Conventional agriculture produces large quantities of low-value commodities through inputs of energy, machinery, and synthetic chemicals. Although still subject to the risks of weather and fluctuating markets, stability of conventional agriculture is supported by subsidization through government payments and insurance programs. Organic agriculture is inherently riskier than conventional agriculture because of the complexity of dealing with crop management issues such as fertility, weed control and pest control. These challenges are especially evident during transitioning from conventional to organic.

Certified organic acreage in Minnesota has increased by over 50 percent since 2000 and it is expected that the industry will continue to grow in the foreseeable future. While the future of organic agriculture looks bright, there are costs and risks involved. This chapter will help growers who are contemplating adopting organic production practices understand the risks that are associated with organic production and, when possible, make choices that will minimize those risks.
Why go organic?

Those who chose to switch to organic production cite numerous reasons for doing so (Figure 8-2). For some, price premiums that can run as much as 200 percent of conventionally-grown products are a driving factor. Attractive prices combined with reduced input costs and the opportunity to sell to new markets provides a convincing reason for others. For most organic producers, protecting the environment is a top priority. They cite the negative effects of pesticides and fertilizers on soil and water quality, human health, and wildlife.

What is organic agriculture?

In addition they are concerned about the use of antibiotics and hormones in meat, and the inclusion of transgenic crops in foods. Farming in the image of nature is important for many of these growers. Understanding the interactions between soil, plants, and living organisms and working with the ecosystem to create a balance from which food is derived is both a challenge and a reward.

The USDA National Organic Program (NOP) is responsible for developing rules for organic agriculture in the United States. They also accredit the organic certifiers who are necessary in the process of certification. The term “organic” is defined by federal law so any crop or livestock that is labeled or sold as “organic” must be produced according to the national rules. NOP regulations can be modified over time, so for the most up-to-date information, consult the NOP website at http://www.ams.usda.gov/AMSv1.0/NOP.

PRODUCER PROFILE

This is how one producer from Wright County became organic. He had a background in farming, but was working in another industry when he decided to get back into farming. He began to farm organically at the urging of an acquaintance after he purchased a pasture that was certifiable. The producer is happy with his decision and thinks that organic farming provides answers that are lacking in conventional farming. There is a more reflective and thoughtful process in organic farming that he prefers.
Organic agriculture is an ecologically-based management system with the overall goal of optimizing health of soil, animals, and people. Some of the major differences between organic agriculture and conventional agriculture are listed in Table 8-1. Two important areas that vary between the two systems are production and management practices.

**ORGANIC PRODUCTION PRACTICES**

Organic agriculture is not simply substituting another type of input for synthetic ones; the overall health of the environment is emphasized. Compared to conventional agriculture, organic farmers use a diversity of strategies to develop and manage their farms.

Certified organic operations do not use synthetic fertilizers and pesticides or genetically-modified organisms. Weeds and pests are managed mechanically and culturally and through diverse rotations. A limited number of inputs are approved for pest control and adjustment of soil nutrient status. In fact, on some organic farms, purchased amendments from outside sources may be only rarely used. Fertility can be provided with manure, compost, and green manures, as well as by including legume crops in rotations. The use of practices such as crop rotations to amend soil nutrients and cultivation to control weeds requires on-farm research and innovation to determine the best combination of crops and production practices.

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**PRODUCER PROFILE**

This is why one producer from Faribault County continues to farm organically. He has been organic since 1984 with over 200 organic acres. His philosophy is that the quality of organic crops outweighs the quantity in conventional. He believes in good land stewardship, that fewer pesticides are beneficial, and that the quality of organic feed leads to better quality meat.

---

**Table 8-1. Comparison of organic and conventional agriculture.**

<table>
<thead>
<tr>
<th></th>
<th>ORGANIC AGRICULTURE</th>
<th>CONVENTIONAL AGRICULTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fertility</td>
<td>Non-synthetic amendments like manure, compost,</td>
<td>Primarily synthetic fertilizers</td>
</tr>
<tr>
<td></td>
<td>and green manures; legumes in rotation</td>
<td></td>
</tr>
<tr>
<td>Weed control</td>
<td>Multiple strategies are employed including:</td>
<td>Primarily synthetic herbicides, GMO crops</td>
</tr>
<tr>
<td></td>
<td>diverse rotations, mechanical weed control,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cultural methods</td>
<td></td>
</tr>
<tr>
<td>Insect control</td>
<td>Diverse rotation, some non-synthetic insecticides</td>
<td>Primarily synthetic insecticides, GMO crops</td>
</tr>
<tr>
<td>Crops</td>
<td>Non-GMO only</td>
<td>Either GMO or traditionally bred</td>
</tr>
<tr>
<td>Rotations</td>
<td>Diverse rotation that includes other crops in</td>
<td>Often includes just corn and soybean; continuous</td>
</tr>
<tr>
<td></td>
<td>addition to corn and soybean</td>
<td>cropping is possible</td>
</tr>
<tr>
<td>Profits</td>
<td>Comparable to conventional</td>
<td>Comparable to organic</td>
</tr>
<tr>
<td>Inputs</td>
<td>Fewer inputs</td>
<td>Greater inputs</td>
</tr>
<tr>
<td>Buffers</td>
<td>Buffers are necessary to protect organic crops</td>
<td>Buffers are not required, but refuges are</td>
</tr>
<tr>
<td></td>
<td>from GMO contamination</td>
<td>required for GMO crops</td>
</tr>
<tr>
<td>Time in field</td>
<td>Depending on crop, more time may be spent in</td>
<td>Depending on crop, less time may be spent</td>
</tr>
<tr>
<td></td>
<td>the field</td>
<td>in the field</td>
</tr>
<tr>
<td>Yields</td>
<td>Corn and soybean yields have potential to be</td>
<td>Can be higher yielding depending on crop</td>
</tr>
<tr>
<td></td>
<td>lower, but small grains and forages can have</td>
<td>fertilization, chemical weed control</td>
</tr>
<tr>
<td></td>
<td>similar yields</td>
<td></td>
</tr>
</tbody>
</table>
More detailed information on specific organic practices can be found in other chapters in the manual, specifically Chapter 2: Rotation, Chapter 3: Soil health, and Chapter 4: Soil fertility.

Reducing risk: organic practices. Consult and learn NOP rules that apply to your type of operation. Check the NOP’s National List of Allowed and Prohibited Substances before using any substance to make sure it is allowed. Your certifier will be a good information source on what practices are acceptable.

ORGANIC DOCUMENTATION

One thing those transitioning to organic agriculture may find to be different is the amount and type of documentation that is needed. Record keeping is a necessity in becoming certified organic. First, producers are required by the NOP to have an Organic System Plan (OSP), which describes the practices conducted in their operation to produce organic products. The OSP is completed at the start of the certification process and is updated over time. Producers must keep records on the production, harvest, and handling of crops which demonstrate adherence to NOP rules. Records must be accessible and easy to comprehend for inspectors and certifying agencies. Examples of information that must be kept are which materials, such as compost, manure, or other amendments, that are applied to organic fields. The amounts, dates of application, and the source of amendments are other pieces of information that must be tracked. Other examples are which seed were planted and their sources, tillage, weed control operations, and harvesting operations. Individual records must be kept for at least five years. Documentation must also be kept for non-organic crops grown in split operations.

Reducing risk: documentation. Turn record keeping into a habit from the start. Maintain an organized system of files. When in the field, keep a notebook handy at all times to record information.

PRODUCER PROFILE

This is how one producer from Waseca County became organic. He was farming conventionally when he purchased some land that was already certifiable. A relative convinced him to go organic on that land because of the organic premium. He currently farms both organically and conventionally. He likes that his tasks and labor is spread out with the split operation—for example, the planting dates are different with conventional occurring earlier. He is currently transitioning more of his conventional land. He thinks you really need to believe in organic farming to be an organic farmer; otherwise you will not be successful. He says that when coming from a conventional operation, farmers will need to be tolerant of things like the possibility of more weeds.
Steps in going organic

TRANSMITION YEARS
Before a producer can be certified, there is a transition period for three years. No prohibited substances or GMOs can be applied to a field for 36 months prior to harvest of crop needing certification. Crops are grown organically, but no organic premium can be given until after transition. Producers can time the start of transition so that by the end of the third year, that crop will be eligible for the organic premium.

Potentially lower yields during the three year transitioning period combined with the lack of organic price premiums during this period indicates that producers should be ready for the possibility of lower yields (Table 8-2), but not necessarily lower net returns (Table 8-3) because of lower input costs.

Producers need to develop a sound rotation and begin implementing practices that reduce weeds and improve soils in anticipation of transitioning to organic crop production. It is recommended that producers transition their farms to organic production incrementally. A portion of the land can be in transition while conventionally farming the remaining acreage. An incremental approach also minimizes financial risk by providing reliable, albeit potentially reduced, yields during the transition period. Producers should prepare a realistic, multi-year farm budget before transitioning. It is best to start establishing relationships as soon as possible with markets and buyers of the organic crops that will be produced after the transition period.

Reducing risk: transition years. Transition gradually one field at a time rather than the whole farm at once. Choose a field with high fertility, good drainage, and low weed pressure to start transition. Plan ahead financially before transition.

Table 8-2. Conventional and transitional organic corn and soybean yields. Organic soybean yields were not significantly different, while organic corn yields were lower than conventional. Adapted from Delate et al., 2006.

<table>
<thead>
<tr>
<th>YIELD</th>
<th>CROP</th>
<th>1998</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional Corn-Soybean</td>
<td>Corn</td>
<td>170</td>
<td>161</td>
</tr>
<tr>
<td></td>
<td>Soybean</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Organic Corn-Soybean-Oat/Alfalfa</td>
<td>Corn</td>
<td>143</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>Soybean</td>
<td>48</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Corn-Soybean-Oat/Alfalfa-Alfalfa</td>
<td>Corn</td>
<td>138</td>
</tr>
<tr>
<td></td>
<td>Soybean</td>
<td>50</td>
<td>48</td>
</tr>
</tbody>
</table>

Table 8-3. Costs of production and net returns for conventional and transitioning systems. Net returns were similar for both systems, in part because of the higher costs of production for conventional systems. Adapted from Delate et al., 2006.

<table>
<thead>
<tr>
<th>CROPPING SYSTEM</th>
<th>ROTATION</th>
<th>COST OF PRODUCTION</th>
<th>NET RETURN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional Corn-Soybean</td>
<td></td>
<td>160</td>
<td>117</td>
</tr>
<tr>
<td>Organic Corn-Soybean-Oat/Alfalfa</td>
<td></td>
<td>115</td>
<td>118</td>
</tr>
<tr>
<td></td>
<td>Corn-Soybean-Oat/Alfalfa-Alfalfa</td>
<td></td>
<td>109</td>
</tr>
</tbody>
</table>
“Corn is the most
difficult crop in which
to begin a successful transition
to a nonchemical farming system.”
—Dr. Jeff Gunsolus, 1990

CROPS TO PLANT DURING TRANSITION
What should be planted during transition? Because the learning curve for beginning organic growers can be steep, it is often recommended that they start with a crop they know. In general, this is a solid rule of thumb, with the exception of corn. Because corn has a high nutrient demand, it is sometimes recommended that growers transition to organic production with other crops. Crops, such as flax, that are not competitive with weeds may also be risky during transition.

Numerous organic producers in Minnesota recommend alfalfa as a good crop during transition because stands are often maintained for two to three years following the seeding year.

Vigorous-growing, nitrogen-fixing forage legumes for pasture or hay make excellent candidates for the transition period. Planting legumes during transition can reduce the risks of inadequate fertility. Growing alfalfa or red clover for two years before growing a row crop like corn provides a low-risk transition because these crops decrease weed pressure and provide nitrogen to subsequent crops. Alfalfa in rotations has an important role in soil improvement and in boosting yields of rotations during the transition period (Figure 8-3). Soybean has also proven to be a good candidate in Iowa with transition year yields that can be equivalent to conventional yields (see Table 8-2). Organic producers, either transitioning or established, need to consider crop needs for nutrients over the long term.

Reducing risk: crops for transition. Growers need to plan ahead and select a crop that they are familiar with and that has lower input needs. A forage crop like alfalfa may be a better choice for transition than corn because established stands are effective against weeds and alfalfa adds N to the soil.

Figure 8-3. Organic alfalfa harvest at Lamberton, MN. Alfalfa is a low-risk crop to grow during transition.
An inspection by the certifying agency will be necessary at the minimum in the third year of transition three months before the crop requiring certification is harvested. Producers should select a certifier that currently operates in their area (Table 8-4). Consulting with other local organic farmers is a good way to get recommendations on certification agencies.

Once a certifier is selected, contact the agency for an application and instructions on the process. The certifier will give instructions for how to complete the Organic System Plan. Soon after, producers will need to prepare for the certifier to conduct the first inspection. See Table 8-5 for a list of items needed for an inspection. The certifier will inform the producer of any changes that need to be made before certification is granted. The entire certification process may take a few months so producers should plan accordingly. After that, certification must occur on a continuing, yearly basis for as long as one wishes to be certified.

One thing to note for the transitioning farmers: at the bare minimum producers will have to follow the NOP guidelines for organics, but certifiers may.

**Table 8-4. Certifying agencies.**

Adapted from MOSES, 2010 and Minnesota Department of Agriculture, 2009.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Address</th>
<th>Phone</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Organic Alliance</td>
<td>PO Box 530, Bellefontaine, OH 937-593-1232</td>
<td><a href="http://www.goa-online.org">www.goa-online.org</a></td>
<td></td>
</tr>
<tr>
<td>Guaranteed Organic Certification Agency</td>
<td>5464 Eighth Street, Fallbrook CA 760-731-0496</td>
<td><a href="http://www.goca.ws">www.goca.ws</a></td>
<td></td>
</tr>
<tr>
<td>Indiana Certified Organic LLC</td>
<td>8364 S State Route 39, Clayton, IN 317-539-4317</td>
<td><a href="http://www.indianacertifiedorganic.com/">www.indianacertifiedorganic.com/</a></td>
<td></td>
</tr>
<tr>
<td>International Certification Services/FarmVerified Organic</td>
<td>301 5th Ave SE, Medina, ND 701-486-3578</td>
<td><a href="http://www.ics-intl.com">www.ics-intl.com</a></td>
<td></td>
</tr>
<tr>
<td>Iowa Department of Agriculture and Land Stewardship</td>
<td>502 East Ninth Street, Des Moines IA 515-281-7656</td>
<td><a href="http://www.iowagov/AgDiversification/organicCertification.asp">www.iowagov/AgDiversification/organicCertification.asp</a></td>
<td></td>
</tr>
<tr>
<td>Maharishi Vedic Organic Agriculture Institute</td>
<td>PO Box 2006, Fairfield, IA 641-469-5477</td>
<td><a href="http://www.mvoai.com">www.mvoai.com</a></td>
<td></td>
</tr>
<tr>
<td>Midwest Organic Services Association</td>
<td>PO Box 821, 122 W Jefferson St, Viroqua, WI 608-637-2526</td>
<td><a href="http://www.mosaorganic.org">www.mosaorganic.org</a></td>
<td></td>
</tr>
<tr>
<td>Minnesota Crop Improvement Association</td>
<td>1900 Hendon Ave, St. Paul, MN 612-625-7766</td>
<td><a href="http://www.mncia.org">www.mncia.org</a></td>
<td></td>
</tr>
<tr>
<td>Nature's International Certification Service</td>
<td>PO Box 131, Viroqua, WI 608-637-7080</td>
<td><a href="http://www.naturesinternational.com">www.naturesinternational.com</a></td>
<td></td>
</tr>
<tr>
<td>Organic Crop Improvement Association - Minnesota Chapter #1</td>
<td>2609 Wheat Drive, Red Lake Falls MN 218-253-4907</td>
<td><a href="http://www.mncia.org">www.mncia.org</a></td>
<td></td>
</tr>
<tr>
<td>Organic National &amp; International Certifiers</td>
<td>7301 N. Lincoln Ave, Suite 198, Lincolnwood, IL 847-763-0218</td>
<td><a href="http://www.on-ic.com">www.on-ic.com</a></td>
<td></td>
</tr>
<tr>
<td>Organic National &amp; International Certifiers</td>
<td>PO Box 12311, Gainesville FL 352-377-0133</td>
<td><a href="http://www.qcsinfo.org">www.qcsinfo.org</a></td>
<td></td>
</tr>
<tr>
<td>Organic Crop Improvement Association - Midwest Office</td>
<td>P.O. Box 269, Viroqua, WI 608-637-8594</td>
<td><a href="http://www.thilt.org">www.thilt.org</a></td>
<td></td>
</tr>
<tr>
<td>Organic Certifiers, Inc.</td>
<td>6500 Casitas Pass Road, Ventura CA 805-684-6494</td>
<td><a href="http://www.organiccertifiers.com/">www.organiccertifiers.com/</a></td>
<td></td>
</tr>
<tr>
<td>Ohio Ecological Food &amp; Farm Association</td>
<td>41 Crosswell Rd, Columbus, OH 614-262-2022</td>
<td><a href="http://www.oeffa.org">www.oeffa.org</a></td>
<td></td>
</tr>
<tr>
<td>OneCert, Inc.</td>
<td>2601 B Street, #1, Lincoln, NE 402-420-6080</td>
<td><a href="http://www.onecert.net">www.onecert.net</a></td>
<td></td>
</tr>
<tr>
<td>Oregon Tilth, Inc. - Midwest Office</td>
<td>P.O. Box 269, Viroqua, WI 608-637-8594</td>
<td><a href="http://www.tilth.org">www.tilth.org</a></td>
<td></td>
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<td><a href="http://www.thilt.org">www.thilt.org</a></td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
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</tr>
<tr>
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<td>6500 Casitas Pass Road, Ventura CA 805-684-6494</td>
<td><a href="http://www.organiccertifiers.com/">www.organiccertifiers.com/</a></td>
<td></td>
</tr>
</tbody>
</table>
also have their own requirements depending on the agency. Sales to Europe or Japan will have additional certification guidelines. It will be good to study these guidelines before proceeding with potential crops to be sold outside of the United States.

Reducing risk: certification. Plan in advance so that your certifier has time to complete the process before certification is needed. Know NOP rules so that they are followed properly and surprises do not occur at inspection. Have all the items on the checklist ready for when the inspection occurs. Producers pay for inspections so it is in a producer’s best interest to help the inspector operate efficiently.

Reducing risks in becoming organic

Producers considering becoming organic often have three major questions on transitioning: Will yields be low? Can organic farming be profitable? How will being organic affect workload? The following sections address what to expect in becoming organic and how to minimize risks in these areas.

ORGANIC YIELDS

Whether or not there are substantial yield differences between organic and conventional producers can be a contentious issue among the proponents and opponents of organic agriculture. Research results on this topic vary. Sometimes yields are lower and sometimes they are comparable. Generally, forages and many small grains will have similar yields, while row crops will vary in yields more (Tables 8-6 &
8-7). Weeds are one of the biggest contributors to lower yields in organic systems. See Chapters 5, 6, and 7 for more information on weeds.

In the 2007 MDA survey of organic agriculture, producers indicated that the number one production challenge was weed control. This issue is frequently the topic of discussion among organic farmers.

Table 8-6. Organic yields as a percentage of conventional yields – a summary of experiments that compare the two systems. Lack of good weed control in the organic systems was often a factor when yields were in the lower range. Adapted from Posner et al, 2008.

<table>
<thead>
<tr>
<th>CROP</th>
<th>% OF CONVENTIONAL YIELD (RANGES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>72 - 114</td>
</tr>
<tr>
<td>Soybean</td>
<td>64 - 111</td>
</tr>
<tr>
<td>Small grains</td>
<td>90 - 100</td>
</tr>
<tr>
<td>Forages</td>
<td>96 - 100</td>
</tr>
</tbody>
</table>

Table 8-7. Yields of conventional and organic crops at Lamberton, MN in 1993-1999. Oat and alfalfa yields were the same regardless of system. Corn and soybean yields were lower in organic systems; however net returns were not lower (see Table 8-8). Adapted from Porter et al., 2004.

<table>
<thead>
<tr>
<th>CROPPING SYSTEM</th>
<th>ROTATION</th>
<th>CROP</th>
<th>YIELD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional</td>
<td>Corn-Soybean</td>
<td>Corn</td>
<td>139 bu/ac</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Soybean</td>
<td>41 bu/ac</td>
</tr>
<tr>
<td></td>
<td>Corn-Soybean-Oat/</td>
<td>Corn</td>
<td>137 bu/ac</td>
</tr>
<tr>
<td></td>
<td>Alfalfa-Alfalfa</td>
<td>Soybean</td>
<td>43 bu/ac</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oat</td>
<td>52 bu/ac</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alfalfa</td>
<td>5 T/ac</td>
</tr>
<tr>
<td>Organic</td>
<td>Corn-Soybean-Oat/</td>
<td>Corn</td>
<td>129 bu/ac</td>
</tr>
<tr>
<td></td>
<td>Alfalfa-Alfalfa</td>
<td>Soybean</td>
<td>34 bu/ac</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oat</td>
<td>52 bu/ac</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alfalfa</td>
<td>5 T/ac</td>
</tr>
</tbody>
</table>

Weeds may be a problem at first when transitioning, but established producers say that these issues become more manageable over time. This is likely to occur because an organic crop rotation reduces the weed seed bank in the soil and because producers become more proficient in weed control using tillage.

Reducing risk: organic yields. Develop an effective crop rotation strategy that will reduce weeds and enhance soil quality from year to year. Use legume and green manure crops to reduce weeds, improve soil structure, and enhance nutrient levels. Plant crops at the appropriate time to take advantage of weed control strategies. Timing of weed control operations is critical.

Weeds may be a problem at first when transitioning, but established producers say that these issues become more manageable over time. This is likely to occur because an organic crop rotation reduces the weed seed bank in the soil and because producers become more proficient in weed control using tillage.

ORGANIC CERTIFICATION COST SHARE

The Minnesota Department of Agriculture offers a rebate program for organic certification costs through a program in conjunction with the USDA. Certified producers from Minnesota are eligible for reimbursement of up to 75% ($750 maximum) of their certification expenses. See this website for an application and for more information on the organic certification cost share program: [http://www.mda.state.mn.us/food/organic.aspx](http://www.mda.state.mn.us/food/organic.aspx)
Realize that you will be under more scrutiny from your conventional neighbors when you are organic. One organic farmer from Redwood County says that having your field near a highway is a “risk” because people will be able to monitor you more!

**ORGANIC NET RETURNS**

As there is a potential for lower yields (depending on the crop), the next logical question producers considering an organic system may be “Can an organic agriculture be profitable?” The good news is that while yields sometimes may be lower, the cost for inputs is also lower. As a result, organic production can be just as profitable. Net returns in organic production can be similar to or higher than conventional production (Table 8-8).

The Minnesota Department of Agriculture (2008) and the Center for Farm Financial Management at the University of Minnesota recently issued a report that uses data from organic farmers from the years of 2006 and 2007 to summarize production, finances, and profitability. They found that compared to conventional farmers, organic farmers derive more of their profits from operating efficiency and organic premiums, whereas conventional farmers get their profits from volume of sales. Both systems can be profitable.

**Reducing risk: net returns.** Reduce marketing risks by identifying your market or establishing contracts in advance of planting. Be aware that prices can be volatile depending on demand relative to supply.

**ORGANIC MANAGEMENT ROUTINE**

Organic production can place greater demands on the producers’ management skills and time compared to conventional production. Producers may need more hours to complete a greater number of field operations (Table 8-9). The demands on time will be magnified as farm size increases.

There is also the issue of timing your operations, particularly weed control operations. There can be less leeway in choosing when to be in the field. Operations will need to be performed when the weather permits.

---


<table>
<thead>
<tr>
<th>CROPPING SYSTEM</th>
<th>ROTATION</th>
<th>ORGANIC PREMIUM</th>
<th>NET RETURN PER ACRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional</td>
<td>Corn-Soybean</td>
<td>no</td>
<td>$153</td>
</tr>
<tr>
<td></td>
<td>Corn-Soybean-Oat/</td>
<td>no</td>
<td>$172</td>
</tr>
<tr>
<td></td>
<td>Alfalfa-Alfalfa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic</td>
<td>Corn-Soybean-Oat/</td>
<td>no</td>
<td>$175</td>
</tr>
<tr>
<td></td>
<td>Alfalfa-Alfalfa</td>
<td>yes</td>
<td>$270</td>
</tr>
</tbody>
</table>

Even without organic premiums, the annual return per acre for the organic management systems was similar to the conventional management systems. While yields can be lower in the organic system, there are also lower production costs resulting in a net return similar to conventional. Adapted from Mahoney et al., 2004.

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### Table 8-9. A comparison of time spent per acre for organic and conventional corn and soybean production in Minnesota and Iowa.

<table>
<thead>
<tr>
<th>CROP</th>
<th>SYSTEM</th>
<th>LOCATION</th>
<th>LABOR HOURS/acre ORGANIC</th>
<th>CONVENTIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>Organic</td>
<td>MN</td>
<td>2.77</td>
<td>2.57</td>
</tr>
<tr>
<td>Corn</td>
<td>Organic</td>
<td>IA</td>
<td>2.19</td>
<td>1.15</td>
</tr>
<tr>
<td>Soybean</td>
<td>Organic</td>
<td>MN</td>
<td>3.28</td>
<td>1.89</td>
</tr>
<tr>
<td>Soybean</td>
<td>Organic</td>
<td>IA</td>
<td>3.58</td>
<td>1.05</td>
</tr>
</tbody>
</table>

Organic production required more labor, particularly in soybean production. Adapted from the Minnesota Department of Agriculture, 2007 and Delate et al., 2006.

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Adapted from the Minnesota Department of Agriculture, 2007 and Delate et al., 2006.
and when weeds are at the stage at which they can be managed. Missing critical stages for weed control can have disastrous consequences.

Reducing risk: 
management routine. 
Be prepared to spend more time in the field, depending on the crop. Maintain a flexible schedule, particularly when critical operations need to be performed.

Conclusion

This publication discusses many ways that organic producers can manage risk.

Fortunately, any farmer who desires to become an organic producer will not have to be on their own. It is important to develop relationships with other organic producers to transfer knowledge. There are organic field days, conferences, and workshops sponsored by non-profit organizations, universities, and state and federal agriculture departments throughout the year. In addition, there are programs that have experienced organic farmers who mentor new and transitioning farmers. For further information on these programs, see the “For more information” section at the end of this chapter for details.

Take the following risk management quiz to gauge your risk in transitioning to organic farming.

There are two keys to success for farming organically, according to one experienced organic producer from McLeod County:
✓ Use rotation to manage fertility and weeds
✓ Properly time your weed-control operations
Risk Management Quiz—Transitioning

1. Why are you considering transitioning to an organic system?
   - Philosophical reasons: 2
   - Monetary reasons: 0
   - Health reasons: 2
   - Environmental reasons: 2
   - One or more of the above reasons: 5
   - Not sure: 0

2. Do you have any previous experience with low-input or sustainable farming?
   - Yes: 5
   - No: 0
   - Not sure: 0

3. How diverse is your current rotation?
   - 2 crops: 0
   - 3 crops: 2
   - 4 or more crops: 5

4. Do you know any farmers in your area who are transitioning or already organic?
   - Yes: 5
   - No: 0
   - Not sure: 0

5. Do you believe there may be a social stigma against organic farming in your area?
   - Yes: 3
   - No: 0
   - Not sure: 0

6. In which of the following activities have you participated? Score one point for each type of activity.
   - Organic conference: 1
   - Organic field day: 1
   - Organic workshop: 1
   - Membership in a group such as Land Stewardship Project or Sustainable Farming Association: 1
   - Organic online community: 1
   - Organic mentoring program: 1

7. In which of the following activities will you participate in the future? Score one point for each type of activity.
   - Organic conference: 1
   - Organic field day: 1
   - Organic workshop: 1
   - Membership in a group such as Land Stewardship Project or Sustainable Farming Association: 1
   - Organic online community: 1
   - Organic mentoring program: 1

8. How flexible is your schedule?
   - I have very little extra time: 0
   - My schedule is flexible; I can make time when necessary: 3

9. Do you enjoy being in the field?
   - Yes: 5
   - No: 0

10. How confident are you in your knowledge of the NOP rules that apply to your operation?
    - Very: 5
    - Somewhat: 3
    - Not very: 1
    - Not sure: 0

11. Do you know which amendments are allowed under NOP rules?
    - Yes: 5
    - No: 0
    - Not sure: 0

12. Have you contacted a certifying agency?
    - Yes: 3
    - Not yet: 0

13. Do you know what items are needed for an inspection?
    - Yes: 5
    - No: 0
    - Not sure: 0

14. Do you know where to find organically certified seed?
    - Yes: 3
    - No: 0
    - Not sure: 0
### Risk Management Guide for Organic Producers

**Points** | **Score**
---|---
15. Do you have a local source for manure or compost?  
Yes | 5  
No | 0  
Not sure | 0
16. Do you plan to conduct regular soil testing during transition?  
Yes | 3  
No | 0  
Not sure | 0
17. Do you currently have an organized method for keeping records?  
Yes | 5  
No | 0
18. Are you financially prepared for transition?  
Yes | 5  
No | 0  
Not sure | 0
19. How much of your farm do you intend to transition?  
One or two fields | 5  
Whole farm | 0  
I am purchasing/renting organic land | 2
20. Which of the following crops do you primarily plan to grow during transition?  
Hay or forages | 5  
Fallow/CRP | 3  
Row crops | 1  
Different types of crops | 2
21. Do you have the equipment for planting and harvesting crops for a diverse rotation?  
Yes | 5  
No | 0
22. Can you tolerate the prospect of more weeds in your fields?  
Yes, I think so | 3  
No, not sure | 1
23. Do you have the equipment for diverse weed control operations?  
Yes | 5  
No | 0
24. Do you know where you will sell your organic crops once you are certified?  
Yes | 5  
Yes, for most crops | 2  
No | 0

**TOTAL**

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If your score is:  
- 71 or above: Low  
- 45 to 70: Moderate  
- 44 or less: High  

Your risk is:  
- Low  
- Moderate  
- High
FOR MORE INFORMATION


Farm Business Management for Organic Producers. This program provides money for cost-sharing tuition for organic farmers who enroll in the farm business management program. http://www.mda.state.mn.us/fbm

The New Farm Organic Price Report from the Rodale Institute. This website shows the organic premiums by crop by week. http://www.newfarm.org/opx/


Farm Financial Database – provides financial reports including expenses and costs of production based on information collected from over 70 organic farms in Minnesota. http://www.finbin.umn.edu/


Minnesota Organic Conference and Trade Show. This conference is held every January in St. Cloud, MN. http://www.mda.state.mn.us/

MOSES Organic Farming Conference and Organic University. This conference is held every February in LaCrosse, WI. http://www.mosesorganic.org/conference.html


MOSES Farmer-to-Farmer Mentoring Program. Transitioning farmers are paired up with experienced organic farmers. http://www.mosesorganic.org/mentoring.html

Natural Resources Conservation Service. Environmental Quality Incentives Program (EQIP) Organic Initiative. This program provides funding to organic and transitioning producers to assist in conservation practices. http://www.mn.nrcs.usda.gov/


University of Minnesota Southwest Research and Outreach Center. Holds an organic field day every July. http://swroc.cfans.umn.edu/index.html


REFERENCES


Mahoney, P., K. Olson, and P. Porter. 2004. Long term effects of crop management: Profitability. Results from the VICMS study at the Southwest Research and Outreach Center in Lamberton, Minnesota.


Minnesota Department of Agriculture. 2009. USDA-accredited organic certifiers active in Minnesota. [www.mda.state.mn.us](http://www.mda.state.mn.us)
