

## 2007 Summary Report

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### Introduction

Iowa farm families have both hopes and concerns associated with changes unfolding across the state, especially those related to the rapid development of the “bioeconomy.” The increasing focus on renewable fuels, especially ethanol and biodiesel, brings both great expectations for grain prices and economic growth as well as worries about impacts on the environment and the structure of agriculture. The 2007 Iowa Farm and Rural Life Poll asked questions about these issues and related topics such as land use and future farm plans.

The poll was created in 1982 by Iowa State University Extension, the Iowa Agriculture and Home Economics Experiment Station, and the Iowa Department of Agriculture and Land Stewardship. It partners Extension and research programs with the needs of farm families. Data collected on issues of importance to the farming community provide input to local, state, and national leaders in their decision-making process. We thank the many farm families who responded to this year’s survey and appreciate their continued participation in the poll.

### Methods

Questionnaires were mailed to a statewide panel of 1,473 farm operators, with reminder postcards and replacement questionnaires sent to maximize survey response rate. Usable surveys received from 1,095 producers resulted in a response rate of 74 percent. Five percent of those responding were female, and the overall median age was 63. This report is a summary

of this year’s results. Additional copies of this or any other year’s reports are available from your local county Extension office, from the Extension Distribution Center at Iowa State University, or from the authors.

### Highlights from the 2007 Farm Poll

#### The Bioeconomy

Much of this year’s report focuses on Iowa’s place in the growing bioeconomy, and examines farmers’ opinions regarding potential directions and outcomes of that growth. Several survey items centered on Iowa’s role in the nation’s development of biorenewable fuels and products. Farmers were asked to rank their level of agreement with a series of statements along a five-point scale ranging from “strongly disagree” to “strongly agree.” Eighty-six percent agreed that moving Iowa toward energy independence is a worthy goal, and a strong majority of farmers (77 percent) concurred that Iowa should lead the country in research and innovation on the bioeconomy (Table 1). Eighty-four percent believed that Iowa should become a leader in producing biodegradable corn-based products.

Iowa farmers approved of state government support for bioeconomy development initiatives, with 75 percent in favor of lower taxes on biofuels until broader acceptance is gained, and 61 percent agreeing that local and state government vehicles should be E85 or B20 fuels-capable. A slight majority of farmers (52 percent) believed that Iowa

**Table 1. Iowa's Role in the Bioeconomy**

	<b>Disagree or Strongly Disagree</b>	<b>Uncertain</b>	<b>Agree or Strongly Agree</b>
– Percent –			
It is a worthy goal for Iowa to move towards energy independence .....	3	11	86
Iowa should become a leader in producing biodegradable corn-based products.....	2	14	84
Iowa should be the nation's leader in research and innovation on the bioeconomy .....	3	20	77
The state should continue its support of biofuels with lower fuel taxes until they gain broader acceptance .....	8	17	75
Research on biofuels should not be at the expense of traditional crop and livestock research.....	7	18	75
All local and state government vehicles should be flex-fuel vehicles that operate on E85 or B20 fuels .....	13	26	61
Biorenewable energy should be Iowa State University's top research priority to maintain Iowa's leadership in this area....	15	33	52

State University's top research priority should be biorenewable energy to maintain Iowa's leadership in that area. However, 75 percent agreed that research on biofuels should not supplant traditional crop and livestock research.

Farm operators were asked about a range of potential social and economic impacts associated with the growing bioeconomy. Seventy-nine percent concurred that jobs provided by ethanol plants will provide an economic boost for rural communities, and 59

percent expressed the opinion that the distillers grain co-product of ethanol production could potentially revive Iowa's cattle industry (Table 2). However, 70 percent of farmers believed that biofuel production will eventually be consolidated and dominated by large agribusiness corporations, and 62 percent felt that higher corn prices would result in larger and fewer farms.

Increases in grain production in response to demand from ethanol plants have also led to some concerns about potential environmental

**Table 2. Potential Social, Economic, and Farm Structural Impacts**

	<b>Disagree or Strongly Disagree</b>	<b>Uncertain</b>	<b>Agree or Strongly Agree</b>
– Percent –			
Jobs provided by ethanol plants will be an economic boost for rural communities.....	5	16	79
Production of biofuels eventually will be consolidated and dominated by large agribusiness corporations .....	6	24	70
Higher corn prices will result in larger and fewer farms.....	11	27	62
Because a by-product of ethanol production, distillers grain, can be used for cattle feed, it has the potential for reviving the Iowa cattle industry.....	10	31	59

impacts. Ethanol is generally promoted as a fuel option that is less taxing on the environment than petroleum, and 73 percent of Iowa farmers concurred that ethanol is an environmentally friendly fuel (Table 3). This belief is tempered, however, by views related to possible negative impacts. Seventy-seven percent of farm operators agreed that bringing marginal land into grain production would reduce wildlife habitat. Farmers were fairly evenly split on their assessments of potential water quality impacts: 31 percent disagreed that increased ethanol production would impact water quality negatively, while 28 percent agreed, and 41 percent were uncertain. Views on corn-on-corn rotation were similarly divided: 41 percent disagreed that continuous cropping of corn has negative environmental impacts, while 34 percent agreed. Forty-two percent did not see increases in ethanol-related profits leading to investment in soil conservation, while 37 percent expressed uncertainty about the relationship between increased profits and conservation. Forty-six percent agreed that the focus on biorenewable energy is distracting from needed attention

to energy conservation, while 25 percent disagreed.

Cellulosic ethanol production is touted as a potentially more efficient and environment-friendly technology. Iowa farmers expressed some uncertainty about the impacts of the technology, however. While 32 percent agreed that moving to feedstocks such as switchgrass or poplar trees would increase wildlife habitat, 24 percent disagreed, and 44 percent were uncertain. In addition, 75 percent opined that removing corn stover for conversion to ethanol would increase soil erosion, with six percent in disagreement.

## Sources of Information and Ethanol Production

Ethanol is an important issue to Iowans, and information on various aspects of ethanol production is frequently disseminated through a number of outlets. Survey participants were asked to share their opinions about perceived objectivity among information sources regarding the potential costs and benefits of ethanol production. As table 4 shows, a

**Table 3. Potential Environmental Impacts**

	<b>Disagree or Strongly Disagree</b>	<b>Uncertain</b>	<b>Agree or Strongly Agree</b>
	– Percent –		
Bringing marginal land into grain production will reduce habitat for wildlife.....	11	12	77
Removing corn stover for ethanol production will increase soil erosion.....	6	19	75
Ethanol is an environmentally friendly fuel .....	5	22	73
The focus on biorenewable energy is distracting from needed attention on energy conservation.....	25	29	46
Corn-on-corn rotation is not good for the environment .....	41	25	34
Moving to cellulosic production of biofuels such as switchgrass or poplar trees will increase the habitat for wildlife.....	24	44	32
Increased ethanol production will have a negative impact on water quality .....	31	41	28
Ethanol production may benefit soil conservation because farmers will have more profits to invest in conservation .....	42	37	21

sizeable majority of farmers believe that news outlets and other information channels have tended to be overly positive. Farm magazines and farmer organizations were viewed as having the most optimistic tilt: over 80 percent of farmers rated information from these sources as having a positive or overly positive bias regarding ethanol. State universities and newspapers were seen as the least-biased providers of information; nevertheless, under one-third (32 and 26 percent, respectively) of farmers rated the two groups as unbiased. Only environmental organizations were viewed as predominantly negative in their assessments of ethanol's costs and benefits: 44 percent of respondents rated such groups as negative or overly negative sources of information on ethanol production.

## Grain Storage and Transportation

Producers are responding to the needs and opportunities of the bioeconomy by growing more corn and marketing corn to ethanol

plants. Table 5 indicates that producers have plans in 2007 to plant about 18 more acres of corn, on average, than they planted on 2006. They also have plans to deliver nearly 2,000 more bushels of corn directly to ethanol plants in 2007 than they delivered in 2006.

As producers consider selling corn to ethanol plants and perhaps expanding corn acreage, they also must deal with the issue of storage. Ethanol plants do not have extensive storage facilities, so producers must store their corn until the plant requests delivery. Seventy-two percent of producers responded that they either owned or had access to on-farm grain storage facilities for the land they farmed. Most of these producers (91 percent) stated that they had round bins with an average total storage capacity of 39,000 bushels, but one-third (33 percent) also had other buildings or structures with a total average storage capacity of 12,000 bushels.

Quality of storage is important in storing corn for eventual delivery to ethanol plants, but most Iowa producers are unaware of the higher

**Table 4. Bias among Sources of Information Regarding Ethanol**

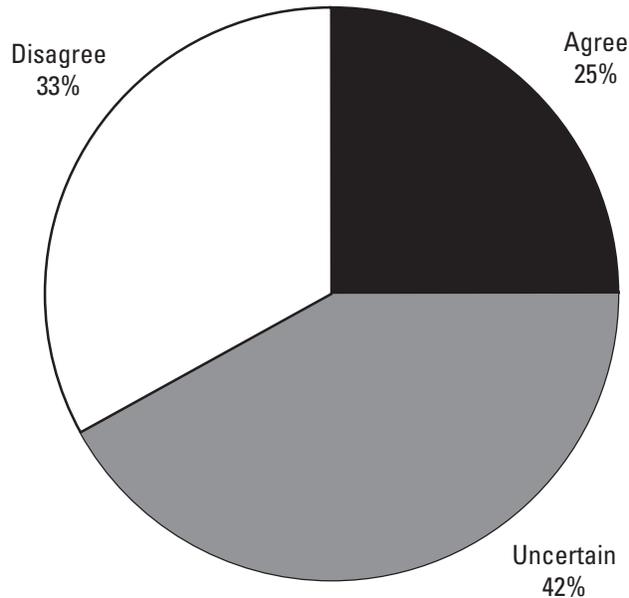
	Negative or Overly Negative	Unbiased	Positive or Overly Positive
– Percent –			
Farm magazines.....	0	17	83
Farmer organizations .....	0	16	84
State government.....	4	22	74
Politicians .....	14	17	69
State universities .....	2	32	66
Federal government.....	11	23	66
Newspapers .....	17	26	57
Environmental organizations.....	44	19	37

**Table 5. Corn Planted and Delivered to Ethanol Plants in 2006, and Planned Planting and Delivery to Ethanol Plants in 2007**

	2006	Planned 2007	Increase 06-07
Acres of corn planted.....	249	267	18
Bushels of corn delivered to ethanol plants.....	5,436	7,308	1,872

quality of corn demanded by ethanol plants than by elevators. One-fourth (25 percent) of respondents agreed that ethanol plants demand a higher quality of corn, but one-third (33 percent) disagreed, and two-fifths (42 percent) were uncertain (Figure 1).

**Figure 1. Agreement that ethanol plants demand a higher quality of corn than elevators**



Twelve percent of surveyed producers plan to add grain storage facilities in the next three years. Nearly all of the farmers who plan to construct facilities will add round bins with an average storage capacity of 29,000 bushels. Fewer than one percent have plans to add other buildings or structures with an average storage capacity of 27,000 bushels, and a similar percentage plan to adapt existing buildings or structures with an average storage capacity of slightly less than 5,500 bushels.

Only two percent of producers have an investment in off-farm grain storage facilities

such as joint ownership or condo storage, and two percent have plans for investing in off-farm grain storage facilities over the next three years. Total average capacity of existing investment in off-farm grain storage is 22,000 bushels, and planned investment capacity is slightly less than 19,000 bushels.

Transporting corn to ethanol plants may also be a problem for some producers. The average one-way hauling distance to an ethanol plant (28 miles) was about two-and-a-half times the average one-way hauling distance to the most frequently used market delivery point other than an ethanol plant (11 miles). Table 6 shows the types, numbers, and total capacities of equipment producers typically use for hauling grain to market. Nearly one-half of the producers (48 percent) use tractor-pulled wagons, and about one-fourth (25 percent) use semi-trucks.

### Alternative Energy

In addition to ethanol, alternative energy sources such as solar and wind have garnered increased attention as potential expense-minimizing or income-generating opportunities for Iowa’s municipalities and farm households. On the whole, farmers are supportive of alternative energy sources, although there appears to be a good deal of uncertainty surrounding some technologies.

Wind energy is widely supported as a potential alternative, with 91 percent of farm operators in agreement that it could become an important energy source for Iowa (Table 7). Opinions about solar energy were less clear-cut: while 58 percent agreed that solar energy

**Table 6. Typically Used Grain-Hauling Equipment**

	Number of Producers Mentioned	Average Number	Total Bushel Capacity
Tractor-pulled wagons.....	516 (48%)	3.2	1,193
Straight trucks, fifth wheels.....	203 (19%)	1.3	660
Semi-trucks .....	271 (25%)	1.4	1,370

**Table 7. Alternative Energy Opinions**

	Disagree or Strongly Disagree	Uncertain	Agree or Strongly Agree
	– Percent –		
Wind energy has the potential for becoming an important energy resource for Iowa .....	2	7	91
More information should be available to farmers interested in producing renewable energy .....	1	17	82
I support local community ownership of electricity generation and distribution .....	5	23	72
Solar energy is a viable alternative to help heat homes in Iowa .....	10	32	58
More municipal electric utilities should burn garbage as a fuel in their power plants .....	4	43	53
I am interested in producing renewable energy on my farm .	16	42	42
I am willing to spend more money short-term to establish long-term energy solutions .....	15	47	38
Lack of ability to sell electricity back to the utility company keeps me from developing wind-based electricity on my farm.....	32	42	26

could be a viable home heating technology, 32 percent were uncertain. Forty-two percent of farmers stated that they were interested in producing renewable energy on their farms, while an equal proportion were uncertain. Twenty-six percent of respondents agreed that a lack of mechanisms allowing the sale of electricity back to utility companies acts as an impediment to the development of wind power on their farms, but 42 percent expressed uncertainty about the importance of this factor as a barrier. Thirty-eight percent expressed willingness to spend more money in the short-term in order to advance long-term energy solutions, 47 percent were uncertain, and 15 percent were unwilling. Some of the uncertainty noted above may be attributed to lack of information: a strong majority of farmers—82 percent—agreed that more information on production of renewable energy should be made available to them.

Regarding electricity generation by utilities, 53 percent of farm operators agreed that municipal utilities should burn garbage to

fuel power plants, with 43 percent not sure. A solid majority—72 percent—supported local ownership of power generation and distribution.

### **Opinions on Land Use Issues**

Several questions explored property rights dimensions of land use. Three-quarters of respondents agreed or strongly agreed that they were concerned about losing their rights as landowners (Table 8). One-half of surveyed farmers agreed that landowners should be able to do anything they want with the land they own, while 37 percent disagreed. At the same time, over 80 percent of respondents agreed that their rights to clean air and water should be considered along with others' rights as landowners.

Opinions about who should own Iowa farmland tilted toward local ownership. Eighty percent of farmers polled were concerned that in the future only investors would be able to purchase land, and 75 percent were worried about levels of out-of-state ownership (Table 9). A similar percentage (73 percent) agreed

**Table 8. Property Rights**

	<b>Disagree or Strongly Disagree</b>	<b>Not Sure</b>	<b>Somewhat or Strongly Agree</b>
	– Percent –		
My rights for clean air and water should be considered along with someone else’s rights as a landowner.....	5	12	83
I am concerned about losing my rights as a landowner in Iowa .....	11	14	75
Landowners have a right to do anything they want with land they own .....	37	13	50

that Iowa should provide land purchase incentives for beginning farmers, and 69 percent expressed the opinion that keeping land in the family is more important than profits from its sale.

Farmers were in general agreement about the importance of farmland protection. Seventy-three percent agreed that land zoned for agriculture should not be developed for non-agricultural uses, and 70 percent believed

that too much farmland is being converted to non-agricultural uses (Table 9). Seventy-nine percent felt that the State of Iowa should do more to protect agricultural land. On the other hand, 51 percent of farmers agreed that the State should allow local communities to determine the appropriate uses of their land, and 65 percent either disagreed or were unsure that more public space in Iowa should be environmentally protected.

**Table 9. Agricultural Land Use**

	<b>Disagree or Strongly Disagree</b>	<b>Not Sure</b>	<b>Somewhat or Strongly Agree</b>
	– Percent –		
I am concerned that in the future only investors will be able to purchase land.....	9	11	80
The State of Iowa should do more to protect agricultural land in Iowa.....	5	16	79
I am concerned about out-of-state ownership of Iowa land .....	12	13	75
Iowa should provide incentives for beginning farmers to purchase land.....	12	15	73
Land zoned for agriculture should not be used for non-agricultural development.....	9	18	73
Too much farmland is being sold for non-agricultural development .....	8	22	70
Keeping land in the family is more important than making a profit on its sale.....	10	21	69
State government should let local communities decide best land use .....	23	26	51
We need more public space in Iowa to be environmentally protected .....	30	35	35

## Farming Plans

Most farmers did not plan to make major changes to the size of their farming operations over the next five years. Sixty-four percent planned to maintain acreage at current levels, 18 percent planned to purchase more land, and six percent anticipated selling land (Table 10). Sixteen percent stated that they intended to rent more land, compared to 12 percent who planned to rent fewer acres. Farmers who expected to rent more land over the next 1-2 years estimated that they would rent an additional 224 acres, on average. Nine percent of respondents were leaning toward bringing Conservation Reserve Program (CRP) acreage into crop production (Table 11). Those planning such a switch intended to shift an average of 42 acres of CRP into crops.

Most of the farmers surveyed did not intend to change production practices significantly over

the next five years. Only three percent planned to reduce crop production. Five percent were considering the sale of corn stover. Sixteen percent had plans to go to a corn-on-corn rotation.

A significant proportion of farmers—28 percent—stated that they would probably or definitely retire from farming over the coming five years, and an additional 21 percent were undecided (Figure 2). Five percent of respondents indicated that they would leave farming for another profession.

## Satisfaction with Farming, the Economy

In general, farmers expressed satisfaction with key operating measures of farm success. Noteworthy is that the area of greatest stated satisfaction among producers, at 84 percent, was the adequacy of conservation measures employed on their farms (Figure 3). Sizeable

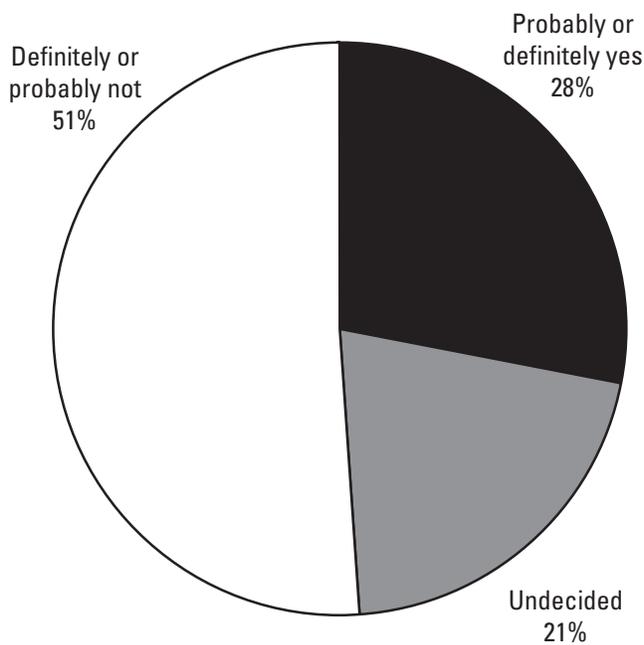
**Table 10. Farming Plans: Five-Year Horizon**

In the next five years, do you plan to do any of the following?	Definitely or Probably Not	Undecided	Probably or Definitely Yes
	– Percent –		
Keep acreage of farm the same.....	18	18	64
Retire from farming.....	51	21	28
Rent land to others to farm.....	54	20	26
Buy additional land.....	64	18	18
Rent more land from others.....	66	18	16
Rent fewer acres.....	65	23	12
Sell some land.....	80	14	6
Leave farming for another occupation.....	85	10	5

**Table 11. Planned Changes in Production Practices**

In the next five years, do you plan to do any of the following?	Definitely or Probably Not	Undecided	Probably or Definitely Yes
	– Percent –		
Go to corn-on-corn rotation.....	63	21	16
Switch acreage from CRP to crop production.....	75	16	9
Sell corn stover.....	69	26	5
Reduce crop production.....	83	14	3

**Figure 2. Retirement in next five years?**



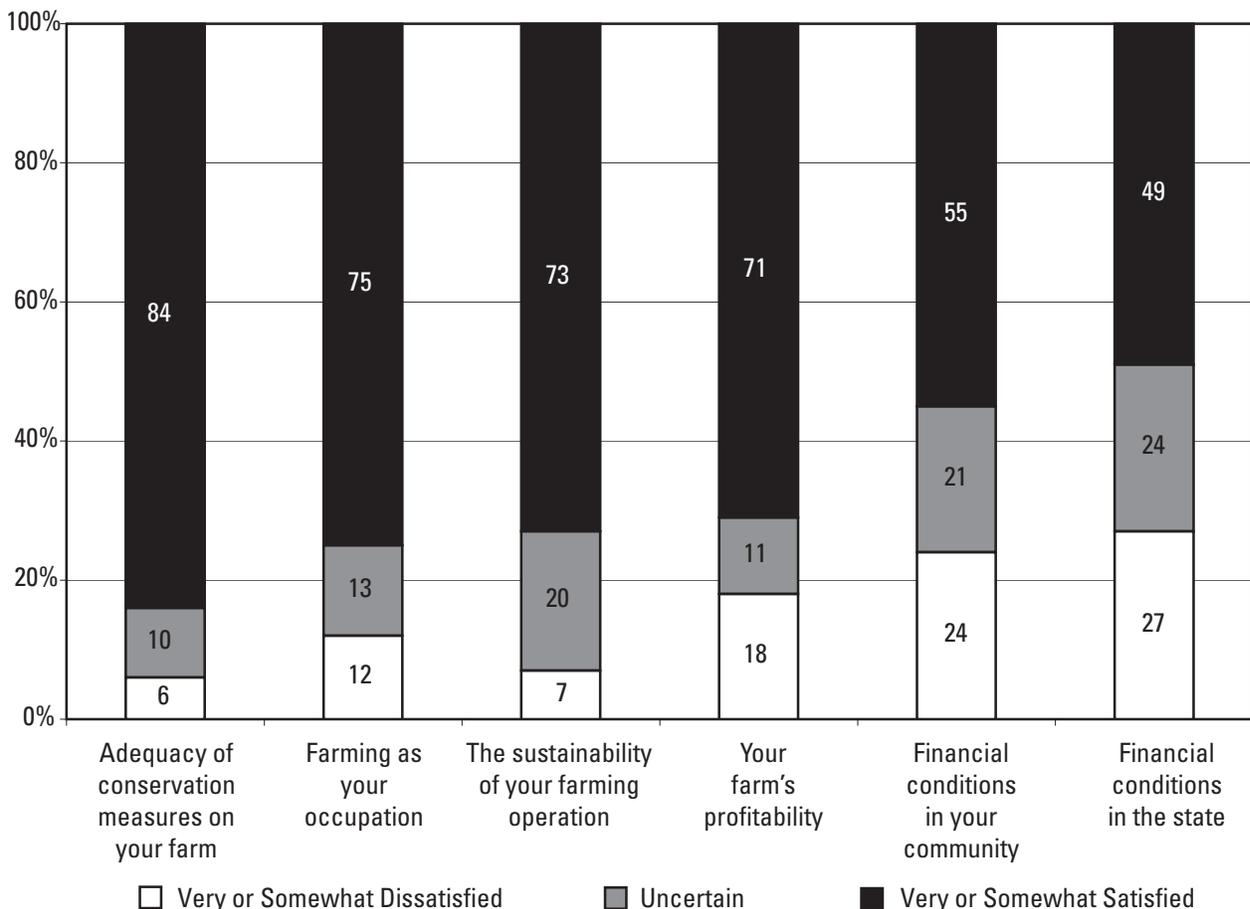
majorities also expressed satisfaction with farming as an occupation (75 percent), and

their farms' sustainability (73 percent) and profitability (71 percent).

Levels of satisfaction with factors external to the farm were somewhat lower. Fifty-five percent of respondents were somewhat or very satisfied with financial conditions in their communities, and 49 percent expressed satisfaction with financial conditions in the state.

Farmers were asked to rate the importance of a number of factors that may influence satisfaction with farming as an occupation (Table 12). The factors rated as most important were: freedom to make your own decisions (55 percent), ability to work outdoors (51 percent), knowing you are doing something worthwhile (45 percent), flexible work schedule (44 percent), a family tradition of farming (43 percent), and time spent with family (39 percent). The two factors that garnered the least

**Figure 3. Satisfaction with farming**



**Table 12. Contributions to Satisfaction with Farming**

Please indicate the contribution of each factor to your satisfaction with farming	No Contribution	Small Contribution	Moderate Contribution	Large Contribution
– Percent –				
Freedom to make your own decisions.....	1	5	39	55
Ability to work outdoors .....	1	5	43	51
Knowing you are doing something worthwhile .....	2	11	42	45
Flexible work schedule.....	2	8	46	44
Family tradition of farming .....	5	15	37	43
Time spent with family.....	4	10	47	39
Having adequate income .....	3	17	47	33
Controlling debt obligations.....	5	19	47	29

endorsement as contributors to satisfaction were economic: having adequate income (33 percent) and controlling debt obligations (29 percent).

## Thoughts on Farming as a Career

When asked if they would choose farming if they had the chance to start over again, 79 percent of farmers stated that they would probably or definitely choose to farm (Table 13). Seventy-one percent indicated that if they were to come into sufficient money to live comfortably without farming, they would

nonetheless continue to farm. Forty-five percent would recommend farming to a friend, and 44 percent would recommend a farming career to their children or other family members. Notable is the degree of uncertainty regarding this question—about one-quarter of farmers responded that they were unsure whether they would recommend farming to friends or family. Nevertheless, respondents wish for their family members to maintain involvement in farming after they retire: 79 percent would like their farms to remain in the family, and 58 percent hope for one of their children to take over.

**Table 13. Thoughts on Farming as a Career**

	Probably or Definitely Not	Undecided	Probably or Definitely Yes
– Percent –			
If you had to do it over again, would you still choose to farm?.....	11	10	79
Would you like your farm to remain in your family when you retire? .....	7	14	79
If, by some chance, you were to get enough money to live comfortably without farming, do you think that you would continue to farm anyway? .....	17	12	71
If you have children, would you like for one of them to take over the farm when you retire?.....	20	22	58
Would you recommend farming to a friend?.....	29	26	45
Would you recommend farming to your children or other family members? .....	33	23	44

## Selected Poll Highlights

### ***Bioeconomy (percent agreeing)***

- Iowa should lead the nation in bioeconomy-related research and innovation—77 percent
- Ethanol-related jobs will provide an economic boost to rural communities—79 percent
- State should support biofuels through tax policy—75 percent, and use of E85/B20 vehicles—61 percent
- Biofuels research should not come at the expense of traditional agricultural research—75 percent
- Biofuel production will eventually be dominated by agribusiness corporations—70 percent
- Higher corn prices will lead to larger and fewer farms—62 percent
- Ethanol production using corn stover will increase erosion—75 percent
- Ethanol is an environmentally friendly fuel—73 percent

### ***Bias and Information on Ethanol***

- Most information sources viewed as having a positive or overly positive bias
- Farm organizations and farm magazines seen as exhibiting most positive bias
- Environmental organizations considered to be most negative in assessments

### ***Grain Storage and Transportation***

- Most farmers have on-farm storage facilities, averaging 39,000 bushels (round bins)
- A majority disagree or are uncertain about whether ethanol plants require higher quality grain
- Average distance to ethanol plants—28 miles—greater than that to elevator—11 miles

- Hauling done primarily with tractor-pulled wagons—48 percent, 1,200 bushels average capacity—and semi-trucks—25 percent, 1,370 bushels average capacity

### ***Alternative Energy (percent agreeing)***

- Wind energy is a potentially important energy source for Iowa—91 percent
- Solar energy seen as a possible home heating alternative—58 percent
- Interest in on-farm production of renewable energy—42 percent
- Agreement that more information is needed on production of renewable energy—82 percent

### ***Land Use and Agriculture (percent agreeing)***

- Concerned that investors will dominate land markets—80 percent
- Concerned about out-of-state ownership of Iowa land—75 percent
- State should support beginning farmer land purchase through incentives—73 percent
- More Iowa public space should be environmentally protected—35 percent

### ***Farming Plans (percent probably or definitely yes)***

- Retire in next five years—28 percent
- Buy more land—18 percent
- Sell some land—6 percent
- Rent more land—16 percent
- Rent less land—12 percent
- Shift CRP to crop production—9 percent
- Would like farm to remain in the family after retirement—79 percent
- Would like child(ren) to take over farm when retired—58 percent

**For more information from the 2007 Iowa Farm and Rural Life Poll, see the following additional reports which are available online at [www.extension.iastate.edu/store](http://www.extension.iastate.edu/store)**

PM 2044, *Iowa Farm and Rural Life Poll 2007 Survey Report on Farmer Entrepreneurship* (available only online)

PM 2049, *Iowa Farm and Rural Life Poll 2007 Survey Report on Grain Storage and Transportation* (available only online)

PM 2050, *Iowa Farm and Rural Life Poll 2007 Survey Report on Farmers' Views on the Bioeconomy* (available only online)

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File: Communities 9-3

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