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2012 Iowa Farm and Rural Life Poll: Rural issues and quality of life

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The Farm Poll routinely asks farmers about quality of life and related issues. Over the three decades of the Farm Poll's existence, a number of questions have been posed multiple times, which allows us to examine changes in farmer perspectives over time. The 2012 survey asked several such questions focused on issues related to farm profitability and persistence, soil and water conservation, and general socioeconomic conditions.

Issues related to farming and conservation

The profitability and viability of farming have been an important focus of the Farm Poll over the years. Concern about the long-term decline in the number of farms in the state was relatively stable over the first 20 years of the survey, with 83, 78 and 84 percent of farmers indicating that it was an important or very important issue in 1982, 1993, and 2002, respectively (Table 1). In 2012, that statistic dropped substantially, to 64 percent. Similarly, concern about the ability of the next generation to enter farming declined slightly, from 89 percent important or very important in 1982 to 82 percent in 2012.

Concern about several market-related issues has also declined over time. "Loss of competitive markets for farm products" declined from an important/very important rating of over 90 percent in 1993 and 2002, to 64 percent in 2012 (Table 1). Likewise, "overproduction of agricultural products," which was rated important or very important by 83 percent of farmers in 1982, was rated similarly by only 36 percent of participants in 2012. The proportion of farmers who rate "market concentration among large-scale agribusiness" as an important or very important issue has been relatively stable over the last 20 years, ranging from 74 percent in 1993 to 68 percent in 2012.

The importance placed on soil erosion and water pollution as issues has also declined over the years. In 1982, soil erosion was rated as important or very important by 88 percent of

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Handbook updates

For those of you subscribing to the handbook, the following new updates are included.

Historical Costs of Crop Production – A1-21 (2 pages)

Farmland Cash Rental Rate Survey (Iowa State University) – C2-10 (11 pages)

Metric Conversions – C6-80 (3 pages)

Please add these files to your handbook and remove the out-of-date material.

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Inside . . .

IOWA STATE UNIVERSITY
Extension and Outreach

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farmers, compared to 63 percent in 2012 (Table 1). The importance rating of water pollution also declined, from 79 percent important or very important in 1982 to 56 percent in 2012.

Socioeconomic issues

Several questions that had not been asked since the first year that the Farm Poll was conducted – 1982 – were included in the 2012 survey. Farmers were asked to rate the importance of several socioeconomic issues, including interest rates, inflation and unemployment. At the time the 1982 survey was mailed, the country was at the tail end of a deep recession, the prime interest rate was over 20 percent, the inflation rate was close to six percent, and unemployment was above 10 percent. By comparison, in February 2012 both the prime rate and the inflation rate were close to 3 percent, and the national unemployment rate was 8.3 percent.

Table 1. Perspectives on rural issues over time

		Not Important	Slightly Important	Moderately Important	Important	Very Important
		— Percentage —				
Declining number of farms in the state	2012	3	9	24	43	21
	2002	1	2	13	22	62
	1993	2	3	17	21	57
	1982	2	5	11	36	47
Young people not being able to start farming	2012	1	5	12	38	44
	1982	1	3	7	32	57
Loss of competitive markets for farm products	2012	2	11	24	43	21
	2002	1	1	5	17	76
	1993	1	1	9	26	64
Market concentration of large-scale agribusiness	2012	1	7	24	44	24
	1993	2	3	21	31	43
Overproduction of agricultural products	2012	8	23	33	29	7
	1982	2	4	11	36	47
Conversion of farmland to non-farm use	2012	6	18	23	34	20
	1982	4	8	18	34	36
Soil erosion	2012	3	11	23	38	25
	1982	1	3	8	37	51
Water pollution	2012	3	15	26	35	21
	1982	1	5	14	44	35
Inflation	2012	5	16	29	34	16
	1982	1	2	7	31	59
Interest rates	2012	9	20	26	29	17
	1982	1	1	4	24	70
Unemployment	2012	8	22	27	31	13
	1982	2	4	12	36	46
Rural crime	2012	6	22	31	29	12
	1982	2	6	18	46	30
Consolidation of rural services, such as public schools, the court system, hospitals, etc.	2012	3	10	29	44	14
	2002	4	7	28	29	32

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Not surprisingly, farmers were significantly less concerned about interest rates and inflation in 2012 than they were in 1982. In 1982, over 90 percent of farmers rated interest rates and inflation as important or very important (Table 1). In 2012, just 50 percent were concerned about inflation and 46 percent expressed concern about interest rates. Although 2012 national unemployment levels were similar to those in 1982, the proportion of farmers who rated it as an important or very important issue in 2012 – 44 percent – was about half the 82 percent who did so in 1982.

Finally, concern about rural crime has declined, from an important/very important rating of 76 percent in 1982 to 41 percent in 2012 (Table 1). Concern about consolidation of rural services has remained steady (around 60 percent important/very important) since 2002, when it was first measured.

Quality of life

Every two years since 1982, the Farm Poll has asked farmers to evaluate changes in quality of life, defined as "the degree of satisfaction with all aspects of life," for their families and families in their communities. Given the difficult national economic situation over the last several years, the 2012 results were of particular interest.

Ninety-one percent of participants reported that quality of life for their families either stayed the same or improved over the last five years (Table 2). This represents the highest level ever reported in the history of the Farm Poll. Seventy-seven percent indicated that quality of life among families in their communities had either remained the same or improved, also a Farm Poll high. Farmers were also optimistic about the future: 86 percent predicted that quality of life will stay the same or improve for their families over the next five years; 76 percent believed the same about families in their communities; and 65 percent predicted that overall economic prospects for Iowa farmers will remain steady or improve over the same time period.

About the Iowa Farm and Rural Life Poll

Conducted every year since its establishment in 1982, the Iowa Farm and Rural Life Poll is the longest-running survey of its kind in the nation. ISU Extension and Outreach, the Iowa Agriculture and Home Economics Experiment Station, the Iowa Department of Agriculture and Land Stewardship, and the Iowa Agricultural Statistics Service are partners in the Farm Poll effort.

The 2012 Iowa Farm and Rural Life Poll summary report (PM 3036) and previous Iowa Farm and Rural Life Poll summary and topical reports are available to download from the ISU Extension and Outreach Online Store, and Extension Sociology, http://www.soc.iastate.edu/extension/farmpoll2012.html.

Table 2. Quality of life

	Become Much Worse	Become Somewhat Worse	Remained the Same	Become Somewhat Better	Become Much Better
			— Percentage —		
During the past five years, has the quality of life for families in your community	2	21	35	36	6
During the past five years, has the quality of life for your family	1	9	37	42	12
In the next five years, will the quality of life for families in your community	2	23	53	22	1
In the next five years, will the quality of life for your family	1	13	54	29	3
In the next five years, will the overall economic prospects for Iowa farmers	3	32	38	25	2

Cost-price squeeze is emerging for corn farmers

by Don Hofstrand, retired extension value-added agriculture specialist, dhof@iastate.edu

Corn prices have risen precipitously since the turn of the century due primarily to the emergence of the corn ethanol industry. In 2000, the average Iowa corn price was $1.78. By 2012, it had risen to $6.67. This rise greatly increased corn farmer profits. However, a significant portion of this increase has been offset by higher production costs. This article examines the increased crop production costs and its implications for farmers. The cost information comes from **Ag Decision Maker Information File A1-85**, *Monthly Profitability of Corn Production*, http://www.extension.iastate.edu/agdm/crops/html/a1-85.html.

Corn production costs are divided into three sections. The first is annual production inputs such as seed, fertilizer, herbicides, fuel, repairs, insurance and other direct costs. The second is the cost of machinery ownership. These costs are depreciation (an estimate of actual deprecation, not tax depreciation) and interest payments on machinery debt. The third is the cost of cropland. The annual cost of cropland is estimated using the cash rental rate. By charging a land cost equal to the cash rental rate, the return for producing corn is the return to the farm operator (does not includes the landlord's return). Although production cost varies from farmer to farmer, these cost estimates are believed to be representative of Iowa corn farmers.

The cost of producing corn has risen substantially since 2000, as shown in Table 1. Seed cost per acre has more than tripled from $30 in 2000 to over $100 in 2013. The cost of fertilizer and lime per

Figure 1. Cash Rent Farmer Production Costs
(cost per acre)

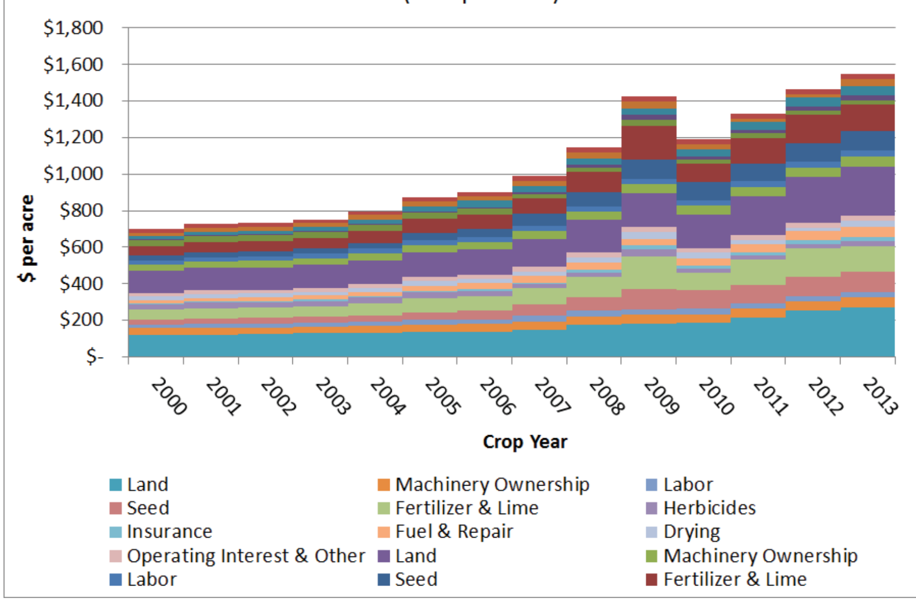

Table 1. Corn Production Costs per Acre

Crop Year	Seed	Fertilizer & Lime	Herbicide	Insurance	Fuel & Repair	Drying	Labor	Interest & Other	Machinery Ownership	Cash Rent	Total Cost
2000	$30	$52	$30	$ 6	$19	$17	$20	$21	$ 36	$120	$351
2001	$30	$59	$30	$ 5	$20	$21	$21	$21	$ 38	$122	$367
2002	$30	$57	$31	$ 6	$20	$20	$21	$19	$ 37	$124	$365
2003	$32	$56	$30	$ 6	$23	$21	$23	$19	$ 38	$128	$375
2004	$30	$67	$32	$ 7	$24	$24	$25	$19	$ 39	$131	$397
2005	$40	$78	$32	$ 7	$30	$28	$25	$20	$ 42	$135	$437
2006	$45	$79	$32	$ 7	$34	$25	$27	$23	$ 44	$135	$451
2007	$64	$87	$24	$ 9	$34	$27	$29	$27	$ 46	$148	$495
2008	$74	$112	$25	$15	$36	$33	$29	$27	$ 46	$176	$573
2009	$110	$181	$38	$23	$36	$36	$29	$30	$ 48	$183	$713
2010	$101	$101	$25	$17	$36	$32	$29	$27	$ 49	$184	$601
2011	$98	$140	$25	$17	$45	$20	$29	$28	$ 51	$214	$666
2012	$102	$163	$20	$23	$50	$16	$30	$29	$ 52	$252	$737
2013	$109	$145	$25	$25	$55	$34	$32	$29	$ 54	$270	$777

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Cost-price squeeze is emerging for corn farmers, continued from page 4

acre has also tripled, rising from $52 to $145 during the same period. Although nitrogen, phosphorus and potash have all increased in price, the prices of nitrogen and potash have increased the most. Contrary to the cost trend of other production inputs, herbicide cost has actually dropped slightly over this period. The cost of fuel and repairs has also increased, driven in part by the price of diesel fuel. Although the need for corn drying varies from year to year, the cost of LP gas has also risen. Cropland cash rent, a major cost of producing corn, has more than doubled over this time period.

The increase in corn production costs is shown graphically in Figure 1. Production costs started to increase rapidly in 2004 with the major expansion of the ethanol industry. In 2009, production costs spiked to over $700 per acre but fell back in 2010. Subsequent to 2010, production costs have resumed their upward climb. Costs are estimated to reach $777 per acre in 2013.

Cost per acre can be converted to cost per bushel to provide a different perspective of production costs. Because corn yield varies from year to year, the cost per bushel follows a somewhat different pattern than cost per acre. As shown in Table 2, corn yield has tended to trend upward since 2000. This trend has helped offset some of the rise in cost per acre.

Yield can also vary greatly between years, resulting in a significant impact on cost per bushel. Cost per bushel was relatively low in 2004 and 2009 due to corn yields over 180 bushels per acre. Conversely, cost per bushel was well over $5.00 per bushel in 2012 due to the drought-reduced yield. A return to more normal yields in 2013 would result in a cost of about $4.50 per bushel.

Although comparing the cost per bushel relative to its selling price indicates the profitability of corn production, examining the total cost of producing a corn crop provides an estimate of the increase in working capital required for corn production. As shown in Table 3, the cost of producing 500 acres of corn has risen from about $175,000 in 2000 to almost $390,000 in 2013. Because these costs are generally cash costs, the working capital requirements of a corn farmer have more than doubled during this period. This means that a significant portion of a year's corn profits are required to fund the increase in working capital needed for the subsequent year's corn production.

Table 2. Corn Production Costs per Bushel

Crop Year	Corn Yield	Total Crop Inputs	Machinery Ownership	Cash Rent	Total Cost
2000	144	$1.35	$0.25	$0.83	$2.43
2001	146	$1.42	$0.26	$0.84	$2.51
2002	163	$1.25	$0.23	$0.76	$2.24
2003	157	$1.34	$0.24	$0.82	$2.39
2004	181	$1.26	$0.21	$0.72	$2.20
2005	173	$1.50	$0.24	$0.78	$2.52
2006	166	$1.64	$0.27	$0.81	$2.72
2007	171	$1.76	$0.27	$0.87	$2.89
2008	171	$2.05	$0.27	$1.03	$3.35
2009	182	$2.65	$0.26	$1.01	$3.92
2010	165	$2.23	$0.30	$1.12	$3.64
2011	172	$2.34	$0.30	$1.24	$3.88
2012	137	$3.16	$0.38	$1.84	$5.38
2013	172	$2.64	$0.31	$1.57	$4.52

Table 3. Corn Production Costs for All Corn Acres

Crop Year	Corn Acres	Total Crop Inputs	Machinery Ownership	Cash Rent	Total Cost
2000	500	$97,418	$18,000	$60,000	$175,418
2001	500	$103,703	$18,750	$61,000	$183,453
2002	500	$102,194	$18,500	$62,000	$182,694
2003	500	$104,799	$18,750	$64,000	$187,549
2004	500	$113,815	$19,250	$65,500	$198,565
2005	500	$130,095	$20,750	$67,500	$218,345
2006	500	$135,913	$22,000	$67,500	$225,413
2007	500	$150,280	$23,000	$74,000	$247,280
2008	500	$175,433	$23,125	$88,000	$286,558
2009	500	$241,313	$23,875	$91,500	$356,688
2010	500	$183,785	$24,625	$92,000	$300,410
2011	500	$200,821	$25,375	$107,000	$333,196
2012	500	$216,309	$26,125	$126,000	$368,434
2013	500	$226,809	$26,875	$135,000	$388,684

Implications

Although corn production costs have risen substantially in recent years, the cost per bushel has not exceeded selling price. If corn prices are above cost per bushel in coming years, production costs will continue to rise to fill the gap between cost and price. If production input costs don't rise sufficiently to fill this gap, cash rental rates will fill it due to competition among farmers for farmland. Moreover, the current generous revenue insurance program reduces

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the need for a risk premium in the profit structure of corn production, allowing corn farmers to bid cropland rents even higher. So, the higher corn prices generated by the corn ethanol industry are, or will soon be, fully capitalized into the corn farmer's cost structure.

A decline in the ethanol industry would have a significant detrimental impact on the profitability of corn production. Although corn ethanol is viable as an octane enhancer (3 to 5 percent blend rate), its market value as a gasoline substitute is questionable, except at a deep price discount to gasoline (ethanol has two-thirds the energy content of gasoline). If it were not for the corn-ethanol mandates contained in the Renewable Fuel Standard, the market for ethanol blends at 10 percent or higher may not be viable except at discounted ethanol prices. Depending on gasoline price, producing corn-ethanol at the discounted price will probably not be profitable due to the increased cost of producing corn. The Renewable Fuel Standard needs to continue to support the corn-ethanol industry so corn demand and price are sufficiently high to cover the increased corn production costs plus provide a profit for corn farmers. Of course, other demand factors also impact the situation.

The impact of a decline in the demand for corn-ethanol would be felt beyond the corn farmer. As corn acreage has expanded due to the demand for corn for producing ethanol, it has impacted other crops such as soybeans and minor oilseeds, wheat and other small grains, cotton, etc. Because of the relatively fixed size of the U.S. cropland acreage, more acres of corn mean fewer acres of other crops. To maintain their acreage, the selling prices of other crops have also risen to be competitive with corn. Higher prices for these other crops means improved profits for a large number of non-corn farmers. If the demand for corn ethanol drops, the demand for corn will also drop, reducing the competition for acres and causing a price drop for other crops. This will result in a cost-price squeeze for growers of corn and other crops.

Updates, continued from page 1

Internet Updates

The following information files and decision tool have been updated on www.extension.iastate.edu/agdm.

How Often Can Cattle Feeders Hedge a Profit with Futures? – B2-54 (4 pages)

Historic Farmland Value Survey Data (Iowa State University) – C2-70 (Decision Tool)

Historic Farmland Values – C2-72 (10 pages)

Getting Started in Farming: Inheriting a Farm – C4-07 (8 pages)

Types of Term Loan Payment Schedules – C5-93 (4 pages)

Current Profitability

The following tools have been updated on www.extension.iastate.edu/agdm/info/outlook.html.

Corn Profitability – A1-85

Soybean Profitability – A1-86

Iowa Cash Corn and Soybean Prices – A2-11

Season Average Price Calculator – A2-15

Ethanol Profitability – D1-10

Biodiesel Profitability – D1-15

Returns for Farrow-to-Finish – B1-30

Returns for Weaned Pigs – B1-33

Returns for Steer Calves – B1-35

Returns for Yearling Steers – B1-35

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