

Number of sales compared to previous year

When asked to compare the number of sales in 2011 relative to 2010, 42 percent reported either more sales or the same number of sales and 16 percent reported less sales.

Land sales by buyer category

Respondents were asked what percent of the land was sold to the following four categories of buyers.

- Existing farmers represented 74 percent of the sales.
- Investors represented 22 percent.
- New farmers represented 3 percent.
- Other purchasers represented 1 percent.

Sales to existing farmers by Crop Reporting Districts ranged from 83 percent in West Central to 63 percent in South Central.

Sales to investors were highest in South and North Central (30 percent). West Central reported the lowest investor activity (13 percent).

Interpretation of survey results

The 2011 land value survey covers one of the most remarkable years in Iowa land value history. The percentage increase reported for 2011 was the highest ever recorded by the Iowa State University land value survey. The previous high was 31.7 percent increase recorded in 1973. In addition, the 2011 survey value, when adjusted for inflation, is at an all-time high. The previous inflation adjusted high was in 1979.

The Iowa State University survey results match with other surveys of Iowa farmland. The Chicago Federal Reserve Bank estimated a 31 percent increase in Iowa land values from October 2010 to October 2011. This estimate was based on a survey of lenders in Iowa. The Iowa Chapter of the Realtors Land Institute estimated a 12.9 percent increase in Iowa land values for the six months from March to September, 2011. When comparing surveys it is important to remember different survey populations and in times like these, it is especially important to note the time period being presented. The 32.5 increase reported here would represent a 2.7 percent increase per month.

The rate of increase experienced in 2011 has led to concerns that farmland may be the next speculative bubble and that farmers are setting themselves up for a fall similar to the 1980s. Throughout the past year there have been a number of different conferences, papers and speeches warning of the dangers from a speculative bubble.

Examining some of the causes for the current increase in farmland values and the reactions is helpful in

Table 1. Recent changes in Iowa farmland values.

Year	Value per acre	Dollar change	Percentage change
1981	2147	82	3.9
1982	1801	-346	-16.1
1983	1691	-110	-6.1
1984	1357	-334	-19.8
1985	948	-409	-30.2
1986	787	-161	-17.0
1987	875	88	11.2
1988	1054	179	20.4
1989	1139	85	8.1
1990	1214	75	6.6
1991	1219	5	0.4
1992	1249	30	2.5
1993	1275	26	2.1
1994	1356	81	6.4
1995	1455	99	7.3
1996	1682	227	15.6
1997	1837	155	9.2
1998	1801	-36	-1.9
1999	1781	-20	-1.1
2000	1857	76	4.3
2001	1926	69	3.7
2002	2083	157	8.2
2003	2275	192	9.2
2004	2629	354	15.1
2005	2914	285	10.8
2006	3204	290	10.0
2007	3908	704	22.0
2008	4468	560	14.3
2009	4371	-97	-2.2
2010	5064	693	15.9
2011	6708	1644	32.5

assessing the situation. Farmland values are highly correlated with gross farm income. As gross farm income increases so will land values. In 2005, corn prices averaged \$1.94 per bushel in Iowa. The preliminary estimated price for November 2011 is \$6.05. Soybean prices changed from \$5.54 to \$11.40 over the same time period.

There has been considerable variation in commodity prices over the past few years, but net farm income has increased substantially and is projected to increase even more for 2011. This increase in income has been the primary cause for the increase in farmland values.

There are other causes for the increase as well. Interest rates are at the lowest level in recent memory. The average farm real estate loan interest rate reported in the Chicago Federal Reserve Bank survey was 5.36 percent; the lowest since this series began in 1974.

During the early part of the 2000s there was an increase in the amount of farmland being purchased by investors. Some of these purchases were motivated by the use of 1031 tax exchanges. As the urban real estate market was showing significant increases in values, many investors were taking out their money and moving it into farmland. The amount of land purchased by what were classified as investors increased from 18 percent in 1989 to 39 percent of the purchases in 2005. But, since that time the investors, as a percentage of total purchasers has decreased to 22 percent.

Another factor in the farmland market has been the relatively dismal performance of the stock market. Many people are looking to buy farmland, or they are not selling farmland, simply because they do not know where else to put their money.

The increase in farm income, the changes in investor demand and the changes in investment alternatives have all led to a volatile market. One area where the volatility is revealed is in the number of sales. The land value survey respondents have shown considerable variation over the past few years when queried about the number of sales. Sales decreased considerably in 2009. They improved somewhat in 2010 and based on the results reported here, most people are seeing more sales or at least similar sales in 2011 relative to 2010.

One of the differences is in the use of auctions. Auctions have always been a method for selling farmland. But, in 2011, there appears to have been a rapid increase in the use of this method of sale. Many of the survey respondents noted this in their responses to the survey. One of the big reasons for the increase is because of the uncertainty of the market. When the markets are changing so rapidly it is hard to know where the market prices should be. Using an auction allows more bidding. Preliminary analysis of 2011 sales data shows an increase in price by using an auction. This is not always the case, but in uncertain times no one really knows the market. As one person said, economics may get the person to the auction but emotion often leads to the purchase.

The Iowa State survey does not directly address the question of a speculative bubble in the land market. But, it does offer some insights and possible answers to the question. As noted, the gross income to land has increased substantially over the past few years. Analysis has shown land values are more correlated with gross income than net farm income.

Farmers are the primary purchasers of farmland. The survey reports 74 percent of the sales were to existing farmers. Existing farmers purchase land for different

reasons than someone who views the land strictly as an investment. Farmers buy land to own it. The land becomes a part of their retirement plan and their legacy. As such, whether or not the values increase or decrease will not prompt the farmer to sell. The most important factor is the level of debt they have against the land. If income falls and the farmer can no longer service their debt they may be forced to sell.

Currently we are not seeing a substantial increase in the amount of debt being used to finance land purchases. The USDA forecasts national farm real estate debt will increase 2 percent in 2011 relative to 2010. Since 2007, the USDA estimates show a 17 percent increase in real estate debt. Real estate debt as a portion of total debt or in relation to the value of total assets has remained essentially unchanged since 2007.

Although debt does not appear to have increased substantially, it is still something to be monitored. The longer the situation of increasing land values continues the greater the potential for poorer quality loans or too much debt.

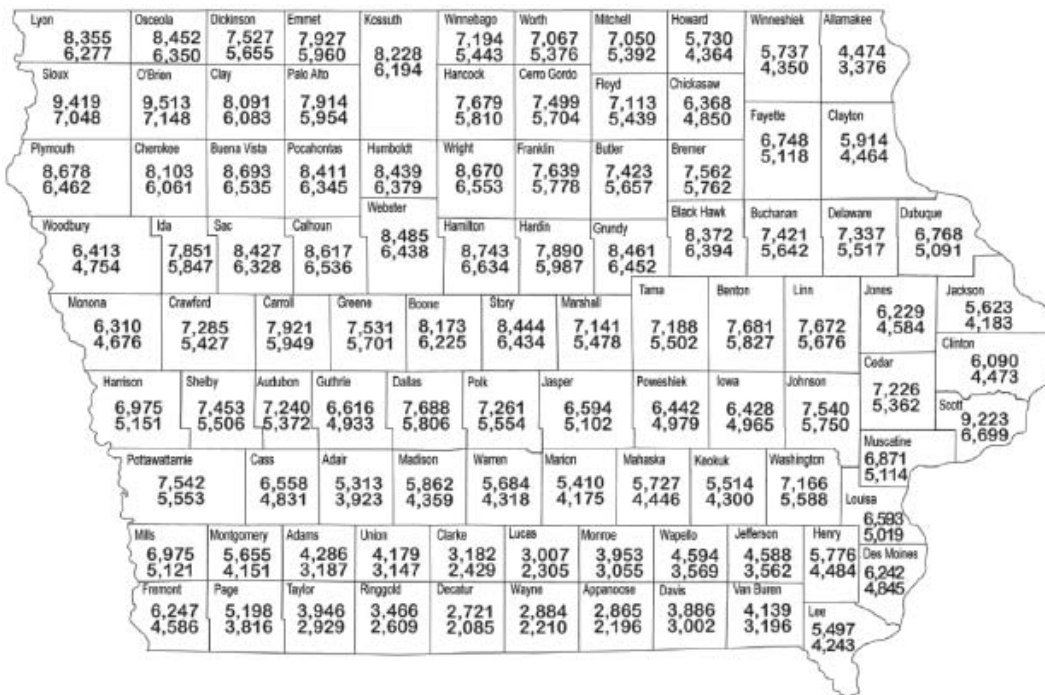
For many years the U.S. farm programs provided support for farm income. However, the U.S. energy policies are now having a significant impact on farm income. Space doesn't permit a detailed discussion of all the ramifications of the energy policies but suffice it to say that the policies have substantially increased the prices for both corn and soybeans. The policies have also put us in the unusual situation where what happens to the price of oil can have a significant impact on the price of corn.

Land values should remain strong for the next several months at least. Beyond that there is a fair degree of uncertainty with respect to whether land values can maintain their current levels. There are several key components to watch. One is the amount of debt incurred with land acquisition. A second area to watch is government policies, especially policies related to energy. A third area is what happens to input costs. Land is the residual claimant to any excess profits in agriculture. As such, if there is money to be made after increases in other costs, land values will increase. The performance of the overall economy, especially with respect to income will be an important factor. Government monetary policies as they relate to inflation and interest rates will also be important factors to watch. The performance of the U.S. economy and economies throughout the world will impact commodity prices which impact land values. Finally, weather related problems both here and in the world will have an influence on land values.

Table 2. Average value per acre of Iowa farmland listed by crop reporting districts and grades of land.

Year	State Avg	North-west	North Central	North-east	West Central	Central	East Central	South-west	South Central	South-east
All grades										
2000	1857	2198	2169	1868	1924	2195	2190	1412	992	1655
2001	1926	2240	2240	1950	1969	2246	2324	1511	1039	1705
2002	2083	2434	2367	2149	2101	2392	2547	1632	1211	1808
2003	2275	2683	2514	2347	2329	2652	2715	1774	1354	1979
2004	2629	3118	2913	2665	2728	3101	3054	2088	1547	2286
2005	2914	3393	3222	2963	3048	3415	3396	2350	1793	2483
2006	3204	3783	3478	3187	3410	3716	3725	2580	1927	2849
2007	3908	4699	4356	4055	4033	4529	4272	3209	2325	3463
2008	4468	5395	4950	4590	4823	5280	4743	3626	2573	3913
2009	4371	5364	4827	4464	4652	5026	4796	3559	2537	3832
2010	5064	6356	5746	5022	5466	5901	5447	4325	2690	4296
2011	6708	8338	7356	6602	7419	7781	7110	5905	3407	5705
High grade										
2000	2324	2547	2462	2329	2375	2660	2743	1825	1509	2353
2001	2407	2588	2546	2439	2437	2685	2907	1947	1582	2447
2002	2576	2776	2676	2625	2583	2848	3105	2117	1931	2539
2003	2790	3040	2817	2857	2820	3121	3263	2285	2121	2783
2004	3193	3537	3265	3189	3264	3621	3659	2657	2358	3174
2005	3511	3813	3588	3522	3691	3935	4069	2925	2659	3385
2006	3835	4261	3834	3816	4072	4263	4443	3209	2663	3793
2007	4686	5313	4807	4859	4804	5261	5073	3989	3231	4625
2008	5381	6150	5514	5415	5752	6076	5674	4642	3586	5346
2009	5321	6129	5371	5349	5552	5939	5738	4539	3710	5306
2010	6109	7283	6397	6076	6585	7026	6152	5335	3892	5862
2011	8198	9649	8601	7994	8889	9332	8675	7418	5109	7721
Medium grade										
2000	1701	2001	1972	1728	1772	1956	1996	1320	955	1511
2001	1768	2057	2040	1800	1807	2013	2125	1410	1004	1571
2002	1924	2278	2142	2010	1930	2175	2358	1522	1152	1659
2003	2123	2507	2309	2221	2167	2438	2543	1659	1307	1834
2004	2457	2930	2669	2515	2564	2858	2863	1956	1492	2118
2005	2736	3199	2982	2834	2833	3165	3172	2217	1725	2347
2006	3011	3561	3223	2987	3213	3458	3501	2442	1866	2679
2007	3667	4385	4026	3777	3796	4194	4005	3047	2296	3270
2008	4195	5023	4568	4339	4537	4919	4405	3425	2527	3721
2009	4076	4977	4450	4193	4371	4615	4465	3386	2443	3535
2010	4758	5883	5300	4664	5111	5386	5445	4140	2596	4053
2011	6256	7708	6713	6290	6981	7029	6510	5553	3353	5468
Low grade										
2000	1117	1370	1387	1167	1126	1299	1288	862	597	875
2001	1170	1388	1423	1208	1202	1416	1404	918	623	871
2002	1322	1571	1568	1448	1332	1516	1628	996	760	997
2003	1463	1808	1682	1512	1500	1707	1811	1130	858	1063
2004	1713	2087	1976	1816	1746	2028	1998	1354	1029	1272
2005	1961	2382	2252	2032	1970	2353	2237	1614	1252	1438
2006	2195	2566	2500	2248	2293	2615	2505	1729	1383	1786
2007	2656	3210	3125	2853	2738	3004	2928	2175	1583	2131
2008	2967	3580	3408	3296	3187	3469	3214	2298	1757	2271
2009	2884	3490	3281	3177	3134	3203	3240	2286	1685	2281
2010	3357	4161	3976	3517	3542	3724	3840	2868	1794	2620
2011	4257	5196	4900	4352	4766	4848	4671	3824	1984	3335

Figure 2. 2011 Land values by county.



County estimates of average dollar value per acre for Iowa farmland based on U.S. Census of Agriculture estimates and a Nov. 1, 2011, survey of Iowa real estate brokers. The top figure is the estimated Nov. 1, 2011, value; the bottom figure is the estimated Nov. 1, 2010, value.

Figure 3. 2011 Land values by crop reporting district.



Estimates of average dollar value per acre for high, medium and low grade farmland on Nov. 1, 2011, by Iowa Crop Reporting District; and the Crop Reporting District average and the average percentage change from Nov. 1, 2010. The estimates are based on a survey conducted by Iowa State University Extension.

... and justice for all
 The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA clients. To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W, Whitten Building, 14th

and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and July 30, 1914, in cooperation with the U.S. Department of Agriculture. Cathann A. Kress, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa.