, and publishes the *Upper Midwest Organic Resource Directory* and the *Organic Broadcaster*. The MOSES Farmer-to-Farmer Mentoring Program pairs experienced and transitioning organic farmers to promote the successful adoption of organic methods.

Organic Tree Fruit Association (OTFA)
Contact: Jackie Hoch, 715-808-0060, OTFAinfo@gmail.com
www.mosesorganic.org/treefruit/intro.htm
The OTFA is dedicated to serving the interests of organic tree fruit growers and advancing the organic tree fruit industry through education, research and advocacy.

Research, Education, Action and Policy on Food Group (REAP)
Contact: 608-310-7836, info@reapfoodgroup.org
www.reapfoodgroup.org
REAP connects producers, consumers, policymakers, educators, businesses and organizations to nourish the links between land and table, support small family farmers, encourage sustainable agricultural practices, preserve the diversity and safety of our food supply and address the food security of everyone in our community.

Wisconsin Organic Marketing Alliance (WOMA)
Contact: 608-427-2201, mcdonald@mwt.net
organicmarketingalliance.org
WOMA's mission is grain producers helping livestock producers to put Wisconsin as a leader in organic grain management, while protecting the organic price structure. WOMA is a proud member of the Organic Farmers' Agency for Relationship Marketing (OFARM).