

**Organic Grain Farming in the United States:  
Report of the Findings from a Nationwide Survey**

**Part I: Summary of Survey Responses**

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## Introduction

Organic farming in the United States has been rapidly growing since the 1990s. The overall certified organic acreage increased 45% from 1992 to 1997 and 63% from 1997 to 2003, to represent 0.24% of total farm acreage in 2003 (U.S. Department of Agriculture, Economic Research Service, 2006a; USDA-ERS). While the organic acreage for vegetables exceeded 3.9% of total acreage, the percentage of the top U.S. field crops grown under certified organic farming systems remained minimal: 0.13% for corn and 0.17% for soybeans in 2003. Yet, the number of certified organic milk cows increased over thirty-fold from 1992 to 2003 with the retail sales growth of organic dairy products leading other organic foods (USDA-ERS, 2006a; Dimitri and Greene, 2002). In 2005, the retail sales growth rate of bread and grains exceeded the overall growth rate of organic foods (Organic Trade Association, 2006). These changes are likely to encourage organic grain production.

Risk management tools and strategies such as crop insurance and hedging with futures and options contracts are more developed and readily available for the conventional grain sector than for other conventional agricultural sectors. But, organic grain farming is distinct from its conventional counterpart. For example, conventional farmers can deposit a whole harvest at a local grain elevator, but most organic farmers store their grains on site bearing the risk of post-harvest losses until shipment. Most conventional grains are homogeneous and handled in bulk, but buyers in the organic market vary in needs, both in terms of quantity and quality, implying price risk associated with market saturation. The identity of an organic crop is threatened throughout the production process via chemical drifts from neighboring conventional farms and the distribution process via possible commingling of conventionally produced varieties. Most often, its sales are handled through individual contracts subject to default risk.

The uniqueness of organic grain farming suggests that risk sources and risk management needs for organic grain farmers differ from those for conventional counterparts. It is not even clear whether risk management tools and strategies that are applicable to conventional grains are effective for organic grains. The federal crop insurance program was offered for organic crops in 2003, but our discussion with organic farmers suggested additional modifications were needed to ensure effective coverage for organic grain farmers.

Premia for organic foods, particularly at the retail level, are easily noted by consumers, but the prices received by producers are seldom documented. Several studies that have reported that organic cropping systems are at least as profitable as conventional cropping systems assume arbitrary organic price premia (e.g., Mahoney et al., 2001; see Greene and Kremen, 2003, for reviews of other studies). Typically, the potential difficulty of marketing certain crops used in the cropping rotation is not considered. Thus, despite the rapid expansion of organic farming, the impact of adopting organic farming on farm income is not clear.

In order to better understand risk and profitability issues faced by organic grain farmers, a survey was administered to organic grain producers nationwide in November and December of 2005. A mailing list was constructed, with a goal of reaching all US organic grain producers, through contacting USDA accredited certifying agents with their respective membership directories managed by the National Organic Program and asking the agents to identify those who raised

grains (including soybeans). In total, 3,143 surveys were mailed out and those who had not responded after a month received another copy of the survey. As of June 30, 2006, 1,349 (42.9%) had replied. This report summarizes the findings from the survey responses.

In the next section, the administration of the survey is detailed. Then, the characteristics of the respondents are summarized by demographics, farming experiences, resource needs, and approaches to farming. Their farming operations are characterized by size, the degree of diversification, and household income levels. After describing the marketing and pricing methods the respondents have identified, risk issues are discussed by the perceived differences in risks of conventional and organic farming, their opinions towards the currently available crop insurance policies, and the major risk concerns they identified.

### **The Survey Instrument and the Mailing List**

Given our lack of knowledge on organic grain farming, six listening sessions were conducted in different parts of the central U.S. in the spring of 2004. The sessions were held in Minnesota, Montana, Ohio, and Wisconsin, and two locations in Kansas, involving a total of 53 participants. The findings from the listening sessions are summarized in Peterson, Kastens, and Ross (2006).

The survey instrument was developed in the summer of 2004, incorporating the findings from the listening sessions to identify the characteristics of organic grain farmers in the U.S., and their risk issues and risk management needs. The instrument was submitted for an approval from the Office of Managerial Budget in accordance to the Paperwork Reduction Act in November 2004, and the approval was obtained in September 2005. The final version of the survey instrument is included in the Appendix of this report.

The National Organic Program (NOP) has made the mailing directory of all organic certified operations in the U.S. publicly available for research purposes since the fall of 2005. The list would have included not only all crop and livestock producers but also any handling operations. However, the document only included names and mailing addresses of operations by certifying agents and did not contain any identifier for operational types. Thus, 58 USDA domestic accredited certifying agents listed on the NOP web page of the Agricultural Marketing Service as of August 2005 were contacted by e-mail and phone with a request to identify their members from the NOP directory who raised grains, soybeans, and forage. After repeated contacts, 48 certifying agents responded in the end. Some agents sent us their complete member directories with crops listed for us to identify on our own. Other agents responded to our request literally by identifying grain growers from the NOP directory.

Of the 3,413 surveys mailed, 11 were returned due to invalid addresses. To keep track of the responses received, the addresses were identified by numbers on the pre-paid, self-addressed return envelopes. Once the reply was received, the survey was removed from the envelope, disassociating it from the identifying number. A month later, another copy of the same survey was mailed to 1,784 addresses from whom the survey was not yet received. The first and second mailings were distinguished by the color of the survey.

The question at the beginning of the survey was intended to screen the respondents so that only those with experience in raising grains (including soybeans) on certified organic acreage were included in our analysis. Accordingly, 1,134 of the responses received were usable according to this question: 779 from the first mailing and 355 from the second mailing. In the report below, descriptive statistics such as means and standard deviations are reported for those with valid responses. The numbers of no responses for each question are reported in the Appendix.

## **Profiles of the Respondents**

### *Demographics*

The surveys were returned from 35 states. Figure 1 summarizes the locations according to 10 USDA regions. As expected, largest numbers of responses came from the major grain producing regions in the Lake States (Michigan, Minnesota, and Wisconsin) and the Midwest (Iowa, Illinois, Indiana, Missouri, and Ohio). A small number of respondents farmed in the Appalachian, Southeast, and Delta States regions (North Carolina, Tennessee, Florida, Arkansas).

The survey requested that “the primary operator of the farm” answer the questions. The majority of the survey (95.9%) was completed by a male and only 4.1% was completed by a female. At the listening sessions, many farm operators showed up as husband and wife pairs. Thus, the proportion of females who responded to our survey was lower than our expectations. The proportion of female respondents is smaller than the proportion of farms with female principal operators according to the 2002 Agricultural Census of 11.2% (USDA-National Agricultural Statistics Service, 2002; USDA-NASS).

The age distribution of the respondents is depicted in figure 2, with a median respondent in the 50s. Our sample seems younger than the 2002 Agricultural Census population with 43.0% (vs 36.0%) under 50 and 10.1% (vs 16.9%) over 70 (USDA-NASS, 2002).

Figure 3 reports the level of education completed by the respondents. One-third of the respondents had completed at least a 4-year college degree and 10.9% of the respondents had attended graduate school. According to the 2003 Agricultural Resource Management Survey (ARMS), approximately 15% of farm operators had earned a college degree (USDA-ERS, 2006b). Thus, organic grain farmers as a group seem to be more educated than the overall farm population.

### *Farming Experience*

Eighty-percent of the respondents indicated that farm or ranch work was their primary occupation. This proportion is considerably higher than 57.5% from the 2002 Agricultural Census (USDA-NASS, 2002). The percentage of their work time allocated to farm or ranch work ranged from 0 to 100%, with an average of 79.7%. The person who responded 0% explained that he worked on his farm operation during weekday evenings and weekends only.

The average respondent had farmed 26.6 years since turning 18 years old, with a standard deviation of 12.2 years. The experience among respondents varied widely ranging from a veteran of 69 years to a novice of just starting out (0 years).

The number of years the respondents had farmed organically varied widely as well, with mean of 10.6 years and standard deviation of 7.6 years. The minimum was 0 years, as expected, while the most experienced person had farmed organically for 63 years. Most of the respondents had raised grains during this time; the response distribution for the number of years the respondents had raised organic grains was nearly identical to the number of years they had farmed organically.

The average year the respondent's farm became certified organic was 1997 with standard deviation of 5.6 years. The distribution is skewed, as can be seen in figure 4. There were quite a few farms certified prior to the final announcement of the USDA organic standards in 2000. The largest number of respondents (43.3%) were certified between 1996 and 2000, while 28.4% were certified after 2001.

Farming experience prior to growing organic grains varied, but many respondents (73.3%) had raised grains with conventional farming practices. Another 9.8% farmed, was raised, or worked on a conventional farming operation. Only 9.1% of the respondents farmed or was raised on an organic farm, in addition to 3.7% who had experiences in semi-organic farming methods. A small fraction (3.8%) of the respondents did not have any prior farming experience.

Regarding their future farming plans, 82% of the respondents indicated that they intended to farm organically 100% eventually. Sixteen percent answered that they intended to maintain both conventional and organic acreage, and were equally divided about whether they intended to have more or less than 50% of the land as certified organic. The remaining 1.8% indicated that they intend on farming conventionally 100% in the future. There were 179 (15.8% of 1,134) non-responses to this question. It could be that the respondents had not considered their future plans or that their future plans were to withdraw from farming completely, which was not provided as an option.

### *Resource Needs*

Table 1 summarizes the responses regarding four "resource needs" statements. A majority (54.6%) of the respondents agreed or strongly agreed that more information on organic production practices would help their organic grain farming operation, and 53.3% for more marketing information. The role of public and private sectors is quite clearly implied here.

While 37.1% of the respondents agreed or strongly agreed that more availability of risk management strategies would be helpful, a greater 37.9% of the respondents were neutral about this statement. At this point, it seems that a greater concern among organic grain farmers is to raise the overall performance of their farm operations rather than to stabilize its variability at some cost.

A need for additional storage capacity was mentioned in listening sessions (Peterson, Kastens, and Ross, 2006). But, this need was not shared widely across the nation, with 41.3% of the respondents disagreeing or strongly disagreeing with the statement. It is of interest to see whether the need for storage is regional or arises due to some other characteristics of farm operations.

### *Approach to Farming*

Table 2 summarizes the responses to the approaches to farming, i.e., objectives or value statements. More than two out of every three respondents (68.2%) agreed or strongly agreed that their objectives were to maximize profitability. Less than 10% (9.7%) disagreed or strongly disagreed with this statement.

An overwhelming majority (90.8%) regarded environmental stewardship as an important aspect of their farming practices. Only 1.6% of the respondents disagreed or strongly disagreed with the statement.

Similarly, but not as overwhelmingly, the majority (77.7%) agreed or strongly agreed that they were farming to pass the farm to the next generation, with 7.8% disagreeing or strongly disagreeing with the statement.

To the contrary, over half (55.1%) disagreed or strongly disagreed with the statement that they only needed to earn enough income to cover family living expenses comfortably. At the same time, 23.3% agreed or strongly agreed with the statement.

Lastly, 67.5% of the respondents agreed or strongly disagreed with the statement that organic was their lifestyle, while 12.0% disagreed or strongly disagreed. It is of interest to analyze the characteristics of those who do not regard organic as lifestyle. A simple correlation between the responses to this lifestyle statement and those to the profit-maximizing statement yielded -0.13.

## **Farm Characteristics**

### *Size and Diversification*

The total acreage farmed varied from 2 to 25,000 acres. The question did not distinguish crop farming from grazing, and for the respondents who distinguished the two operations, the acreage for crop farming was used. The average was 698 acres with a standard deviation of 1,433.7 acres. For reference, the number of acres operated per farm averaged 437 for all farms in the 2003 ARMS survey (Hoppe and Banker, 2006). Our sample average lies between the average acreages of family farms with less than \$10,000 in sales (463 acres) and between \$10,000 and \$250,000 (1,165 acres). As figure 5 illustrates, the distribution is extremely skewed, with nearly half (46.5%) of the respondents having farms smaller than 500 acres. The median respondent farmed 280 acres.

The percentage of total acreage that is certified organic ranged from 0 (likely undergoing transition) and 100. Figure 6 depicts that 75% of the respondents had more than 90% of their

acreage certified as organic, and the remaining 25% of the sample appears to be more or less uniformly distributed across the percentages less than 90.

Operations were expected to be diverse. Table 3 lists various grains, livestock, and other crops that the respondents had identified as grown within the last three years, along with other farm-related enterprises they had managed. In addition to grains that have substantial market in the conventional sector, such as corn and soybeans, many minor grains were incorporated into the rotation by these organic grain farmers. The average number of grains raised by a respondent was 3.0 with standard deviation of 1.4 and the maximum of 10. The distribution of responses is illustrated in figure 7. Those with 0 grains indicated that they had stopped growing grains over the most recent years.

There were 705 respondents (62.2% of 1,134) who were engaged in some livestock enterprise and 452 respondents (39.9% of 1,134) who raised some other crop besides grains. Counting the livestock and other crop enterprises as listed in table 3, together with the grain enterprises, the number of “production” enterprises operated by the respondents averaged 5.8, with a standard deviation of 2.4 and a maximum of 17. The distribution is depicted in figure 8. These numbers of production enterprises are can more or less be compared to the average number of commodities reported from the 2003 ARMS of 1.9 for all farms (Hoppe and Banker, 2006).<sup>1</sup> Of the various farm types distinguished in the ARMS report, the most diversified group consists of family farms with \$10,000 to \$250,000 in sales, averaging 3.6 commodities.

In addition to the production enterprises, 810 respondents (71.4% of 1,134) managed some farm-related enterprises, such as (custom) haying or grazing, value-added activities (e.g., grain processing), and other services (e.g., machinery repair). The average number of such “non-production” enterprises was 1.4, with a standard deviation of 0.5 and a maximum of 3.

### *Household Income*

The respondents were asked to identify a range of annual household income (net farm income plus off-farm wages before taxes) over the last 3 years. Figure 9 summarizes the responses. Only 1.7% chose the description “net loss.” This percentage is smaller than the percentage of farms with negative total household income of 5.6% in the 2003 ARMS (Hoppe and Banker, 2006). Nearly half (48.7%) indicated a range between \$20,000 and \$60,000, and 12.4% indicated income greater than \$120,000. The median respondent chose a range between \$40,000 and \$60,000. For reference, the mean household income for all family farms was \$68,515 according to the 2003 ARMS. The means for family farms with less than \$10,000 in sales and with sales between \$10,000 and \$250,000 were \$49,807 and \$60,722, respectively.

The percentage of this household income that was obtained from off-farm sources ranged from -5 to 100%, with mean of 34.4% and a similar standard deviation of 34.2%. The average is lower than the all-farm average of 88.8% at the 1% level and lies between the averages for large

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<sup>1</sup> The ARMS numbers are based on 26 commodities or commodity groups: barley, oats, wheat, corn for grain, corn silage, soybeans, sorghum for grain, sorghum silage, canola, fruit, vegetables, nursery products, peanuts, sugar cane, sugar beets, rice potatoes, cotton, tobacco, hay, other crops, cattle, hogs, dairy, poultry, and other livestock.

and very large farms of 39.1% and 19.7%, respectively (Hoppe and Banker, 2006).<sup>2</sup> The percentage of net farm income attributed to organic farming ranged similarly from -10 to 100%, with a mean of 63.8% and a standard deviation of 36.3%. Using these percentages, the percentage of annual household income attributed to organic farming (which could range from 0 to 100%) can be computed; this distribution has a mean of 45.0% and a standard deviation of 36.8%. Figure 10 depicts a U-shaped distribution with 27.4 and 20.4% of the respondents obtaining less than 10% and more than 90% of their income from organic farming, respectively.

## **Marketing of Organic Grains**

### *Marketing Methods*

The outlets used by the respondents to market organic grain crops are summarized in table 4. The most popular methods were individually negotiated transactions in some form of contracts or spot sales after harvest. Both contracts and post-harvest spot sales were used by a little over 50% of the respondents. The next most popular marketing outlet was marketing through cooperatives or marketing groups. For these transactions, about one-and-a-half times as many respondents used marketing contracts as spot sales after harvest (18.7% vs 12.3%).

Of those who indicated that they used their grains on their farms, most of them indicated that they feed all of their crops to their livestock, thus having no need for alternative outlets. Other marketing methods mentioned involved direct marketing through farmers' markets and self-serve stands and marketing through individual agents or brokers. In addition, there were 6 respondents who explicitly mentioned the use of forward contracts.

### *Pricing Methods*

Table 5 summarizes what the respondents take into consideration when determining the price of their grains. The majority (65.2%) of the respondents referred to the quotes from their marketing representatives, including cooperatives. Also, more than half (54.5%) of the respondents compared notes with fellow farmers to gauge the price level. About one in four respondents (24.3%) took account of their costs of production. The next most common source of price information, used by 22.3% of the respondents, was the quotes available from industry publications or over the Internet.

There were 16.6% of the respondents who indicated that they took into account the conventional prices when pricing their organic grains, and 5.6% observed the futures prices at the Chicago Board of Trade. These responses suggest that at least a fraction of organic grain farmers perceive that the conventional and organic markets are linked in some fashion.

There were several minor sources of price information. Several respondents (5.5%) indicated that they approached their buyers or brokers to get a feel for the prevailing price. "Other references" included past prices or prices of retail organic products. Some respondents explicitly

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<sup>2</sup> According to the ERS farm typology, large family farms are farms organized as proprietorships, partnerships, and family corporations that are not operated by a hired manager with sales between \$250,000 and \$499,000. Very large family farms are with sales over \$500,000.

mentioned the concepts of “supply and demand” or “market equilibrium” as things they took into consideration, while others indicated that they decided on their own price or mark-up levels after consulting with other references.

Figure 11 combines the information given in Table 5 with how often the respondents identified each source as their primary price determinant. There were 496 respondents (43.7% of 1,134) who did not indicate their primary determinant, either because they referred to various sources uniformly or because the instructions for this question were unclear. As a primary determinant, the most common were quotes from marketing representatives (37.6% of those who answered this question), followed by other farmers (15.9%) and cost of production (5.4%).

Another question related to pricing methods inquired whether the respondent used mark-ups from a reference price to price their grains. Of the 718 respondents (63.3% of 1,134) who answered, 17.1% (123) indicated that they used such mark-ups.

## **Risk Issues**

### *Perceived Differences in Risks between Conventional and Organic Farming*

Figures 12 and 13 summarize the perceived differences in yields and their variability between conventional and organic grain farming. About 700 respondents (61.7% of 1,134) did not respond to these questions. This low response rate could partly be due to the fact that the questions requested responses if the respondent had grown conventional grains in recent years, and the fact that the question specifically referred to a five-year period.

Of those who responded, 60.1% indicated that over the last 5 years, their average organic grain yields were lower than their conventional yields by more than 5%, while 25.1% indicated that their organic yields exceeded their conventional counterparts by more than 5%. The remaining 14.8% indicated that the yields were similar (between  $\pm 5\%$ ). A simple correlation between the response and the number of years the respondent had been farming organically was -0.087 suggesting that it is not necessarily the accumulation of experience or increased soil fertility that is contributing to these differences in perception. Further analysis is necessary.

With respect to perceived differences in yield variability, 37.1% perceived that their organic grain yields had fluctuated more from year to year than their conventional yields, while 12.5% perceived that their organic grain yields had less variability. Half of the respondents did not perceive any difference in variability. Similar to the perceived differences in yield levels, the correlation between the response and the number of years of organic farming was only 0.045.

There was a greater consensus among the respondents regarding profitability of organic crops relative to that of conventional crops. As shown in figure 14, only 7.6% of the respondents found the organic crops over the last 5 years to be less profitable, on average, than their conventional crops on per-acre basis, while 13.3% found them to be as equally profitable. The remaining 78.7% perceived organic crops to be more profitable, with a wide variability in the perceived differences. Some 14.4% believed that organic crops were more than twice as profitable on per-acre basis.

### *Crop Insurance*

About half (48.4%) of the respondents carried federal crop insurance at the time of the survey and the remaining 51.6% did not.

Table 6 summarizes the responses regarding the respondents' thoughts on crop insurance. For each statement, the first row of numbers correspond to all responses, and the second and third rows, respectively, correspond to responses from those with and without crop insurance at the time of the survey.

Most respondents who currently did not carry crop insurance (90.8%) and more than half of those who did (53.3%) strongly disagreed with the statement that their financial institutions mandated crop insurance for loans. Yet, a solid minority (9.2%), including a few who did not carry crop insurance, believed that they needed to buy crop insurance for loans. It remains to be investigated whether this is due to differences in regional protocols.

The majority (54.3%) strongly agreed with the statement that crop insurance covering at the conventional prices is problematic. Proportionally more respondents who currently carried crop insurance felt this way than those without (60.2% vs 45.0%). On a less obvious note, 54.4% agreed or strongly agreed that some of their farming practices not being considered as approved practices were problematic.

The evidence was similar regarding the policy premium. Half of the respondents (49.4%) agreed or strongly agreed with the statement that a higher premium to insure organic crops (relative to conventional crops) was a problem. Proportionally more respondents with crop insurance felt this way than those without (54.0% vs 40.2%).

There was little agreement on whether or not crop insurance not covering green manure crops was problematic. The respondents were divided nearly equally across the five choices, with 25.9% strongly disagreeing and 22.7% strongly agreeing. Again, there needs to be further investigation on whether the differences can be explained by differences in regional farming practices.

Almost half (45.2%) of the respondents agreed or strongly agreed that they wanted their insurance agents to have more understanding of organic farming. A slightly greater percentage of respondents without crop insurance felt this way (46.4% vs 44.1%). At the same time, a considerable portion of the respondents (29.0%) were indifferent about this statement.

### *Risk Concerns*

Table 7 summarizes the ranking by the respondents of risk concerns regarding their organic grain operations. The respondents were also asked to identify their two greatest concerns from the list. The first two concerns regarding yield losses can be classified as production risks. Clearly, production risks were important in many farmers' minds. Specifically, 39.3% and 35.9% of the respondents identified yield losses due to weather and to weeds, insects, or deer as strong

concerns, respectively. Of 1,061 respondents who identified greatest risk concerns, 37.2% and 41.0%, respectively, identified these two risk concerns as one of their two greatest concerns.

Concerns regarding low prices, contracts not being honored, and few buyers can be classified as marketing risks, and the responses showed that many respondents were not overly concerned with these marketing risks. There were 29.1%, 42.6%, and 36.1% of the respondents who identified the three marketing risks as a low concern, respectively. Low prices were considered by 8.6% of the respondents as a primary concern, but only 5% of the respondents identified the other two marketing risks as major concerns.

Concerns regarding contamination and commingling were low in many respondents' priorities as well. Over half (56.2%) of the respondents identified concern of on-farm contamination due to prohibited substances as a low concern, while slightly fewer respondents (41.8%) identified concern of on-farm contamination due to genetic contamination as a low concern. Similarly, 43.5% of the respondents indicated that the risk of their crops being mishandled after leaving their farms was of low concern. Some 12.9% of the respondents chose the risk of on-farm contamination from genetically modified materials as one of their main concerns. But, the other contamination risks were selected by only 3% of the respondents as their major concerns.

The last three concerns listed in table 5 can be classified together as a risk of the definition of organic being diluted in the marketplace. These risks were of importance to many of our respondents. A majority (57.6%) ranked the concern of large farms entering and swamping the organic market as a 4 or 5 in a scale between 1 and 5, and this concern was one of the major concerns for 30.5% of the respondents. Similarly, half (50.0%) and nearly half (47.0%) of the respondents ranked concerns regarding the USDA standards being too lax or that the organic standards are not being enforced consistently across various industry participants as a 4 or 5, respectively. These concerns were identified by 26.5% and 23.8% of the respondents as one of their greatest concerns.

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Table 1 Resource Needs

	<b>Strongly Disagree</b>				<b>Strongly Agree</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>More information on organic production practices will help my organic grain farming operation</b>	73	107	<b>304</b>	<b>295</b>	<b>288</b>
<b>More market information will help my organic grain farming operation</b>	93	121	<b>279</b>	<b>306</b>	<b>256</b>
<b>More availability of risk management strategies will help my organic grain farming operation</b>	131	193	<b>336</b>	226	163
<b>I need more storage capacity on my farm</b>	229	207	216	194	209

Table 2 Approaches to Farming

	<b>Strongly Disagree</b>				<b>Strongly Agree</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>The objective is to maximize profitability</b>	36	68	237	282	<b>450</b>
<b>Environmental stewardship is important</b>	11	6	82	317	<b>664</b>
<b>I'd like to pass the farm to the next generation</b>	36	47	156	232	<b>599</b>
<b>I only need to earn enough income to cover a bit more than family living expenses</b>	<b>338</b>	248	229	139	109
<b>Organic is our lifestyle</b>	38	91	220	263	<b>462</b>

Table 3 Enterprises

<b>Grains</b>	<b>#responses</b>		<b>Other Crops</b>	<b>#responses</b>	
Corn	812	(72.7%)	Forage/hay other than alfalfa	250	(22.4%)
Soybean	744	(66.6%)	Alfalfa	169	(15.1%)
Wheat	570	(51.0%)	Vegetables	140	(12.5%)
Oats	417	(37.3%)	Peas/lentils/beans	128	(11.5%)
Barley	335	(30.0%)	Sunflower	35	(3.1%)
Rye	96	(8.6%)	Fruits	11	(1.0%)
Spelt	83	(7.4%)	Maple syrup	5	(0.4%)
Flax	79	(7.1%)	Safflower	4	(0.4%)
Milo/Sorghum	74	(6.6%)	Cotton	3	(0.3%)
Buckwheat	60	(5.4%)	Peanut	2	(0.2%)
Millet	47	(4.2%)	Canola/rape	2	(0.2%)
Rice	21	(1.9%)	Honey	1	(0.1%)
Triticale	19	(1.7%)			
Vetch	11	(1.0%)	<b>Farm-related enterprises</b>		
Amaranth	6	(0.5%)	Haying	760	(68.0%)
Kamut	1	(0.1%)	Grazing	503	(45.0%)
			Value-added activities	20	(1.8%)
<b>Livestock</b>			Other services	17	(1.5%)
Beef cattle	407	(36.4%)	Seed/ turf/ wood/ composting	16	(1.4%)
Dairy/heifers/fattening steers	262	(23.5%)			
Poultry	178	(15.9%)			
Swine	122	(10.9%)			
Sheep/goat	47	(4.2%)			
Horses	13	(1.2%)			
Elk/deer	3	(0.3%)			
Buffalo	2	(0.2%)			
Geese/turkey	2	(0.2%)			

Note: The percentages are computed relative to 1,117, the number of respondents who responded to the questions related to enterprises.

Table 4 Marketing Methods

	<b>#responses</b>	
Individual contracts	619	(56.8%)
Post-harvest individual marketing	579	(53.1%)
Contracts through coop	212	(19.4%)
On-farm use	161	(14.8%)
Post-harvest marketing through coop	139	(12.8%)
Farmers market/self-serve stand	11	(1.0%)
Broker/bargaining agent	11	(1.0%)

Note: The percentages are computed relative to 1,090, the number of respondents who responded to the questions related to enterprises.

Table 5 Pricing Methods

	<b>#responses</b>	
Marketing representatives	739	(72.5%)
Other farmers	618	(60.6%)
Cost of production	276	(27.1%)
Internet/industry publications	253	(24.8%)
Conventional prices	188	(18.4%)
Futures prices	64	(6.3%)
Buyers or brokers	62	(6.1%)
Other references	24	(2.4%)
Market equilibrium	19	(1.9%)
Own pricing or marking-up	16	(1.6%)

Note: The percentages are computed relative to 1,019, the number of respondents who responded to the questions related to enterprises.

Table 6 Issues on Crop Insurance

		<b>Strongly Disagree</b>			<b>Strongly Agree</b>	
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	total	<b>745</b>	75	80	43	96
<b>I need to buy crop insurance to obtain bank loans (1=Never, 5=Always)</b>	w/ insurance	<b>261</b>	48	59	38	84
	w/o insurance	<b>443</b>	21	14	4	6
	total	82	47	139	149	<b>495</b>
<b>I find it problematic that crop insurance only covers at the conventional price</b>	w/ insurance	17	25	72	83	<b>298</b>
	w/o insurance	59	20	57	62	<b>162</b>
	total	149	75	189	140	<b>352</b>
<b>I find it problematic that some of my farming practices are not considered as approved practices</b>	w/ insurance	61	43	108	86	<b>191</b>
	w/o insurance	78	31	66	49	<b>135</b>
	total	132	88	<b>222</b>	124	<b>308</b>
<b>I find it problematic that I have to pay a higher premium to insure organic crops</b>	w/ insurance	54	57	114	70	<b>194</b>
	w/o insurance	72	28	99	46	88
	total	225	147	225	75	197
<b>I find it problematic that crop insurance does not cover green manure crops</b>	w/ insurance	108	95	128	42	108
	w/o insurance	101	48	82	28	78
	total	121	103	<b>253</b>	142	<b>252</b>
<b>I wish my insurance agent understood organic farming better</b>	w/ insurance	54	75	<b>144</b>	86	<b>129</b>
	w/o insurance	62	26	90	48	106

Table 7 Risk Concerns

	Low concern		3	4	Strong concern	#Votes as greatest concern
	1	2			5	
Yield loss due to weather	114	110	226	210	<b>427</b>	<b>395</b>
Yield loss due to weeds and/or insects	75	157	201	266	<b>391</b>	<b>435</b>
Low prices	<b>312</b>	228	<b>282</b>	125	124	91
Contracts not honored	<b>450</b>	212	166	111	118	55
Few buyers	<b>382</b>	226	219	148	82	60
Crops not meeting organic standards due to contamination on farm from prohibited substances	<b>602</b>	202	118	68	81	36
Crops not meeting organic standards due to genetic contamination on farm	<b>450</b>	204	149	118	156	137
Crops being mishandled after they leave your farm	<b>465</b>	251	192	93	68	22
A cover crop loss consting you more than the value of the crop through lower soil fertilitiy in the future	<b>423</b>	263	211	116	52	34
Large farms entering and swamping the organic market	133	135	193	267	<b>359</b>	<b>324</b>
USDA organic standards are too lax	179	119	<b>245</b>	228	<b>314</b>	<b>281</b>
Organic standards are not enforced consistently across certifiers and other organic enterprises	176	144	<b>251</b>	<b>245</b>	<b>261</b>	<b>253</b>

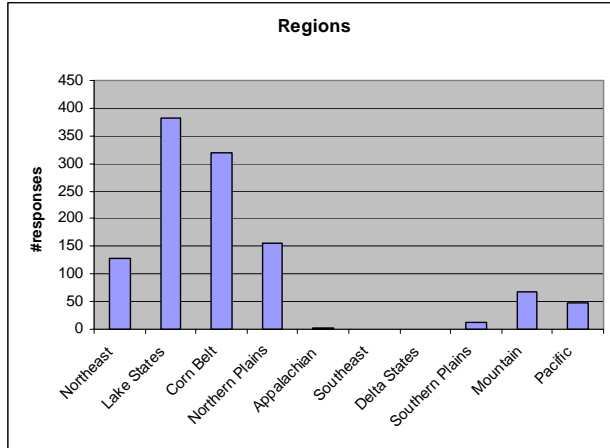


Figure 1 Regions

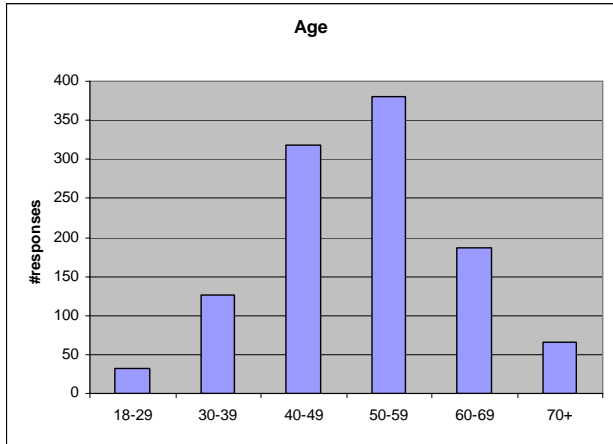


Figure 2 Age

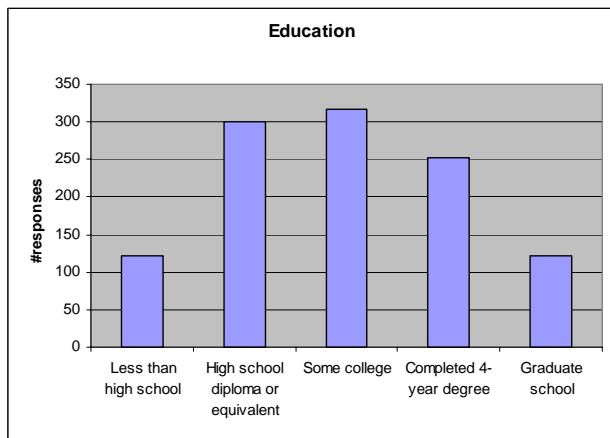


Figure 3 Educational Attainment

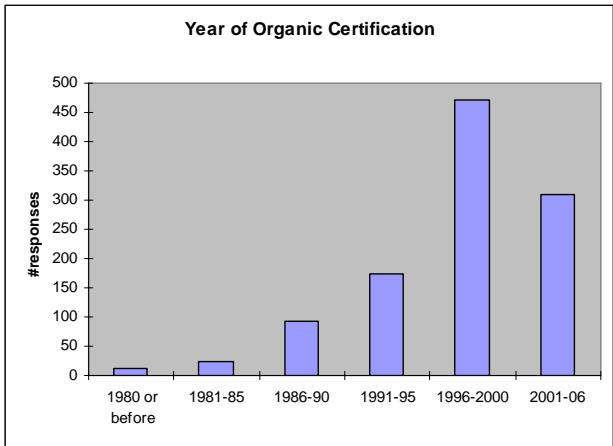


Figure 4 Year of Organic Certification

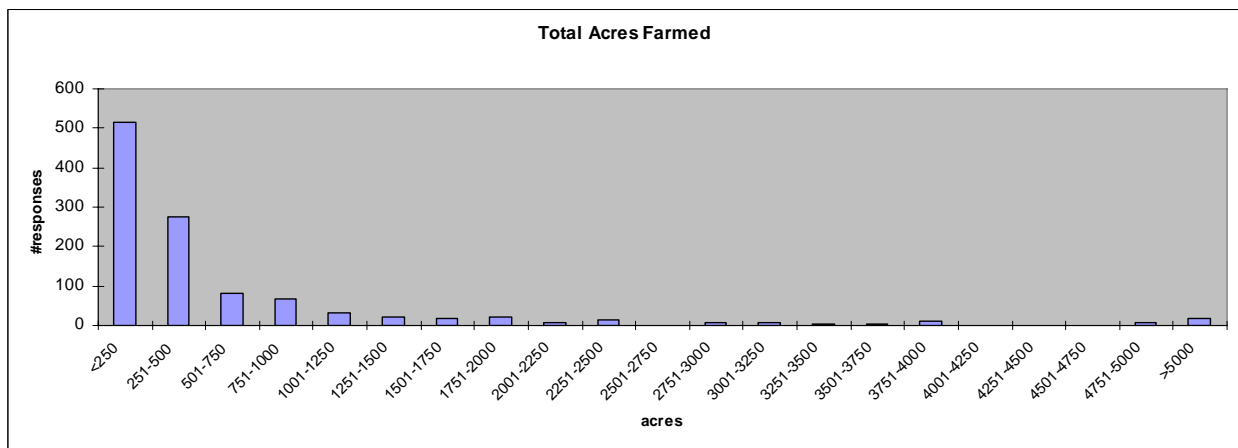


Figure 5 Number of Acres Farmed

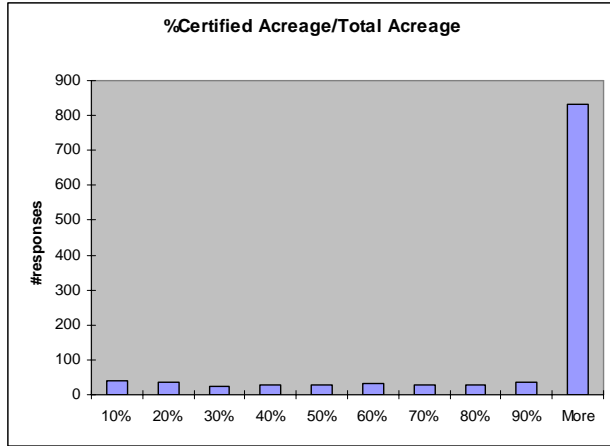


Figure 6 Percentage of Acreage Certified as Organic

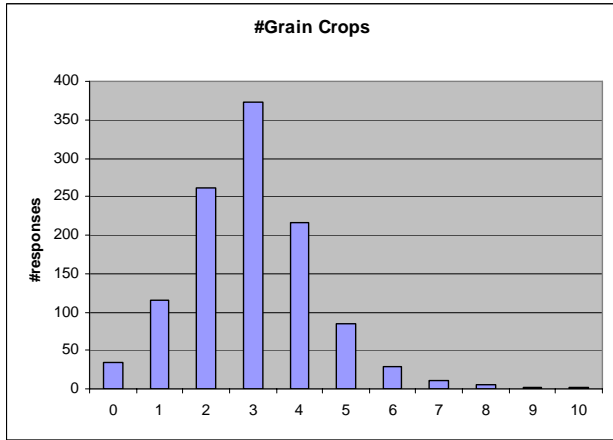


Figure 7 Number of Grain Crops Grown

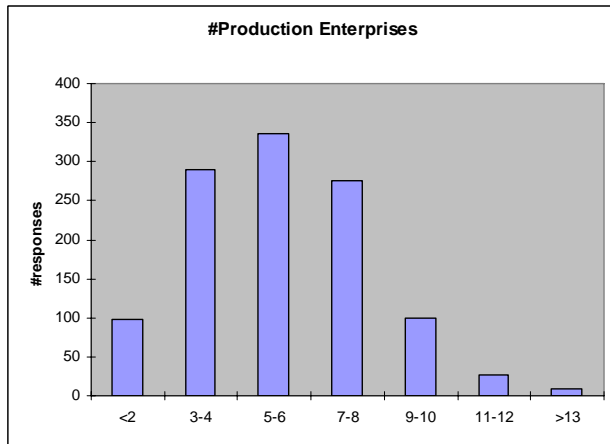


Figure 8 Number of "Production" Enterprises

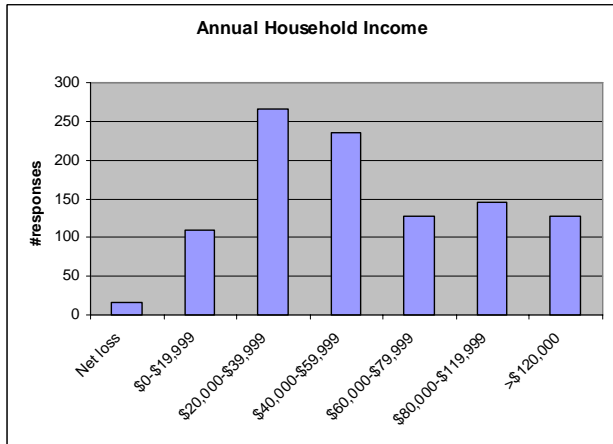


Figure 9 Annual Household Income

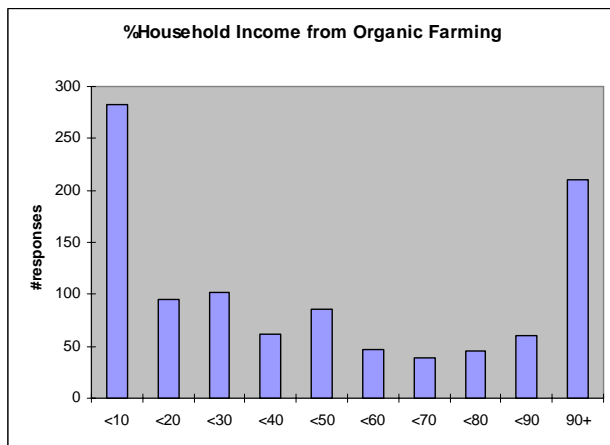


Figure 10 Percentage of Household Income Earned from Organic Farming

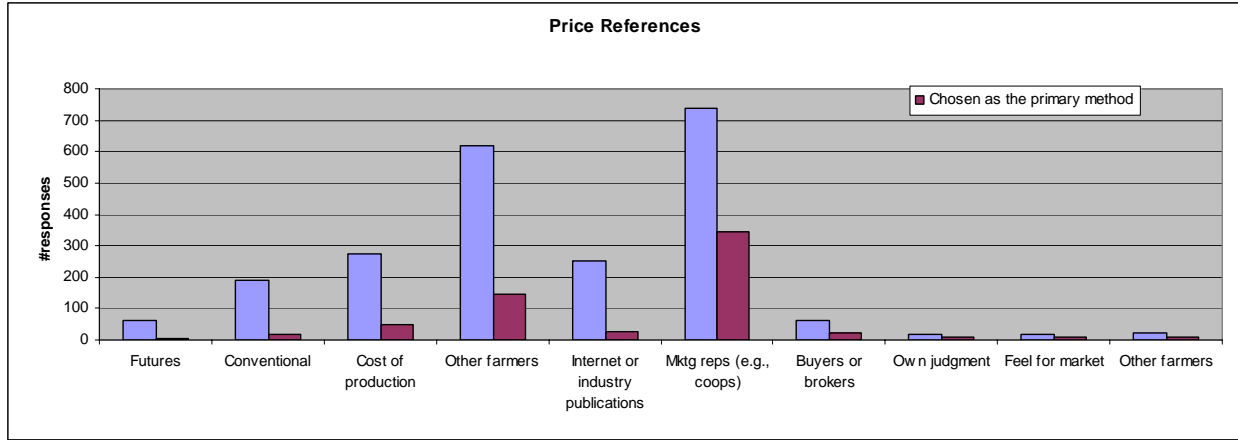


Figure 11 References Used for Pricing Organic Grains

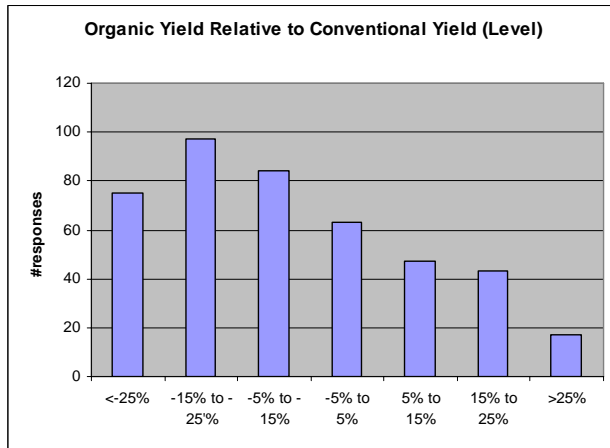


Figure 12 Organic Yields Relative to Conventional Yields

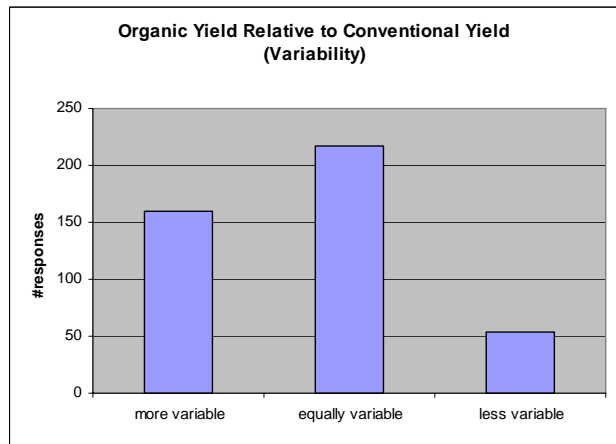


Figure 13 Organic Yield Variability Relative to Conventional Yields

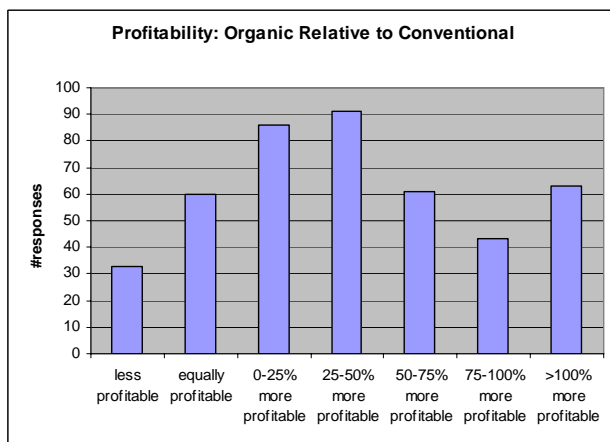


Figure 14 Profitability of Organic Farming Relative to Conventional Farming

## Appendix 1: Survey

OMB Approval Number 0563-0077  
Expiration Date 9/30/2008

U.S. Department of Agriculture/Kansas State University  
Survey on  
Risk Issues for Organic Grain Farmers

All information collected in this survey will be treated confidentially and will be reported only after being aggregated with information collected from other respondents.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection is 0563-0077. The time required to complete this information collection is estimated to average 30 minutes per response, including the time to review instructions, searching existing data resources, gather the data needed, and complete and review the information collected.

## Survey on Risk Issues for Organic Grain Farmers

If you are the primary operator of the farm, please answer the questions below.

0. Have you ever raised any grains (including soybeans) in certified organic acreage?

- Yes       No

Please proceed with the remaining questions, if you answered "Yes" to the previous question. If your answer is "No," please stop here and return the survey using the self-addressed, postage-paid envelope. Thank you for your cooperation.

### Part I. Your Farm

1. Your farm is located in the state(s) of \_\_\_\_\_

2. You are:     Male       Female

3. What is your age category?

- 18-29     30-39     40-49     50-59     60-69     70+

4. What is the *highest* level of formal education you have completed?

- Less than high school     High school diploma or equivalency (GED)  
 Some college     Completed 4-year degree (BA or BS)     Graduate school

5. Is farm or ranch work your primary occupation?     Yes       No

6. What percentage of your work time do you devote to farm or ranch work? \_\_\_\_\_ %

7. Since turning 18 years old, how many years have you been farming? \_\_\_\_\_ years

8. Since turning 18 years old, how many years have you been farming organic? \_\_\_\_\_ years

9. Since turning 18 years old, how many years have you been growing organic grains?  
\_\_\_\_\_ years

10. Which statement best describes your farming experience prior to growing organic grains?  
(check one)

- I was raised on an organic grain farm.
- I grew grains with conventional farming practices.
- I farmed organic but didn't grow grains.
- I farmed conventionally but didn't grow grains.
- I had no prior farming experience.
- Other \_\_\_\_\_

10a. When was your farm (any portion) certified as organic? Year \_\_\_\_\_ Month \_\_\_\_\_

11. How many acres do you currently farm (including rented land)? \_\_\_\_\_ acres

12. Of total acres listed in #11, \_\_\_\_\_ acres are certified organic, \_\_\_\_\_ acres are conventional, and \_\_\_\_\_ acres are in transition to organic.

13. Which statement best describes your future plans? (check one)

- Eventually, I intend to farm organic 100%.
- Eventually, I intend to farm partially certified organic and partially conventional, with *more than half* of the land certified organic.
- Eventually, I intend to farm partially certified organic and partially conventional, with *less than half* of the land certified organic.
- Eventually, I intend to farm conventionally 100%.

14. What crops did you grow within the last 3 years (check all that apply):

- Corn ( Food-grade,  Feed-grade)  
( Certified organic,  Conventional,  Other)
- Wheat ( Food-grade,  Feed-grade)  
( Certified organic,  Conventional,  Other)
- Soybean ( Food-grade,  Feed-grade)  
( Certified organic,  Conventional,  Other)
- Milo/Sorghum ( Food-grade,  Feed-grade)  
( Certified organic,  Conventional,  Other)
- Barley ( Food-grade,  Feed-grade)  
( Certified organic,  Conventional,  Other)
- Other (please be specific) \_\_\_\_\_

15. What other farm enterprises do you manage? (check all that apply)

- Haying     Grazing     Beef cattle     Swine     Dairy     Poultry  
 Vegetables     Other \_\_\_\_\_

16. Which of the following best describes your average *annual* household income (net farm income plus off farm wages, before taxes) over the last 3 years? (check one)

- Net loss     \$0-\$19,999     \$20,000-\$39,999     \$40,000-\$59,999  
 \$60,000-\$79,999     \$80,000-\$119,999     \$120,000+

17. Over the last 3 years, what percentage of your household income in #16 was obtained from off-farm sources? \_\_\_\_\_%

18. Over the last 3 years, what percentage of your *net farm income* do you attribute to organic farming? \_\_\_\_\_%

## Part II. Risk Issues

Please answer questions 19, 20, and 21 if you have grown conventional grains in recent years. Otherwise, go to question 22.

19. Over the last 5 years, my average *organic* grain yield has differed from my conventional yield by \_\_\_\_\_. (check one)

- ±5%     5 to 15%     15 to 25%     more than 25%  
 -5 to -15%     -15 to -25%     more than -25%

20. My organic grain yields \_\_\_\_\_ (check one from below) my conventional grain yields.

- have fluctuated *more* from year to year than  
 have fluctuated about as much as  
 have fluctuated *less* from year to year than

21. On average, over the last 5 years, my organic crops *on a per-acre basis* have been \_\_\_\_\_ (check one from below) than my conventional crops.

- less profitable     equally as profitable     0-25% more profitable  
 25-50% more profitable     50-75% more profitable     75 to 100% more profitable  
 100+% more profitable (that is, more than twice as profitable)

22. Do you currently carry federal crop insurance on your organic grain crops?  Yes     No

23. What are your thoughts regarding crop insurance? (circle one number from each row)

	Never	1	2	3	4	Always
• I need to buy crop insurance to obtain bank loans.	1					5
	Strongly Disagree					Strongly Agree
• I find it problematic that crop insurance only covers at the conventional price.	1					5
• I find it problematic that some of my farming practices are not considered as approved practices.	1					5
• I find it problematic that I have to pay a higher premium to insure organic crops.	1					5
• I find it problematic that crop insurance does not cover green manure crops.	1					5
• I wish my insurance agent understood organic farming better.	1					5

24. Which outlets do you use to market your organic grain? (check all that apply)

- Contracts through a cooperative
- Individual contracts
- Post-harvest marketing through a cooperative
- Post-harvest marketing individually
- Other \_\_\_\_\_

25. What do you consider in determining the price of your grain? (check all that apply)

- The future prices at the Chicago Board of Trade (CBOT)
- The cash price of conventional grain
- The cost of production
- Information about prices received from other farmers
- Information about prices found on the Internet and/or in industry publications
- Prices quoted by marketing representatives
- Other \_\_\_\_\_

26. Of those considerations marked in #25, which is the primary method for determining price? (circle one from the list in #25)

If your primary pricing method is based on future prices, the cash price of conventional grain, or the cost of production, do you use a mark-up? (For example, if the CBOT futures price is \$3, do you add a standard dollar amount to arrive at the final price?)

- Yes
- No

27. Please rank the following risk concerns regarding your organic grain operation? (circle one number from each row)

	Low concern				Strong concern
A. Yield loss due to weather	1	2	3	4	5
B. Yield loss due to weeds and/or insects	1	2	3	4	5
C. Low prices	1	2	3	4	5
D. Contracts not honored	1	2	3	4	5
E. Few buyers	1	2	3	4	5
F. Crops not meeting organic standards due to contamination from prohibited substances, such as pesticide, on your farm	1	2	3	4	5
G. Crops not meeting organic standards due to genetic contamination on your farm	1	2	3	4	5
H. Crops being mishandled after they leave your farm, such as commingling	1	2	3	4	5
I. A cover crop loss costing you more than the value of the crop through lower soil fertility in the future	1	2	3	4	5
J. Large farms entering and swamping the organic market	1	2	3	4	5
K. USDA organic standards are too lax	1	2	3	4	5
L. Organic standards are not enforced consistently across certifiers and other organic enterprises	1	2	3	4	5

28. Of the items listed in #27, which two are of greatest concern? \_\_\_\_\_ and \_\_\_\_\_

29. Please indicate your degree of agreement with the following "resource needs" statements. (circle one number from each row)

	Strongly Disagree				Strongly Agree
• More information on organic production practices will help my organic grain farming operation.	1	2	3	4	5
• More market information will help my organic grain farming operation.	1	2	3	4	5
• More availability of risk management strategies will help my organic grain farming operation.	1	2	3	4	5
• I need more storage capacity on my farm.	1	2	3	4	5

30. What is your approach to farming? (circle one number from each row)

	Strongly Disagree				Strongly Agree
• The objective is to maximize profitability.	1	2	3	4	5
• Environmental stewardship is important.	1	2	3	4	5
• I'd like to pass the farm to the next generation.	1	2	3	4	5
• I only need to earn enough income to cover a bit more than family living expenses	1	2	3	4	5
• Organic is our lifestyle.	1	2	3	4	5

Please share your opinion on risk issues you face as an organic grain farmer.

Thank you for taking your time to complete this important survey. Please enclose the completed survey in the enclosed, postage-paid envelope and drop it in the mail.

## Appendix 2: The Number of No Responses by Question

Question:	# no responses	Question:	# no responses
Q1	11 (0.97%)	Q24	44 (3.88%)
Q2	21 (1.85%)	Q25	115 (10.14%)
Q3	23 (2.03%)	Q26 primary methods	496 (43.74%)
Q4	21 (1.85%)	mark-up	416 (36.68%)
Q5	25 (2.20%)	Q27 A	47 (4.14%)
Q6	27 (2.38%)	B	44 (3.88%)
Q7	30 (2.65%)	C	63 (5.56%)
Q8	16 (1.41%)	D	77 (6.79%)
Q9	16 (1.41%)	E	77 (6.79%)
Q10	8 (0.71%)	F	63 (5.56%)
Q10a	47 (4.14%)	G	57 (5.03%)
Q11	27 (2.38%)	H	65 (5.73%)
Q12 Certified Organic	27 (2.38%)	I	69 (6.08%)
Conventional	61 (5.38%)	J	47 (4.14%)
Transitional	62 (5.47%)	K	49 (4.32%)
Q13	179 (15.78%)	L	57 (5.03%)
Q14&Q15	17 (1.50%)	Q28	73 (6.44%)
Q16	106 (9.35%)	Q29 a	67 (5.91%)
Q17	95 (8.38%)	b	78 (6.88%)
Q18	76 (6.70%)	c	84 (7.41%)
Q19	708 (62.43%)	d	78 (6.88%)
Q20	703 (61.99%)	Q30 a	60 (5.29%)
Q21	697 (61.46%)	b	53 (4.67%)
Q22	72 (6.35%)	c	63 (5.56%)
Q23 a	95 (8.38%)	d	71 (6.26%)
b	222 (19.58%)	e	59 (5.20%)
c	229 (20.19%)		
d	260 (22.93%)		
e	265 (23.37%)		
f	263 (23.19%)		