

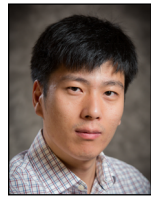


# Ag Decision Maker



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## Interpretation of Iowa land value survey results

By Wendong Zhang, extension economist, wdzhang@iastate.edu

Average Iowa farmland value has shown a decline for the third year in a row — the first time this has happened since the 1980s — and is now estimated to be \$7,183 per acre. The statewide per acre value declined \$450, or 5.9 percent, since November 2015. Figure 1

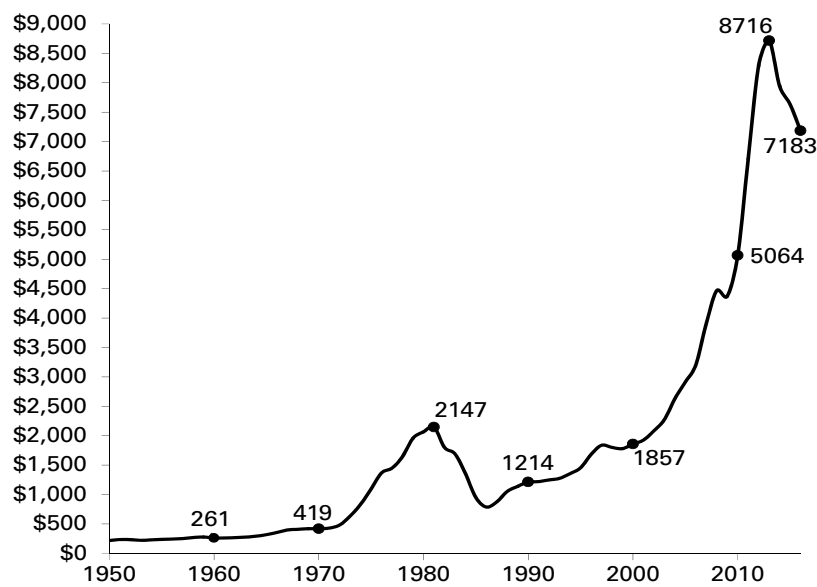
shows average farmland values hit a historic high in 2013, but have steadily declined since then. The statewide average value for an acre of farmland is now about 17.5 percent lower than 2013 values.

Land values were determined by the [2016 Iowa State University Land Value Survey](#), which

was conducted in November by the Center for Agricultural and Rural Development at Iowa State University and Iowa State University Extension and

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Figure 1. Average value per acre of Iowa farmland



Source: Iowa State University Land Value Survey

### Handbook updates

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

- Crop Planning Prices – A1-10 (1 page)
- Livestock Planning Prices – B1-10 (1 page)
- Monthly Swine Feeding Returns – B1-31 (5 pages)
- Monthly Cattle Feeding Returns – B1-36 (2 pages)
- 2015 Iowa Farm Costs and Returns – C1-10 (9 pages)

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Outreach. Results from the survey are consistent with results by the Federal Reserve Bank of Chicago, the Realtors Land Institute, and the US Department of Agriculture. Wendong Zhang, assistant professor of economics at Iowa State University, led the annual survey.

The ISU Land Value Survey was initiated in 1941, the first in the nation, and is sponsored annually by Iowa State University. Only the state average and the district averages are based directly on the ISU survey data. The county estimates are derived using a procedure that combines the ISU survey results with data from the U.S. Census of Agriculture.

The ISU Land Value Survey is based on 518 usable responses providing 711 county land values estimates from agricultural professionals knowledgeable of land market conditions such as appraisers, farm managers and agricultural lenders, and actual land sales. It is intended to provide information on general land value trends, geographical land price relationships, and factors influencing the Iowa land market.

CARD offers a [web portal](#) that includes visualization tools, such as charts and interactive county maps, allowing users to examine land value trends over time at the county, district, and state level.

### Land values by county

All 99 counties reported a drop in average land values this year. For the fourth year in a row, Scott and Decatur counties reported the highest and lowest farmland values, respectively. Decatur County reported a value per acre of \$3,443, a loss of \$71,

or about two percent, from last year's report. Scott County reported a value of \$10,335, a decrease of \$583 per acre, or about 5.3 percent, close to the statewide average decline of 5.9 percent.

Plymouth and Sioux counties reported the largest dollar decrease in values, \$747 per acre, and Monona County reported the largest percent decline in values, 8.4 percent. Decatur County reported the smallest dollar decrease, \$70 per acre, and Decatur, Appanoose, Wayne, and Lucas counties all reported the smallest percent decrease in average values, at two percent.

### Land values by district

All nine districts reported a loss in average land values in 2016 (Table 1). The highest average land values were reported in the Northwest, at \$9,243 per acre. The lowest average values were reported in the South Central district, at \$4,241 per acre.

The largest district-wide decrease in value was in West Central Iowa, which reported a drop of 8.7 percent, bringing farmland values there down to \$7,358 per acre. The smallest decrease was reported in the Southeast district, 2.6 percent, bringing values there to \$6,716 per acre.

### Values by land quality

Low-quality land in the Southwest and South Central districts were the only areas to show an increase in average values, reporting gains of 2.9 and 5.2 percent, respectively. Zhang says that the increase is due to strong recreational demand and high Conservation Reserve Program (CRP) payments.

**Table 1. Iowa farmland values and percentage change by district and by land quality as of November 2016**

District	Average Value	% Change	High Quality	% Change	Medium Quality	% Change	Low Quality	% Change
Northwest	\$9,243	-4.6%	\$10,650	-5.2%	\$8,468	-4.1%	\$6,019	-3.7%
North Central	\$7,562	-5.0%	\$8,442	-5.9%	\$6,992	-4.9%	\$5,164	-3.9%
Northeast	\$7,313	-7.0%	\$8,892	-7.1%	\$6,994	-6.2%	\$4,847	-7.5%
West Central	\$7,358	-8.7%	\$8,874	-8.4%	\$6,870	-9.4%	\$4,577	-9.9%
Central	\$7,841	-7.8%	\$9,299	-7.8%	\$7,186	-7.4%	\$5,158	-2.5%
East Central	\$7,917	-6.9%	\$9,502	-7.6%	\$7,396	-6.8%	\$5,153	-4.0%
Southwest	\$6,060	-4.9%	\$7,527	-6.3%	\$5,683	-5.9%	\$4,189	2.9%
South Central	\$4,241	-3.6%	\$5,980	-7.2%	\$4,128	-3.6%	\$2,892	5.2%
Southeast	\$6,716	-2.6%	\$9,265	-2.8%	\$6,283	-3.7%	\$3,783	-0.4%
State Avg.	\$7,183	-5.9%	\$8,758	-6.5%	\$6,705	-5.9%	\$4,665	-3.5%

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Interpretation of Iowa land value survey results, continued from page 2

Statewide, low quality land declined the least, \$169 per acre, or 3.5 percent. Medium quality land declined \$422 per acre, or 5.9 percent. High quality land statewide declined the most per acre, losing \$606, or 6.5 percent, of its value. The statewide averages per acre for low, medium, and high quality land are now \$4,665, \$6,705, and \$8,758, respectively.

**Outlook for land values**

The decline revealed by the 2016 ISU Land Value Survey didn't come as a surprise for some. In November 2015, over 75 percent of 2015 ISU survey respondents thought land values in their territory would continue to decline in 2016. The majority predicted the decline would be either less than five percent or between five and 10 percent, which is consistent with the 5.9 percent decrease reported by the 2016 ISU survey.

Although modest, the 5.9 percent decline represents a three-year streak where average Iowa farmland values have shown a decline, which is the first time this has happened since the 1980s. For a pessimist, there are plenty of legitimate reasons to worry:

1. According to USDA, net farm income dropped another 17.2 percent to \$66.9 billion in August 2016, and this represents the lowest since 2009 in both real and nominal terms.
2. Financial stress in the agricultural sector shows slow but steady increase, with continued declines in loan repayment rates and uptakes in farm real estate and working capital debt.
3. While corn and soybean prices continue to fall short of production costs, livestock producers faced a tougher environment in 2016 with hog, cattle, and dairy prices all down by at least 30 percent compared to two years ago.

However, this decline is not a doomsday scenario. While farmland values have declined three years in a row, current Iowa farmland values are still more than double what they were 10 years ago, 64 percent higher than the 2009 values and seven percent higher than the 2011 values.

It was widely accepted among farmers and landowners at the start of 2016 that commodity prices, farm income, and profit margin probably wouldn't improve much over the year, and arguably the farmland market has already capitalized these expectations. Therefore, the downward pressures did

not cause a panic market reaction. To some extent, this farm downturn, although continuing, is slowing down. Over the past few years, the Iowa farmland market first slowed down in the growth rate, from over 20 percent in 2011 and 2012, to merely a five percent increase in 2013, and then transitioned to modest losses in 2014 to 2016. In addition, the declines over the last three years are all below 10 percent.

There are still many positive factors bolstering the farmland market, including favorable interest rates, strong balance sheets, and substantial working capital accumulated from the golden 2000s; and, at least for some producers, rising recreational demand and strong conservation payments from programs like CRP.

With the decline in farm income, and a highly probable increase in interest rates, we might see farmland values continue to recede if the forecasts for low commodity prices and the global stock recovery for grains and oilseeds are realized next year and beyond. The Iowa farmland market appears to have peaked for the foreseeable future, and we may expect to see the Iowa farmland market drifting sideways.

Commodity prices appear to have moved to a new plateau, and the high-profit-margin era for row crop production has ended. This is a result of over-production on the global scale chasing the phenomenal profits in the late 2000s. It appears prices will stabilize somewhere in the mid- to upper-\$3 range for corn and the upper-\$8 to lower-\$9 range for soybeans. Obviously the prices will move with supply and demand changes; however, based on current futures prices, these appear to be the likely long-term ranges.

Unfortunately, current projections show a loss at these prices. Preliminary Iowa State University cost of production estimates for 2017 indicate a 50 cents per bushel loss for corn and possibly break-even for soybean production with average costs and yields. Additionally, the hog, cattle, and dairy producers are embracing low-to-negative margins in the months ahead. A historical analysis of corn and soybean margins seems to suggest that it takes roughly six to eight years to move from the negative-margin eras to positive profits again for the industry.

Interpretation of Iowa land value survey results, continued from page 3

Costs of production, especially rents, have increased considerably over the past several years. Higher commodity prices led to higher incomes, which led to increases in rents. Under low-to-negative profit margins, farmers are trying to lower costs in a variety of ways. Rents will change with income, but they will decline slower as incomes drop. In other words, the rent tends to be sticky when facing downward pressure. How long it will take for rents to adjust to the lower commodity prices remains to be seen.

However, until they adjust, profitable production is unlikely and land values will continue to be under downward pressure.

Many people are concerned about a potential farmland bubble burst, or a replay of the 1920s economic depression or the 1980s farm crisis. There are legitimate reasons to be cautious, especially with the rising uncertainty in agricultural exports and likely rise in interest rates. However, Iowa farmland values do not appear to be in a speculative bubble that caused the dramatic declines in the 1980s farmland values or the urban real estate market in the mid-2000s. A comparison between this third golden era and the previous two reveal that farmers accumulated much more income, especially cash, during the most recent decade than what they did in the 1910s and 1970s before the farm crisis: inflation-adjusted net farm income increased by more than eight percent every year from 2003 to 2013, while the same measure dropped by three percent annually 1973–1981 due to high inflation. In addition, the agricultural sector was much more leveraged and vulnerable in the 1970s and 1980s compared to now: farmers used to be able to borrow up to 85 percent of inflated, market-based land value in the 1970s, while now they can only get less than half of cash-flow based land values. Finally, the safety net now is much stronger: in the 1980s, the total acres insured in the Federal Crop Insurance program was only 50 million acres for the entire U.S., and now just corn and soybean acres insured in Iowa almost exceed 25 million acres, representing 93 percent of all production acres.

The demand for U.S. crop and livestock products is still very strong. The downward pressures on farmland values likely will continue to play out next year and beyond, but it will more than likely

be a rational and modest correction as opposed to a sudden change. It is not possible to say where the farmland values will stabilize; however, the odds of commodity prices collapsing, a sudden stoppage of the Chinese economy, interest rates rapidly increasing, and/or land values collapsing are not high. The odds are not zero, but it doesn't appear these events will occur in the foreseeable future.

A more likely scenario is that farmland values will return to more normal changes experienced over the past century. Since 1942 nominal and inflation-adjusted Iowa farmland values have averaged a 6.7 percent and 2.7 percent increase per year, respectively. Farmland values have increased 73 percent of the years, decreased 26 percent of the years, and remained unchanged for three years between 1910 and 2016. Farmland has historically been a fairly robust investment that generates relatively stable returns, and the Iowa farmland market seems to continue drifting sideways to slightly lower.

There are several unique uncertainties worth watching over the next year or two: first, it remains unclear how quickly and by how much the Federal Reserve Bank of Chicago will raise interest rates; second, it is uncertain how the new Secretary of Agriculture and trade agreement negotiations will affect agricultural exports and farm income; and third, the agricultural sector is closely watching possible policy changes, especially the 2018 Farm Bill discussions, stepped-up basis, and estate tax, as well as conservation.

There have been three 'golden' eras for Iowa land values over the past 100 years. The first one ended in a long, drawn-out decline in land values from 1921 to 1933, the second golden era ended with a sudden collapse from 1981 to 1986. The third golden era appears to be ending with an orderly adjustment as opposed to a sudden collapse. As opposed to the dramatic collapse of the agricultural sector in the mid-1980s, we might see this farm downturn resemble the trajectory of the 1920s farm crisis in the sense that there might be a long, drawn-out decline in the farmland market.

For more details and the author's interpretation of the survey results, visit the [ISU CARD Land Values website](#).



## Livestock prices stabilizing after rollercoaster rise and fall

By Lee Schulz, extension economist, 515-294-3356, lschulz@iastate.edu

The market for livestock has been a bit of a rollercoaster over the last few years. Strong prices during 2014 and early 2015 have given way to lower prices that are more in line with what producers saw from 2010-13.

“Producers certainly have reinvested some of the profits of the last several years into their operations,” said Lee Schulz, livestock economist with Iowa State University Extension and Outreach. “The major downturn in prices has likely changed the payback period, but if these investments improved productivity and efficiency, thereby lowering costs, they will pay dividends. This is part of the reason that even in the ‘bad years’ some producers are making money.

“Even with the lower commodity prices there are some opportunities available. Placements of feeder cattle this fall are showing the opportunity to hedge profits and the same is true for summer hog marketing.”

While a major rebound in prices is not likely, the economic forecast does offer a bit more stability.

“The periods of big adjustments in prices are likely behind us,” Schulz said. “If this is the case, decision making should be better informed as confidence in making projections improved and the ability to decipher opportunity and risk has been enhanced. Perhaps the most obvious sign of stability is the fact that markets are exhibiting somewhat seasonal behavior. Markets returning to more typical behavior allows producers and analysts to better understand and anticipate market movements.”

In these times of small margins, knowing and understanding all the aspects of a farm business is critical to having success.

“This is the time to be looking very critically for any opportunity to find profitable margins; having a marketing strategy and price risk management



### Understanding costs and breakeven prices is absolutely critical.

plan in place is key,” Schulz said. “Profitability for any producer is contingent on favorable production, proper marketing and price risk management skills. Tightening margins are putting these necessary skills to the test.”

“Go back to your records and budgets from previous years to understand what your costs are,” Schulz said. “Records give the information needed to make sound business decisions. One way to establish price risk management objectives is to start with the cost of production and the amount of risk the operation can withstand.”

ISU Extension and Outreach has resources available to better understand current financial conditions and what producers can do to manage their risks during periods of lower farm prices.

- The [Iowa Farm Outlook](#) newsletter provides monthly insights into factors affecting grain and livestock markets.
- [Farm Financial Associates](#) are available to provide a no-cost look at a farm’s complete financial situation.

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- [Ag Decision Maker](#) is a decision-oriented agricultural business website with articles and other information written by ISU Extension and Outreach economists and farm management specialists.
- The [Beginning Farmer Center](#) helps inform and support those who are getting started in farming. It also works with established farmers on succession planning for when they leave the industry.
- The [Center for Agricultural Law and Taxation](#) provides information about the application of developments in agricultural law and taxation.

Updates, continued from page 1

**Suggested Closing Inventory Prices** – C1-40 (2 pages)

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

**Internet Updates**

The following Information File and Decision Tools have been updated on [www.extension.iastate.edu/agdm](http://www.extension.iastate.edu/agdm).

**Farm Machinery Selection** – A3-28 (9 pages)

**Matching Tractor Power and Implement Size** – A3-28 (Decision Tool)

**Grain Truck Transportation Cost Calculator** – A3-29 (Decision Tool)

**Current Profitability**

The following tools have been updated on [www.extension.iastate.edu/agdm/info/outlook.html](http://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

**... and justice for all**

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