

South Dakota

Agricultural Land Market Trends 1991–2008

The 2008 SDSU South Dakota Farm Real Estate Survey

South Dakota State University
Agricultural Experiment Station
U.S. Department of Agriculture

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Dr. Larry Janssen and Dr. Burton Pflueger¹

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FOREWORD

Agricultural land values and cash rental rates in South Dakota, by region and by state, are the primary topics of this report. The target audiences for this report are farmers and ranchers, landowners, agricultural professionals (lenders, rural appraisers, professional farm managers), and policy makers interested in agricultural land market trends. This report contains the results of the 2008 SDSU South Dakota Farm Real Estate Market Survey, the 18th annual SDSU survey developed to estimate agricultural land values and cash rental rates by land use in different regions of South Dakota.

We wish to thank our reviewers for their constructive comments on an earlier draft of this report. The reviewers are Dr. Martin Beutler and Dr. Gerald Warmann, Economics Extension Specialists; and Mr. Eric Ollila, Agricultural Communications Department, SDSU.

Mr. Emmanuel Opoku, graduate student in Economics, also handled some of the daily tasks during the survey period and updating tables and charts. We also wish to thank Penny Stover for developing and maintaining the mailing lists and for assistance with various survey and publication related tasks. Penny Stover is a secretary in the Economics Department.

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Finally, we wish to thank all of the 231 respondents who participated in the 2008 South Dakota Farm Real Estate Market Survey. Many have also participated in one or more past annual land market surveys. Without their responses, this report would not be possible.

The electronic version of this report is available at:
<http://agbiopubs.sdstate.edu/articles/C273.pdf>

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SUMMARY

The 2008 SDSU Farm Real Estate Market Survey report contains information on current agricultural land values and cash rental rates by land use in different regions of South Dakota, with comparisons to values from earlier years. Key findings are highlighted below.

• Land values and cash rental rates are booming in South Dakota. Cropland values increased an average of 26% from 2007 to 2008, while cash rental rates for cropland increased by 15.2%. The dollar amount and percentage rate of increase for both cropland values and cash rental rates are the highest recorded during the past 18 years of the SDSU survey.

These most recent increases are directly related to booming markets for corn, soybeans, wheat, and several other crops since 2006 and corresponding major increases in farm sector income, both gross and net. Tight worldwide wheat supplies, growing volume of ethanol production from corn, and competition for cropland to produce corn, soybeans, or wheat are important contributing factors.

• The most recent annual (2007 to 2008) change of 22.5% for all agricultural land values in South Dakota exceeds the previous (2004 to 2005) record of 20.2%.

Since 2001, agricultural land values in South Dakota have increased more than 10% each year, including more than 20% in two years during this period. From 1991 to 2001, annual increases in South Dakota agricultural land values varied from 4 to 10%.

• Cropland and rangeland values increased substantially in almost all regions.

Cropland values increased 17.8% or more, while rangeland increased 12.6% or more in all regions except the northwest region. Over time, percentage rates of increase in cropland and rangeland

values tend to be similar across regions, but will often vary for a specific year.

• Cash rental rates per acre for cropland, hayland, and rangeland/pasture increased statewide and in almost all regions from 2007 to 2008.

Statewide average cash rental rates increased \$9.90 per acre for cropland, \$5.80 per acre for hayland, and \$1.40 per acre for rangeland. In general, cash rental rate increases were strongest in the more cropland-intensive regions east of the Missouri River. Some weaknesses in cash rental rates are noted for hay and pasture/rangeland in the southwest region.

• Statewide, cropland, hayland, and rangeland values per acre have doubled since 2004 and quadrupled since 1994. Cash rental rates have nearly doubled since 1996.

Increases in agricultural land values were largely supported by increases in cash rental rates during the 1990s, but only partially supported by cash rental rate increases from 2000 to 2007. During most of the 1990s, land values increased at only slightly higher rates than cash rents. However, from 2001 to 2007, land values generally increased at more than twice the rate of increase in cash rents. During the past year, cash rents increased at a slower rate than land values, but both increased at historically very high rates. Overall, cash rates of return to farmland declined slowly during the 1990s and more rapidly from 2001 to 2008.

• Current average rates of cash return on agricultural land in South Dakota are lower in 2008 than in any previous year since the survey was started.

For 2008 the average ratio of gross cash rent to current land value for all agricultural land was 4.2%, for nonirrigated cropland was 4.6%, and for rangeland was only 3.4%. During the 1990s,

the same ratios were 7.4% for all agricultural land, 8.0% for cropland, and 6.8% for rangeland.

• **The longer-term trends in land values, cash rental rates, and cash rates of return are closely related to key economic factors. These factors include:**

- (1) Sharp declines in farm mortgage interest rates from early 2001 to late 2004 and continued relatively low mortgage interest rates.
- (2) Federal farm program provisions of the 1996 and 2002 farm bills, especially the level of crop subsidies and removal of planting restrictions.
- (3) General economic conditions of low inflation rates, until the past year. From 1991 to 2007 the average annual inflation rate in the U.S. was less than 2.5%.

From 1991 to 2008 farmland values increased more rapidly than the rate of general price inflation in all regions of South Dakota. Also, cash rental rate increases provided underlying support for increases in land values, especially in the past year. These basic economic factors, along with declining mortgage interest rates, attract interest in farmland purchases by investors and by farmers expanding their operations.

• **Agricultural land values and average cash rental rates differ greatly by region and land use.**

In each region per-acre values and cash rental rates are highest for irrigated land, followed in descending order by nonirrigated cropland, hayland, tame pasture, and native rangeland. For each land use, per-acre land values and cash rental rates are highest in the east-central or southeast region and lowest in the western regions of South Dakota.

The average value of nonirrigated agricultural land (as of Feb. 2008) in South Dakota is \$1,041 per acre. Nonirrigated agricultural land varies from \$2,473 per acre in the east-central to \$295 per acre in the northwest region. Average nonirrigated cropland values vary from \$2,894 per acre in the east-central to \$1,450 per acre in the central region and \$399 per acre in the northwest region.

Average rangeland values vary from \$1,539 per acre in the east-central to \$271 per acre in the northwest. Within each region, differences in land productivity and land use account for substantial differences in per-acre values.

In 2007 the average value of nonirrigated cropland exceeds \$3,000 per acre and average cash rental rates exceed \$120 per acre in two county clusters (Minnehaha-Moody and Clay-Lincoln-Turner-Union) in eastern South Dakota. These are the highest average land values and cash rental rates reported during the past 18 years of the SDSU Farm Real Estate Market Survey.

At the regional level, average cash rental rates per acre for cropland in 2008 vary from \$109 in the east-central region to \$24.20 in the northwest region. Average rangeland and pasture rental rates vary from \$47.15 in the east-central region to \$10.75 per acre in the southwest region.

• **Farm expansion, investment potential, and hunting/recreation continue as the major reasons for purchasing farmland, while high sale prices and other favorable market conditions (seller's market), retirement from farming, and settling estates are the major reasons for selling farmland.**

High commodity prices were listed by a majority of respondents as the major positive factor in the farm real estate market. Strong demand for land and relatively low interest rates, followed by investor purchases and hunting/recreation demand, were also listed. High input costs, an uncertain economy, and outside investors were listed more often than other negative factors.

South Dakota Agricultural Land Market Trends 1991–2008

Dr. Larry Janssen and Dr. Burton Pflueger¹

The 2008 SDSU Farm Real Estate Market Survey is the 18th annual survey of agricultural land values and cash rental rates by land use and quality in different regions of South Dakota. We report on the results of the survey and also include a discussion of factors influencing buyer/seller decisions and positive/negative factors impacting farmland markets. Publication of survey findings is a response to numerous requests by farmland owners, renters, appraisers, lenders, buyers, and others for detailed information on South Dakota farmland markets.

The 2008 estimates are based on reports from 231 respondents to the 2008 SDSU survey. Respondents are agricultural lenders, Farm Service Agency officials, rural appraisers, assessors, realtors, professional farm managers, and Extension agricultural educators. All are familiar with farmland market trends in their localities.

Copies of the SDSU survey were mailed in February and March 2008. The surveys requested information on cash rental rates and agricultural land values as of February 2008. Response rates, respondent characteristics, and estimation procedures are discussed in Appendix I.

Results are presented in a format similar to surveys published by Janssen and Pflueger from 1991 through 2007. Regional information on land values and cash rents by land use (crop, hay, range, pasture, and irrigated crop/hay) is emphasized in each of these SDSU reports. Current-year findings are compared to those of earlier years.

This report contains an overview and may or may not reflect actual land values or cash rental rates unique to specific localities or properties. Readers should use this report as a general reference and rely on local sources for more specific details.

¹ Janssen and Pflueger are professors of economics, South Dakota State University. Janssen has teaching and research responsibilities in agricultural finance, farmland markets, economic development, and research methodology. Pflueger is an Extension farm financial management specialist and also teaches an undergraduate course on agricultural cooperatives.

² A major purpose of this survey is to report land values and cash rental rates by major uses of privately owned agricultural land, excluding farm building sites. The major nonirrigated land uses reported are crops, hay, tame pasture, and rangeland. Rangeland is native grass pasture while tame pasture is seeded to introduced grasses. Agricultural land typically used for production of alfalfa hay, other tame hay, or native hay is considered hayland in this report. Cropland is agricultural land typically used for crop production other than hay production. Since most irrigated land in South Dakota is used for crop or hay production, we report the value and rental rates of irrigated land used for these purposes. These major land uses comprise nearly 98% of privately owned land in farms in South Dakota (Janssen, 1999).

County data on crop- and pastureland rents and values are provided by the South Dakota Agricultural Statistics Service (SDASS) in their report: South Dakota 2008 County Level Land Rents and Values. This SDASS report is based on a telephone survey of South Dakota farm/ranch producers and is their 14th annual survey of county level land rents and values. Major trends in per-acre cash rental rates and land values over time are similar in both the SDASS and SDSU surveys.

Changing economic conditions in South Dakota

Most renters, buyers, and sellers of farmland continue to be local area residents, although there is greater outside interest in recent years. Consequently, land market participants are influenced by many social, financial, and economic factors. Land market trends usually lag behind changing conditions in the general and agricultural economies and are strongly influenced by land market participants' expectations of future trends and the availability of debt or equity financing. Some key economic conditions in South Dakota are reviewed in this section.

South Dakota job market

Information from the South Dakota Bureau of Finance and Management states that South Dakota has averaged an increase of 7,640 jobs per year since 2004. This growth in employment, an average growth rate of 1.96%, was continued in 2007 when South Dakota gained 7,940 jobs. The rate of increase for 2007 of 2.0% is much higher than the U.S. employment growth rate of 1.1% over the same time period.

There are indications that the South Dakota job

market will remain strong in 2008. In January 2008, total nonfarm employment was up 1.86%, or 7,500 jobs, over January 2007. In the 12 months prior to the release of the 2008 SDSU South Dakota Farm Real Estate Survey (February 2007 to January 2008), nonfarm employment grew 1.97% (or 7,880 jobs) from the same period the year before. The sectors of the state's economy that experienced strong growth through 2007 and early 2008 were financial activities (4.31%); education and health services (2.63%); and trade, transportation and utilities (1.92%).

South Dakota income continues to grow.

Personal income for South Dakotans grew 7.9% from the third quarter of 2006 to the third quarter of 2007, the most recent period for which data is available. This rate of growth in personal income enabled South Dakota to rank 9th nationally; the South Dakota rate of growth was higher than both the United States income growth (6.5%) and the income growth of the seven-state (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota) Plains region (7.0%) over the same time period. From the second quarter of 2007 to the third quarter of 2007, South Dakota's total personal income grew 1.6%, which compares to the national growth of 1.4% and the Plains region growth of 1.2% over the same time period.

South Dakota's housing market.

There has been much written and discussed in the last 12 months concerning the housing and real estate market in the United States. For South Dakota, in the February-2007-to-January-2008 period there were 96 fewer building permits issued for family housing units than there were in the same period before. The value of family housing building permits is \$7.4 million lower in the last 12 months compared to the same period the year before.

3 The SDASS report on county level rents and values can be obtained from the Sioux Falls office, phone 605-323-6500 or South Dakota Agricultural Statistics Service / PO Box 5068 / Sioux Falls SD 57117-5068. The report also can be accessed at <http://www.nass.usda.gov/sd/>

The 2007 South Dakota agricultural economy

The 2007 business year was very strong for agricultural producers. Due to a good production year and high commodity prices, nearly all indicators show that farmers and ranchers improved the financial condition of their operations during 2007. The value of all principal crops grown in South Dakota in 2007 totaled \$5.29 billion, which is up 112% from the \$2.49 billion value of 2006 crops. The large increase is due to record corn and wheat production, along with higher prices for most crops. Corn for grain was the leading valued crop of 2007, at \$2.0963 billion, up 133% from 2006.

All crop prices and livestock prices were higher in 2007 than 2006, except for hogs. Continued high demand for crops has put upward pressure on prices over the past several months; crop prices continue to be substantially higher than a year ago.

As of January 1, 2008, all cattle and calves in South Dakota totaled 3.7 million head, unchanged from last year, according to the South Dakota office of USDA's National Agriculture Statistics Service. On December 1, the inventory of all hogs and pigs in South Dakota totaled 1.37 million head, up 8% from one year ago and up 2% from last quarter.

A good financial year in 2007 allowed farmers and ranchers to increase capital expenditures and upgrade equipment, pay back loans, and buy real estate. Lenders responding to a Federal Reserve Bank of Minneapolis survey indicated that strengthened financial conditions in 2007 allowed many producers to pay down loans and not acquire renewals or extensions. Variable and fixed interest rates for machinery, operating and rate real estate loans dropped about 50 basis points from the third quarter 2007 to the fourth quarter of 2007. Average interest rates for farm mortgage loans in January 2008 were 7.6%.

Federal farm program payments have been an important stream of revenue in South Dakota agriculture. Federal farm program payments have been 16 to 20% of total production value from 1999 to 2001, 7 to 11% from 2002 to 2004, 15% in 2005, and 8.5% in 2006. Farm program payment projections for 2007 and 2008 are considerably lower due to much lower projected counter-cyclical payments and minimal loan-deficiency payments.

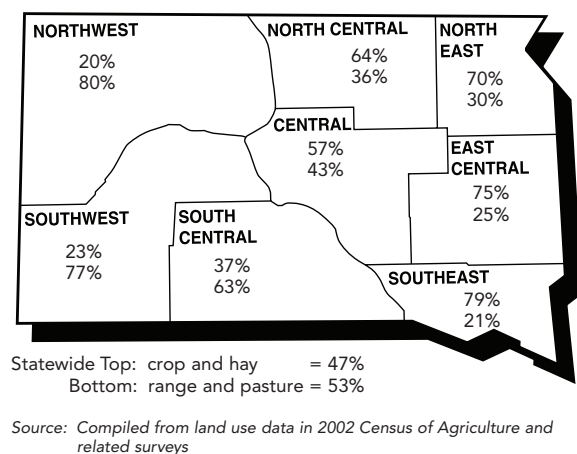
South Dakota's farm sector has been more dependent on farm program payments (commodity, conservation, and disaster payments) than most other states.

At this time (mid-April 2008) new farm program legislation has not been passed by Congress, creating uncertainty about the longer term future of farm commodity and conservation programs. For 2007 and 2008, South Dakota's farm economy is probably affected more by renewable energy legislation than by traditional farm programs.

South Dakota agricultural economy outlook

Lenders responding to a Federal Reserve Bank of Minneapolis survey indicated that the outlook for financial conditions in the first quarter of 2008 (the same period in which the SDSU South Dakota Farm Real Estate Survey was conducted) was for a strong economy. Expectations were for solid markets and profits for calves and wheat. However, some lenders extended cautions concerning input cost increases, noting that fuel, fertilizer, seed, chemicals, cash rent, and interest expense will be higher in 2008. Other lenders expressed concerns about rapid increases in land prices.

Fig 1. Nonirrigated agricultural land use patterns in South Dakota, statewide and regional.



South Dakota agricultural land values, 2008

Procedures to estimate and report land values

Respondents to the 2008 South Dakota Farm Real Estate Market Survey estimated the per-acre value of nonirrigated cropland, hayland, rangeland, tame pastureland, and irrigated land in their county and the percent change in value from one year earlier. Responses for nonirrigated land uses are grouped into eight agricultural regions (fig.1). The six regions in eastern and central South Dakota correspond with USDA Agricultural Statistics Districts. In western South Dakota, farmland values and cash rental rates are reported for the northwest and southwest regions. Land values and cash rental rates are reported only for privately owned land and should not be considered as estimated values for tribal lands or federal lands.

Irrigated land is only 1% of farmland acres in South Dakota. Due to the small number of irrigated land reports in several regions, responses for irrigated land values and rental rates are regrouped into six regions: western, central, north-central, northeast, east-central, and southeast. The western region has reports from the northwest, southwest and south-central regions.

The average value per acre and percent change in value was obtained for each agricultural land use in each region. Regional and statewide all-land (nonirrigated land) value estimates are weighted averages based on the relative acreage and value of each nonirrigated agricultural land use in each region of South Dakota. In this report, land use acreage weights for each region and statewide were developed from data reported in the 2002 Census of Agriculture and related sources (Appendix I). These land-use acreage weights have considerable impact on regional and statewide estimates of all nonirrigated land values.

Regional differences in all-agricultural land values are primarily related to major differences in 1) agricultural land productivity among regions, 2) per-acre values of cropland and rangeland in each region, and 3) the proportion of cropland and rangeland in each region. More than 80% of farmland acreage in each region is cropland or rangeland. However, native rangeland is the dominant land use in western South Dakota, while most agricultural land in eastern South Dakota is nonirrigated cropland (fig. 1).

Tame pasture and hayland are the remaining major uses, excluding farm building sites. Tame pasture varies from 5.6 to 9% of farmland acres in each region and is nearly 7% of statewide farmland acres. Hayland varies from 11 to 14% of total farmland acres in each of the six central and eastern regions, but only 3 to 5% of farmland acres in western South Dakota. Statewide, hayland is about 9% of privately owned farmland.

The combined proportion of cropland and hayland in each region varies from 20% of private agricultural land in the northwest region to 79% of farmland acres in the southeast region. The remainder is rangeland or tame (improved) pasture. Statewide, an estimated 47% of private farmland acres are cropland or hayland and 53% is rangeland or tame

pasture (fig. 1). In summary, statewide cropland values are highly influenced by values estimated in the north-central and three eastern regions, while statewide rangeland values are greatly influenced by values reported in the three regions west of the Missouri River.

All-agricultural land value estimates, 2008

As of February 2008, the average value of all-agricultural land in South Dakota was \$1041 per acre, a 22.5% increase in value from one year earlier (fig. 2 and table 1). This is the highest annual rate of increase reported in the past 18 years, exceeding the 20.2% rate of increase from 2004 to 2005 (table 1 and appendix table 2).

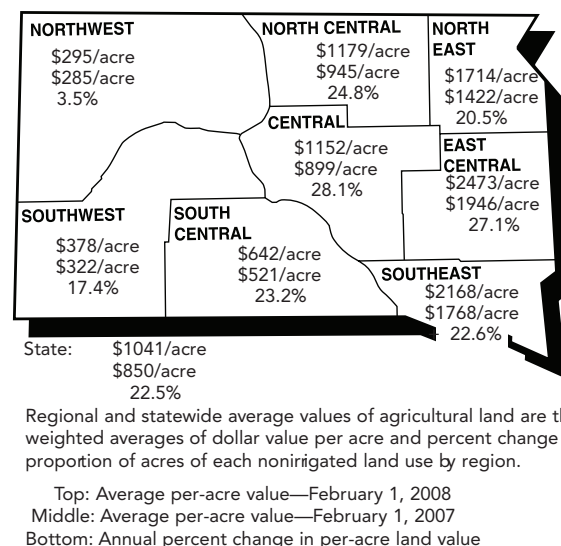
The increase of \$191 per acre in the value of all agricultural land is the highest annual dollar per-acre increase during the past 18 years. Overall, agricultural land values in South Dakota have doubled since 2003 and quadrupled since 1994.

Agricultural land values increased more than 20% in all six eastern and central regions, with the strongest increase of 28.1% in the central and 27.1% in the east-central region. In western South Dakota, land values increased 17.4% in the southwest and 3.5% in the northwest region. The lower rate of increase in western South Dakota is partly related to the lingering effects of the drought that has affected these regions for several years.

The all-land average values are highest in the eastern regions with per-acre values ranging from \$2473 in the east-central region to \$2168 in the southeast region and \$1714 in the northeast region. This is the first year that all-land values exceed \$2000 per acre in any region and \$1700 per acre in the northeast region.

The per-acre increase in all-land values from 2007 to 2008 varied from \$527 per acre in the east-central

Fig 2. Average value of South Dakota agricultural land, February 1, 2007 and 2008, and percent change from one year ago.



Source: 2008 South Dakota Farm Real Estate Market Survey, SDSU.

region to \$400 per acre in the southeast region and \$292 per acre in the southeast region. Again, these are the highest dollar volume increases for each region compared to any previous year.

These three eastern regions contain the most productive land in South Dakota. Cropland and hayland are the dominant agricultural land uses in eastern South Dakota varying from 70% of farmland acres in the northeast to 79% in the southeast (fig. 1).

Average per-acre agricultural land values in the north-central and central regions are much higher than corresponding land values in western and south-central South Dakota and considerably lower than average land values in the eastern regions. Average land values were \$1179 per acre in the north-central region and \$1152 per acre in the central region, which is the first time that average land values exceeded \$1000 per acre in either region. Farmland values increased more than \$240 per acre in both regions from 2007 to 2008. Land values are slightly higher in the north-central region due to the greater proportion of crop and hayland, compared to land use in the central region.

Table 1. Average reported value and annual percentage change in value of South Dakota agricultural land by type of land by region, 2004-2008.

Type of Land	South-east	East-Central	North-east	North-Central	Central	South-Central	South-west	North-west	STATE
dollars per acre									
All Agricultural Land (nonirrigated)									
Average value, 2008	2168	2473	1714	1179	1152	642	378	295	1041
Average value, 2007	1768	1946	1422	945	899	521	322	285	850
Average value, 2006	1583	1643	1174	849	803	462	286	256	743
Average value, 2005	1372	1427	1029	736	711	414	275	211	650
Average value, 2004	1147	1162	779	629	594	377	223	192	541
Annual % change 08/07	22.6%	27.1%	20.5%	24.8%	28.1%	23.2%	17.4%	3.5%	22.5%
Nonirrigated Cropland									
Average value, 2008	2510	2894	2076	1532	1450	904	502	399	1733
Average value, 2007	1999	2244	1762	1187	1086	702	426	367	1375
Average value, 2006	1817	1914	1448	1088	986	612	387	342	1211
Average Value, 2005	1556	1659	1255	967	871	568	383	316	1064
Average Value, 2004	1315	1346	973	822	705	541	318	294	882
Annual % change 08/07	25.6%	29.0%	17.8%	29.1%	33.5%	28.8%	17.8%	8.7%	26.0%
Rangeland (native)									
Average value, 2008	1239	1539	1100	714	836	544	339	271	508
Average value, 2007	1073	1293	889	634	708	448	295	265	448
Average value, 2006	925	1055	751	548	599	397	255	234	386
Average value, 2005	781	844	667	458	552	346	241	185	332
Average value, 2004	684	764	465	396	456	312	196	167	283
Annual % change 08/07	15.5%	19.0%	23.7%	12.6%	18.1%	21.4%	14.9%	2.3%	13.4%
Pasture (tame, improved)									
Average value, 2008	1365	1675	1304	795	943	571	384	307	809
Average value, 2007	1167	1461	987	698	760	524	303	297	684
Average value, 2006	1085	1166	843	598	711	425	283	282	596
Average Value, 2005	937	1018	730	465	610	397	291	227	519
Average Value, 2004	754	818	517	424	518	337	217	198	420
Annual % change 08/07	17.0%	14.6%	32.1%	13.9%	24.1%	9.0%	26.7%	3.4%	18.3%
Hayland									
Average value, 2008	1871	2127	1347	939	1050	649	450	334	1079
Average value, 2007	1659	1637	1028	750	815	525	356	327	875
Average value, 2006	1383	1371	831	640	758	499	346	300	758
Average value, 2005	1312	1203	780	515	612	451	324	270	675
Average value, 2004	1008	992	586	432	516	391	265	245	549
Annual % change 08/07	12.8%	29.9%	31.0%	25.2%	28.8%	23.6%	26.4%	2.1%	23.3%

Type of Land	South-east	East Central	North-east	North Central	Central	Western	STATE
dollars per acre							
Irrigated land							
Average value, 2008	3020	3071	2681	1607	2156	925	1970
High Productivity	3460	3630	3031	1987	2460	1110	
Low Productivity	2429	2489	2094	1245	1717	731	
Average value, 2007	2547	2649	2100	1531	1578	951	1699
Average value, 2006	2354	2305	1610	1329	1422	871	1518
Average value, 2005	1974	2097	1566	1017	1322	970	1403
Average value, 2004	1793	1678	1259	1210	865	782	1191
Annual % change 08/07	18.6%	15.9%	27.7%	5.0%	36.6%	-2.7%	16.0%

Source: 2008 and earlier South Dakota Farm Real Estate Market Surveys

Agricultural land values are much lower in regions west of the Missouri River than in the eastern and central regions of South Dakota. The average value per acre ranges from \$642 in the south-central region to \$295 per acre in the northwest region, respectively. Rangeland and pasture are the dominant agricultural land uses.

Land values and value changes by type of land and region

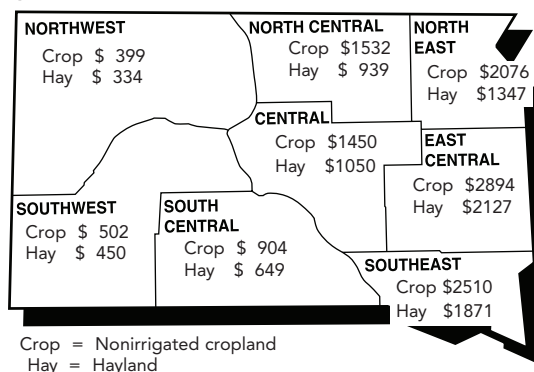
In each region, per-acre values are highest for irrigated land, followed by nonirrigated cropland, hayland, tame pasture, and native rangeland. For each nonirrigated land use, per-acre land values are highest in the three eastern regions and lowest in the northwest, southwest, and south-central regions (figs. 3 and 4; table 1). In the north-central and central regions, per-acre values of cropland are higher in the north-central region, while per-acre values of hay-, pasture-, and rangeland are higher in the central region. These regional differences in land values by land use have largely remained consistent over time and are closely related to climate patterns, soil productivity differences, and crop/forage yield differences across the state.

Cropland values

The weighted average value of South Dakota's nonirrigated cropland (as of February 2008) is \$1733 per acre, a 26% increase from 2007 (table 1). This is the fourth year that the average value of South Dakota's nonirrigated cropland exceeds \$1,000 per acre. Statewide per-acre cropland values have more than doubled since 2003 and have quadrupled since 1994.

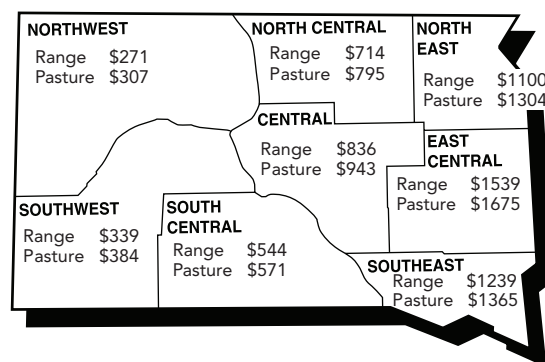
Cropland value increases were 33.5% in the central region; about 29% in the north-central, east-central and south-central regions; and 25.6% in the southeast region. The northeast and southwest regions had increases of 17.8%, compared to 8.7% in the

Fig 3. Average value of South Dakota cropland, and hayland, by region, February 2008, dollars per acre.



Source: 2008 South Dakota Farm Real Estate Market Survey, SDSU.

Fig 4. Average value of South Dakota rangeland and tame pasture, by region, February 2008, dollars per acre.



Source: 2008 South Dakota Farm Real Estate Market Survey, SDSU.

northwest region. The increases above 25% were the highest percentage increases in land values in each of these regions in the past 18 years.

For the first time, all three regions of eastern South Dakota had average cropland values exceeding \$2000 per acre. The east-central region had the highest cropland value of \$2894 per acre, followed by cropland values of \$2510 in the southeast region and \$2076 in the northeast region. This is the fourth year that cropland values have exceeded 1) \$1500 in the east-central and southeast region and 2) \$1000 per acre in the northeast region (fig. 3; table 1; and appendix table 2).

From 2007 to 2008, cropland values increased

\$650 per acre in the east-central, \$511 per acre in the southeast, and \$314 per acre in the northeast region, which are all time highs. Cropland values in these three regions are increasing mainly due to greatly improved returns in the corn and soybean production industries. These three eastern regions contain 45% of South Dakota's cropland. Corn and soybeans are the major crops in most counties.

Wheat, corn, soybeans, sunflowers, and some small grains are the predominant cropland uses in most counties of the north-central and central regions of South Dakota. These two regions contain 33% of South Dakota's cropland acres. Average cropland values of \$1532 per acre in the north-central region are higher than the average of \$1450 per acre in the central region. In both regions, average cropland values increased more than \$350 per acre from 2007 to 2008—another all time high.

Cropland values are considerably lower in the three regions west of the Missouri River. As of February 2008, cropland values averaged \$904 per acre in the south-central region, a \$202 per acre increase from 2007. In the western regions, average cropland values were much lower, varying from \$502 per acre in the southwest to \$399 per acre in the northwest.

These three regions contain 23% of the state's cropland acres. Wheat, corn, and grain sorghum are important crops in the south-central region, while wheat is the dominant crop in the two western regions.

Cropland values have generally been increasing at a much slower rate in the two western regions, especially compared to the more cropland intensive regions east of the Missouri River. For example, cropland values in the northwest and southwest region doubled from 2001 to 2008, while cropland values nearly tripled during the same period in the east-central, northeast, central, and north-central regions.

Hayland values

South Dakota hayland values averaged \$1079 per acre as of February 2008, a 23.3% increase from one year earlier (table 1). This is the first time that statewide hayland values have exceeded \$1000 per acre. Very strong annual increases in hayland values (from 23.6 to 31%) occurred in six regions compared to an increase of 12.8% in the southeast and 2.1% in the northwest region. Statewide, hayland values have almost doubled since 2004 and quadrupled from 1994.

Average hayland values are highest in the east-central and southeast regions, with per-acre values of \$2127 and \$1871, respectively, followed by \$1347 per acre in the northeast region. This is the first time that hayland values exceed \$2000 per acre in any region of South Dakota.

Hayland values are considerably lower (\$1050 and \$939 per acre, respectively) in the central and north-central region, but remain fairly close to the statewide average value of \$1079 per acre. Considerably lower values of hayland are found in all regions west of the Missouri River, varying from \$649 per acre in the south-central region to \$334 per acre in the northwest region (fig. 3 and table 1). Alfalfa hay is the most common hay in the eastern regions, while native hay is more common in the central and western regions.

Pasture and rangeland values

In February 2008, the value of South Dakota native rangeland averaged \$508 per acre, while the average value of tame pasture was \$809 per acre (table 1). Native rangeland is concentrated in the western and central regions of South Dakota, while tame pasture is concentrated in the central and eastern regions.

The statewide average change in rangeland and tame pasture values increased 13.4% and 18.3%, respectively, during the past year (Feb. 2007 to Feb. 2008). This is the sixth consecutive year that double-

digit (>10%) increases in both pasture and rangeland values occurred in South Dakota. Statewide, rangeland and tame pasture land values have more than doubled since 2003 and quadrupled in per-acre value from 1993.

Average rangeland values are highest in the east-central and southeast regions (\$1539 and \$1239 per acre, respectively) and lowest in the southwest and northwest region (with average value of \$339 and \$271 per acre, respectively). In other regions, average rangeland values vary from \$544 per acre in the south-central region to \$1100 per acre in the northeast region (fig. 4 and table 1).

In most regions, average values of tame pasture varied from 8 to 15% higher than the average value of rangeland. However, due to differences in regional concentration, the statewide average value of tame pasture was 60% higher than the average value of rangeland. Three-fourths of rangeland acres are located in counties west of the Missouri River, compared to less than half of tame (improved) pasture acres.

In the cropland-intensive regions of eastern South Dakota and in the north-central region, the average per-acre value of nonirrigated cropland varies from 1.85 to 2.15 times the average value of native rangeland. In the more rangeland intensive central and western regions, the average per-acre value of cropland varies from 1.47 to 1.73 times the average value of rangeland. Tame pasture land values are in between rangeland and hayland values in all regions. Also, pasture and hayland values are considerably lower than cropland values in all regions of South Dakota.

Irrigated land values

Irrigated land value reports are consolidated into six regions (table 1). Very few irrigated land reports were received from respondents in the three regions west of the Missouri River, which made it necessary

to combine reports from these regions. Irrigated land in the western regions is predominantly gravity-irrigated hay and cropland in counties adjacent to the Black Hills and some center pivot irrigated land in south-central counties. In all other regions, the value of irrigated land was reported for center pivot irrigation systems, excluding the value of the center pivot.

We continue to caution readers that irrigated land value data are less reliable than data on land values reported for other agricultural land uses. Irrigated land is not common (less than 1% of total acres) in most regions, and there are few sales of irrigated land tracts. Consequently, only 39% of all respondents were familiar with and able to provide information on irrigated land values.

Based on 90 responses, from 2007 to 2008, irrigated land value increases occurred in all except the western regions. Statewide average irrigated land values are \$1970 per acre, a 16% increase from a year earlier. Irrigated land values vary from an average of \$3070 and \$3020 per acre, respectively in the east-central and southeast regions to \$925 per acre in the western regions (table 1). This is the first year that average irrigated land values exceed \$3000 in any region of South Dakota and more than \$1600 per acre in all regions east of the Missouri River.

Variation in land values by land productivity and county clusters

Within each region and for each nonirrigated agricultural land use, there is considerable variation in land values. In this section we report the February 2008 per-acre values of average quality, high-productivity, and low-productivity land by agricultural land use by region and by county clusters within several regions (table 2).

Table 2. Average reported value per acre of agricultural land by South Dakota region, county clusters, type of land, and land productivity, February, 2004 - 2008.

Agricultural Land Type and Productivity	Southeast				East Central			
	All	Clay Lincoln Turner Union	Bon Homme Hutchinson Yankton	Charles Mix Douglas	All	Minnehaha Moody	Brookings Lake McCook	Sanborn Davison Hanson Kingsbury Miner
dollars per acre								
Nonirrigated Cropland								
Average 2008	2510	3246	2304	1656	2894	3778	2823	2250
High Productivity	3130	4070	2910	1949	3613	4769	3537	2751
Low Productivity	1892	2385	1756	1318	2154	2679	2128	1754
Average 2007	1999	2527	1881	1253	2242	2892	2288	1874
Average 2006	1817	2266	1603	1219	1914	2595	2019	1434
Average 2005	1556	2021	1283	1042	1659	2196	1665	1307
Average 2004	1315	1652	1150	937	1346	1822	1207	1088
Rangeland (native)								
Average 2008	1239	1384	1231	1091	1539	1790	1602	1351
High Productivity	1460	1645	1454	1261	1885	2408	1894	1583
Low Productivity	999	1145	974	882	1210	1514	1232	1024
Average 2007	1073	1264	1032	870	1293	1547	1292	1204
Average 2006	925	1047	881	791	1055	1432	1041	973
Average 2005	781	851	778	686	844	910	810	838
Average 2004	684	785	629	599	764	936	689	706
Pastureland (tame, improved)								
Average 2008	1365	1625	1362	1055	1675	2105	1756	1368
High Productivity	1565	1823	1587	1223	2018	2680	2035	1652
Low Productivity	1125	1349	1128	853	1305	1543	1394	753
Average 2007	1167	1389	1085	927	1461	1703	1440	1403
Average 2006	1085	1242	986	933	1166	1453	1134	1063
Average 2005	937	1108	839	771	1018	1156	936	1007
Average 2004	754	820	728	703	818	923	786	796
Hayland								
Average 2008	1871	2353	1770	1409	2127	2826	1987	1694
High Productivity	2209	2793	2104	1623	2539	3608	2325	1876
Low Productivity	1421	1772	1310	1142	1548	2002	1451	1271
Average 2007	1659	2084	1669	1000	1637	2265	1685	1328
Average 2006	1383	1700	1312	932	1371	2250	1315	1037
Average 2005	1312	1759	1111	805	1203	1716	1149	904
Average 2004	1008	1218	919	717	992	1300	902	855

Source: South Dakota Farm Real Estate Market Survey, SDSU, 2008 and earlier.

Irrigation land values are not reported in this table, due to insufficient number of reports in most county clusters

** Insufficient number of reports to make estimates by county cluster.

Table 2. (continued)

Agricultural Land Type and Productivity	Northeast				North Central			
	All	Codington Deuel Hamlin	Grant Roberts	Clark Day Marshall	All	Brown Spink	Edmund Faulk McPherson	Campbell Potter Walworth
dollars per acre								
Nonirrigated Cropland								
Average 2008	2076	2274	2107	1822	1532	2318	1168	957
High Productivity	2813	2965	2907	2574	2114	3261	1563	1296
Low Productivity	1505	1685	1593	1237	1101	1591	903	712
Average 2007	1762	1856	1866	1558	1187	1691	951	814
Average 2006	1448	1541	1557	1298	1088	1498	818	775
Average 2005	1255	1308	1349	1104	967	1342	766	683
Average 2004	973	1059	1054	775	822	1094	552	653
Rangeland (native)								
Average 2008	1100	1202	1143	937	714	932	686	519
High Productivity	1293	1378	1261	1205	880	1096	830	712
Low Productivity	835	858	893	766	536	698	562	336
Average 2007	889	937	912	808	634	798	611	400
Average 2006	751	763	771	728	548	704	489	422
Average 2005	667	654	673	678	458	580	459	292
Average 2004	465	505	468	403	396	498	341	294
Pastureland (tame, improved)								
Average 2008	1304	1362	1260	1224	795	1004	810	617
High Productivity	1572	1644	1560	1451	978	1139	1006	818
Low Productivity	989	994	1030	944	622	753	671	458
Average 2007	987	1027	1000	908	698	910	694	408
Average 2006	843	834	860	847	598	760	537	437
Average 2005	730	744	720	721	465	605	454	290
Average 2004	517	516	565	479	424	535	391	267
Hayland								
Average 2008	1347	1414	1558	1077	939	1077	753	640
High Productivity	1669	1791	1867	1328	1167	1328	940	808
Low Productivity	1036	1105	1217	786	688	786	613	456
Average 2007	1028	1084	1013	964	749	1020	663	474
Average 2006	831	924	844	736	640	814	591	477
Average 2005	780	809	743	776	515	678	521	326
Average 2004	586	654	510	524	432	554	369	306

Table 2. (continued)

Agricultural Land Type and Productivity	Central				South Central	South West	North West
	All	Aurora Beadle Jerauld	Buffalo Brule Hand Hyde	Hughes Sully	All	All	All
dollars per acre							
Nonirrigated Cropland							
Average 2008	1450	1601	1315	1300	904	502	39
High Productivity	1781	1980	1633	1561	1091	603	474
Low Productivity	1098	1168	989	1064	678	370	311
Average 2007	1086	1110	1139	977	702	426	368
Average 2006	986	1068	994	858	612	387	342
Average 2005	871	873	888	846	568	383	316
Average 2004	705	785	603	710	541	318	294
Rangeland (native)							
Average 2008	836	998	774	636	544	339	271
High Productivity	1064	1255	959	850	676	482	337
Low Productivity	608	667	606	518	413	247	213
Average 2007	708	780	821	459	448	295	265
Average 2006	599	677	611	450	397	255	234
Average 2005	552	608	590	388	346	241	185
Average 2004	456	530	409	384	312	196	167
Pastureland (tame,improved)							
Average 2008	943	1060	858	810	571	384	307
High Productivity	1143	1284	989	1030	694	491	376
Low Productivity	690	719	655	670	473	282	265
Average 2007	760	854	854	481	524	303	297
Average 2006	711	771	728	531	425	283	282
Average 2005	610	683	606	411	397	291	227
Average 2004	518	586	463	450	337	217	198
Hayland							
Average 2008	1050	1264	949	775	649	450	334
High Productivity	1239	1468	1077	983	748	534	404
Low Productivity	770	880	679	656	516	353	263
Average 2007	815	931	876	560	526	356	327
Average 2006	758	812	767	558	498	346	300
Average 2005	612	674	599	470	451	324	270
Average 2004	516	581	461	433	391	265	245

A county cluster is a group of counties within the same region that have similar agricultural land use and value characteristics. Three county clusters are identified in each of the following regions: south-east, east-central, northeast, north-central, and central. Land values are not reported for county clusters in regions west of the Missouri River because there are too few reports for most county groupings. This survey is not designed to reflect the substantially higher land values in or near the Black Hills.

Substantial variation in per-acre land value occurs by degree of land productivity for each land use in each region. For example, 2008 cropland values in the east-central region vary from an average of \$2154 per acre for low-productivity cropland to \$3613 per acre for high-productivity cropland. At the other extreme, the average value of low- (high) productivity cropland values is \$311 (\$474) per acre in the northwest region. Across regions, average values of low-productivity cropland were 52% to 66% of the average values of high-productivity cropland.

Rangeland values in the east-central region vary from an average of \$1210 per acre for low-productivity rangeland to \$1885 per acre for high productivity rangeland. In the northwest region, at the other extreme, the average value of low (high) productivity rangeland is \$213 (\$337) per acre. Across all regions, the average value of low-productivity rangeland varies from 57% to 70% of the average value of high-productivity rangeland (table 2).

In 2008, average nonirrigated cropland values were above \$3,000 per acre in two county clusters: Minnehaha-Moody and Clay-Lincoln-Turner-Union (CLTU). Cropland values were above \$2000 per acre in six additional county clusters of eastern and north-central South Dakota (table 2). As recently as 2006, average cropland values exceeded \$2000 per acre in only three county clusters—Minnehaha-Moody, CLTU, and Brookings-Lake-McCook.

In 2008, average cropland values in the east-central and southeast regions varied from \$3778 per acre in the Minnehaha-Moody county cluster to \$1656 per acre in the Charles Mix-Douglas county cluster. Average hayland values varied from \$2826 per acre in the Minnehaha-Moody cluster to \$1409 per acre in the Charles Mix-Douglas county cluster.

Similar patterns of land values also occur for range land and pasture in these two eastern regions. For example, rangeland values varied from an average of \$1790 per acre in the Minnehaha-Moody county cluster to \$1091 per acre in the Charles Mix-Douglas county cluster (table 2).

In the northeast region, the average values of cropland in 2008 were above \$2100 per acre in the Codington-Deuel-Hamlin and Grant-Roberts county clusters and \$1822 per acre in the Clark-Day-Marshall county cluster. Average per-acre values of other land uses were much lower than per-acre cropland values in each county cluster. Hayland values were highest in the Grant-Roberts county cluster, while rangeland and pasture values were highest in the Codington-Deuel-Hamlin county cluster. Per-acre values for all land uses in this region were lowest in the Clark-Day-Marshall county cluster.

In the north-central region, average land values in Brown and Spink counties are much higher than those found in other counties, especially for cropland. Most cropland in Brown and Spink counties is located in the James River valley and is more productive than other land in this region. As an example, nonirrigated cropland values averaged \$2318 per acre in the Brown-Spink county cluster compared to only \$957 per acre in the Campbell-Potter-Walworth county cluster.

East of the Missouri River, the lowest per-acre values for each agricultural land use are found in the Campbell-Potter-Walworth (CPW) county clusters. This is the only county cluster east of the Missouri

River where the average per-acre value of cropland is less than \$1000. Cropland values per acre in the CPW cluster are slightly above two-fifths of cropland values in the Brown-Spink county cluster. For other land uses, per-acre land values in the CPW cluster are nearly three-fifths of corresponding land values in the Brown-Spink county cluster.

In the central region, land values for each land use were highest in the Aurora-Beadle-Jerauld county clusters and lowest in the Hughes-Sully county cluster. Land values vary from an average of \$636 per acre for rangeland in the Hughes-Sully county cluster to above \$1600 for cropland in the Aurora-Beadle-Jerauld county clusters. Strong increases (above 20%) were reported for cropland values in 11 of the 15 county clusters, including all county clusters of the east-central and southeast region. The other four county clusters located east of the Missouri River reported cropland value increases from 12.9 to 17.9%. Strong increases (above 20%) were also reported for range, pasture, and hayland values in seven to nine county clusters and greater than 10% in all except two county clusters.

For regions west of the Missouri River, average land values for each land use are highest in the south-central region and lowest in the northwest region. During the past year, land values increased more rapidly in the south-central region compared to the southwest and northwest regions. Average land values vary from \$271 per acre for rangeland in the northwest region to \$904 per acre for cropland in the south-central region.

Major reasons for purchase and sale of farmland

During each of the 18 years of the SDSU Farm Real Estate Market survey, respondents have been asked to provide major reasons for buying and selling farmland in their locality. Almost 93% of respon-

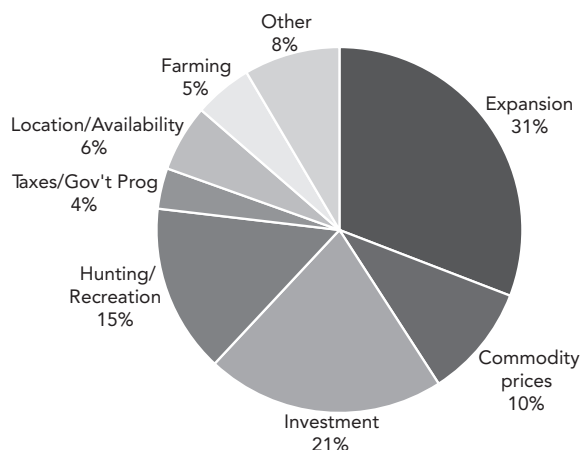
dents provided one or two reasons in each category.

Farm expansion and investment purposes continue as the two most common reasons given for purchasing farmland, followed by hunting/recreation and commodity prices/farm profits (fig. 5). This is the first time that commodity prices or high farm profits emerged as one of the top four factors.

Farm expansion has always been the most cited reason for buying farmland, but the proportion of responses has declined from 48% of responses in 1994 to 30 to 31% of responses in 2007 and 2008. Another 15% of responses indicated the prospects of continued high commodity prices or high farm profits were the major reasons for purchasing farmland for existing and start-up farmers and for investors.

Investment purposes (21% of responses) varied from purchasing farmland and speculating on further increases in land values (i.e., a potential to obtain a higher return on investment) to purchasing land and leasing it to local farmers. Farmland potential for fee-based hunting and recreation can also influence investment decisions. Fifteen percent of survey participants indicated hunting/recreation was a major reason for purchasing farmland. Responses indicating investment purposes or hunting/recreation purposes as the major reason(s) for

Fig 5. Reasons for buying farmland



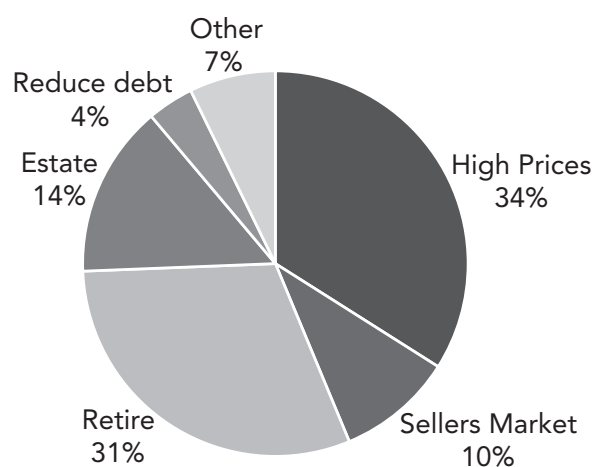
purchasing farmland increased from 23% of 1994 responses to over 40% of responses from 2000 to 2007, and then to 36% in 2008.

Making up 6% of the responses were the opportunity to purchase land in advantageous locations or securing land available for sale that had been previously cash rented. Another 4% of respondents indicated farmland was purchased primarily for tax purposes (e.g., 1031 exchanges) or to participate in government farm programs.

Favorable market conditions, retirement, and estate settlement continue as the main reasons for selling farmland. Retirement or the settlement of an estate was listed by 45% of respondents as reasons for selling farmland. Forty-four percent indicated farmland was sold to capitalize on current high land prices and high demand for farmland in today's market. Only 4% listed financial pressures and reducing debt as the main reasons for selling farmland (fig. 6).

From 2000 to 2008, the major shift in reasons for selling farmland has been the increase in responses of favorable market conditions for sellers—44% of responses in 2008 compared to 17% of responses in

Fig 6. Reasons for selling farmland



⁴ Animal Unit Month (AUM) is defined as the amount of forage required to maintain a mature cow with calf for 30 days. An AUM is somewhat of a generic value and should be about equal across regions. Therefore, private cash lease rates quoted on a per AUM basis should be roughly equivalent in different geographic areas of the state unless there are major differences in forage availability, forage quality, and demand for leased land.

2000. The proportion of respondents listing retirement, estate settlement, or financial pressures as the major reasons for sale declined during the same period.

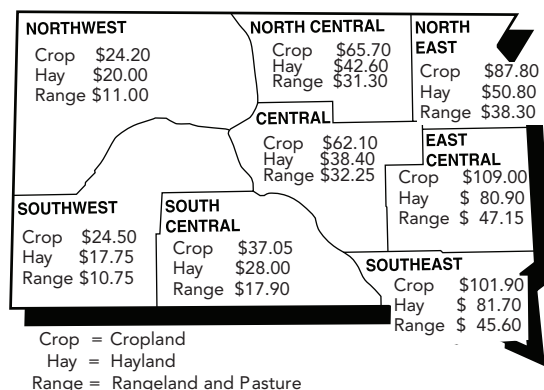
In most areas of South Dakota, farmers and ranchers expanding their operation are still the principal buyers of agricultural land. However, their dominance in the local area land market is increasingly challenged by investors, both local and non-local, interested in purchasing agricultural land for various reasons, including leasing land to local farmers, leasing/developing land for hunting and other recreation opportunities, and other motives. The implication is that farm ownership expansion comes at a higher price than before.

Cash rental rates of South Dakota's agricultural land

Three-eighths of South Dakota's agricultural land acres are in cash, share, or other lease arrangements (SD Census of Agriculture 2002). The cash rental market provides important information on returns to agricultural land. Three-fourths of South Dakota's farmland renters are involved in one or more cash leases for agricultural land. The majority of farmland leases (57%) were fixed cash rate leases and five-eighths of cash leases were annual renewable agreements (Janssen and Xu 2003).

Respondents were asked about average cash rental rates per acre for nonirrigated cropland, irrigated land, and hayland in their locality. Cash rental rates for pasture/rangeland was provided on a per-acre basis and, if possible, on an Animal Unit Month (AUM) basis. Respondents were also asked to report cash rental rates for high-productivity and low-productivity land by different land uses in their locality. Cash rental rates by land use by region are

Fig 7. Average cash rental rate of South Dakota non-irrigated cropland, hayland, and rangeland, by region, 2008, dollars per acre.



Source: 2008 South Dakota Farm Real Estate Market Survey, SDSU.

summarized in figure 7 and table 3. The same information is summarized by region and county cluster in table 4.

Cash rental rates differ greatly by region and by land use. For nonirrigated land uses, cash rental rates per acre are highest in the southeast and east-central regions and lowest in northwest and southwest South Dakota. In every region, cash rental rates are highest for cropland and lowest for rangeland and pasture (figure 7 and table 3).

The rapid increase in cash rental rates from 2007 to 2008, especially for cropland and hayland, provides further evidence of the continued boom in South Dakota's farmland market. For most regions and land uses, the average annual change in cash rental rate per acre from 2007 to 2008 is the largest in both percent and dollar amount over the past 18 years.

From 2007 to 2008, statewide average cash rental rates increased \$9.90 per acre for cropland, \$5.80 per acre for hayland, and \$1.40 per acre for pasture and rangeland. The average percentage increase in cash rental rates was 15.2% for cropland, 13.9% for hayland, and 8.1% for rangeland. Average cash rental rates increased for cropland in all regions. Average cash rental rates for pasture and hay increased in all regions, except for a modest decline

in the southwest region. In general, cash rental rate increases were greatest in the same regions where the strongest land value increases were reported.

2008 cash rental rates – nonirrigated cropland

Average cash rental rates in 2008 for nonirrigated cropland vary from \$24.20 to \$24.50 per acre in the western regions to \$101.90 per acre in the southeast region and \$109 per acre in the east-central region (fig. 7 and table 3).

Average cash rental rates for cropland are highest at \$140.10 per acre in the Minnehaha-Moody county cluster and exceed \$110 per acre in two other county clusters: Clay-Lincoln-Turner-Union (CLTU) and Brookings-Lake-McCook (table 4). Cash rental rates for high-productivity cropland in these same county clusters vary from \$162.25 in Brookings-Lake-McCook to \$186.50 in Minnehaha-Moody.

Average cash rental rates vary from \$79 to \$96 per acre across six other county clusters in eastern and north-central South Dakota. Average cash rental rates for high productivity cropland in these same county clusters vary from \$122 to \$138 per acre. The county clusters include Brown-Spink in the north-central region, all county clusters in the northeast region, the five western counties in the east-central region, and Bon Homme-Hutchinson-Yankton in the southeast region.

Average cash rental rates in the remaining six county clusters of the north-central, central, and southeast regions vary from \$47.65 in Campbell-Potter-Walworth to \$74.90 per acre in Charles Mix-Douglas. Within these same county clusters, average cash rental rates for high-productivity cropland varied from about \$70 to \$98 per acre (table 4).

Average cash rental rates for high-, average-, and low-productivity cropland are much lower in all regions west of the Missouri River.

Within each region and county cluster, cash rental

Table 3. Reported cash rental rates of South Dakota agricultural land by type of land by region, 2004-2008.

Type of Land	South-east	East Central	North-east	North-Central	Central	South-Central	South-west	North-west	State
dollars per acre									
Nonirrigated Cropland									
Average 2008 rate	101.90	109.00	87.80	65.70	62.10	37.05	24.50	24.20	74.70
High Productivity	139.70	154.60	131.40	98.90	87.90	53.50	32.40	29.05	
Low Productivity	72.50	75.00	62.30	44.40	40.60	24.90	18.00	18.05	
Average 2007 rate	92.30	91.65	77.85	56.75	48.95	32.65	23.35	21.80	64.80
Average 2006 rate	89.25	82.60	70.50	53.85	46.35	34.00	24.70	21.45	60.95
Average 2005 rate	87.20	82.60	65.70	49.40	45.80	31.50	24.90	22.90	58.90
Average 2004 rate	83.70	78.80	64.50	47.60	43.40	34.10	23.10	21.40	56.80
Hayland									
Average 2008 rate	81.70	80.90	50.80	42.60	38.40	28.00	17.75	20.00	47.40
High Productivity	107.40	110.60	68.00	57.70	56.30	40.85	23.45	24.60	
Low Productivity	58.35	56.90	36.70	28.65	25.20	18.15	14.00	15.95	
Average 2007 rate	74.00	67.55	45.10	34.25	31.35	25.70	18.80	18.40	41.35
Average 2006 rate	72.90	60.50	40.20	30.20	34.60	27.30	19.55	18.15	39.80
Average 2005 rate	71.60	56.40	38.70	28.90	29.80	22.20	17.60	18.80	37.20
Average 2004 rate	68.50	53.40	36.80	27.10	28.40	24.80	18.50	17.70	36.05
Pasture/Rangeland									
Average 2008 rate	45.60	47.15	38.30	31.30	32.25	17.90	10.75	11.00	18.50
High Productivity	62.60	66.20	51.90	44.00	44.80	24.30	17.65	24.30	
Low Productivity	28.85	34.00	27.50	21.20	21.30	11.40	7.20	7.65	
Average 2007 rate	44.00	42.80	34.95	28.50	26.85	16.90	11.60	9.95	17.10
Average 2006 rate	42.10	40.00	31.35	25.90	26.30	19.60	10.70	9.25	16.50
Average 2005 rate	40.55	36.05	29.80	24.60	24.95	14.85	10.70	9.75	15.60
Average 2004 rate	37.40	35.90	27.20	22.20	23.90	17.30	10.00	7.90	14.60
dollars per Animal Unit Month									
Average 2008 rate	29.80	***	***	27.70	27.80	26.90	25.20	21.00	
High Productivity	36.00	***	***	38.30	32.80	34.20	32.20	25.80	
Low Productivity	21.85	***	***	18.30	20.20	19.60	17.90	16.65	
Average 2007 rate	22.70	***	26.50	27.00	25.35	23.80	24.30	21.95	
Average 2006 rate	25.15	26.00	25.25	23.10	24.45	24.45	24.15	20.85	
Average 2005 rate	21.45	21.10	23.75	22.40	20.60	23.20	22.30	19.45	
Average 2004 rate	21.30	**	**	21.10	24.00	23.60	21.90	19.80	
Type of Land	South-east	East-Central	North-east	North-Central	Central	Western	State		
dollars per acre									
Irrigated land									
Average 2008 rate	154.75	139.80	134.00	87.85	113.00	62.50	106.05		
High Productivity	196.50	205.65	169.00	117.40	135.20	70.85			
Low Productivity	121.25	114.10	104.00	68.00	88.30	55.50			
Average 2007 rate	131.65	113.80	98.70	89.65	89.60	65.30	93.50		
Average 2006 rate	121.20	109.50	96.25	84.75	84.40	60.00	87.25		
Average 2005 rate	118.30	109.30	84.45	80.95	77.95	57.90	83.50		
Average 2004 rate	118.80	103.80	97.50	75.00	73.20	56.90	83.85		

** Insufficient number of reports to make regional estimates

Source: South Dakota Farm Real Estate Market Surveys, SDSU, 2008 and earlier year reports.
Statewide average rental rates are based on 2002 regional land use weights

Table 4. Reported cash rental rates of South Dakota agricultural land by region and county clusters, 2004 - 2008 rates.

	Southeast				East Central			
	All	Clay Lincoln Turner Union	Bon Homme Hutchinson Yankton	Charles Mix Douglas	All	Minnehaha Moody	Brookings Lake McCook	Sanborn Davison Hanson Kingsbury Miner
dollars per acre								
Nonirrigated Cropland								
Average 2008 rate	101.90	121.90	96.30	74.90	109.00	140.10	110.90	84.70
High Productivity	139.70	170.70	134.40	94.70	154.60	186.50	162.25	125.00
Low Productivity	72.50	90.30	65.60	53.00	75.00	94.70	74.60	61.00
Average 2007 rate	92.30	110.30	88.70	64.20	91.65	118.60	96.00	75.05
Average 2006 rate	89.25	106.15	82.85	59.65	82.60	109.30	85.75	67.00
Average 2005 rate	87.20	106.70	76.70	59.10	82.60	102.10	89.10	65.50
Average 2004 rate	83.70	99.30	77.50	58.10	78.80	100.20	80.60	62.50
Hayland								
Average 2008 rate	81.70	99.60	82.80	53.70	80.90	117.40	81.80	58.90
High Productivity	107.40	128.95	111.60	68.10	110.60	156.30	116.10	80.60
Low Productivity	58.35	76.05	56.30	36.15	56.90	83.30	55.20	42.30
Average 2007 rate	74.00	88.50	77.90	46.25	67.55	94.15	75.90	52.00
Average 2006 rate	72.90	85.50	72.55	47.45	60.50	94.15	57.95	48.05
Average 2005 rate	71.60	91.30	68.10	43.50	56.40	80.10	57.60	41.70
Average 2004 rate	68.50	81.90	68.20	40.70	53.40	67.10	51.10	46.80
Pasture/Rangeland								
Average 2008 rate	45.60	51.35	44.60	39.60	47.15	51.25	51.25	41.50
High Productivity	52.60	70.90	62.10	52.10	66.20	71.50	74.70	56.50
Low Productivity	28.85	29.90	29.40	26.20	34.00	37.00	34.80	31.40
Average 2007 rate	44.00	48.00	43.00	39.30	42.80	48.40	43.00	40.10
Average 2006 rate	42.10	47.70	38.40	36.55	40.00	51.50	41.60	35.65
Average 2005 rate	40.55	48.65	38.40	30.50	36.05	42.05	34.70	34.10
Average 2004 rate	37.40	44.70	33.20	30.00	35.90	38.80	35.40	34.80

Irrigated cropland rental rates per acre and rangeland rental rates per AUM are not reported in this table, due to insufficient number of reports in most county clusters.

Source: South Dakota Farm Real Estate Market Surveys, SDSU, 2008 and earlier reports.

Table 4. (continued)

	Northeast				North Central			
	All	Codington Deuel Hamlin	Grant Roberts	Clark Day Marshall	All	Brown Spink	Edmund Faulk McPherson	Campbell Potter Walworth
dollars per acre								
Nonirrigated Cropland								
Average 2008 rate	87.80	95.80	87.85	78.95	65.70	86.60	57.60	47.65
High Productivity	131.40	137.70	135.70	122.10	98.90	132.30	86.35	69.75
Low Productivity	62.30	71.40	62.85	52.00	44.40	60.00	38.65	30.60
Average 2007 rate	77.85	84.20	80.00	67.70	56.75	76.30	48.05	39.25
Average 2006 rate	70.50	77.00	73.55	63.05	53.85	68.85	46.60	40.35
Average 2005 rate	65.70	71.90	68.40	57.30	49.40	64.80	42.50	38.70
Average 2004 rate	64.50	70.80	68.70	54.40	47.60	56.90	38.90	39.10
Hayland								
Average 2008 rate	50.80	56.90	52.50	39.40	42.60	60.60	33.85	32.40
High Productivity	68.00	75.45	66.25	56.25	57.70	79.80	48.10	43.80
Low Productivity	36.70	40.70	38.10	28.75	28.65	41.80	23.50	19.80
Average 2007 rate	45.10	51.30	45.00	38.25	34.25	44.55	33.00	22.20
Average 2006 rate	40.20	50.70	33.00	31.45	30.20	34.20	30.75	24.70
Average 2005 rate	38.70	41.40	41.60	31.40	28.90	35.40	28.20	21.20
Average 2004 rate	36.80	43.30	29.80	30.70	27.10	31.10	26.10	20.30
Pasture/Rangeland								
Average 2008 rate	38.30	42.40	37.00	33.65	31.30	39.70	30.00	22.10
High Productivity	51.90	58.20	47.50	46.25	44.00	53.80	42.20	33.50
Low Productivity	27.50	31.30	26.70	23.00	21.20	28.10	20.90	12.80
Average 2007 rate	34.95	40.35	31.45	29.70	28.50	33.70	29.65	18.15
Average 2006 rate	31.35	36.80	29.45	27.75	25.90	31.60	27.25	16.90
Average 2005 rate	29.80	34.05	28.35	26.35	24.60	29.60	25.15	17.10
Average 2004 rate	27.20	29.80	26.90	24.20	22.20	25.60	22.70	15.40
					South Central	South West	North West	
dollars per acre								
Nonirrigated Cropland								
Average 2008 rate	62.10	68.20	59.60	54.40	37.05	24.50	24.20	
High Productivity	87.90	97.80	82.40	77.00	53.45	32.35	29.05	
Low Productivity	40.60	44.40	36.70	37.70	24.90	18.00	18.05	
Average 2007 rate	48.95	58.00	45.40	43.75	32.65	23.35	21.80	
Average 2006 rate	46.35	53.40	42.10	42.40	34.00	24.70	21.45	
Average 2005 rate	45.80	49.50	41.50	45.00	31.50	24.90	22.90	
Average 2004 rate	43.40	47.10	38.20	44.80	34.10	23.10	21.40	
Hayland								
Average 2008 rate	38.40	42.10	40.00	29.60	27.95	17.75	20.00	
High Productivity	56.30	62.65	61.80	39.00	40.48	23.45	24.60	
Low Productivity	25.20	27.35	26.10	20.00	18.15	14.00	16.00	
Average 2007 rate	31.35	38.70	30.95	21.00	25.70	18.80	18.40	
Average 2006 rate	34.60	37.90	31.95	**	27.30	19.55	18.15	
Average 2005 rate	29.80	36.50	26.50	17.50	22.20	17.60	18.80	
Average 2004 rate	28.40	31.90	28.40	23.60	24.80	18.50	17.70	
Pasture/Rangeland								
Average 2008 rate	32.25	38.60	31.50	21.50	17.90	10.75	11.00	
High Productivity	44.80	52.80	46.30	29.20	24.30	17.65	15.30	
Low Productivity	21.30	24.50	22.00	14.80	11.40	7.20	7.65	
Average 2007 rate	26.85	33.20	27.10	19.45	16.90	11.60	9.95	
Average 2006 rate	26.30	30.10	25.80	20.20	19.60	10.70	9.25	
Average 2005 rate	24.95	29.30	23.80	18.70	14.85	10.70	9.75	
Average 2004 rate	23.90	28.60	22.00	19.10	17.30	9.90	7.90	

** insufficient number of reports to make estimates at the regional level

rate averages for low-productivity cropland are much lower than those reported for high-productivity cropland. For example, reported average cash rent for nonirrigated cropland in the east-central region is \$75 per acre for low-productivity cropland and \$154.60 per acre for high-productivity cropland. In the northwest region, the average cash rent for low-productivity cropland is \$18.05 per acre while cash rental rates for high-productivity cropland average \$29.05 per acre (table 3).

Cropland cash rental rates increased more than 10% from 2007 to 2008 in all except the southwest region. The average dollar amount and percentage increase in cash rental rates were highest in the east-central and central regions. At the county cluster level, cash rental rates increased from \$7.70 to \$7.85 per acre, respectively, in Bon Homme-Hutchinson-Yankton and Grant-Roberts to an average increase of \$21.50 per acre in Minnehaha-Moody. In regions west of the Missouri River, cash rental rate increases varied from an average of \$1.15 per acre in the southwest to \$4.40 per acre in the south-central region.

Cash rental rates – hayland and irrigated land

East of the Missouri River, cash rental rates for hayland vary from \$38.40 to \$42.60 per acre, respectively, in the central and north-central regions to the low \$80s in the east-central and southeast regions of South Dakota (fig. 7 and table 3). From 2007 to 2008, the average amount of increase in cash rental rates in these five regions varies from \$5.70 per acre in the northeast to \$13.35 per acre in the east-central region.

In the eastern and central regions of South Dakota, four county clusters have average cash rental rates for hayland above \$80 per acre, another six clusters have average cash rental rates varying from \$52.50 to \$60.60 per acre, while the five remaining county clusters have average cash rental rates that vary from

\$29.60 to \$42.10 per acre. The two highest average cash rental rates of \$117.60 and \$99.60 per acre, respectively, are found in Minnehaha-Moody and CLTU. The lowest cash rental rates of \$29.60 per acre are found in Hughes-Sully (table 4)

West of the Missouri River, hayland cash rental rates in 2008 vary from an average of \$17.75 per acre in the southwest to \$27.95 per acre in the south-central region. The dollar amount of change in cash rental rates was less than \$2.50 in each of the three regions.

Within each region and county cluster there are considerable differences in average cash rental rates of high- and low-productivity hayland. For example, the average rental rates for high and low productivity hayland in Minnehaha-Moody are \$156.30 and \$83.30 per acre, respectively, compared to \$23.45 and \$14.00 per acre in the southwest region. In many regions, the lower cash rental rates are reported for native hayland, while the higher rates are quoted for alfalfa or other tame hayland.

Cash rental rates for irrigated land vary from an average of \$62.50 per acre in western South Dakota to \$113 per acre in the central region to \$154.75 per acre in the southeast region (table 3). Reported cash rental rates did not change much from 2007 in the western and north-central region, but increased more than \$20 per acre in all other regions. This variation in rental rate changes may be partly affected by relatively few responses in some regions.

2008 cash rental rates - rangeland and pasture

Nearly three-eighths of South Dakota's 26.2 million acres of rangeland and pasture acres are leased to farmers and ranchers. Several million acres of rangeland in western and central South Dakota are controlled by federal, state, or tribal agencies and are leased to ranchers using cash leases or grazing permits. A majority of leased rangeland and almost

all leased pasture are cash rented from private landlords (Janssen and Xu 2003). Respondents were asked to report 2008 cash rental rates per acre and per AUM on privately owned rangeland and pastureland in their locality.

Average cash rental rates per acre reflect regional differences in productivity and carrying capacity of pasture and rangeland tracts. Average cash rental rates vary from \$10.75 to \$11.00 per acre in western South Dakota to \$45.60 per acre in the southeast region and \$47.15 in the east-central region. Typical cash rental rates for low-productivity and high-productivity rangeland vary from \$7.20 to \$17.65 per acre in the southwest region and from \$34.00 to \$66.20 per acre in the southeast region (fig. 7 and table 3).

In counties east of the Missouri River, average cash rental rates for rangeland and pasture vary from a high of \$51.25 to \$51.35 per acre, respectively, in the Minnehaha-Moody, Brookings-Lake-McCook, and CLTU clusters to a low of \$21.50 per acre in the Hughes-Sully county cluster (table 4).

The dollar amount and percentage change in pasture cash rental rates from 2007 to 2008 was considerably lower in most regions and county clusters than changes in cash rental rates for hayland or cropland. The amount of positive change in cash rental rates varied from about \$1.00 per acre in the northwest and south-central regions to \$5.40 per acre in the central region and \$6.00 or more per acre in the Brown-Spink and Brookings-Lake-McCook county clusters.

Rangeland rates per AUM in 2007 vary from an average of \$21.00 per AUM in the northwest region to \$29.80 per AUM in the southeast region. Rates in the three central regions varied from \$26.90 to

\$27.80 per AUM. Rental rates per-AUM increased in most regions from 2007 to 2008.

Publications on agricultural land rental arrangements in South Dakota

There are several recent (2007) publications available from South Dakota State University Extension Economics. These publications address issues for landlords and tenants and summarize some issues that should be considered when entering into lease agreements. Also available through these publications are worksheets that can be used to assist in the determination of equitable lease rates. These Extension publications by Dr. Burton Pflueger are in the reference list and are a few of the resources available from the Economics Department at South Dakota State University. Additional publications and related decision aid resources are available at <http://econ.sdstate.edu>.

Rates of return to South Dakota's agricultural land

Two approaches (gross rates of return and net rates of return) are used in each annual survey to obtain information on current rates of return to agricultural land. The 1991 to 2008 trend of gross rent to value ratio by land use and net rate of return by land use is depicted in figures 8a and 8b, respectively.

First, gross rent-to-value ratios (gross cash rent as a percent of land value) are calculated from respondents' reported cash rental rates and estimated values of leased land. This is a measure of the gross rate of return obtained by landlords, before deduction of property taxes and other landlord expenses.

In 2008, the statewide average gross rate of return (rent-to-value ratio) is 4.6% for nonirrigated crop-

⁵ The market-derived income capitalization rate used by appraisers is equal to net returns to land divided by its current market value. One widely used method of estimating net return to agricultural land is subtracting property taxes, land maintenance expense and other land ownership expenses from the gross cash rental rate for the same land. In each SDSU Farmland Market Survey, respondents were requested to estimate this net rate of return by land use for agricultural land in their locality.

Table 5. Estimated rates of return to South Dakota agricultural land by type of land and by region, 1991 - 2008

	2008	2007	2006	2005	Average 2000-2004	Average 1991-1999	2008	2007	2006	2005	Average 2000-2004	Average 1991-1999
<i>Type of land-statewide</i>	GROSS rate of return (%)						NET rate of return (%) ^b					
All agricultural land	4.2	4.4	4.7	5.2	6.6	7.4	3.9	3.8	3.9	3.9	4.6	5.4
Nonirrigated cropland	4.6	4.9	5.2	5.7	7.5	8.0	4.7	4.2	4.2	4.5	5.2	6.1
Rangeland & pasture	3.9	4.0	4.3	4.8	5.9	6.8	3.4	3.4	3.8	3.5	4.2	4.8
Hayland	4.4	4.8	5.2	5.7	7.3	8.0	4.2	3.9	4.0	4.0	4.8	5.6
<i>Region^d</i>	GROSS rate of return (%)						NET rate of return (%)					
Southeast	4.2	4.7	5.0	5.5	7.0	7.4	4.4	4.1	4.5	4.9	5.0	5.9
East-Central	3.7	3.8	4.4	4.9	6.9	7.6	3.8	4.1	4.7	4.7	5.1	5.5
Northeast	4.2	4.6	4.9	5.1	7.6	8.1	4.2	3.9	4.3	4.8	5.4	6.2
North-Central	4.5	4.9	5.2	5.8	6.9	7.9	4.2	4.4	4.4	4.6	5.5	6.1
Central	4.0	4.2	4.6	4.9	6.9	7.7	5.3	4.1	4.1	4.4	4.5	5.3
South-Central	3.8	4.5	5.1	4.9	6.3	6.9	4.3	4.0	4.0	4.2	4.6	5.2
Southwest	3.5	4.3	4.2	4.7	6.1	6.7	3.2	3.1	3.2	4.0	3.8	4.4
Northwest	5.1	4.4	4.7	5.5	6.1	7.1	3.4	4.0	3.4	3.7	4.2	5.1

^aGROSS rate of return (percent) is calculated by dividing the average gross cash rental rate by reported value of rental land.

^bNET rate return is the reporter's estimate of the percentage rate of cash return to ownership given current land values. Appraisers often refer to this measure as the market capitalization rate.

^cState level GROSS and NET rate of return estimates are calculated by weighting regional estimates by proportion of acres of each land use by region.

^dRegional level GROSS and NET rate of return estimates are calculated by weighting the rate of return estimates for each land use by proportion of the region agricultural acres in each land use.

Source: South Dakota Farm Real Estate Survey, SDSU, 2008 and earlier reports.

land, 4.4% for hay-land, 3.9% for rangeland, and 4.2% for all agricultural land. From 2006 to 2008, the statewide average gross rate of return to all non-irrigated agricultural land has been lower than 5%, compared to an average of 7.4% during the 1990s and above 6% from 2000 to 2003 (table 5).

The practical range of gross rate of return is obtained for the middle 90% of the distribution of responses for each land use. For most respondents, the estimated rent-to-value ratio (gross rate of return) for 2008 varies from 3.0% to 6.25% for cropland, from 2.6% to 6.25% for hayland, and 2.1% to 6.1% for rangeland. The median rent-to-value ratio is 4.4% for cropland, 4.1% for hayland, and 3.5% for rangeland.

Next, respondents were asked to estimate the current net rate of return (percent) that landowners in their locality could expect given current land values. Appraisers refer to the current annual net rate of return as the market-derived capitalization rate, which is widely used in the income approach to farmland appraisal. The net rate of return is a return to ag-

ricultural land ownership after deducting property taxes, real estate maintenance, and other ownership expenses .

Average net rates of return for 2008 varied from 4.7% for nonirrigated cropland to 4.2% for hayland, and to 3.4% for rangeland and pasture, and averaged 3.9% for all agricultural land. This is the fourth consecutive year that average net rates of return for all-agricultural land were below 4%, compared to an average of 5.4% during the 1990's.

The practical range of net rates of return to land for 2008 reported by respondents varies from 2.0% to 10.0% for cropland, from 2.0% to 8.0% for hayland, and 1.0% to 7.5% for rangeland. The median net rate of return was 4.0% for cropland, 3.75% for hayland, and 3.0% for rangeland.

The calculated difference between gross and net rates of return to agricultural land ownership is only 0.3 percentage points for all-agricultural land and varies somewhat across regions and land uses. The actual difference should be greater than this amount due to the importance of agricultural real estate

Fig 8a. Gross rent to value ratio by land use, 1991-2008

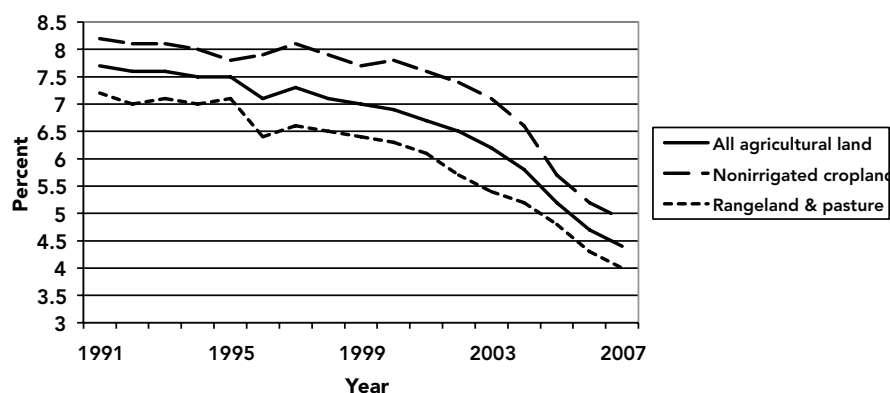
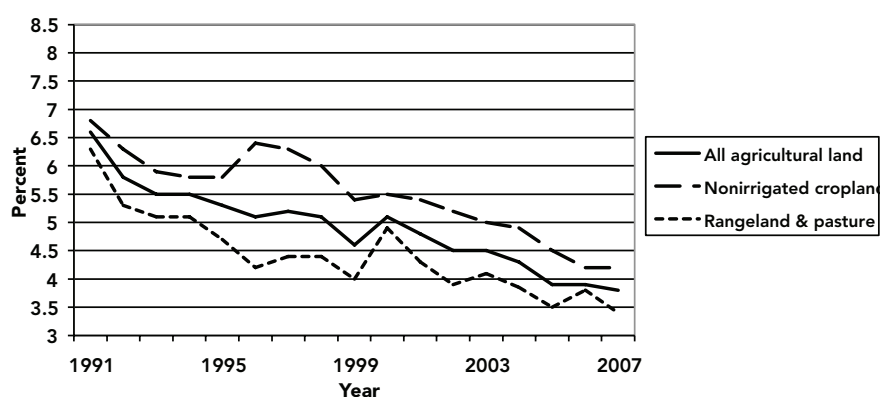


Fig 8b. Net rent to return by land use, 1991-2008



Source: 2008 SDSU Farm Real Estate Market Survey and earlier publications

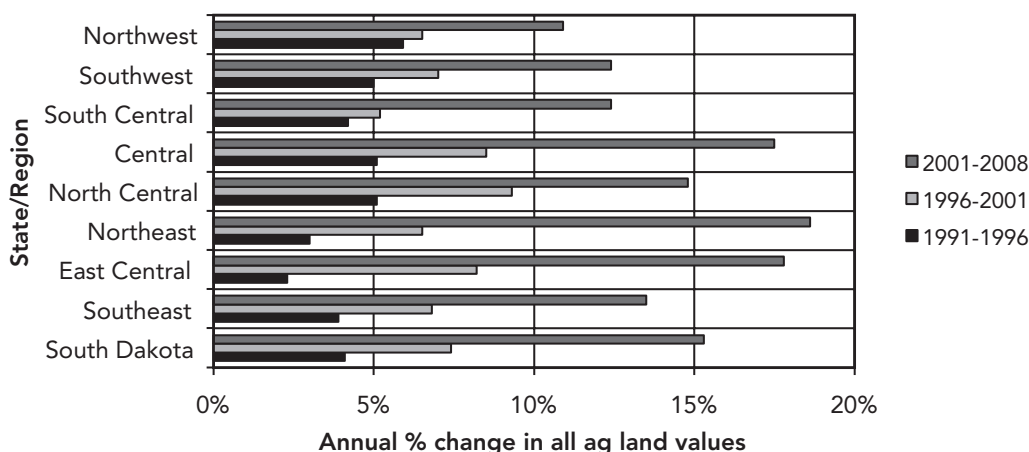
taxation in South Dakota. However, it is important to recall that the gross rate of return for each land use is calculated directly from gross cash rental rates and land values reported by the respondent, while the net rate of return for each land use is reported as a percentage by the respondent. If respondents varied in their method of estimating net returns (for example, share rent compared to cash rent) the results may differ substantially under current land market conditions. The reason for substantial differences is that returns based on share rents adjust more rapidly to changes (upward or downward) in yields and prices than traditional cash rents, which are fixed per year. Major increases in crop prices in 2007 would affect returns to share rents more than it would affect returns to cash rents.

Longer term perspective on farmland market changes, 1991 – 2008

Longer-term historical data from annual SDSU surveys of agricultural land values and cash rental rates in South Dakota from 1991 to 2008 are located in Appendix tables 2 and 3 of this report. Long-term trends in average annual cash rates of return are shown in figures 8a and 8b. Regional and statewide comparisons of annual percentage changes in all-agricultural land values in three periods (1991 to 1996, 1996 to 2001, and 2001 to 2008) are shown in figure 9.

Based on 18 years of examining trends in rates of return to agricultural land and trends in land values and cash rental rates by agricultural land use across regions and county clusters, a few key observations are offered.

Fig 9. Annual percentage change in all ag land values, 1991-1996, 1996-2001, and 2001-2008



First, gross rates of return (cash rent to land value ratio) for cropland, rangeland, and all-agricultural land declined slowly from 1991 to 2000 and more rapidly each year from 2001 to 2008. In all 18 years, average rates of return to cropland exceeded average rates of return to rangeland (figs. 8a and 8b). During the same time period, trends for net rates of return were similar, but more erratic, than trends in gross cash rates of return to land.

Second, considerable insight about impacts of federal policies on land values is gained by comparing annual rates of land increases for the three time periods. The first period, 1991 to 1996, reflects the impacts of the 1990 farm bill, continued recovery of the farm sector from the farm financial crisis of the mid-1980s, and long-term farm mortgage interest rates averaging 8 to 10%. The second period, 1996 to 2001, reflects the impacts of the 1996 farm bill and subsequent increases in federal farm program spending. However, there were no major changes in farm mortgage interest rates from the earlier period.

The third period, 2001 to 2008, reflects the impacts of major reductions in farm mortgage interest rates, continued farm program support, and relatively low rates of inflation until 2007. Finally, federal policy related to renewable fuels and the growing importance of ethanol production from corn has further

accelerated commodity prices and indirectly contributed to increased cash rental rates and land values.

Agricultural land values increased more rapidly in the 2001 to 2008 period than in the earlier periods (fig. 9). From 2001 to 2008, average annual increases in land values exceeded 10% in all regions of the state. From 1996 to 2001, average annual increases in land values were between 5 and 9%; from 1991 to 1996, the increases were generally less than 5%. The impacts of lower interest rates along with relatively low inflation rates overwhelmed the considerable impacts of federal farm programs on land values. Also, the rapid adoption of biotechnology, reduced tillage, and the development of soybean meal plants and ethanol plants in the past 10 years has increased per-acre returns to crop enterprises and enhanced land values.

Third, increases in agricultural land values from 1991 to 2000 were strongly supported by increases in cash rental rates. However, the declining rates of return from 2001 to 2007 indicate that cash rental rates increased at a slower rate than land values in this latter period. However, there was a major upward surge in both cash rental rates and land values from 2007 to 2008.

For example, South Dakota cropland cash rental rates increased an annual average rate of 5.8%

from 1996 to 2001, 5.5% from 2001 to 2007 and 15.2% from 2007 to 2008. However, cropland values increased at a similar rate to cropland cash rents (+6.6%) from 1996 to 2001, and accelerated to an annual average of 14.1% from 2001 to 2007 and further increased by 26% from 2007 to 2008.

The earlier time period (1996 to 2001) reflects the major impacts of farm program benefits on both cash rental rates and land values. The latter time period of 2001 to 2007 shows the much greater positive impact of reduced interest rates on land values compared to its impact on cash rental rates. From 2001 to 2007, the real estate market (including farmland) entered a speculative boom fueled by low interest rates and relatively low rates of general price inflation.

The rapid increase in South Dakota ethanol production has been another contributing factor and helps to explain why cropland values in eastern and central regions have been increasing at a faster rate than cropland values in western South Dakota. The more recent crop price boom (since late 2006) has provided another major boost to farm incomes, cropland cash rental rates, and land values.

Gross and net cash rates of cash return have reached the lower end of historical rates of return to agricultural land in South Dakota. From 2001 to 2007, farmland investors were in market conditions where most of the total returns were from expectations of capital appreciation instead of current cash returns. During the past and current year, expectations of rapidly increasing returns are further accelerating capital appreciation. This pattern of declining rates of cash return to land along with periodic boosts in returns also occurs during the latter stages of land market price booms.

Fourth, the more rapid increases in cash rental rates and land values since 1996 were directly related to crop price or government payment benefits that be-

came quickly capitalized into land rents and values. More recent increases in land values from 2001 to 2006 were strongly related to sharp declines in costs of borrowing money and many investors (including farmers) shifting some funds into real estate from stocks and bonds. These factors remain important, but the recent surge in crop prices has already led to substantial increases in cash rental rates and will continue to do so if recent commodity price levels are maintained.

Fifth, regional and county cluster rankings in per-acre land values are relatively stable for most land uses, reflecting fundamental differences in soil productivity and long-term weather patterns and relatively slow shifts in the economic structure of most counties in South Dakota. The greatest changes in land values are generally occurring near growing urban centers, in localities where commercial (fee) hunting has greatly increased, and in areas shifting from wheat and small grains to corn and soybeans.

Sixth, land values across counties and regions tend to move together over time but not at exactly the same time or at the same pace. A typical pattern is three to four years of rapid increases in land values, followed by one or two years of consolidation (or even declines), before the next surge in land values. The timing of the growth and consolidation phases are not identical across all regions and counties. Thus, a longer-term perspective on land value changes is warranted.

Finally, longer-term trends in agricultural land values show increases above the rate of price inflation in all regions. From 1991 to 2008, the average annual rate of general price inflation has been less than 3%. The statewide average annual rate of increase for all-agricultural land was 8.7% during this period, with regional variation from 7.7% in the south-central region to 10.3% in the east-central region (appendix table 2). Trends in land value changes by land use followed similar patterns.

Respondents' assessment of factors influencing farmland markets in South Dakota

Respondents were asked to list major positive and negative factors affecting the farm real estate market in their localities. These factors help explain changes in the amount of farmland for sale, sale prices, and rental rates. Eighty-four percent of respondents listed one or two positive reasons, while 68% listed one or two negative reasons.

High commodity prices, especially crop prices, was listed as a positive factor by 53% of respondents—the first time a majority of respondents listed a single factor. Low interest rates and high land prices/demand for land were each listed as positive factors by another 11% of respondents (fig. 10). Rising input costs, uncertain economy, outside investors, and high land prices were the four most common responses as negative factors. However, 11% of re-

spondents stated that there were no negative factors influencing current farmland markets (fig. 11).

Respondents continue to be divided in their assessment of investor interest in farm real estate and continued escalation of farmland prices. High demand for farmland was listed as a positive factor (8% of responses), while high land prices and cash rental rates were also cited as a negative factor (also 8% of responses). In 2008, investors (mostly non-local) were more often listed as a negative factor than a positive factor (figs. 10 and 11). The main concern is that outside investors are able to outbid local farmers for farmland.

Agricultural land market expectations: past and prospective

In each survey, respondents were asked to estimate the percentage change in land values during the previous year and to forecast percentage changes in land values for the forthcoming year. Nearly 70% of respondents provided their perception of previous year cropland value changes, compared to 65% for rangeland and hay. Only half of the respondents provided land value forecasts for next year.

During the past year, respondents' estimated percentage increases in land values averaged 18% for cropland and 14 to 15% for rangeland, pasture, and hayland. The median increase was 15% for cropland, 14% for hayland, and 12% for rangeland, compared to a median projected increase of 10% for all land uses in the three previous years. Most respondents (95 to 98% depending on land use) reported increases in land values during the previous 12 months and no one indicated farmland values had declined. Overall, respondent's perception of percentage increase in land values were somewhat lower than the actual percentage change based on reported land values in 2008 vs. 2007.

Fig 10. Positive factors in the farm real estate market

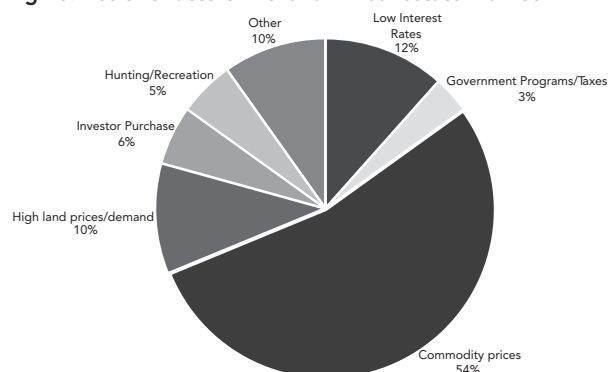
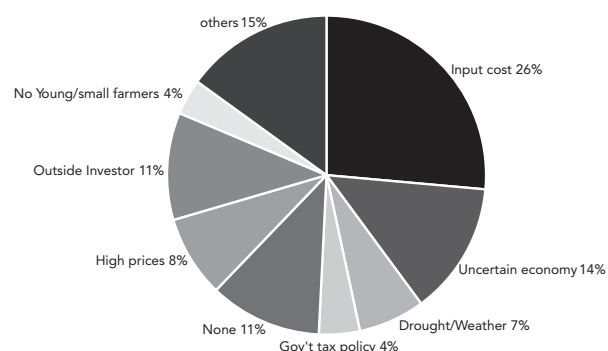


Fig 11 Negative factors in the farm real estate market



Almost all (98%) respondents providing forecasts expect land values to increase in the next 12 months, and no one projected a decline in per-acre land value. The median forecast percentage increase in land value is 10% for all land uses, with most responses between 5 and 20%.

In summary, respondents to the 2008 survey are very optimistic about further increases in farmland values, with no one predicting declines in land prices and very few predictions of declines in cash rental rates. Prospects of major increases in input expenses, possible increases in long-term interest rates, and growing concerns about future federal farm program legislation are not sufficient to change their optimistic outlook. Major increases in crop prices since 2006 and prospects for continued higher crop prices for the next few years is fueling this optimism. Recent increases in cash rental rates of 15 to 16% provide further confirmation.

Prospective buyers and investors enamored with relatively low interest rates and often perceiving higher prospective cash returns from crop/forage production for bio-energy sources are investing in farmland. In this speculative market situation, it may take considerable increases in general price inflation, interest rates, farm input prices, and farm price/production declines to lessen the upward pressures on land values.

List of references **

Federal Reserve Bank of Minneapolis. Agricultural Credit Conditions reports. <http://www.minneapolisfed.org/Research/data/district/>.

Hamda, Yonas; Burton Pflueger, and Larry Janssen. 2003. Historical and recent (1991-2003) trends in South Dakota's agricultural land market. EC 918. South Dakota State University, Brookings, SD. <http://agbiopubs.sdstate.edu/articles/EC918.pdf>.

Janssen, Larry. 1999. Agricultural land values in South Dakota: a comparison of two surveys. SDSU Econ Research Report 99-1. Brookings, SD.

Janssen, Larry and Xuan Xu. 2003. Farmland leasing in South Dakota. Ag Expt. Station Bulletin 739. South Dakota State University, Brookings, SD.

Janssen, Larry; Erik Gerlach and Burton Pflueger. 2005. South Dakota agricultural land market trends: 1991-2005. SDSU Ag. Expt. Station Circular 270. Brookings, SD. <http://agbiopubs.sdstate.edu/articles/C270.pdf>.

—. 2006. South Dakota farmland market trends, 1991-2006. SDSU Ag. Expt. Station Circular 271. Brookings, SD. <http://agbiopubs.sdstate.edu/articles/C271.pdf>.

—. 2007. South Dakota farmland market trends, 1991-2007. SDSU Ag. Expt. Station Circular 272. Brookings, SD. <http://agbiopubs.sdstate.edu/articles/C272.pdf>.

Pflueger, Burton. Crop cash lease agreements. Extension Extra 5063. South Dakota State University, 2007. <http://agbiopubs.sdstate.edu/articles/ExEx5063.pdf>.

—. Cash farm lease (short version). Extension Extra 5064. South Dakota State University, 2007. <http://agbiopubs.sdstate.edu/articles/ExEx5064.pdf>.

—. Crop Share Lease Agreements, Extension Extra 5065. South Dakota State University, 2007. <http://agbiopubs.sdstate.edu/articles/ExEx5065.pdf>.

—. Crop Share Farm Lease (Short Version) Extension Extra 5066. South Dakota State University, 2007. <http://agbiopubs.sdstate.edu/articles/ExEx5066.pdf>.

—. Flexible-Cash Lease Agreements. Extension Extra 5067. South Dakota State University, 2007. <http://agbiopubs.sdstate.edu/articles/ExEx5067.pdf>.

—. Flexible-cash farm lease (short version). Extension Extra 5068. South Dakota State University, 2007. <http://agbiopubs.sdstate.edu/articles/ExEx5068.pdf>.

—. Pasture lease agreements. Extension Extra 5071. South Dakota State University, 2007. <http://agbiopubs.sdstate.edu/articles/ExEx5071.pdf>.

—. Pasture lease (short version). Extension Extra 5072. South Dakota State University, 2007. <http://agbiopubs.sdstate.edu/articles/ExEx5072.pdf>.

South Dakota Agricultural Statistics Service. 2008. South Dakota 2008 county level land rents and values. Sioux Falls, SD.

South Dakota Bureau of Finance and Management. <http://www.state.sd.us/bfm/index.htm>.

U.S. Dept. of Agriculture. 2002 Census of Agriculture, South Dakota. 1.41.

** Reference citations for annual SDSU farm real estate survey reports for 1991 through 2004 are not listed above but can be found in the following reports. The annual reports for 1991 and 1992 were published as SDSU Economic Research Reports 91-3 and 92-1. The annual reports from 1993 to 2004 were published as SDSU Agricultural Experiment Station Circulars # 256, 257, 258, 259, 260, 262, 263, 264, 266, 267, 268 and 269. Dr. Janssen and Dr. Pflueger, often in collaboration with an SDSU Economics student, were the co-authors of each annual report.

Appendix I: Survey methods and respondent characteristics

The primary purpose of the 2008 South Dakota Farm Real Estate Market Survey was to obtain regional and statewide information on 1) 2008 per-acre agricultural land values by land use and land productivity and 2) 2008 cash rental rates by agricultural land use and land productivity. In addition, we obtained respondents' assessments of positive and negative factors influencing their local farm real estate market and motivations for buyer/seller decisions.

Copies of this survey were mailed to potential respondents on February 14, with a follow-up mailing on March 11. Potential respondents were persons employed in one of the following occupations: 1) agricultural lenders (senior agricultural loan officers of commercial banks or Farm Credit Service), 2) loan officers or county directors of the USDA Farm Service Agency (FSA), 3) Cooperative Extension Service agricultural educators and area farm management specialists, and 4) licensed appraisers and assessors. Some appraisers were also realtors or professional farm managers, while some lenders were also appraisers.

Respondents were asked to report land values and

cash rental rate information for nonirrigated cropland, hayland, rangeland, improved pasture, and irrigated land in their locality. About 30% of respondents provided information for two or more counties, while 70% reported information for one county.

Six-hundred-twenty-five people were contacted, and the total response rate was 40%. The useable survey response rate was 37%. The distribution of 231 respondents by location and reported occupation is shown in Appendix table 1. Five-eighths of Farm Service Agency officials, 45% of licensed appraisers and Extension educators, and 30% of assessors and agricultural lenders contacted provided usable responses. Sixty-one percent of respondents are agricultural lenders or FSA officials.

Fifty-five percent of the respondents were from the three eastern regions of South Dakota, 25% were from the central and north-central regions of South Dakota, and 20% were from south-central and western regions of South Dakota. Compared to recent years, fewer respondents reported from regions west of the Missouri River.

Most respondents were able to supply land value and cash rental rate information for nonirrigated cropland, rangeland, and hayland in their locality. Only one-fourth of respondents reported cash rental rates per AUM on rangeland, and more than one-third provided information on irrigated rental rates and land values, although very few replies were received from the three regions west of the Missouri River.

Regional average land values by land use are simple average (mean) values of usable responses. Statewide average land values by land use are weighted by the relative number of acres in each region in the same land use. All-agricultural land values, regional and statewide, are weighted by the proportion of acres in each agricultural land use. Thus all-agricultural land values in this report are weighted average values by region and land use. This weighted aver-

age approach is analogous to the cost (inventory) approach of estimating farmland values in rural land appraisal.

This approach has important implications in the derivation of statewide average land values and regional all-land values. For example, the two western regions of South Dakota with the lowest average land values have nearly 61% of the state's rangeland acres, 39% of all-agricultural land acres, and only 16% of cropland acres. Our approach increases the relative importance of western South Dakota land values in the final computations and results in lower statewide average land values.

The weighting factors used to develop statewide average land values were based on estimates of agricultural land use for privately owned nonirrigated farmland in South Dakota. It excludes agricultural land (mostly rangeland) leased from tribal or fed-

eral agencies, which is mostly located in the western and central regions of the state. Irrigated land is also excluded from regional and statewide all-land values.

The land-use weighting factors were developed from county-level data in the 2002 South Dakota Census of Agriculture and other sources.

Regional average rental rates by land use are simple average (mean) values of useable responses. Statewide average cash rental rates for each land use are weighted by 1) the relative number of acres in each land use and 2) the proportion of farmland acres leased in each region based on 2002 Census of Agriculture data.

Appendix Table 1. Selected characteristics of respondents, 2008.

Number of respondents = 231					
Respondents:					
<i>Reporting location</i>	N	%	<i>Primary Occupation</i>	N	%
Southeast	42	18.2%	Banker/loan officer	103	44.8%
East-Central	52	22.5%	Farm Service Agency	37	16.1%
Northeast	33	14.3%	Assessor	20	8.7%
North-Central	31	13.4%	Appraiser/realtor	38	16.5%
Central	26	11.3%	Extension educators	32	13.9%
South-Central	16	6.9%		230	100.0%
Southwest	16	6.9%			
Northwest	15	6.5%			
	231	100.0%			
Response rates:					
<i>Land values</i>	N	%	<i>Cash Rental Rates</i>	N	%
Nonirrigated cropland	227	98.3%	Nonirrigated cropland	217	93.9%
Irrigated cropland	90	39.0%	Irrigated cropland	80	34.6%
Hayland	184	79.7%	Hayland	169	73.2%
Rangeland (native)	199	86.1%	Rangeland (acre)	186	80.5%
Pastureland (tame)	151	65.4%	Rangeland (AUM)	57	24.7%

Source: 2008 South Dakota Farm Real Estate Market Survey

Appendix II. Historical data on agricultural land values and cash rental rates by land use by region, South Dakota, 1991–2008

Appendix Table 2. Average reported value and annual percentage change in value of South Dakota agricultural land by type of land by region, 1991-2008.

Type of Land	South-east	East Central	North-east	North Central	Central	South Central	South-west	North-west	STATE
All Agricultural Land (nonirrigated)									
	dollars per acre								
Average value, 2008	2168	2473	1714	1179	1152	642	378	295	1041
Average value, 2007	1768	1946	1422	945	899	521	322	285	850
Average value, 2006	1583	1643	1174	849	803	462	286	256	743
Average value, 2005	1372	1427	1029	736	711	414	275	211	650
Average Value, 2004	1147	1162	779	629	594	377	223	192	541
Average value, 2003	1017	903	641	549	522	309	200	177	461
Average value, 2002	930	875	560	501	424	313	202	150	421
Average value, 2001	893	785	519	450	373	284	167	143	384
Average value, 2000	794	673	492	404	352	286	167	131	352
Average value, 1999	740	644	452	378	345	273	166	122	331
Average value, 1998	772	610	452	353	346	280	155	117	328
Average value, 1997	665	591	432	323	302	241	139	111	298
Average value, 1996	643	522	414	294	296	217	126	115	280
Average value, 1995	633	473	419	279	264	222	130	103	268
Average value, 1994	567	497	393	293	255	191	112	94	250
Average value, 1993	548	498	399	254	233	199	111	90	241
Average value, 1992	519	474	368	259	223	186	104	89	231
Average value, 1991	526	466	362	227	225	177	97	84	223
Av annual % change 08/91	8.7%	10.3%	9.6%	10.2%	10.1%	7.9%	8.3%	7.7%	9.5%
Annual % change 08/07	22.6%	27.1%	20.5%	24.8%	28.1%	23.2%	17.4%	3.5%	22.5%
Nonirrigated Cropland									
	dollars per acre								
Average value, 2008	2510	2894	2076	1532	1450	904	502	399	1733
Average value, 2007	1999	2244	1762	1187	1086	702	426	367	1375
Average value, 2006	1817	1914	1448	1088	986	612	387	342	1211
Average Value, 2005	1556	1659	1255	967	871	568	383	316	1064
Average Value, 2004	1315	1346	973	822	705	541	318	294	882
Average value, 2003	1156	1040	793	716	631	443	290	281	743
Average value, 2002	1057	1019	691	665	524	445	311	244	684
Average value, 2001	1023	911	652	592	456	423	245	223	626
Average value, 2000	910	785	620	520	436	417	248	208	567
Average value, 1999	866	756	565	488	435	402	246	202	534
Average value, 1998	903	728	564	452	434	399	241	200	534
Average value, 1997	777	699	535	412	386	348	217	188	486
Average value, 1996	751	613	514	372	371	317	214	191	455
Average value, 1995	732	555	522	353	332	326	237	185	437
Average value, 1994	661	590	488	382	331	289	218	169	426
Average value, 1993	655	595	497	326	305	302	197	163	412
Average value, 1992	616	574	460	342	300	287	196	167	400
Average value, 1991	623	554	450	294	300	272	185	153	384
Av annual % change 08/91	8.5%	10.2%	9.4%	10.2%	9.7%	7.3%	6.0%	5.8%	9.3%
Annual % change 08/07	25.6%	29.0%	17.8%	29.1%	33.5%	28.8%	17.8%	8.7%	26.0%

Source: South Dakota Farm Real Estate Market Surveys, SDSU, 2008 and earlier.
Statewide values by land use are based on 2002 regional land use weights

Appendix Table 2. (continued)

Type of Land	South-east	East Central	North-east	North Central	Central	South Central	South-west	North-west	STATE
Rangeland (native)									
	dollars per acre								
Average value, 2008	1239	1539	1100	714	836	544	339	271	508
Average value, 2007	1073	1293	889	634	708	448	295	265	448
Average value, 2006	925	1055	751	548	599	397	255	234	386
Average value, 2005	781	844	667	458	552	346	241	185	332
Average value, 2004	684	764	465	396	456	312	196	167	283
Average value, 2003	609	580	389	345	397	257	176	153	246
Average value, 2002	538	543	353	297	325	260	172	127	221
Average value, 2001	488	478	315	270	284	232	143	124	198
Average value, 2000	456	417	297	253	265	235	143	111	187
Average value, 1999	405	386	276	241	255	220	143	102	177
Average value, 1998	408	346	274	226	256	231	130	98	172
Average value, 1997	364	354	268	204	214	197	116	92	155
Average value, 1996	336	311	250	194	214	177	100	97	147
Average value, 1995	354	303	247	184	197	180	101	83	140
Average value, 1994	319	283	228	184	190	149	85	80	128
Average value, 1993	283	276	232	169	175	157	89	76	125
Average value, 1992	271	267	209	163	159	145	80	74	117
Average value, 1991	268	271	205	147	163	137	74	69	112
Av annual % change 08/91	9.4%	10.8%	10.4%	9.7%	10.1%	8.4%	9.4%	8.4%	9.3%
Annual % change 08/07	15.5%	19.0%	23.7%	12.6%	18.1%	21.4%	14.9%	2.3%	13.4%
Pasture (tame, improved)									
	dollars per acre								
Average value, 2008	1365	1675	1304	795	943	571	384	307	809
Average value, 2007	1167	1461	987	698	760	524	303	297	684
Average value, 2006	1085	1166	843	598	711	425	283	282	596
Average value, 2005	937	1018	730	465	610	397	291	227	519
Average value, 2004	754	818	517	424	518	337	217	198	420
Average value, 2003	683	710	448	389	493	294	191	163	372
Average value, 2002	639	607	391	327	345	287	193	156	327
Average value, 2001	564	522	342	301	332	258	176	153	297
Average value, 2000	516	481	334	289	303	268	167	144	279
Average value, 1999	453	437	314	266	290	240	161	125	256
Average value, 1998	461	406	297	264	302	272	161	120	254
Average value, 1997	416	373	299	236	265	222	138	114	230
Average value, 1996	379	358	279	231	258	188	127	115	217
Average value, 1995	385	346	262	218	214	214	117	102	206
Average value, 1994	371	335	251	200	224	194	109	93	196
Average value, 1993	326	333	249	194	194	193	104	98	188
Average value, 1992	328	306	257	194	190	176	100	88	182
Average value, 1991	315	325	252	170	199	163	92	94	179
Av annual % change 08/91	9.0%	10.1%	10.2%	9.5%	9.6%	7.7%	8.8%	7.2%	9.3%
Annual % change 08/07	17.0%	14.6%	32.1%	13.9%	24.1%	9.0%	26.7%	3.4%	18.3%
Hayland									
	dollars per acre								
Average value, 2008	1871	2127	1347	939	1050	649	450	334	1079
Average value, 2007	1659	1637	1028	750	815	525	356	327	875
Average value, 2006	1383	1371	831	640	758	499	346	300	758
Average value, 2005	1312	1203	780	515	612	451	324	270	675
Average value, 2004	1008	992	586	432	516	391	265	245	549
Average value, 2003	932	770	488	379	486	310	228	227	474
Average value, 2002	863	770	412	352	375	325	238	204	439
Average value, 2001	844	735	359	332	337	281	201	181	406
Average value, 2000	722	577	330	317	310	293	203	175	365
Average value, 1999	619	562	317	278	293	294	194	163	340
Average value, 1998	668	504	330	265	295	291	178	149	335
Average value, 1997	553	507	316	262	253	258	169	150	307
Average value, 1996	568	451	314	219	273	232	156	146	293
Average value, 1995	562	365	336	213	229	230	164	145	279
Average value, 1994	489	409	279	235	237	204	137	124	263
Average value, 1993	435	398	275	188	205	204	140	121	244
Average value, 1992	416	336	237	179	197	193	135	119	226
Average value, 1991	461	358	252	169	190	197	126	122	233
Av annual % change 08/91	8.6%	11.1%	10.4%	10.6%	10.6%	7.3%	7.8%	6.1%	9.4%
Annual % change 08/07	12.8%	29.9%	31.0%	25.2%	28.8%	23.6%	26.4%	2.1%	23.3%

Appendix Table 3. Reported cash rental rates of South Dakota agricultural land by type of land by region, 1991-2008.

Type of Land	Southeast	East Central	Northeast	North Central	Central	South Central	Southwest	Northwest	STATE
Nonirrigated Cropland	dollars per acre								
Average 2008 rate	101.90	109.00	87.80	65.70	62.10	37.05	24.50	24.20	74.70
Average 2007 rate	92.30	91.65	77.85	56.75	48.95	32.70	23.35	21.80	64.80
Average 2006 rate	89.25	82.60	70.50	53.85	46.35	34.00	24.70	21.45	60.95
Average 2005 rate	87.20	82.6	65.70	49.40	45.80	31.50	24.90	22.90	58.90
Average 2004 rate	83.70	78.80	64.50	47.60	43.40	34.10	23.10	21.40	56.80
Average 2003 rate	78.80	74.70	59.50	44.90	40.60	29.20	22.00	21.00	53.25
Average 2002 rate	76.50	69.80	57.50	42.20	35.95	29.40	22.60	20.40	50.65
Average 2001 rate	72.95	64.60	52.20	37.80	35.30	27.20	20.10	17.50	47.00
Average 2000 rate	67.50	56.40	49.30	36.20	31.90	30.00	18.70	18.70	43.70
Average 1999 rate	63.20	56.00	46.20	36.00	33.20	27.00	19.50	16.90	42.30
Average 1998 rate	65.20	55.00	45.30	34.70	30.90	25.90	19.00	17.90	41.75
Average 1997 rate	57.40	49.20	44.70	32.70	29.30	23.60	19.10	19.30	38.70
Average 1996 rate	54.70	45.30	41.50	28.70	26.30	21.60	17.00	16.00	35.50
Average 1995 rate	52.50	42.10	40.40	27.60	25.10	21.00	17.60	15.90	34.05
Average 1994 rate	51.90	45.10	40.30	29.80	25.00	22.10	17.60	14.90	34.85
Average 1993 rate	51.80	47.10	40.30	26.60	24.20	22.80	16.60	14.60	34.40
Average 1992 rate	48.00	45.70	39.70	25.50	22.70	21.40	17.70	15.10	33.00
Average 1991 rate	49.30	43.20	38.50	24.50	23.20	22.20	15.90	13.50	32.40
Hayland									
Average 2008 rate	81.70	80.90	50.80	42.60	38.40	28.00	17.75	20.00	47.40
Average 2007 rate	74.00	67.55	47.40	34.25	31.35	25.70	18.80	18.40	41.60
Average 2006 rate	72.90	60.50	40.20	30.20	34.60	27.30	19.55	18.15	39.80
Average 2005 rate	71.60	56.40	38.70	28.90	29.80	22.20	17.60	18.80	37.20
Average 2004 rate	68.50	53.40	36.80	27.10	28.40	24.80	18.50	17.70	36.05
Average 2003 rate	67.20	49.40	34.60	26.20	27.50	19.80	17.80	19.80	34.15
Average 2002 rate	63.70	49.20	31.00	23.40	21.10	20.40	15.50	17.50	31.70
Average 2001 rate	61.20	47.60	28.90	21.00	23.30	18.10	15.90	14.70	30.20
Average 2000 rate	57.80	40.10	28.80	20.30	21.10	19.40	15.10	14.30	28.4
Average 1999 rate	48.50	40.10	22.80	20.40	20.60	19.60	14.80	15.40	26.40
Average 1998 rate	51.40	40.50	24.60	19.40	20.90	18.90	14.20	13.60	27.10
Average 1997 rate	46.10	36.80	28.20	18.70	19.90	16.70	14.90	14.60	25.40
Average 1996 rate	41.50	32.30	26.00	17.00	18.60	15.20	12.60	11.20	22.70
Average 1995 rate	43.80	28.20	25.30	16.70	16.10	14.90	11.10	11.10	21.90
Average 1994 rate	39.50	31.40	23.60	17.00	17.80	15.50	11.90	11.30	21.90
Average 1993 rate	35.60	32.10	22.00	14.70	16.40	16.00	11.30	9.50	20.60
Average 1992 rate	33.30	25.90	20.00	14.20	15.60	15.60	11.40	12.10	19.20
Average 1991 rate	38.50	30.90	22.30	14.20	15.70	14.80	12.10	10.40	20.70

Source: South Dakota Farm Real Estate Market Surveys, SDSU, 2008 and earlier year reports.
Statewide rental rates based on 2002 land use weights

Appendix Table 3. (continued)

Type of Land	Southeast	East Central	Northeast	North Central	Central	South Central	Southwest	Northwest	STATE
Pasture/Rangeland	dollars per acre								
Average 2008 rate	45.60	47.15	38.30	31.30	32.25	17.90	10.75	11.00	18.50
Average 2007 rate	44.00	42.80	34.95	28.50	26.85	16.90	11.60	9.95	17.10
Average 2006 rate	42.10	40.00	31.35	25.90	26.30	19.60	10.70	9.25	16.50
Average 2005 rate	40.55	36.05	29.80	24.60	24.95	14.85	10.70	9.75	15.60
Average 2004 rate	37.40	35.90	27.20	22.20	23.90	17.30	10.00	7.90	14.60
Average 2003 rate	35.20	32.40	25.30	20.30	23.00	16.40	8.60	7.70	13.65
Average 2002 rate	33.70	32.00	23.70	18.70	19.70	15.60	8.90	7.20	12.90
Average 2001 rate	30.90	30.40	21.00	17.50	20.80	12.90	8.60	6.60	11.95
Average 2000 rate	31.00	26.80	20.60	17.40	18.50	15.40	8.00	6.80	11.95
Average 1999 rate	26.80	24.80	19.70	16.60	17.80	14.70	7.70	6.20	11.20
Average 1998 rate	28.10	24.40	19.40	16.40	17.50	14.90	7.30	6.70	11.30
Average 1997 rate	25.70	23.60	19.50	15.20	16.80	13.00	6.60	6.80	10.70
Average 1996 rate	21.20	22.10	18.80	14.70	16.30	12.00	5.60	6.10	9.80
Average 1995 rate	21.90	21.60	18.60	14.90	14.80	11.20	6.10	6.30	9.75
Average 1994 rate	20.30	20.90	18.60	13.40	16.30	11.20	5.40	5.60	9.25
Average 1993 rate	20.30	20.10	17.00	12.70	15.20	10.10	5.60	5.10	8.70
Average 1992 rate	18.00	19.60	16.50	12.00	13.50	9.50	5.30	4.90	8.20
Average 1991 rate	19.20	18.60	16.30	12.50	13.80	9.90	5.30	4.40	8.10
dollars per Animal Unit Month									
Average 2008 rate	29.80	***	***	27.70	27.80	26.90	25.20	21.00	
Average 2007 rate	22.70	***	26.50	27.00	25.40	23.80	24.30	21.90	
Average 2006 rate	25.15	26.00	25.25	23.10	24.45	24.45	24.15	20.85	
Average 2005 rate	21.45	21.10	23.75	22.40	20.60	23.20	22.30	19.45	
Average 2004 rate	21.3	***	***	21.10	24.00	23.60	21.90	19.80	
Average 2003 rate	20.30	***	***	20.40	20.40	21.50	19.90	19.30	
Average 2002 rate	20.70	18.00	17.70	16.30	16.30	21.20	19.10	17.60	
Average 2001 rate	20.00	21.00	18.60	16.80	17.40	19.80	17.80	15.75	
Average 2000 rate	18.70	17.90	19.80	15.50	17.40	19.20	16.20	16.70	
Average 1999 rate	18.50	15.80	18.80	15.40	16.30	18.50	16.50	16.40	
Average 1998 rate	16.00	19.00	17.70	15.00	19.80	19.10	16.10	16.30	
Average 1997 rate	17.60	18.00	16.20	13.40	17.00	17.30	15.90	16.10	
Average 1996 rate	17.50	16.70	15.60	14.70	16.30	16.60	16.40	16.20	
Average 1995 rate	17.30	16.70	13.60	15.00	16.10	16.80	16.40	15.50	
Average 1994 rate	15.40	15.00	15.60	14.80	16.50	17.00	15.60	16.50	
Average 1993 rate	15.60	13.90	14.25	13.25	14.90	16.40	15.40	14.50	
Average 1992 rate	15.40	14.50	12.50	13.10	15.50	15.90	14.00	15.00	
Average 1991 rate	13.70	15.90	15.50	12.80	14.80	15.20	14.30	13.00	

*** Insufficient number of reports

Source: South Dakota Farm Real Estate Market Surveys, SDSU, 2008 and earlier year reports.