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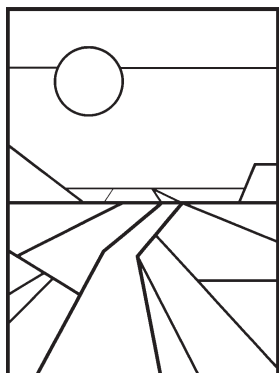
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# PURDUE AGRICULTURAL ECONOMICS REPORT

AUGUST 2009

## Indiana Farmland Values & Cash Rents: Relative Calm in a Turbulent Economy

*Craig L. Dobbins, Professor and Kim Cook, Research Associate*

**W**ith a credit crisis, bankruptcies of business icons, turmoil in the housing industry, stock market uncertainties, and declining crop margins, are sharply falling Indiana farmland values the next item of bad news? To gather information about changes in farmland values and cash rents, professionals working in the farmland market are contacted each June\*. Based on the 2009 Purdue Farmland Value Survey, Indiana farmland values have not been immune to the negative economic forces sweeping through the general economy, but for the state as a whole, the decline in farmland values has been small. This report provides a summary of the survey results.

\* The individuals surveyed include rural appraisers, agricultural loan officers, FSA personnel, farm managers, and farmers. The results of the survey provide information about the general level and trend in farmland values.

### State-wide Farmland Values

For the period of June 2006 to June 2008, Indiana farmland values increased about one-third (35.8%, 34.1% & 32.7% for poor, average, and top quality farmland). In the farmland market, it is common to have a period of little change or even small declines after a period of strong increases.

For the state as a whole, the survey showed little change in farmland values from June 2008 to June 2009. The average value of bare Indiana cropland ranged from \$3,351 per acre for poor quality land to \$4,994 per acre for top quality land (Table 1). Average quality cropland had an average value of \$4,188 per acre. For the 12-month period ending June 2009, there were modest declines in all three land qualities. The value of top, average, and poor quality land declined 0.2%, 1.2% and 1.7%, respectively.

The value of farmland is influenced by many factors. One often cited reason for differences in the value of farmland is soil productivity. To assess the productivity of the various land qualities, survey respondents are asked to provide an

estimate of the long-term corn yield for poor, average, and top quality land. These long-term corn yield estimates are averaged to provide a land productivity measure. For the state, the averages of the reported yields for poor, average, and top quality land were 118, 150, and 182 bushels per acre, respectively. State-wide, the value per estimated bushel of corn yield for poor, average, and top land qualities was \$28.40, \$27.92 and \$27.44 per bushel, respectively.

Last year saw a decline in the average value of transitional land, farmland moving out of agriculture. This decline continued this year, but was much larger. The average value of transitional land in June 2009 was \$8,770 per acre, a decline of 6.9%. Given the recession and the difficulties in the housing industry, it is not surprising to see a softening in this market. The estimated value of land in this market continues to have a wide range. In June 2009, transitional land value estimates ranged from \$3,000 to \$50,000 per acre. This is a specialized market with the value of transitional land strongly influenced by what the land is transitioning into and its location. Because of

**Table 1. Average estimated Indiana land value per acre (tillable, bare land) and per bushel of corn yield, percentage change by geographical area and land class, selected time periods, Purdue Land Values Survey, June 2009<sup>1</sup>**

Area	Land Class	Corn bu/A	Land Value					Land Value/Bu			Projected Land Value	
			Dollars Per Acre			% Change		Amount		% Change	Dec.	% Change
			June 2008 \$/A	Dec 2008 \$/A	June 2009 \$/A	6/08-6/09 %	12/08- 6/09 %	2008 \$	2009 \$	6/08-6/09 %	2009 \$	6/09-12/09 %
North	Top	193	5,325	5,428	5,293	-0.6%	-2.5%	28.19	27.42	-2.7%	5,256	-0.7%
	Average	155	4,358	4,464	4,306	-1.2%	-3.5%	28.79	27.78	-3.5%	4,232	-1.7%
	Poor	121	3,373	3,367	3,262	-3.3%	-3.1%	29.20	26.96	-7.7%	3,239	-0.7%
Northeast	Top	175	4,839	4,891	4,772	-1.4%	-2.4%	28.82	27.27	-5.4%	4,638	-2.8%
	Average	144	4,142	4,124	3,990	-3.7%	-3.2%	28.85	27.71	-4.0%	3,933	-1.4%
	Poor	112	3,399	3,408	3,279	-3.5%	-3.8%	30.16	29.28	-2.9%	3,244	-1.1%
W. Central	Top	189	5,236	5,468	5,432	3.7%	-0.7%	28.88	28.74	-0.5%	5,375	-1.0%
	Average	159	4,547	4,712	4,639	2.0%	-1.5%	29.74	29.18	-1.9%	4,603	-0.8%
	Poor	128	3,706	3,835	3,778	1.9%	-1.5%	30.55	29.52	-3.4%	3,744	-0.9%
Central	Top	181	5,392	5,404	5,376	-0.3%	-0.5%	29.90	29.70	-0.7%	5,302	-1.4%
	Average	151	4,581	4,628	4,575	-0.1%	-1.1%	30.44	30.30	-0.5%	4,556	-0.4%
	Poor	123	3,753	3,791	3,801	1.3%	0.3%	31.40	30.90	-1.6%	3,725	-2.0%
Southwest	Top	185	4,815	4,938	4,971	3.2%	0.7%	26.62	26.87	0.9%	4,938	-0.7%
	Average	146	3,841	3,872	3,884	1.1%	0.3%	26.49	26.60	0.4%	3,855	-0.7%
	Poor	109	2,718	2,749	2,701	-0.6%	-1.7%	25.14	24.78	-1.4%	2,707	0.2%
Southeast	Top	165	3,747	3,589	3,570	-4.7%	-0.5%	23.01	21.64	-6.0%	3,574	0.1%
	Average	135	3,304	3,124	3,129	-5.3%	0.2%	24.27	23.18	-4.5%	3,124	-0.2%
	Poor	102	2,820	2,642	2,642	-6.3%	0.0%	26.89	25.90	-3.7%	2,630	-0.5%
Indiana	Top	182	5,003	5,049	4,994	-0.2%	-1.1%	28.00	27.44	-2.0%	4,928	-1.3%
	Average	150	4,240	4,261	4,188	-1.2%	-1.7%	28.70	27.92	-2.7%	4,146	-1.0%
	Poor	118	3,408	3,406	3,351	-1.7%	-1.6%	29.58	28.40	-4.0%	3,315	-1.1%
	Transition <sup>2</sup>		9,415	9,085	8,770	-6.9%	-3.5%				8,694	-0.9%
	Recreation <sup>3</sup>		3,952	3,662	3,453	-12.6%	-5.7%				3,484	0.9%

1 The land values contained in this summary represent averages over several different locations and soil types. The value for a specific property can be determined by a professional appraiser.

2 Transition land is land moving out of production agriculture.

3 Recreation land is land located in rural areas used for hunting and other recreational uses.

the wide variation in values of transitional land, the median value\*\* may give a more meaningful picture than the arithmetic average. The median value of transitional land decreased from \$8,000 per acre in June 2008 to \$7,000 in June 2009.

The state-wide average value of rural recreational land used for hunting and other recreational uses is \$3,453 per acre, a decline of 12.6%

\*\* The median is the middle observation in data that have been arranged in ascending or descending numerical order.

when compared to June 2008. Given the general economic recession and the loss in value associated with stock

investments, demand for recreational land is likely to have declined sharply. As with transitional land, there

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is a wide range of values for rural recreational land, again making the median value a more meaningful indicator of changes in value than the arithmetic average. The median value for rural recreational land in June 2009 declined from \$3,500 per acre in 2008 to \$3,000.

### State-wide Rents

One important contributor to the value of farmland is the annual rent that can be obtained from ownership. State-wide, cash rents both increased and decreased. Top and average quality land increased \$4 per acre and \$1 per acre, respectively. Cash rent on poor quality land decreased by \$2 per acre (Table 2). The average estimated cash rent was \$198 per acre on top quality land, \$158 per acre on average quality land, and \$121 per acre on poor quality land. This was an increase in rental rates of 2.1% for top quality land, 0.6% for average quality land, and a decrease of 1.6% for poor quality land. State-wide, rent per bushel of estimated corn yield was \$1.03 to \$1.09 per bushel.

In assessing these cash rents, it is important to recognize that 2009 rents were established during the Fall of 2008 and the Winter of 2009. Market changes that have occurred since then are not reflected in the reported 2009 cash rent, but will have an important influence on the negotiation of 2010 cash rent.

For top quality farmland, cash rent as a percentage of farmland value was 4.0%. For average and poor quality farmland, cash rent as a percentage of farmland value was 3.8% and 3.6%, respectively. These percentage values were either the same or slightly more than those reported in 2008. This is the first time in a number of years that these percentages have not declined. Over the 35-year history of the survey, rent

as a percentage of farmland value has averaged 5.8%.

### Area Land Values

Survey responses were organized into six geographic regions (Figure 1). As in the past, there are geographic differences in land value changes. This year, the West Central region reported the strongest percentage increase in farmland values. Bare farmland in this area was estimated to have increased 1.9% to 3.7% (Table 1). This was the only region to report increases for all three land qualities. The Central region had an increase for poor quality land and the Southwest region had an increase in top and average land. The North, Northeast, and Southeast regions reported declines in land values across all three productivity levels. These declines ranged from 0.6% to 6.3%. The largest declines were

in the Southeast region, ranging from 4.7% to 6.3%.

Per acre farmland values are the highest in the Central and West Central regions. The highest value per acre for top and average quality farmland was in the West Central region. The highest value for poor quality farmland is in Central Indiana. The lowest farmland values statewide continue to be in the Southeast.

Land value per bushel of estimated long-term corn yield (land value divided by bushels) is the highest in the Central region, ranging from \$29.70 to \$30.90 per bushel. This was followed by the West Central region, ranging from \$28.74 to \$29.52 per bushel. Per bushel values for the North and Northeast regions ranged from \$26.96 to \$29.28 per bushel. The Southeast had the lowest

**Table 2. Average estimated Indiana cash rent per acre, (tillable, bare land) 2008 and 2009, Purdue Land Value Survey, June 2009**

Area	Land Class	Corn bu/A	Rent/Acre		Change '08-'09 %	Rent/bu. of Corn		Rent as % of June Land Value	
			2008 \$/A	2009 \$/A		2008 \$/bu.	2009 \$/bu.	2008 %	2009 %
North	Top	193	211	214	1.4%	1.12	1.11	4.0	4.0
	Average	155	167	165	-1.2%	1.10	1.06	3.8	3.8
	Poor	121	129	121	-6.2%	1.12	1.00	3.8	3.7
Northeast	Top	175	188	192	2.1%	1.08	1.10	3.9	4.0
	Average	144	148	147	-0.7%	1.03	1.02	3.6	3.7
	Poor	112	114	111	-2.6%	1.01	0.99	3.4	3.4
W. Central	Top	189	207	220	6.3%	1.14	1.16	4.0	4.1
	Average	159	173	181	4.6%	1.13	1.14	3.8	3.9
	Poor	128	142	145	2.1%	1.17	1.13	3.8	3.8
Central	Top	181	201	201	0.0%	1.12	1.11	3.7	3.7
	Average	151	165	165	0.0%	1.10	1.09	3.6	3.6
	Poor	123	133	130	-2.3%	1.11	1.06	3.5	3.4
Southwest	Top	185	189	200	5.8%	1.04	1.08	3.9	4.0
	Average	146	146	154	5.5%	1.01	1.05	3.8	4.0
	Poor	109	105	112	6.7%	0.97	1.03	3.9	4.1
Southeast	Top	165	147	146	-0.7%	0.90	0.88	3.9	4.1
	Average	135	117	118	0.9%	0.87	0.87	3.5	3.8
	Poor	102	90	86	-4.4%	0.86	0.84	3.2	3.3
Indiana	Top	182	194	198	2.1%	1.09	1.09	3.9	4.0
	Average	150	157	158	0.6%	1.06	1.05	3.7	3.8
	Poor	118	123	121	-1.6%	1.07	1.03	3.6	3.6



**Table 3. Average value, standard deviation, and range for estimated long-term corn yield, farmland value, and cash rent.**

Area	Land Class	Productivity			Land Values			Cash Rent		
		Average Corn Yield bu/A	Standard Deviation bu/A <sup>4</sup>	66% Range bu/A <sup>5</sup>	June 2008 Average \$/A	Standard Deviation \$/A <sup>4</sup>	66% Range \$/A <sup>5</sup>	2008 Average \$/A	Standard Deviation \$/A <sup>4</sup>	66% Range \$/A <sup>5</sup>
North	Top	193	16	177-209	5,293	582	4,711-5,875	214	35	179-249
	Average	155	14	141-169	4,306	413	3,893-4,719	165	23	142-188
	Poor	121	17	104-138	3,262	417	2,845-3,679	121	23	98-144
Northeast	Top	175	18	157-193	4,772	602	4,170-5,374	192	28	164-220
	Average	144	17	127-161	3,990	574	3,416-4,564	147	19	128-166
	Poor	112	17	95-129	3,279	617	2,662-3,896	111	18	93-129
W. Central	Top	189	14	175-203	5,432	509	4,923-5,941	220	29	191-249
	Average	159	13	146-172	4,639	614	4,025-5,253	181	21	160-202
	Poor	128	18	110-146	3,778	692	3,086-4,470	145	21	124-166
Central	Top	181	13	168-194	5,376	735	4,641-6,111	201	25	176-226
	Average	151	14	137-165	4,575	889	3,686-5,464	165	18	147-183
	Poor	123	19	104-142	3,801	810	2,991-4,611	130	24	106-154
Southwest	Top	185	13	172-198	4,971	1,008	3,963-5,979	200	29	171-229
	Average	146	15	131-161	3,884	741	3,143-4,625	154	21	133-175
	Poor	109	18	91-127	2,701	667	2,034-3,368	112	20	92-132
Southeast	Top	165	13	152-178	3,570	552	3,018-4,122	146	21	125-167
	Average	135	13	122-148	3,129	555	2,574-3,684	118	19	99-137
	Poor	102	13	89-115	2,642	551	2,091-3,193	86	16	70-102
Indiana	Top	182	17	165-199	4,994	882	4,112-5,876	198	36	162-234
	Average	150	16	134-166	4,188	813	3,375-5,001	158	27	131-185
	Poor	118	19	99-137	3,351	775	2,576-4,126	121	28	93-149

4 The standard deviation is a measure of how the individual estimates are dispersed around the average value. If many of the responses are close to the average, then the standard deviation is small; if many of the responses are far from the average, then the standard deviation is large.

5 The range indicates values that are one standard deviation below and one standard deviation above the average. If the data is normally distributed, 66% of the responses will be in this range.

\$4,575 would be from a wider range of \$3,686 to \$5,464.

### Rural Home Sites

Respondents were asked to estimate the value of rural home sites with no

accessible gas line or city utilities and located on a blacktop or well-maintained gravel road. The median value for five-acre home sites ranged from \$6,000 to \$9,500 per acre (Table 4). The median values in all regions

except the North declined. Estimated per acre median values of the larger tracts (10 acres) ranged from \$6,000 to \$8,000 per acre. The median values in the North and West Central regions remained the same. Median values in the Northeast, Central, & Southwest declined. The median value in the Southeast increased. The decline in these values indicate that at least in some areas of the state the demand for rural home sites is not as strong, reflecting a weaker residential housing market.

### Farmland Supply & Demand

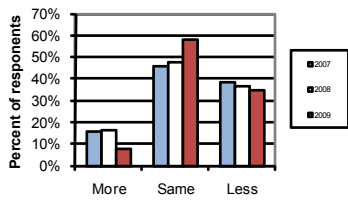
To assess how the supply of land on the market is changing, respondents were asked to provide their opinion of the amount of farmland on the

**Table 4. Median value of five-acre and ten-acre home sites**

Area	Median value, \$ per acre							
	5 Acres or less for home site				10 Acres & over for subdivision			
	2006 \$/A	2007 \$/A	2008 \$/A	2009 \$/A	2006 \$/A	2007 \$/A	2008 \$/A	2009 \$/A
North	7,000	8,100	8,000	8,000	7,000	8,000	7,000	7,000
Northeast	7,000	8,000	7,500	7,000	6,000	9,000	7,000	6,000
West Central	7,500	8,000	7,500	7,000	7,500	8,000	7,000	7,000
Central	10,000	10,000	10,000	9,500	10,000	9,000	10,000	8,000
Southwest	5,000	7,000	8,000	7,750	7,000	6,000	8,250	7,500
Southeast	7,000	9,000	7,000	6,000	6,250	6,750	7,000	7,500

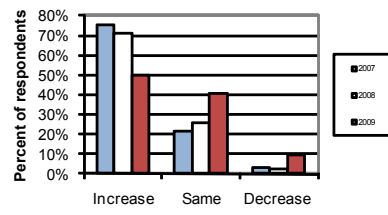


**Figure 2. Percentage of respondents indicating more, the same or less land on the market compared to previous year.**



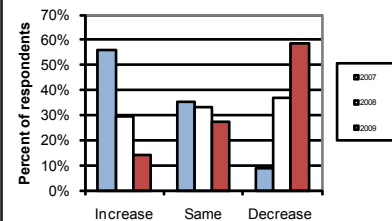
market now compared to a year earlier. The respondents indicated either more, the same, or less land was on the market than one year ago. Only 8% of the 2009 respondents indicated more land was on the market now compared to year-ago levels (Figure 2). Fifty-eight percent of the respondents indicated the amount of land on the market was the same. The remaining 34% of the respondents indicated the amount of land on the market at the current time was less than a year ago. The percentage of the respondents indicating more land was on the market declined from 16% in 2007 and 2008. The percentage of the respondents indicating less land was on the market declined from 38% and 37%, respectively in 2007 and 2008. In 2006 and 2007, the number of respondents indicating the same amount of land was on the market was 46% and 48%, respectively. While the variability of net returns from crop production and other uncertainties have increased, this does not seem to have

**Figure 3. Percentage of respondents indicating increased, the same, or decreased demand for rural residences.**



had much influence on decisions to place farmland on the market. Respondents were also asked to provide their perception of changes in demand for farmland. One source of farmland demand is farmers seeking to expand the size of their businesses. Respondents were asked to indicate if the demand from farmers had increased, remained the same, or decreased when compared to a year earlier. In 2007 and 2008, the number of respondents indicating an increased demand from farmers was 75% and 71%, respectively (Figure 3). This year, 50% of the respondents indicated increased farmer demand. Ten percent indicated a decrease in demand from farmers. The remaining 40% of the respondents indicated that farmer demand remained the same. Given the sharp increases in demand from farmers in 2006 & 2007, the 2009 results indicate that demand from farmers still remains fairly strong, but it is not as robust has the past two years.

**Figure 4. Percentage of respondents indicating increased, the same, or decreased demand for rural residences.**



Rural home sites have been a strong source of demand for several years. Over the past two years there has been a lot of discussion about the difficulties in the housing market. These difficulties appear to be influencing the demand for rural residences. This year, only 14% of the respondents indicated that there was increased demand for rural residences (Figure 4). In 2007, 56% indicated an increased demand for rural residences. This year the number of respondents indicating a decrease in demand for rural residences was 59%. The remaining 27% of the respondents indicated no change. These shifts imply there has been a significant reduction in demand for rural residences during the last three years.

Nonfarm investors are another group that contributes to the demand for farmland. Respondents were asked to indicate if they perceived an increase, the same, or a decrease in demand from individual investors as well as organized investment efforts such as pension funds. This year, the percentage of respondents indicating a decrease in nonfarm investor interest was almost twice as large as in 2008. The percentage of the respondents indicating an increase showed a significant decline compared to 2008 (Table 5). While there has been some reports of non-farm investment money flowing into

**Table 5. Percent of respondents indicating and increased, the same, or decreased farmland purchases by nonfarm investors**

	Year	Increase	Same	Decrease
Individual Nonfarm Investors	2008	39%	44%	17%
	2009	21%	45%	34%
Investment funds	2008	21%	55%	23%
	2009	13%	44%	42%

farmland purchases, these survey responses indicate that this does not seem to be the case in Indiana.

**Expected Grain Prices, Interest Rates, & Inflation**

Making a farmland purchase is typically a long term commitment. As a result, expectations regarding crop prices over the next few years can have a strong influence on farmland values. In order to gain insight into crop price expectations, respondents were asked to estimate the annual average on-farm price of corn and soybeans for the period 2009 to 2013. This year saw a large reduction in the expected five-year average price of corn and soybeans (Table 6). On average, survey participants expect corn prices to be \$4.34 per bushel and soybean prices to be \$9.88 per bushel, estimates that are still well above the 10-year average for the period from 2000 to 2009 but much lower than last year’s estimates. If these lower prices materialize and production costs for corn and soybeans remain constant or decline only slightly, the decline in expected prices indicates a significant tightening of crop production margins.

Mortgage interest rates have important implications for real estate markets. Mortgage rates are near historic lows. Survey respondents are expecting mortgage interest rates to remain modest. The average estimate of 6.8% in 2009 is below the 10-year average estimate of 7.5%. For the 10-year period, only 2003 had a lower estimate.

Inflation rate expectations continue to increase. On average, survey respondents estimate annual inflation over the next five years will be 3.8%. This is above the average for the 2000 to 2009 period and very similar to the estimate in 2008.

**Table 6. Projected five-year average corn and soybean prices, mortgage interest, and inflation**

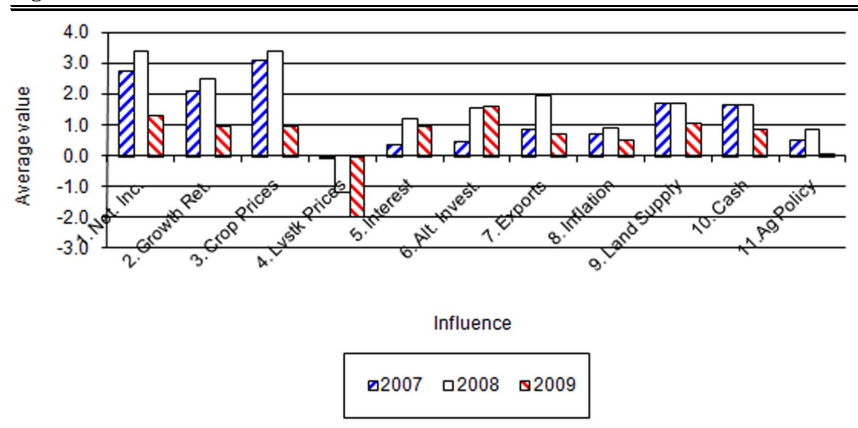
Year	Prices, \$ per bu.		Rate, % per year	
	Corn	Beans	Interest	Inflation
2000	2.28	5.56	9.1%	3.2%
2001	2.12	5.07	8.1%	2.9%
2002	2.10	4.97	7.6%	2.7%
2003	2.27	5.42	6.5%	2.3%
2004	2.54	6.40	6.9%	2.8%
2005	2.36	6.25	7.0%	2.9%
2006	2.48	6.11	7.6%	3.2%
2007	3.43	7.31	7.6%	3.3%
2008	5.06	10.86	7.2%	3.9%
2009	4.34	9.88	6.8%	3.8%
Average	\$2.90	\$6.78	7.5%	3.1%

**Market Influences**

To identify the forces currently influencing the farmland market, survey respondents were asked to assess the influence of 11 different items. These items included:

1. Current net farm income
2. Expected growth in returns to land
3. Crop price level and outlook
4. Livestock price level and outlook
5. Current & expected interest rates
6. Returns on competing investments
7. Outlook for U.S. agricultural export sales
8. U.S. inflation/deflation rate
9. Current inventory of land for sale

**Figure 5. Influence of selected factors on Indiana farmland values.**





### Pasture Rent, Irrigated Farmland, Established Hay, & Grain Storage Rent

The information on pasture rent, rental of irrigated farm land, and rental of on-farm grain storage was updated in this survey. The 2009 averages for pasture rent, the value and cash rent of irrigated farmland, and the rental of on-farm grain storage are presented in Tables 7, 8, and 10, respectively. The survey this year also included information on the rental rate of established hay ground (Table 9).

**Table 7. Pastureland: Number of Responses, Annual Cash Rent, and Carrying Capacity**

Region	Number of responses	Annual rent (\$ per acre)	Carrying Capacity (acres per cow)
North	23	\$72	1.5
Northeast	17	\$64	2.0
West Central	24	\$47	1.6
Central	28	\$50	1.6
Southwest	15	\$52	2.5
Southeast	38	\$43	1.8
State	145	\$53	1.8

**Table 8. Irrigated Farmland: Number of Responses, Estimated Market Value, and Annual Cash Rent**

Region <sup>6</sup>	Number of responses	Corn Yield (bu per acre)	Market Value (\$ per acre)	Cash Rent (\$ per acre)
North	25	209	\$5,416	\$258
Northeast	10	213	\$5,080	\$239
Southwest	11	211	\$4,645	\$234
State	57	211	\$5247	\$246

<sup>6</sup> There was an insufficient number of responses for the West Central, Central, and Southeast regions to report values for these regions.

**Table 9. Rental of Established Alfalfa and Grass Hay Ground**

Region <sup>7</sup>	Alfalfa/Alfalfa-grass Hay		Grass Hay	
	Responses	Rent (\$/A)	Responses	Rent (\$/A)
North	15	153	14	101
Northeast	15	116	14	81
West Central	18	104	18	75
Central	14	101	12	72
Southeast	24	73	26	52
State	92	105	91	71

<sup>7</sup> There was an insufficient number of responses for the Southwest region to report values for this region.

**Table 10. On-Farm Grain Storage Rental: Number of Responses and Annual per Bushel Rent**

Region	Number of responses	Rent (\$/bu)
North	33	\$0.19
Northeast	28	\$0.18
West Central	46	\$0.18
Central	41	\$0.17
Southwest	18	\$0.16
Southeast	33	\$0.14
State	199	\$0.17

10. Current cash liquidity of buyers

11. Current U.S. agricultural policy

Respondents were asked to use a scale from -5 to +5 to indicate the effect of each item on farmland values. A negative influence would be given a value from -1 to -5, with a -5 representing the strongest negative influence. A positive influence was indicated by assigning a value between 1 and 5 to the item, with 5 representing the strongest. An average for each item was calculated.

In order to provide a perspective on the changes in these influences, data from 2007, 2008, and 2009 are presented in Figure 5. The horizontal axis of the chart indicates the item from the list above. For this three year period, all the items except livestock prices have a positive influence. The declining profitability or growing losses associated with livestock production over this time period has led to the influence of livestock prices and outlook growing more negative over this period.

In 2007 and 2008, the major positive influences included current net farm income, expected growth rate in return to land, and crop price level and outlook. This year these items are still positive influences, but they have a much smaller positive influence. Compared to 2008, the positive influence of all factors except the influence of alternative investments declined. The positive influences in 2009 were lower than in 2007 except for interest rates and alternative investments. This indicates that the lack of good alternative investments is contributing to the current strength of farmland values. The influence of alternative investments was the most positive influence this year. This year the perceived influence of government

programs declined to almost zero. These measures indicate a significant change in the respondents' view of the land market.

### Expected Future Land Values

Expectations about corn and soybean prices, net income, and the other influences impacting the land market indicate a softening of farmland values. On a state-wide basis, Table 1 indicates that for the six-month period from June to December 2009, survey respondents expect farmland values to decrease 1.1% to 1.3%. The averages indicate that survey respondents in all regions of the state are expecting farmland values to remain steady to slightly down. The largest average anticipated reduction is 2.8% for top land in the Northeast region. The average anticipated change for this six month period is expected to be positive in only two cases, top land in the Southeast and poor land in the Southwest. These positive changes were both very small.

Respondents were also asked to project farmland values five years from now. Fifty-eight percent of the respondents expect farmland values to be higher. The average increase for this group was 10.5%. This translates into an average annual increase of 2.0%. Nineteen percent expect farmland values to decline. The average decline for this group was 11.6%. Combining all responses provided an expected total increase in farmland value for the next five years of 4.3%, an increase of 0.84% per year.

### Final Comment

The 2009 Purdue Farmland Value and Cash Rent Survey indicates that after several years of moving strongly higher, farmland values have paused. While some people have forecast a significant downward adjustment in farmland values as a result of the

decline in grain prices, this has not occurred. However, survey participants are expecting continued small declines in average farmland values by December 2009. Five years from now 58% of the survey respondents expect farmland values to be higher than they are today, but the annual rate of increase is much less than recent increases. While a majority of the survey respondents expect farmland values to be higher, 42% of the respondents expect values in five years to be the same or less.

These expectations point to a high level of uncertainty. The recent decline in crop prices has significantly reduced the contribution margin from crop production. Economics indicates that a reduction in the net return from an investment like farmland will lead to a reduction in the value of the asset and the amount of cash rent that tenants can pay. Based on the 2009 Purdue Land Value Survey, there has been very little downward adjustment in farmland values or cash rent. This is a pattern consistent with history.

### Purdue Land Value and Cash Rent Survey

*The Purdue Land Value and Cash Rent Survey is conducted each June. The survey was made possible through the cooperation of numerous professionals that are knowledgeable of Indiana's farmland market. These professionals include farm managers, appraisers, land brokers, agricultural loan officers, Purdue Extension educators, farmers, and persons representing the Farm Credit System, the Farm Service Agency (FSA) county offices, and insurance companies. Their daily work requires that they stay well informed about land values and cash rents in Indiana.*

*These professionals are asked to provide an estimate of the market value for bare poor, average, and top quality farmland in December 2008, June 2009, and the expected value for December 2009. They are also asked to provide an estimate of the current cash rent for each land quality. To assess the productivity of the land, respondents provide an estimate of long-term corn yields. Respondents are also asked to provide a market value estimate for land transitioning out of agriculture.*

*Responses from 328 professionals are contained in this year's survey representing all but one Indiana county. There were 51 responses from the North region, 63 responses from the Northeast region, 72 responses from the W. Central region, 67 responses from the Central region, 33 responses from the Southwest region, and 42 responses from the Southeast region. Figure 1 illustrates the counties in each region.*

*Appraisers accounted for 19% of the responses, farm loan professionals represented 63% of the responses, farm managers or farm operators provided 9% of the responses, and other professionals provided 9% of the responses.*

*The data reported here provide general guidelines regarding farmland values and cash rent. To obtain a more precise value for an individual tract, contact a professional in your area that has a good understanding of the local situation.*

*We express appreciation to Marsha Slopsema of the Department of Agricultural Economics for her help in conducting the survey.*

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History indicates that after a period of strong increases a sharp downward adjustment in the land market can occur, but such a shift is rare. A more common pattern is one of little or no increase, or small declines.

What explains this pattern of farmland values? Farmland is often held by owners that are financially strong – farmland owners have low

levels of debt. Rather than sell in a down market, financially strong owners will often wait until their asking price is obtained. A period with sharp downward corrections in farmland values such as the early 1980s often has a high number of foreclosures or forced sales. The current strong financial position of the farm sector makes a significant number of forced

sales seem unlikely. But given the increased economic uncertainty and the continued decline in grain prices since the survey was completed, this is also a time when one needs to review their situation and estimate how a sharp downward adjustment in farmland values or cash rent would impact your business or personal situation.

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