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# South Dakota Agricultural Land Market Trends 1991-2015

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## Recommended Citation

Janssen, Larry; Davis, Jack; and Inkoom, Sarah Adams, "South Dakota Agricultural Land Market Trends 1991-2015" (2015).  
*Agricultural Experiment Station Circulars*. Paper 335.  
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MAY 2015

# South Dakota Agricultural Land Market Trends 1991–2015

Results from the 2015 SDSU  
South Dakota Farm Real Estate Survey

Dr. Larry Janssen, Mr. Jack Davis, and Ms. Sarah Adams Inkoom

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

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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 2015 SDSU South Dakota Farm Real Estate Market Survey, the 25th 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. Matt Elliott, Assistant Professor of Economics, and Dr. Shannon Sands, SDSU Extension farm management specialist, Michelle Cartney, University Marketing and Communications, SDSU.

Special thanks goes to Penny Stover, Economic Dept. secretary, for carefully reviewing the tables and figures in this manuscript. Penny also develops and maintains the mailing lists and assists with many survey and publication related tasks. Also, thanks to Sarah Adams Inkoom, Economics graduate research assistant and co-author, for conducting many daily tasks related to the survey, drafting updated charts and tables, and writing some sections of this report.

Mr. Jack Davis, Extension agricultural specialist, has joined this land market project as a co-author and plans to develop educational outreach programs related to agricultural land markets.

We wish to thank all of the respondents who participated in the 2015 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.

General funding for this project is from the SDSU Agricultural Experiment Station project H-207: Economic analysis of agricultural land conservation, land use, and land market changes in South Dakota. Additional funds were provided from the SDSU Extension - Dept. of Economics and from the SDSU Foundation - Farm Credit Services of America Fund for Excellence.

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# SUMMARY

The 2015 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.

- Agricultural land value changes in the past year reflect the sharp declines in crop prices and returns compared to record prices and returns for beef cattle.

During the past year (from 2014 to 2015), all-agricultural land values increased 1.4%, compared to an increase of 6.1% from 2013 to 2014 and increases varying from 16.5% to 33.6% in the three previous years. Cropland values declined 4.8% this past year compared to an increase of 5.4% from 2013 to 2014 and annual increases varying from 17.7% to 37.8% in the prior three years. Rangeland and pasture values continued to increase at double-digit rates which was above the increases of 7.9% and 4.0%, respectively, from 2013 to 2014 and similar to the double-digit rates from 2010 to 2013.

- Cash rental rates for cropland and hay land declined statewide and in several regions, while cash rental rates for pasture / rangeland increased. Statewide, from 2014 to 2015, average cash rental rates per-acre decreased \$5.00 for cropland and \$2.25 for hay land, and increased \$3.00 for rangeland. Cash rental rates for all land uses increased in western South Dakota and decreased or held steady in the southeast region. Cropland cash rental rates declined in all regions east of the Missouri River, while pasture / rangeland cash rental rates increased in almost all regions of South Dakota
- Current average rates of cash return on agricultural land in South Dakota remain very low.

For 2014 the average ratio of gross cash rent to current land value was 2.9% for all-agricultural land, 3.4% for cropland, and 2.6% for rangeland. During the 1990s, the same ratios were 7.4% for all agricultural land, 8.0% for cropland, and 6.8% for rangeland.

- 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 non-irrigated cropland, hay land, 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 non-irrigated agricultural land (as of Feb. 2015) in South Dakota is \$2,505 per-acre. Non-irrigated agricultural land varies from \$5,186 per-acre in the east-central to \$737 per-acre in the northwest region. Average non-irrigated cropland values per-acre vary from \$6,329 in the east-central to \$3,895 in the central and \$1,193 in the northwest region.

Average rangeland values vary from \$2,727 per-acre in the east-central to \$630 per-acre in the northwest. Within each region, differences in land productivity and land use account for substantial differences in per-acre values.

The highest non-irrigated cropland values and cash rental rates continue to occur in the Minnehaha-Moody county cluster where the average value of cropland in 2015 is \$7,837 per-acre and average cash rental rate for cropland is \$244 per-acre. Cropland values average \$7,138 per-acre and cropland cash rental rates average \$240 per-acre in the Clay-Lincoln-Turner-Union county cluster.

At the regional level, average cash rental rates per-acre for non-irrigated cropland in 2015 vary from \$204 in the east-central region to \$43.60 in the southwest region. Average rangeland and pasture rental rates vary from \$76.50 per-acre in the east-central region to \$18.30 per-acre in the southwest region.

- The longer-term trends in land values, cash rental rates, and cash rates of return are closely related to key economic factors affecting



demand for agricultural land. These demand factors include economies of size, net farm income, agricultural productivity, and land as an investment. Specific factors important in South Dakota include:

1. Technology changes in agriculture that expanded the geographic range of corn and soybean production, along with rapid development of ethanol production in South Dakota.
2. Sharp declines in farm mortgage interest rates from early 2001 to late 2004 and continued relatively low mortgage interest rates.
3. General economic conditions of low inflation rates in most years.
4. Persistence of farm expansion, via land purchase or leasing, as the major response to pervasive economies of size in production agriculture.
5. Substantial increase in use of crop insurance for yield or revenue protection along with other federal farm program provisions.

From 1991 to 2014, agricultural land values increased more rapidly than the rate of general price inflation in all regions of South Dakota. Continued increases in cash rental rates provided underlying support for increases in land values. These basic economic factors, along with relatively low mortgage interest rates, attract interest in farmland purchases by investors and by farmers expanding their operations. During the past year, 2014 to 2015, land values and cash rental rates by land use were greatly affected by the sharp declines in crop prices in contrast to record high beef cattle prices.

- Farm expansion and investment potential continue to be cited as the major reasons for purchasing farmland. The major reasons for selling farmland are realizing gains from high sale prices, settling estates, and retirement from farming.

Low mortgage interest rates, high livestock prices, and relatively good crop yields were the three most cited positive factors in the farmland market. Declining crop prices, especially for corn and soybeans, dominated the negative factors influencing the farm real estate market. Rising input costs and economic uncertainty, including interest rate risks, were other negative factors.

- The booming market psychology of recent years, especially for cropland, has been replaced by concern on adjusting cash rents and land purchase prices to declining crop prices and lower prospective returns. Respondents continue to remain more optimistic about rangeland markets.

More than half of respondents forecast decreases in cropland values for next year, while one-half of respondents forecast increases in rangeland values. Among respondents forecasting changes, the ratio of positive to negative forecasts is 1:3 for cropland compared to 3:1 for rangeland values. There is a lot of concern that cropland values and cash rental rates will decline further, while rangeland values and cash rental rate forecasts assume continued optimistic conditions.

# South Dakota Agricultural Land Market Trends 1991–2014

Dr. Larry Janssen, Mr. Jack Davis, and Ms. Sarah Adams Inkoom<sup>1</sup>

The 2015 SDSU Farm Real Estate Market Survey is the 25th 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 2015 estimates are based on reports from 185 responses<sup>2</sup> to the 2015 SDSU survey. Responses are from agricultural lenders, Farm Service Agency officials, rural appraisers, assessors, realtors, professional farm managers, and Extension field specialists. All are familiar with farm real estate market trends in their localities. The number of responses for 2015 are the lowest total responses during the past 25 years.

Copies of the SDSU survey were mailed in February and March 2015. The surveys requested information on cash rental rates and agricultural land values as of February 2015. Response characteristics and estimation procedures are discussed in Appendix I.

Results are presented in a format similar to SDSU farmland market reports published in prior years from 1991 to 2014. Regional information on land values and cash rents by land use (crop, hay, range, and pasture)<sup>3</sup> 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.

Most renters, buyers, and sellers of farmland continue to be local area residents, although there is considerable outside interest in recent years. Land

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<sup>1</sup> Janssen is a professor of economics, South Dakota State University with teaching and research responsibilities in farmland markets and appraisal, economic development, and research methodology. Davis is an Extension agricultural specialist located in Mitchell, SD. Ms. Adams Inkoom is an Economics graduate research assistant working on this project.

<sup>2</sup> Responses are the number of survey schedules completed for one or two counties. A growing number of respondents completed separate survey schedules for different counties. Each completed survey schedule was treated as a survey response. More details are provided in Appendix I.

<sup>3</sup> 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. Irrigated crop / hay land values and cash rental rates are also reported in selected regions. These major land uses comprise nearly 98% of privately owned land in farms in South Dakota (Janssen, 1999).

market trends are influenced by changing conditions in agriculture and in the general economy and strongly influenced by land market participants' expectations of future trends and availability of debt or equity financing.

## **SOUTH DAKOTA AGRICULTURAL ECONOMIC CONDITIONS**

The agricultural commodity price trends continue to be a major economic factor influencing South Dakota agricultural land market conditions in recent years. From 2012 to 2014 cash prices received for corn decreased approximately 50%, while farm-level soybean and wheat prices each decreased more than 25%. In contrast, the price for calves doubled during this time period. Input costs have held steady or continued to increase which has resulted in decreasing crop production margins. As a consequence, South Dakota crop farmers and ranchers have experienced different changes in net farm incomes. The reduction in crop production margins and the increased incomes of cattle producers is reflected in this year's demand for pasture, hay, and rangeland. (USDA-NASS).

Favorable weather conditions and record crop yields in 2014 caused grain commodity prices to continue their retreat from the highs of 2012. From August 2012 to August 2014, farm-level corn prices decreased more than 50%, soybeans fell approximately 23%, and wheat was off more than 25%. Cattle prices, however, continued to make gains throughout 2014 with calf prices \$900/hd higher than in 2012. If the crop production profit margin continues to decline cropland values could see continued decreases into 2015 and beyond. However, if feeder cattle prices remain high, strong demand for pasture, hay and rangeland may continue which will positively influence land values and cash rents for these land uses. This year's survey results are a reflection of the two agricultural economies, crop and livestock, with some districts reporting decreased cropland values while most districts experience increasing pasture, hay, and rangeland values.

A positive factor influencing farmland and cash rent values has been recent agricultural credit conditions. According to the Minneapolis Federal Reserve (Agricultural Credit Conditions Survey, December 2014), farm mortgage interest rates remain low –

generally less than 5.1% for fixed term loans and 4.7% for variable rate loans. Surveyed lenders expect renewals and collateral requirements to remain unchanged in 2015, while farm incomes and capital spending decreased in 2014.

South Dakota's economy has continued to recover from the national recession with unemployment rates declining from 5.2% in January 2010 to 3.5% in March 2015. Personal income in the state slowed to a growth rate of 1.7%. The farm earnings declines have contributed to this relatively slow personal income growth. Further information about the South Dakota general economy can be obtained from the U.S. Dept. of Commerce – Bureau of Economic Analysis and U.S. Dept. of Labor – Bureau of Labor Statistics.

## **SOUTH DAKOTA AGRICULTURAL LAND VALUES, 2015**

### **Procedures to estimate and report land values**

Respondents to the 2015 South Dakota Farm Real Estate Market Survey estimated the per-acre value of non-irrigated cropland, hay land, rangeland, tame pastureland, and irrigated land in their county and the percent change in value from the previous year. Responses for non-irrigated land uses are grouped into eight agricultural regions (figure1). 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.

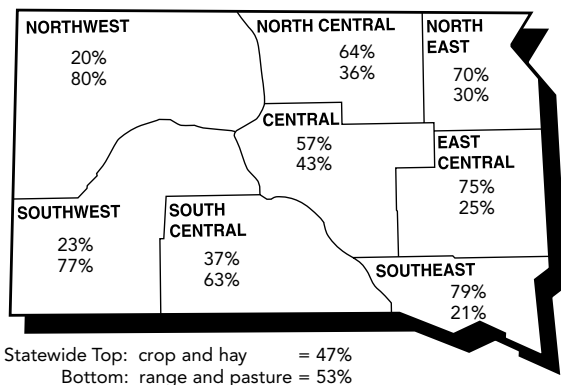
Irrigated land is only one percent of farmland acres in South Dakota. Responses for irrigated land values and rental rates are only reported in regions where a sufficient number of reports are available. Irrigated land values and cash rents from the south-central, southwest, and northwest regions are reported as the "western" region.

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 (non-irrigated land) value estimates are weighted

averages based on the relative acreage and value of each non-irrigated 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 non-irrigated 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 and most of the remainder is tame pasture or hay. Native rangeland is the dominant land use in western South Dakota, while most agricultural land in eastern South Dakota is non-irrigated cropland or hay (figure 1).

Statewide, an estimated 47% of privately owned farmland acres are cropland or hay land and 53% is rangeland or tame pasture (figure 1). In summary, statewide cropland values are greatly influenced by values estimated in the north-central and three eastern regions, while statewide rangeland values are heavily influenced by values reported in regions west of the Missouri River. The reduced number of



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

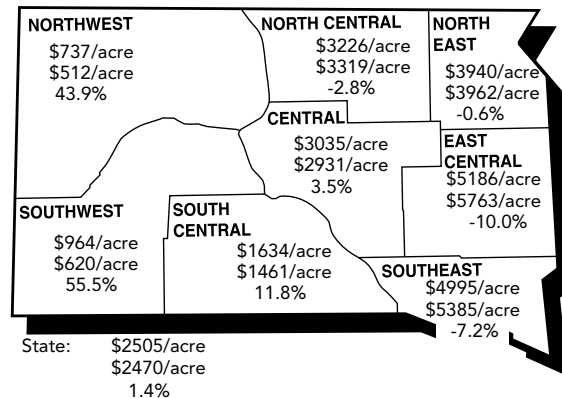
Source: Compiled from land use data in 2002 Census of Agriculture and related surveys

responses in the three regions west of the Missouri River (south-central, southwest and northwest) continues to make it difficult to provide land value and cash rental rate estimates in these regions.<sup>4</sup>

## All-agricultural land value estimates, 2015

All-land value estimates for 2015 reflect the divergence in the crop and livestock (beef cattle) prices and returns that prevail this past year. Land value declines have occurred in the cropland intensive eastern regions while substantial (double-digits) increases are shown for rangeland intensive regions west of the Missouri River.

As of February 2015, the average value of all-agricultural land in South Dakota was \$2,505 per-acre, a 1.4% increase in value from February 2014 (figure 2 and table 1). The five regions east of the Missouri River had percentage changes varying from negative 10% in the east-central to + 3.5% in the central region. West of the Missouri River, percentage increases varied from 11.8% in the south central to a phenomenal 55.5% in the southwest region.



**Figure 2. Average value of South Dakota agricultural land, February, 2014 and 2015, and percent change from one year ago.**

Regional and statewide average values of agricultural land are the weighted averages of dollar value per acre and percent change by proportion of acres of each non-irrigated land use by region.

Top: Average per-acre value – February 1, 2015  
 Middle: Average per-acre value – February 1, 2014  
 Bottom: Annual percent change in per-acre land value

Source: 2015 South Dakota Farm Real Estate Market Survey, SDSU.

<sup>4</sup> In 2015, there were no land market reports from three counties located in western and south-central South Dakota. These counties are Todd, Mellette, and Ziebach counties.

**Table 1. Average reported value and annual percentage change in value of South Dakota agricultural land by type of land by region, February 2010-2015.**

Type of Land	South-	East-	North-	North-	Central	South-	South-	North-	STATE
	east	Central	east	Central	Central	Central	west	west	
<b>dollars per acre</b>									
<b>All Agricultural Land (nonirrigated)</b>									
Average value, 2015	4995	5186	3940	3226	3035	1634	964	737	2505
Average value, 2014	5385	5763	3962	3319	2931	1461	620	512	2470
Average value, 2013	4954	5504	3684	3217	2678	1294	606	536	2328
Average value, 2012	4014	3890	2587	2325	2257	917	461	369	1742
Average value, 2011	2900	3332	2274	1720	1450	781	459	342	1374
Average value, 2010	2447	2712	2006	1487	1268	648	411	329	1179
Annual % change 15/14	-7.2%	-10.0%	-0.6%	-2.8%	3.5%	11.8%	55.5%	43.9%	1.4%
<b>Nonirrigated Cropland</b>									
Average value, 2015	5887	6329	5066	4275	3895	2283	1347	1193	4265
Average value, 2014	6331	7114	5291	4614	3953	2087	820	870	4478
Average value, 2013	5903	6828	4843	4562	3580	1994	900	792	4249
Average value, 2012	4817	4734	3369	3026	2946	1348	677	496	3084
Average value, 2011	3402	4024	2918	2301	1866	1115	625	483	2389
Average value, 2010	2841	3291	2560	1945	1644	967	560	474	2030
Annual % change 15/14	-7.0%	-11.0%	-4.3%	-7.3%	-1.5%	9.4%	64.3%	37.1%	-4.8%
<b>Rangeland (native)</b>									
Average value, 2015	2719	2727	2136	1758	2100	1338	851	630	1187
Average value, 2014	2698	2861	1859	1600	1828	1187	571	436	987
Average value, 2013	2308	2765	1759	1473	1636	994	529	444	909
Average value, 2012	1930	2108	1345	1387	1493	724	401	341	737
Average value, 2011	1589	1779	1217	950	1011	634	409	309	611
Average value, 2010	1339	1536	1070	875	865	514	365	296	540
Annual % change 14/13	0.8%	-4.7%	14.9%	9.9%	14.9%	12.7%	49.0%	44.5%	20.3%
<b>Pasture (tame, improved)</b>									
Average value, 2015	2945	2908	2545	2224	2557	1500	943	769	1820
Average value, 2014	2968	3098	2244	1958	2220	1309	596	483	1603
Average value, 2013	2721	3176	2074	1778	2222	1129	571	523	1542
Average value, 2012	2275	2371	1678	1550	1772	844	431	373	1218
Average value, 2011	1726	2082	1494	1161	1179	762	465	344	1011
Average value, 2010	1480	1629	1178	991	1061	650	429	320	854
Annual % change 15/14	-0.8%	-6.1%	13.4%	13.6%	15.2%	14.6%	58.2%	59.2%	13.5%
<b>Hayland</b>									
Average value, 2015	4030	4220	2675	2687	2755	1843	1166	917	2535
Average value, 2014	4762	4598	2466	2458	2525	1630	640	590	2458
Average value, 2013	4196	4003	2639	2223	2552	1453	678	610	2285
Average value, 2012	3337	3008	1638	1905	2143	1039	559	407	1758
Average value, 2011	2401	2742	1590	1301	1300	854	552	400	1377
Average value, 2010	2158	2074	1581	1202	1121	681	473	391	1195
Annual % change 15/14	-15.4%	-8.2%	8.5%	9.3%	9.1%	13.1%	82.2%	55.4%	3.1%
Type of Land	South-	East	North-	North	Central	Western			
	east	Central	east	Central	Central	Western			
<b>dollars per acre</b>									
<b>Irrigated land</b>									
Average value, 2015	7330	6750	***	7000	4380	2450			
High Productivity	9050	8500	***	8150	5200	3115			
Low Productivity	6035	4940	***	5500	3260	1806			
Average value, 2014	7940	7190	6250	6340	4430	1490			
Average value, 2013	7514	7589	6200	6753	4469	1875			
Average value, 2012	6341	4239	4140	4372	***	1483			
Average value, 2011	4212	3952	***	2895	2711	***			
Average value, 2010	3611	3632	3142	2986	2468	1533			
Annual % change 15/14	-7.7%	-6.1%	***	10.4%	-1.1%	64.4%			

Source: 2015 and earlier South Dakota Farm Real Estate Market Surveys  
Statewide average land values are based on 2002 land use weights

The all-land average values are highest in the east-central and southeast regions with per-acre values of \$5,186 and \$4,995, respectively (table 1 and figure 2). This represents a decline of 10% and 7.2%, respectively. In the other regions east of the Missouri River, per-acre values of all-agricultural land varied from \$3,940 in the northeast to \$3,035 per acre in the central region with percentage changes varying from -2.8% to +3.5%. This is the first year that average all-land values exceeded \$3000 per acre in all regions east of the Missouri River.

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 varies from \$1,634 in the south-central region to \$737 per-acre in the northwest region, respectively (table 1).

Land value and cash rental rate estimates in the three regions west of the Missouri River can be especially sensitive to the lower number of responses in these regions. For this reason, the senior author examined land sales tract data across South Dakota for average sale prices and the range of per-acre sale prices by region. In general, the sale prices per acre are consistent with the survey reports of per acre value across regions, including the western regions.

Another perspective on divergent land value trends is that regional land values are reverting closer to their longer term relationships. In general, land values from 2000 to 2013 increased at a faster rate in the five regions east of the Missouri relative to the three regions west of the Missouri River. During the

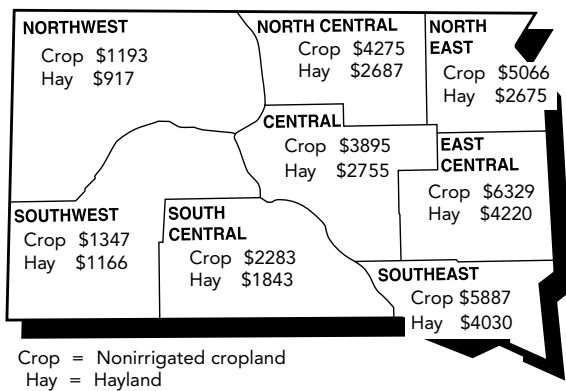
past two years, land values have increased at a faster pace in the three western regions compared to the five regions east of the Missouri River.

The southeast and east-central regions contain the most productive land in South Dakota, with 75% or more of farmland acres used as cropland or hay land. In the other regions east of the Missouri River, the proportion of cropland and hay land varies from 57% in the central region to 70% in the northeast region. Rangeland and pasture are the dominant agricultural land uses in all regions west of the Missouri River.

Since 2000 all-agricultural land values have increased more than 5% per year; however, the current year increase was only 1.4%. Overall, agricultural land values in South Dakota have more than doubled since 2010 and increased seven-fold from 2000 (appendix table 2).

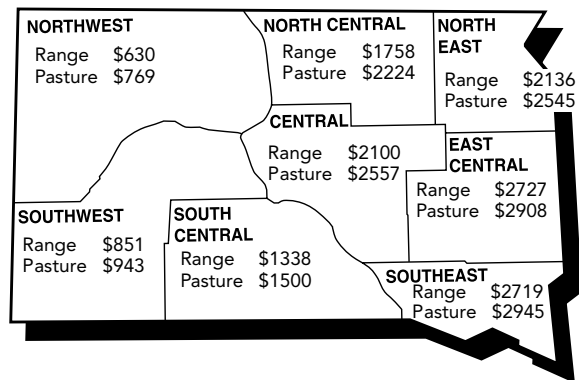
### LAND VALUES AND VALUE CHANGES BY TYPE OF LAND AND REGION

In each region, per-acre values are highest for irrigated land, followed by non-irrigated cropland, hay land, tame pasture, and native rangeland. For each non-irrigated land use, per-acre land values are highest in the three eastern regions and lowest in the three regions west of the Missouri River - northwest, southwest, and south-central regions (figures 3 and 4; table 1). These regional differences in land values by land use have remained consistent over time and are closely related to climate patterns, soil



**Figure 3. Average value of South Dakota cropland and hayland, by region, February 2015, dollars per acre.**

Source: 2015 South Dakota Farm Real Estate Market Survey, SDSU.



**Figure 4. Average value of South Dakota rangeland and tame pasture, by region, February 2015, dollars per acre.**

Source: 2015 South Dakota Farm Real Estate Market Survey, SDSU.

productivity differences, and crop/forage yield differences across the state.

For 2015, cropland values declined statewide and in most regions, while rangeland, pasture, and hay land values increased statewide and in most regions. Per acre values of all types of agricultural land increased more than 20% in both the southwest and northwest region, and less than 15% in all other regions of the State.

### **Cropland values**

The weighted average value of South Dakota's non-irrigated cropland (as of February 2015) is \$4,265 per-acre, a 4.8% decrease from 2014 (table 1). This is the first time in the 25 year history of the survey that average cropland values have declined!

Statewide cropland values per-acre have more than doubled since 2010 and have increased 7.5 times since 2000. At the beginning of the 21st century, cropland values (in 2000) were less than \$1000 per-acre in all regions of South Dakota (appendix table 2)!

Regional cropland values tend to cluster in three groups. The highest cropland values are found in the east-central and southeast regions with average values of \$6,329 and \$5,887 per-acre, respectively. The second cropland value cluster consists of the northeast, north-central, and central regions with average cropland values varying from \$5,066 to \$3,895 per-acre. Cropland values are considerably lower in the third cluster which contains the three regions west of the Missouri River. As of February 2015, per-acre cropland values averaged \$2,283 in the south-central region, \$1,347 in the southwest and \$1,193 in the southwest region (table 1 and figure 3).

Cropland values from 2014 to 2015 increased more than \$300 per-acre in the southwest and northwest regions compared to declines of more than \$400 per acre in the southeast and east central regions. Overall, cropland values declined in all five regions east of the Missouri River and increased in the south-central and western regions (table 1).

Regional differences in cropland values reflect differences in cropland intensity and crop mix. The three eastern regions contain 45% of South Dakota's cropland, while the north-central and central

regions contain 33% of South Dakota's cropland acres. Corn and soybeans are the major crops in most counties in the eastern regions compared to corn, soybeans, sunflowers, and wheat in most counties of the north-central and central regions. The three regions west of the Missouri River contain 22% 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.

The highest percentage rates and dollar amount of decline in per-acre cropland values occurred in the major corn and soybean areas of the State.

### **Hay land values**

South Dakota hay land values averaged \$2,535 per-acre as of February 2015, a 3.1% increase from the previous year (table 1). Hay land values decreased in the southeast and east-central region and increased in all other regions of South Dakota. The strongest increases were in regions west of the Missouri River. Statewide, hay land values have doubled since 2010 and increased seven times since 2000 (appendix table 2).

Average hay land values also cluster into three regional groups. The highest average values are in the east-central and southeast regions, with per-acre values of \$4,220 and \$4,030, respectively. Hay land values are considerably lower in the other regions east of the Missouri River, varying from \$2,675 in the northeast to \$2,755 per-acre in the north-central region.

Substantially lower values of hay land are found in all regions west of the Missouri River, varying from \$1,843 in the south-central to \$917 per-acre in the northwest region (figure 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 2015, the value of South Dakota native rangeland averaged \$1,187 per-acre, while the average value of tame pasture was \$1,820 per-acre (table 1). The major difference in statewide values is due to changing proportions of rangeland and tame pasture across the state. Native rangeland is heavily concentrated in the western and central regions of

South Dakota, while tame pasture is not concentrated in any particular region. This is the first year that average values of native rangeland exceed \$1000 per acre on a statewide basis!

During the past year (Feb. 2014 to Feb. 2015), the statewide average rangeland values per-acre increased 20.3%, compared to a 13.5% increase in the values of tame pasture. Rangeland and pasture values have increased more than 10% annually for 10 of the past 12 years! Both tame pasture and rangeland values per-acre have more than doubled since 2010 and increased over six-fold since 2000 (appendix table 2)

Rangeland and pasture values also cluster into three regional groups. Average rangeland values are highest in the east-central and southeast regions (\$2,727 and \$2,719 per-acre, respectively). Rangeland values in the next regional cluster (northeast, north central and central) are considerably lower and relatively close to each other with per-acre values varying from \$2,136 in the northeast to \$1,758 per-acre in the north-central region. The lowest rangeland values per-acre occur west of the Missouri River varying from \$1,338 in the south-central to \$630 in the northwest region (figure 4 and table 1).

Tame pasture values followed a similar regional pattern as rangeland values. Across the State, average values of tame pasture varied from 7% to 22% higher than the average value of rangeland in the same region. In the northeast, north-central central and northwest regions the value of tame pasture was 20% to 26% higher than rangeland, compared to 7% to 11% higher in all other regions.

However, at a statewide level, the average value of tame pasture is 53% higher than the value of rangeland. This result is due to differences in regional concentration of tame pasture compared to rangeland. Three-fourths of rangeland acres are located west of the Missouri River, compared to less than half of tame pasture acres. Tame pasture is much more likely to be located in crop-intensive regions which have higher land values for all uses.

In the crop intensive regions of eastern South Dakota and in the north-central region, the ratio of cropland to rangeland average per-acre value varies from 2.15 to 2.45, compared to a cropland to

rangeland value ratio of 1.6 to 1.9 in the rangeland intensive regions west of the Missouri River. The statewide average ratio of cropland to rangeland value is currently 3.6. During the cropland boom period from 2010 to 2014 this ratio varied from 4.1 to 4.7. From 2000 to 2009, this ratio varied from 3.0 to 3.6. Overall, the statewide ratio of cropland to rangeland value is reverting back to its longer term value relationship.

### **Irrigated land values**

Irrigated land values for 2015 are estimated for five regions, including a combined western region (table 1). 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 30% of all respondents were familiar with and able to provide information on irrigated land values.

Average irrigated land values vary from \$7,330 in the southeast to \$7,000 in the north central and \$6,750 per acre in the east-central region. Irrigated land values are much lower in the central region averaging \$4,380 per-acre and in western South Dakota where the average value is \$2,450 per-acre. In the eastern and north-central region, the value for irrigated land was reported for center pivot irrigation systems, excluding the value of the center pivot.

## **VARIATION IN LAND VALUES BY LAND PRODUCTIVITY AND COUNTY CLUSTERS**

Within each region and for each non-irrigated agricultural land use, there is considerable variation in land values. In this section we report the February 2015 per-acre values of average productivity, high-productivity, and low-productivity cropland, hay land and rangeland by region and by county clusters within several regions (table 2).

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: southeast, east-central, northeast, north-central and central regions. During each of the past 25 years, land values (and cash rental rates) have not been



**Table 2. Average reported value per acre of agricultural land by South Dakota region, county clusters, type of land, and land productivity, February 2010 - 2015.**

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							
<b>Nonirrigated Cropland</b>								
Average 2015	5886	7138	5326	4580	6329	7837	6330	4912
High Productivity	7734	9823	6578	5887	7998	9977	8078	6073
Low Productivity	4790	5912	4248	3633	4834	6045	4737	3776
Average 2014	6331	7470	5800	4800	7114	8592	6823	5793
Average 2013	5903	7248	4794	3893	6828	8347	6666	5204
Average 2012	4817	5844	4068	3254	4734	6116	4717	3621
Average 2011	3402	4567	3106	2487	4024	5197	3672	3007
Average 2010	2841	3577	2547	1994	3291	4298	3419	2536
<b>Rangeland (native)</b>								
Average 2015	2720	3500	2581	2264	2728	3233	2376	2556
High Productivity	3312	4045	3240	2817	3458	3981	2800	3467
Low Productivity	2090	2782	1950	1707	2052	2281	1882	1981
Average 2014	2698	2873	2640	2500	2861	3135	2652	2719
Average 2013	2308	2713	2057	1950	2765	3093	2395	2748
Average 2012	1930	2252	1765	1677	2108	2344	1950	2105
Average 2011	1589	1993	1458	1388	1779	2084	1651	1632
Average 2010	1339	1454	1314	1154	1536	1925	1467	1402
<b>Hayland</b>								
Average 2015	4031	5742	3941	2569	4219	5975	3336	3407
High Productivity	4862	6875	4935	2908	5308	7480	4036	4393
Low Productivity	3110	4550	2929	2015	3227	4400	2493	2757
Average 2014	4762	5647	4448	3536	4598	6200	3829	3811
Average 2013	4196	5343	3299	2829	4003	4935	3364	3380
Average 2012	3337	4046	2888	2445	3008	4117	2680	2472
Average 2011	2401	3531	2125	1717	2742	3633	2561	2078
Average 2010	2158	2665	2002	1779	2074	3064	2067	1609

Source: South Dakota Farm Real Estate Market Survey, SDSU, 2015 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	Codington		Northeast		All	Brown Spink	North Central	
	All	Deuel Hamlin	Grant Roberts	Clark Day Marshall			Edmund Faulk McPherson	Campbell Potter Walworth
	dollars per acre							
<b>Nonirrigated Cropland</b>								
Average 2015	5066	5093	**	**	4274	5548	3007	3525
High Productivity	7043	7022	**	**	5526	7162	3950	4500
Low Productivity	3444	3469	**	**	3062	3857	2229	2642
Average 2014	5291	5466	5467	4914	4614	5593	3303	3736
Average 2013	4843	5217	5000	4250	4562	5846	3068	**
Average 2012	3369	3793	3629	2867	3026	3479	2320	**
Average 2011	2918	3250	2721	2570	2301	2980	1467	1831
Average 2010	2560	3007	2536	2234	1945	2573	1435	1541
<b>Rangeland (native)</b>								
Average 2015	2136	2270	**	2004	1758	2363	1343	1283
High Productivity	2695	2850	**	2533	2289	3111	1757	1608
Low Productivity	1485	1560	**	1350	1349	1763	1064	1025
Average 2014	1859	2033	1746	1723	1600	1972	1197	1236
Average 2013	1759	1823	1761	1671	1473	1824	1079	**
Average 2012	1345	1356	1383	1168	1387	1575	1190	**
Average 2011	1217	1389	1136	1038	950	1116	815	792
Average 2010	1070	1242	1107	929	875	1143	744	662
<b>Hayland</b>								
Average 2015	2675	**	**	**	2688	3432	1757	**
High Productivity	3436	**	**	**	3422	4553	2057	**
Low Productivity	1764	**	**	**	1854	2332	1279	**
Average 2014	2466	3036	2258	2044	2458	3007	1725	2200
Average 2013	2639	2994	2600	2127	2223	2623	1632	**
Average 2012	1638	1883	1633	1456	1905	2311	1357	**
Average 2011	1590	1679	1725	1333	1301	1755	900	991
Average 2010	1581	2005	1330	1346	1202	1733	900	762

Table 2. (continued)

Agricultural Land Type and Productivity	All	Central			South	South	North
		Aurora Beadle Jerauld	Buffalo Brule Hand Hyde	Hughes Sully	Central All***	West All***	West All***
dollars per acre							
<b>Nonirrigated Cropland</b>							
Average 2015	3895	4180	3947	3545	2283	1348	1193
High Productivity	4851	5240	4763	4649	3133	1807	1620
Low Productivity	2760	2770	2989	2355	1367	1041	851
Average 2014	3953	4286	4133	3379	2087	820	870
Average 2013	3580	3833	**	3519	1994	900	792
Average 2012	2946	**	2742	**	1348	677	496
Average 2011	1866	2010	1744	1830	1115	625	483
Average 2010	1644	1709	1624	1599	967	560	474
<b>Rangeland (native)</b>							
Average 2014	2101	2230	2313	**	1338	852	630
High Productivity	2655	2810	2951	**	1870	1202	864
Low Productivity	1477	1560	1560	**	1010	645	444
Average 2014	1828	1914	2079	1438	1187	571	436
Average 2013	1636	2050	**	1128	994	529	444
Average 2012	1493	**	1400	**	724	401	341
Average 2011	1011	1120	1100	822	634	409	309
Average 2010	865	1067	839	631	514	365	296
<b>Hayland</b>							
Average 2015	2755	**	3124	**	1844	1166	917
High Productivity	3267	**	3706	**	2250	1541	1321
Low Productivity	2183	**	2524	**	1463	877	678
Average 2014	2525	3135	2632	**	1630	640	590
Average 2013	2552	2975	**	2060	1453	678	610
Average 2012	2142	**	1870	**	1039	559	407
Average 2011	1300	1470	1378	**	854	552	400
Average 2010	1121	1313	1156	723	681	455	391

\*\*\* No county clusters are reported for the south-central, southwest, and northwest region.

reported for county clusters in the south-central, southwest and northwest regions because there are too few reports. This survey is not designed to reflect the substantially higher land values in or near the Black Hills.

This year, there were too few reports to make land value or cash rental rate estimates in some county clusters for cropland, rangeland / pasture or hay land. The lower number of responses had the greatest impact on making and publishing estimates for hay land values and cash rental rates.

Substantial variation in per-acre land value occurs by degree of land productivity for each land use in each region. For example, 2015 cropland values in the east-central region vary from an average of \$4,834 per-acre for low-productivity cropland to almost \$8000 per-acre for high-productivity cropland. At the other extreme, the average value of low productivity cropland in the northwest region is \$851 compared to \$1,620 per-acre for high-productivity cropland (table 2).

Rangeland values in the east-central region varied from an average of \$2,052 per-acre for low-productivity rangeland to \$3,458 per-acre for high productivity rangeland. In the northwest region, at the other extreme, the average value of low-productivity rangeland is \$444 per-acre, compared to \$864 per-acre for high-productivity rangeland (table 2).

In 2015, average non-irrigated cropland values were \$7,837 per-acre in the Minnehaha-Moody county cluster compared to \$7,138 per-acre in the Clay-Lincoln-Turner-Union (CLTU) county cluster and \$6,330 per-acre in the Brookings-Lake-McCook county cluster. Average cropland values in the remaining county clusters varied from \$3,007 per-acre in the Edmund-Faulk-McPherson cluster to \$5,548 per-acre in the Brown-Spink county cluster (table 2).

Similar patterns, but much lower values, also occur for rangeland across county clusters in the same regions. For example, rangeland values are highest in the CLTU and Minnehaha-Moody cluster averaging \$3,500 and \$3233 per-acre, respectively. The lowest average rangeland values of \$1,283 and \$1,343 per-acre, respectively, were reported for the Campbell-Potter-Walworth and Edmund-Faulk-McPherson

county clusters.

Average hay land values are also highest in the Minnehaha-Moody cluster at \$5,975 per-acre and in the CLTU cluster at \$5,742 per-acre. For the remaining four county clusters in the southeast and east-central regions, average hay land values vary between \$2,569 and \$3,941 per-acre. Across the other county clusters located in the northeast, north-central and central regions, average hay land values vary from \$1,757 to \$3,430 per-acre (table 2).

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 or southwest region. Average land values vary from \$630 per-acre for rangeland in the northwest region to \$2,283 per-acre for non-irrigated cropland in the south-central region (table 2). In all cases, average land values in these regions are lower than corresponding average land values in any region east of the Missouri River.

## **MAJOR REASONS FOR PURCHASE AND SALE OF FARMLAND**

Survey respondents were asked to provide a list of major reasons for buying and selling agricultural real estate in their localities. Almost all (>95%) of the 2015 respondents provided one or more reasons for the purchase or sale of real estate.

From figure 5, farm expansion / previously rented was the top reason for purchasing farmland. Of the total responses, 38% of the responses indicated farm expansion as a key reason for purchasing the land. Buying land as a form of investment also accounted for 20% of responses. Fluctuations in commodity prices and agriculture profit in recent years accounted for 10% of responses. The location of farmlands, availability of arable land, and supply are additional reasons for purchasing land and this factor accounted for 9% of the total responses.

Profitability, which is the driving force for most agricultural activities, remains relatively good and has been a key motivating tool for producers/farmers. Farm expansion has consistently been the top reason for buying land.

Retirement and exit of farmers emerged as the top

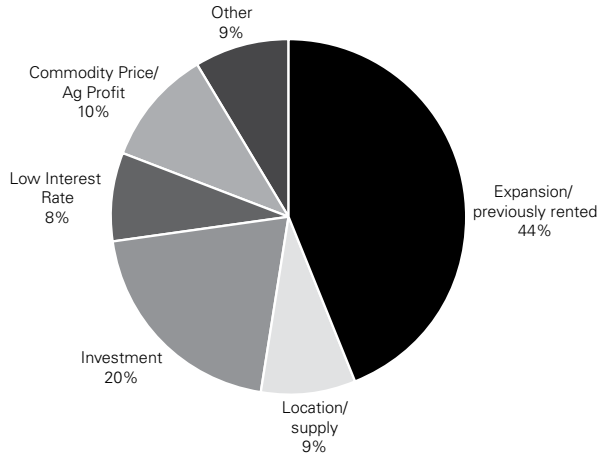


Figure 5. Reasons for buying farmland

reason for selling land, accounting for 29% of the total responses. Estate settlement and high land prices are the 2nd and 3rd reasons for selling lands, the former accounted for 25% and the latter, 22% of the total responses. Other important reasons for land sales include market uncertainty and debt and cash flow. Top reason for selling land deviated from the previous year findings. High land prices accounted for 37% of the total responses in the 2014 annual survey.

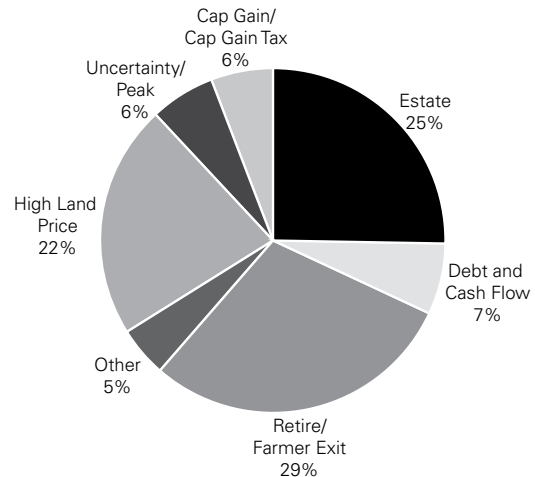


Figure 6. Reasons for selling farmland

ity land for these different land uses in their locality. Cash rental rates by land use by region are summarized in figure 7 and table 3. The same information for cropland, hay land, and pasture/ rangeland is summarized by region and county cluster in table 4. In some cases, there were too few reports to make cash rental rate estimates at the county cluster level. Also, there were too few reports to make regional estimates of rangeland rental rates per AUM (Animal Unit Month).<sup>5</sup>

## CASH RENTAL RATES OF SOUTH DAKOTA'S AGRICULTURAL LAND

Nearly two-fifths of South Dakota's agricultural land acres are in cash, share, or other lease arrangements (SD Census of Agriculture, 2007). 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 non-irrigated cropland, irrigated land, hay land and pasture / rangeland in their locality. Respondents were also asked to report cash rental rates for high-productivity and low-productiv-

Cash rental rates differ greatly by region and by land use. For non-irrigated land uses, cash rental rates per-acre are highest in the southeast and east-central regions and lowest in northwest and south-

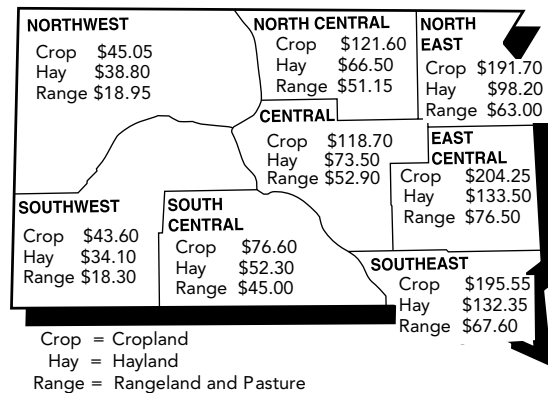


Fig. 7. Average cash rental rate of South Dakota non-irrigated cropland, hayland, and rangeland, by region, February 2015, dollars per acre.

Source: 2015 South Dakota Farm Real Estate Market Survey, SDSU.

<sup>4</sup> 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.

**Table 3. Reported cash rental rates of South Dakota agricultural land by type of land by region, 2010-2015.**

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 2015 rate	195.55	204.25	191.70	121.60	118.70	76.60	43.60	45.05	145.10
High Productivity	268.00	285.50	283.40	192.00	190.30	107.25	60.00	60.60	
Low Productivity	137.45	137.65	113.40	77.00	68.55	45.90	25.25	31.75	
Average 2014 rate	209.20	220.95	193.15	128.25	117.10	75.65	28.60	40.10	150.10
Average 2013 rate	193.20	214.75	187.00	128.65	105.10	76.15	37.05	37.35	144.30
Average 2012 rate	166.10	184.60	137.25	109.55	95.55	64.10	34.05	31.15	121.50
Average 2011 rate	131.60	152.70	119.40	89.20	69.80	53.05	30.80	28.70	98.90
Average 2010 rate	116.95	133.20	106.40	75.40	66.55	38.10	26.60	24.30	86.65
Hayland									
Average 2015 rate	132.40	133.50	98.20	66.50	73.50	52.30	34.10	38.80	82.15
High Productivity	180.71	172.78	131.36	89.19	103.78	70.70	45.00	47.94	
Low Productivity	91.90	92.04	59.55	44.76	42.67	37.20	21.90	27.53	
Average 2014 rate	169.40	145.25	87.50	67.10	60.90	52.45	22.50	26.10	84.40
Average 2013 rate	143.20	119.40	100.85	64.40	66.55	49.30	28.40	29.50	79.30
Average 2012 rate	123.00	105.35	56.30	61.15	57.80	42.65	25.45	23.10	65.85
Average 2011 rate	91.30	102.45	69.25	48.40	47.70	32.70	22.90	21.10	57.10
Average 2010 rate	92.40	83.50	64.60	43.40	43.30	26.00	21.00	18.60	51.50
Pasture/Rangeland									
Average 2015 rate	67.60	76.50	63.00	51.15	52.90	45	18.30	18.95	31.40
High Productivity	87.85	107.50	88.00	74.90	85.15	60.60	27.50	29.00	
Low Productivity	49.80	48.60	40.60	34.40	33.15	27.50	11.20	12.10	
Average 2014 rate	67.90	73.80	57.05	49.75	44.90	33.15	14.00	17.10	28.40
Average 2013 rate	58.15	67.70	52.65	46.65	45.20	32.50	14.35	15.00	26.65
Average 2012 rate	57.95	61.95	46.95	42.25	40.40	22.30	11.65	12.55	22.60
Average 2011 rate	52.50	57.65	45.65	38.35	31.25	23.30	10.95	11.35	20.70
Average 2010 rate	50.40	50.70	41.95	34.05	31.60	16.10	11.00	10.45	18.60

Type of Land	South-east	East-Central	North-east	North-Central	Central	Western
dollars per acre						
Irrigated land						
Average 2015 rate	260.90	216.25	227.50	192.70	167.30	89.3
High Productivity	346.25	306.90	318.75	260.00	223.10	116.40
Low Productivity	203.40	166.90	174.25	146.70	132.30	66.40
Average 2014 rate	298.90	217.60	225.70	202.75	222.00	***
Average 2013 rate	269.75	248.60	237.05	180.90	194.20	82.80
Average 2012 rate	229.00	177.85	***	180.90	***	91.25
Average 2011 rate	197.30	160.60	***	138.30	144.40	***
Average 2010 rate	171.20	141.90	127.10	121.90	131.70	90.70

\*\*\* Insufficient number of reports to make regional estimates

Source: South Dakota Farm Real Estate Market Surveys, SDSU, 2015 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 use by region and county clusters, February, 2010 - 2015 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							
<b>Nonirrigated Cropland</b>								
Average 2015 rate	195.55	240.00	170.70	156.30	204.25	243.90	202.60	167.20
High Productivity	268.00	320.00	235.20	227.30	285.50	319.20	278.60	264.20
Low Productivity	137.45	169.80	123.60	103.00	137.65	168.00	135.20	110.30
Average 2014 rate	209.20	245.30	188.90	157.90	220.95	264.90	211.60	185.95
Average 2013 rate	193.20	231.90	170.40	125.00	214.75	249.20	221.05	167.40
Average 2012 rate	166.10	190.50	152.20	111.35	184.60	220.90	197.15	136.45
Average 2011 rate	131.60	170.85	122.50	90.30	152.70	180.05	153.90	119.70
Average 2010 rate	116.95	147.00	106.20	81.55	133.20	163.20	137.30	106.50
<b>Hayland</b>								
Average 2015 rate	132.40	202.50	122.4	80.80	133.50	187.00	**	101.25
High Productivity	180.71	270.80	168.80	113.10	172.78	243.00	**	131.25
Low Productivity	91.90	129.20	92.10	57.30	92.04	130.50	**	66.70
Average 2014 rate	169.40	218.55	157.05	100.45	145.25	205.85	102.50	104.20
Average 2013 rate	143.20	191.90	134.00	80.00	119.40	173.50	85.40	87.40
Average 2012 rate	123.00	144.60	121.85	66.25	105.35	149.70	99.25	78.65
Average 2011 rate	91.30	128.60	90.75	54.65	102.45	139.30	102.95	73.50
Average 2010 rate	92.40	115.00	92.10	53.25	83.50	115.40	85.85	62.60
<b>Pasture/Rangeland</b>								
Average 2015 rate	67.60	64.20	**	63.90	76.50	81.3	76.50	72.20
High Productivity	87.85	84.70	**	76.10	107.50	112.80	105.60	104.20
Low Productivity	49.80	50.00	**	50.00	48.60	51.50	45.80	48.20
Average 2014 rate	67.95	72.25	65.35	64.45	73.80	76.95	71.45	72.50
Average 2013 rate	58.15	69.40	52.85	45.00	67.70	73.75	60.60	68.25
Average 2012 rate	57.95	66.25	53.20	47.00	61.95	65.25	63.15	58.85
Average 2011 rate	52.50	61.90	47.05	45.70	57.65	60.80	60.20	52.10
Average 2010 rate	50.40	59.50	47.45	37.65	50.70	54.25	53.70	45.90

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, 2015 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							
<b>Nonirrigated Cropland</b>								
Average 2015 rate	191.70	193.00	**	**	121.60	150.70	105.70	89.20
High Productivity	283.40	286.70	**	**	192.00	260.00	146.70	125.80
Low Productivity	113.40	119.30	**	**	77.00	89.50	74.30	58.30
Average 2014 rate	193.15	199.45	203.00	174.10	128.25	151.25	104.40	96.45
Average 2013 rate	187.00	202.05	190.00	164.80	128.65	150.60	109.35	**
Average 2012 rate	137.25	161.65	142.15	114.00	109.55	122.60	92.25	**
Average 2011 rate	119.40	130.25	108.65	109.55	89.20	106.50	71.35	68.40
Average 2010 rate	106.40	115.30	117.50	94.60	75.40	97.70	63.95	56.80
<b>Hayland</b>								
Average 2015 rate	98.20	**	**	**	66.50	79.70	56.10	**
High Productivity	131.36	**	**	**	89.19	107.10	75.70	**
Low Productivity	59.55	**	**	**	44.75	49.40	41.10	**
Average 2014 rate	87.50	**	**	**	67.10	78.60	54.05	**
Average 2013 rate	100.85	114.20	**	79.00	64.40	77.25	53.00	**
Average 2012 rate	56.30	71.65	**	50.55	61.15	69.50	48.75	**
Average 2011 rate	69.25	84.05	**	57.75	48.40	54.10	43.80	43.25
Average 2010 rate	64.60	77.25	61.70	55.90	43.40	55.00	35.90	35.45
<b>Pasture/Rangeland</b>								
Average 2015 rate	63.00	63.80	**	**	51.15	56.70	51.60	39.00
High Productivity	88.00	89.80	**	**	74.90	90.50	67.90	52.00
Low Productivity	40.60	40.20	**	**	34.40	35.05	38.00	28.00
Average 2014 rate	57.05	57.40	58.35	55.05	49.75	55.00	47.20	38.35
Average 2013 rate	52.65	56.45	46.45	51.25	46.65	51.80	44.35	**
Average 2012 rate	46.95	52.40	42.10	44.55	42.25	44.90	41.85	**
Average 2011 rate	45.65	51.15	36.50	44.65	38.35	42.65	38.10	31.00
Average 2010 rate	41.95	47.75	38.60	39.10	34.05	41.95	33.05	23.40



**Table 4. (continued)**

	Central						
	All	Aurora Beadle Jerauld	Buffalo Brule Hand Hyde	Hughes Sully	South Central All **	South West All**	North West All**
<b>Nonirrigated Cropland</b>							
Average 2015 rate	118.70	126.30	124.8	98.50	76.60	43.60	45.05
High Productivity	190.30	235.00	196.9	132.00	107.25	60.00	60.60
Low Productivity	68.55	76.00	67.10	64.00	45.90	25.25	31.75
Average 2014 rate	117.10	129.30	116.05	102.10	75.65	28.60	40.10
Average 2013 rate	105.15	116.75	**	97.80	76.15	37.05	37.35
Average 2012 rate	95.55	106.10	91.55	**	64.10	34.05	31.15
Average 2011 rate	69.80	81.90	68.35	61.40	53.05	30.80	28.70
Average 2010 rate	66.55	74.30	65.90	60.35	38.10	26.60	24.30
<b>Hayland</b>							
Average 2015 rate	73.50	**	75.60	**	52.30	34.10	38.80
High Productivity	103.78	**	113.50	**	70.70	45.00	47.94
Low Productivity	42.67	**	42.40	**	37.20	21.90	27.53
Average 2014 rate	60.90	72.00	57.60	**	52.45	22.50	26.10
Average 2013 rate	66.55	72.50	**	**	49.30	28.40	29.50
Average 2012 rate	57.80	60.70	55.90	**	42.65	25.45	23.10
Average 2011 rate	47.70	60.00	**	35.25	32.70	22.95	21.10
Average 2010 rate	43.30	49.00	42.65	33.60	26.00	21.00	18.60
<b>Pasture/Rangeland</b>							
Average 2015 rate	52.90	61.00	52.9	39.2	45	18.30	18.95
High Productivity	85.15	98.00	89.40	51.70	60.60	27.50	29.00
Low Productivity	33.15	40.50	30.50	28.30	27.50	11.20	12.10
Average 2014 rate	44.90	53.50	40.35	**	33.15	14.00	17.10
Average 2013 rate	45.20	52.50	50.00	30.15	32.50	14.35	15.00
Average 2012 rate	40.40	48.90	40.90	**	22.30	11.65	12.55
Average 2011 rate	31.20	45.00	29.90	21.40	23.30	10.90	11.35
Average 2010 rate	31.60	38.85	30.40	23.85	16.15	11.00	10.45

\*\* insufficient number of reports to make estimates at the county cluster level  
No county clusters are reported for the south-central, southwest, and northwest regions.

west South Dakota. In every region, cash rental rates are highest for cropland and lowest for rangeland and pasture (figure 7 and table 3).

The statewide change in cash rental rates per-acre from 2014 to 2015 was negative for cropland and hay land (-\$5.00 for cropland and -\$2.25 for hay land) and +\$3.00 per-acre for rangeland. The corresponding percentage change in statewide cash rental rates was - 3.0% for cropland and hay land and + 11% for pasture / rangeland (table 3).

Cropland cash rental rates declined in all three eastern regions and the north-central regions, with slight increases in the central and south-central regions and considerable increases in the western

regions.

Rangeland rental rates were steady in the southeast region and increased in all other regions of South Dakota. Hay land average cash rental rates showed considerable declines in the southeast and east-central regions, minimal change in the north central and south central regions, and substantial increases in all other regions.

### **2015 cash rental rates – non-irrigated cropland**

Average cash rental rates in 2015 for non-irrigated cropland varied from \$43.60 per-acre in the southwest region to \$121.60 in the north-central region

and \$204.25 per-acre in the east-central region (figure 7 and table 3). For the third consecutive year, average cash rental rates for cropland exceeded \$100 per-acre in all five regions east of the Missouri River and exceeded \$200 per-acre in the east-central region.

For 2015, cropland cash rental rate estimates were made for 13 of 15 county clusters, due to low number of responses from two clusters.

Average cash rental rates for cropland are highest at \$243.90 per-acre in the Minnehaha-Moody county cluster and \$240 per-acre in the Bon Homme-Hutchinson-Yankton cluster (table 4). The third highest cash rental rates average \$202.60 per-acre in the Brookings-Lake-McCook county cluster. Cash rental rates for high-productivity cropland in these same three county clusters vary from \$278 to \$320 per-acre.

In 2015, average cropland cash rental rates vary from \$156 to \$193 per-acre across five of the other six county clusters in the three eastern regions of South Dakota. Within the same five clusters, average cash rental rates for high-productivity cropland vary from an average of \$227 to \$287 per-acre.

Cash rental rates are generally lower across county clusters in the north-central and central region. Average cash rental rates for cropland in these county clusters vary from \$89.20 per-acre in the Campbell-Potter-Walworth county cluster to \$124.80 per-acre in the Hand-Hyde-Brule cluster to \$150.70 per-acre in the Brown-Spink county cluster (table 4). Cash rental rates for high-productivity cropland vary from \$125 to \$260 across these same county clusters.

Average cash rental rates for cropland are much lower in all regions west of the Missouri River, varying from \$43.60 per-acre in the southwest to \$76.60 per-acre in the south-central region (table 4). Average cash rental rates for high productivity cropland vary from \$60 per-acre in the southwest region to \$107.25 per-acre in the south-central region.

Within each region and county cluster, cash rental rate averages for low-productivity cropland are usually much lower than those reported for high-productivity cropland. For example, reported average cash rent for non-irrigated cropland in the east-central region is \$137.65 per-acre for low-productivity

cropland and \$287.50 per-acre for high-productivity cropland (table 3 and 4). In the southwest region, the average cash rent for low-productivity cropland is \$25.25 per-acre compared to \$60 per-acre for high-productivity cropland.

### **2015 cash rental rates – hay land and irrigated land**

Cash rental rates for hay land are highest in the south-east and east-central regions, with average cash rents around \$133 per acre. The northeast region was third highest with an average rate of \$98.20 per-acre. Cash rental rates were similar in the central and north-central region, with average per-acre rates of \$73.50 and \$66.50, respectively. West of the Missouri River, hay land cash rental rates in 2015 vary from an average of \$34.10 per-acre in the southwest to \$52.30 per-acre in the south-central region (figure 7 and table 3).

Within each region there are considerable differences in average cash rental rates for low-productivity and high-productivity hay land. For example, the average rental rates for low and high productivity hay land in the southeast region are \$91.90 and \$180.70 per-acre, respectively, compared to \$21.90 and \$45.00 per-acre in the southwest region (table 3). In many regions, lower cash rental rates are reported for native hay land, while the higher rates are quoted for alfalfa.

In 2015, hay land cash rental estimates were only made for 8 of 15 county clusters, due to inadequate number of reports in seven county clusters (table 4). The highest average cash rental rate of \$202.50 was reported in the CLTU county cluster, followed by \$187 per acre of hay land in the Minnehaha – Moody county cluster. The lowest average hay land rental rates of \$56.10 was reported in the Edmunds-Faulk-McPherson county cluster.

Cash rental rates for irrigated land averaged above \$190 in all three eastern regions and the north-central region, varying from an average of \$260.90 in the southeast to \$192.70 per-acre in the north-central region. Average per-acre irrigated land rental rates was \$167.30 in the central region and \$89.30 per-acre in the western regions.

## 2015 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 2015 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. In some cases, cash rental rates are also affected by shortage of forage due to drought conditions in much of South Dakota since the summer of 2012. Also, record high beef cattle and calf prices and potential profits are greatly affecting cash rental rates for forage.

Average cash rental rates vary from \$18.30 per-acre in the southwest region to \$76.50 per-acre in the east central region (figure 7 and table 3). Typical cash rental rates for low-productivity and high-productivity pasture and rangeland vary from \$11.20 to \$27.50 per-acre in the southwest region, and from \$48.60 to \$107.50 per-acre in the east central region (table 3).

Estimates of per-acre cash rental rates for rangeland/pasture were made for 12 of 15 county clusters where sufficient reports were available (table 4). At the county cluster level, cash rental rate averages for rangeland and pasture vary from \$64 to \$81 per-acre across five county clusters in the southeast and east-central region. Average cash rental rates varied from \$51.60 to \$64 per-acre across six county clusters in the northeast, north-central, and central regions. The lowest average rate of \$39 per-acre was reported in the Campbell-Potter-Walworth cluster.

Rental rates per AUM in 2015 also increased substantially from 2013 (insufficient number of reports were available to estimate AUM rates in 2014). For 2015, average AUM rental rates were \$41 – 42 in western South Dakota and nearly \$50 per AUM in eastern regions of South Dakota. In 2013, average

rental rates per AUM were \$31 to \$33 in western South Dakota to \$43 in the southeast region. The 2015 average AUM rates are the highest reported in the past 25 years.

## Publications on agricultural land rental arrangements in South Dakota

There are several publications on agricultural land leasing 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.

## RATES OF RETURN TO SOUTH DAKOTA'S AGRICULTURAL LAND

The gross rate of return (gross cash rent as a percent of land value) is used to estimate current rates of return to land. It is calculated from respondent's reported average cash rental rates and their 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. The 1991 to 2015 trend in the gross cash rent-to-value ratio is depicted in figure 8.

In 2015, the statewide average gross rates of return (rent-to-value ratio) differed somewhat land use categories: 2.6% for rangeland, 3.0% for hay land, 3.4% for non-irrigated cropland and 2.9% for all-agricultural land. The annual average gross cash rates of return for all-land, rangeland and hay land are the lowest calculated over the past 25 years. The gross rate of return for cropland is the second lowest in the past 25 years

This is the sixth consecutive year that gross rates of return for all-agricultural land has been 4.0% or lower, compared to an average of 5.5% from 2000 – 2009 and 7.4% during the 1990's (table 5).

The practical range of gross rate of return is obtained for the middle 90% of the distribution of

**Table 5. Estimated rates of return to South Dakota agricultural land by type of land and by region, 1991 - 2015**

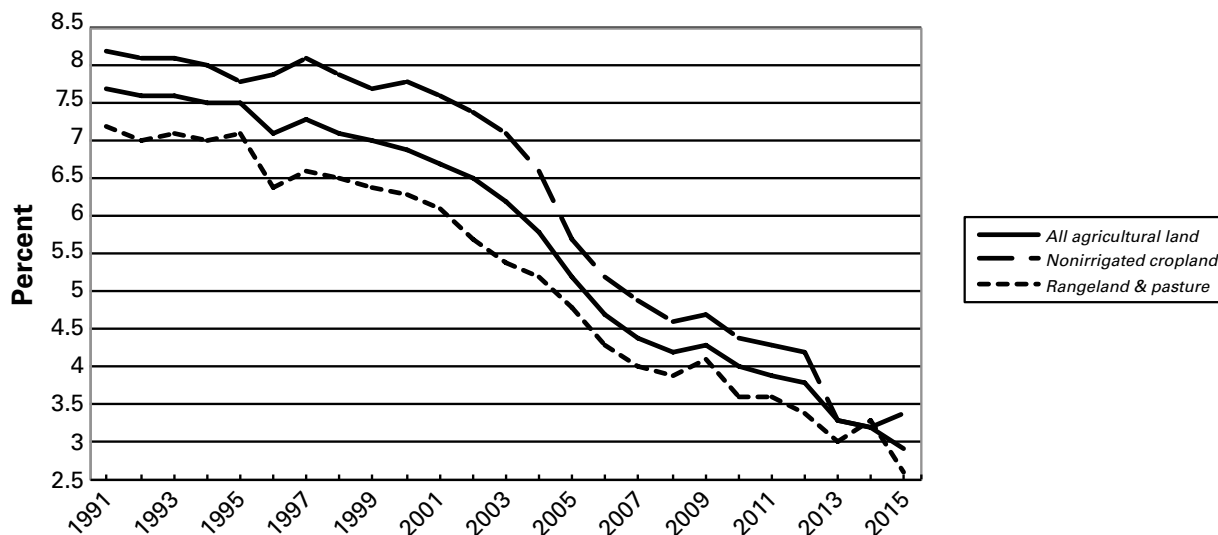
Type of land-statewide	2015	2014	2013	2012	2011	2010	Average 2000-2009	Average 1991-1999
	GROSS rate of return (%) <sup>a</sup>							
All agricultural land	2.9	3.2	3.3	3.8	3.9	4.0	5.5	7.4
Nonirrigated cropland	3.4	3.2	3.5	4.2	4.3	4.4	6.2	8.0
Rangeland & pasture	2.6	3.3	3.0	3.4	3.6	3.6	5.0	6.8
Hayland	3.0	3.1	3.5	3.7	4.1	4.3	6.0	8.0
Region <sup>d</sup>	GROSS rate of return							
Southeast	3.2	3.1	3.2	3.4	3.7	4.2	5.8	7.4
East-Central	3.2	2.9	3.0	3.6	3.7	3.8	5.4	7.6
Northeast	3.5	2.8	3.6	4.0	3.9	4.2	6.0	8.1
North-Central	3.1	3.0	3.2	3.6	4.0	4.2	5.9	7.9
Central	2.6	2.7	2.8	2.9	3.7	3.9	5.5	7.7
South-Central	3.0	2.8	3.4	3.6	3.6	3.3	5.4	6.9
Southwest	2.4	3.0	3.2	3.4	3.8	3.3	5.0	6.7
Northwest	2.8	4.1	3.6	4.7	4.4	4.4	5.4	7.1

<sup>a</sup>GROSS rate of return (percent) is calculated by dividing the average gross cash rental rate by reported value of rental land.

<sup>d</sup>Regional level GROSS 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.

<sup>c</sup>Statewide 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, 2015 and earlier reports.



**Figure 8. Gross rent-to-value ratio by land use, 1991-2015**

Source: 2015 SDSU Farm Real Estate Market Survey and earlier publications.

responses for each land use. For most respondents, the estimated cash rent-to-value ratio (gross rate of return) for 2015 varies from 2.3% to 5% for cropland, from 1.75% to 5% for hay land, and 1.6% to 4.1% for rangeland. The median rent-to-value ratio is 3.15% for cropland, 3.0% for hay land, and 2.6% for rangeland.

Respondents were also asked to estimate the current net rate of return (percent) that landowners in their locality could expect given current land values. Appraisers refer to this measure 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 agricultural landownership after deducting property taxes, real estate maintenance, and other ownership expenses from gross cash rent (or other gross rental income measures). In 2015, the average percent net rate of return in recent years is 2.6% for cropland and hay land, compared to 2.4% for rangeland. The median net rate of return varies from 2.8% for cropland to 2.5% for hay land and only 2.0% for rangeland. In general, the percentage net rates of return estimated by respondents are 0.2 to 0.6 percent lower than the gross rate of return.

## **LONGER TERM PERSPECTIVE ON FARMLAND MARKET CHANGES, 1991 – 2015**

Longer-term historical data from annual SDSU surveys of agricultural land values and cash rental rates in South Dakota from 1991 to 2015 are located in Appendix tables 2 and 3 of this report. Long-term trends in average annual cash rates of return are shown in figure 8. Recent annual reports have emphasized similarities and differences that have occurred across different regions, land uses, and specific time periods. In this report and in the 2014 report, we focus on the major economic supply and demand factors that led to the patterns of changes over time in land values and cash rental rates.

From 1991 to 2015, agricultural land values in South Dakota, and in most other major agricultural production states, have generally appreciated each year, although cropland values declined in 2015. Since the amount of land devoted to production agriculture has changed little during this 25-year period,

the supply of land is considered relatively fixed. As a result, changes in demand for land are the main factors driving its value and market price. Many factors influence the demand for agricultural land in states such as South Dakota, and the next several sections of this bulletin address these relationships.

### **Factors Affecting Demand for Farmland**

According to MacDonald, Korb, and Hoppe (2013), cropland in the U.S. has been shifting from medium-sized farms to larger operations. The reasons for this structural change are complex but some relate to economic efficiencies that are captured from size and scale increases. These authors report that the estimated midpoint acreage for U.S. cropland was 589 acres in 1982 and 1,105 acres in 2007. This midpoint is the size where half of all cropland is on farms with more acres, and half are on farms having less acres than the midpoint. However, they also report a recent growth in the number of small-sized farms. As a result, average farm size in the United States has changed little over the past few decades.

Similar changes have also affected the average size, distribution, and number of South Dakota farms and ranches. While many unique factors influence a decision to farm or ranch, other variables influence operation size. One factor influencing the latter is called economies of size.

### **Economies of Size**

Economies of size are achieved when a farm or ranch manager reduces cost per unit of production by expanding operation size. For example, buying or renting more land, while holding other fixed costs constant, results in economies of size. This expansion increases returns per-acre because total costs per-acre are decreased, relative to expected revenue. Even if an increase in farm or ranch size results in an increase in fixed costs (such as increased depreciation expense from use of larger equipment and machinery), economies of size can be achieved if an acreage expansion is proportionally greater than the increase in fixed costs per-acre.

Economies of size clearly affect farm expansion decisions for both purchase and rental of additional land. Farm expansion has been the primary or second leading reason listed by respondents for purchasing South Dakota farmland in all 25 years of

this annual survey.

Thus, economies of size reflect powerful forces that influence operation size in agriculture as well as in other industries. Another factor that affects the demand for agricultural land is net income.

### **Net Farm Income**

The value of a capital asset – such as real estate – is positively correlated with the asset's earning potential. For agricultural land, net farm income is one measure of returns. Recent strength in crop and livestock prices has pushed net farm income to historically high levels. According to data from USDA - ERS, net farm income in South Dakota increased from \$1 billion in 1990 to nearly \$4.7 billion in 2013. This increase over time occurred while the number of South Dakota farms and ranches decreased. Gains in commodity prices have been connected to increased farm and ranch income which in turn affected demand for agricultural land, both rental and purchase demand. Major spikes in commodity prices during the past 25 years have led to increases in net farm incomes and demand for farmland. In addition to increases in net farm income, productivity gains also affect land values and cash rents. However, the projection for net farm income for 2014 and 2015 are downward primarily due to lower feed grain and oilseed crop prices relative to input expenses.

### **Agricultural Productivity**

As U.S. agricultural productivity has grown, so has the value of land. An increase in productivity makes an input – such as land – potentially more valuable because more units of output are produced per unit of input. For cropland, rangeland, and pastureland higher productivity means increased livestock and crop production per-acre of land. To measure agriculture productivity, USDA uses total factor productivity (TFP), which accounts for changes in output with respect to all inputs used in the production process. TFP has grown consistently in U.S. production agriculture. For example, from 1948 to 2011 the U.S. average annual growth rate of TFP was 1.42 percent. In other words, annual output growth increased 1.42 percent on average during this period, holding input levels constant.

The primary source of productivity increases in U.S. and South Dakota agriculture has been technologi-

cal advances. Farmers and ranchers have benefited from greater mechanization and from technological advances that have occurred in many fields of science such as chemistry, biology, genetics, engineering, and management.

Since the mid-1990s, genetically modified crops have become extremely popular with U.S. farmers. According to USDA, these types of crops – called GMOs – are planted on approximately half of the land in the U.S. devoted to crops. Although GMO seed is more expensive than conventional seed, their use can simplify the management of weeds and insects. GMOs can lower production costs as fewer pesticides are needed, and can result in increases in production as pests are suppressed more effectively.

South Dakota is one of the top states in terms of adoption of GMO seeds for corn and soybeans. South Dakota farmers, and many other investors, were involved in financing the development of the ethanol industry and soybean meal processing industry in the state. This combination of factors has further contributed to expansion of corn and soybean acres and production in the state due to increased net returns and cash rental rates from improving margins and closer proximity to processing facilities.

### **Land as an Investment**

When investors consider whether to include a particular asset class in their investment portfolio, they compare the potential returns from each class. For example, an investment in land offers returns such as net farm income or economic rent. The appreciating value of land also represents an investment gain. Other investment classes such as equities (stocks) and bonds offer returns that can be compared to returns from owning land. When various investments are ranked, those with the highest expected returns given market liquidity risk are preferred. Analysts will also compare potential returns of an investment to expected inflation – essentially comparing the investment to cash. Ignoring risk, investments that outperform inflation are preferred to holding cash.

For much of the U.S. and in South Dakota, the value of agriculture land has been growing faster than inflation. In fact, land prices in South Dakota have increased faster than the rate of general price

inflation in almost all of the past 25 years. For example, South Dakota agricultural land values have increased 10.6% annually (on average) between 1991 and 2015. During the same time period, the U.S. annual inflation rate has seldom exceeded four percent and has often been less than two percent. Clearly, farmers and other investors purchasing agricultural land as a hedge against inflation have benefited from that decision.

The rapidly growing use of subsidized revenue crop insurance along with increased availability of yield-increasing and more drought-tolerant crop varieties has likely reduced perceived risk of producing selected crops in South Dakota. This combination of (modest) risk reduction and increased profit potential has also contributed to increased cash rents and values.

Furthermore, sharp declines in farm mortgage interest rates from early 2001 to late 2004 and continued relatively low mortgage interest rates (and low general price inflation rates) has also affected land investment decisions. It has helped to lower the investment “hurdle rate” for cost of capital. However, lower interest rates have also led to reductions in the ratio of gross (and net) cash return as a percent of land price (figure 8). During the 1990’s, cash rental rates and land values increased at similar rates. However, since the major reductions in long-term interest rates (starting in 2001) cash rental rates have increased at a slower rate than land values, which has reduced the rent-to-value ratio for all agricultural land from an average of 7.4% in the 1990’s to less than 4% since 2010!

## RESPONDENTS’ ASSESSMENT OF FACTORS INFLUENCING FARMLAND MARKETS IN SOUTH DAKOTA

Respondents to the 2015 annual survey were asked to list major positive and negative factors affecting the farm real estate markets in their localities. These factors play important roles in explaining the changes that occur in the amount of farmland sold in the past year. Also it explains the direction of changes in rental rates and sale prices of farmland. Seventy-seven percent of the survey respondents listed one to three positive reasons, while 78 percent of all respondents listed one to three negative reasons affecting the real estate market.

Low level of interest rate, 30% of responses, was the most frequently listed positive factor affecting agriculture real estate values. Commodity prices, especially livestock prices, was the next major reason cited with 26% of responses. Crop yield/ farm profit and stock market/investment were the third major negative factor indicated by the respondent and this accounted for 14% and 11% of the total responses. Other reasons cited by respondents were supply/ demand and farm program/ crop insurance. (Figure 9)

The negative factors affecting the real estate market have a surge in percentages as compared to the previous year. The decline in crop prices, more specifically corn and soybean prices, dominated the negative factors in the real estate market at 61% of the total responses. Input cost, 14% of responses, was another major negative factor. Uncertainty and interest rate risk, which was a lesser concern in last

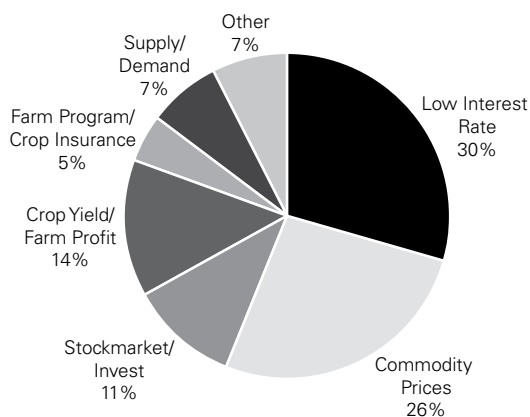


Figure 9. Positive factors in the farm real estate market

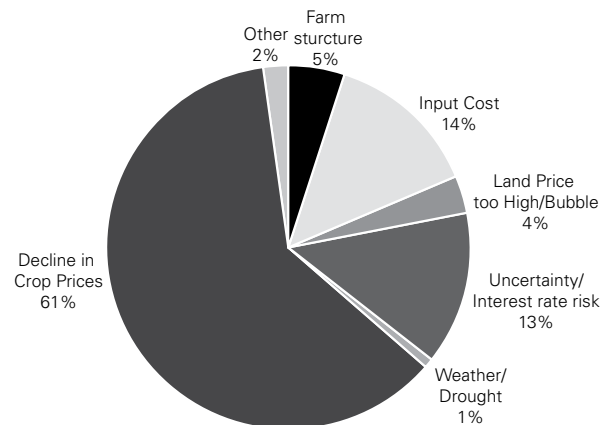


Figure 10. Negative factors in the farm real estate market

year, accounted for 13% of the total responses this year. Other major negative factors in market were farm structure favoring larger farms and high land prices. (Figure 10).

## **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 85% of respondents provided their perception of previous year cropland value changes, compared to 72% for rangeland and 63% for hay land. Almost the same percentage of respondents, in each land use category, projected land value changes for next year (2016).

Compared to prior years, a much higher percentage of respondents reported decreases in land values, especially for cropland. This year, 39% of respondents reported declines in cropland values from 2014 to 2015, 23% reported declines in hay land values and 11% reported declines in rangeland / pasture values. During the prior three annual surveys (2012 to 2014), less than 5% of respondents reported declining land values.

Increasing cropland values from 2014 to 2015 were reported by 39% of respondents, compared to 52% and 70%, respectively, reporting increasing hay land values and rangeland values. As a comparison more than 80% of respondents reported increasing land values across all land uses in 2014, while 94% of respondents reported increasing land values in 2012 and 2013.

During the past year, respondent percentage change reports, both average and median rates of change, indicated: (1) cropland values declined an average of 1%, hay land values increased 3% to 4%, and pasture / rangeland values increased 7 – 7.5%. In other words, respondent perception of change generally coincided with the calculated changes in land values from the current and past year survey reports

Forecasts of future land price changes are substantially lower than forecasts made in recent years. This

year, only 20% of cropland responses, 35% of hay land responses, and 50% of rangeland / pasture responses forecast increasing land values for next year. By comparison, decreasing land values for next year are forecast by 52% of cropland responses, 30% of hay land responses, and 15% of pasture / rangeland responses.

The forecast percentage change in land values from winter 2015 to 2016 varied from an average (median) of – 3 to -4 % for cropland, -1 to 0% for hay land, and +2.5% to +1% for rangeland.

The regional difference in respondent perception of past year changes and forecasts for next year were very noticeable. In general, responses for past year and forecast land values were positive from respondents in western and central regions and usually negative to slightly positive in eastern regions of South Dakota.

Overall, respondents to the 2015 survey are even less optimistic (compared to 2014 respondents) about farmland market conditions for the following year. The ratio of positive to negative forecasts is 1:3 for cropland, 1.2:1 for hay land, and 3:1 for rangeland. In other words, there is a lot more concern that cropland and hay land values may decline compared to rangeland. The sharp divergence in calf prices compared to crop price trends has a considerable influence on these projections. The prevailing view is that substantially lower crop prices, compared to crop prices in 2012 and 2013, will remain for some time and “force” cropland cash rents and cropland values to decline.



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\*\* Reference citations for annual SDSU farm real estate survey reports from 2001 through 2011 are not listed above but were published in print and electronic format. These reports were published as SDSU Agricultural Experiment Station (AES) Circulars 266, 267, 268, 269, 270, 271, 272, 273, 275, 276, and 278. Annual reports from 1991 through 2000 were only published in print format. Dr. Janssen and Dr. Pflueger, often in collaboration with an SDSU Economics student, were the co-authors of each annual report from 1991 through 2013.

## APPENDIX I: SURVEY METHODS AND RESPONDENT CHARACTERISTICS

The primary purpose of the 2015 South Dakota Farm Real Estate Market Survey was to obtain regional and statewide information on 2015 per-acre agricultural land values and cash rental rates by 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 557 potential respondents on February 5, 2015 with a follow-up mailing on March 3. 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) Extension Service agricultural field 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 non-irrigated cropland, hay land, rangeland, improved pasture, and irrigated land in their locality. Nearly one-third of respondents reported land market information for at least two counties. The number of responses exceeded the number of respondents as some persons (primarily appraisers and lenders) completed multiple survey schedules providing different land value and cash rental data for different counties in their trade territory. Overall, a total of 153 respondents provided 185 useable responses. This is the lowest number of survey respondents and responses in the 25 years of conducting the annual survey.

The distribution of 185 responses is summarized by location and reported occupation in appendix table 1. Fifty-five percent of responses are from the three eastern regions of South Dakota, 25% were from the central and north-central region, and 20% were from the south-central and western regions. The low number of responses from the south-central and western regions is a major concern in continuing to provide land value and rental rate estimates for regions west of the Missouri River. The low number of responses is also affecting the ability to make

and publish land value or cash rental rate estimates for several land uses in selected county clusters in regions east of the Missouri River.

Nearly 65% of responses are from agricultural lenders or FSA officials, and 24% of responses are from appraisers. The remaining responses are from Extension field specialist and assessors. Over the past several years, the proportion of responses from agricultural lenders and appraisers has increased relative to other respondent categories.

Land value and cash rental rate information on cropland were provided by most survey responses. Nearly four-fifths of responses provided land value and cash rental rate information for rangeland, while only 64% provided information on per acre tame pasture values. Hay land values were reported in 71% of survey responses, while 65% provided hay land cash rental rates.

Slightly more than one-fourth provided data on irrigated land values and cash rental rates, compared to 21% providing data on AUM (animal unit months) rental rates.

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 average 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 are based on estimates of non-

irrigated agricultural land use for privately owned farmland in South Dakota. It excludes agricultural land (mostly rangeland) leased from tribal or federal 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.

wide 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.

Regional average rental rates by land use are simple average (mean) values of useable responses. State-

**Appendix Table 1. Selected characteristics of responses, 2015.  
Number of responses = 185**

**Responses:**

<u>Reporting location</u>	<u>N</u>	<u>%</u>	<u>Primary Occupation</u>	<u>N</u>	<u>%</u>
Southeast	31	16.8%	Banker/loan officer	85	45.9%
East-Central	46	24.9%	Farm Service Agency	35	18.9%
Northeast	24	13.0%	Assessor	12	6.5%
North-Central	24	13.0%	Appraiser/realtor	45	24.3%
Central	22	11.9%	Extension educators	8	4.3%
South-Central	12	6.5%		185	100.0%
Southwest	16	8.6%			
Northwest	10	5.4%			
	185	100.0%			

**Response rates:**

<u>Land values</u>	<u>N</u>	<u>%</u>	<u>Cash Rental Rates</u>	<u>N</u>	<u>%</u>
Nonirrigated cropland	177	95.7%	Nonirrigated cropland	171	92.4%
Irrigated cropland	52	28.1%	Irrigated cropland	49	26.5%
Hayland	131	70.8%	Hayland	120	64.9%
Rangeland (native)	147	79.5%	Rangeland (acre)	145	78.4%
Pastureland (tame)	118	63.8%	Rangeland (AUM)	39	21.1%

Source: 2014 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, 1991–2014

Appendix Table 2. Average reported value and annual percentage change in value of South Dakota agricultural land by type of land by region, February, 1991-2015.

Type of Land	South-east	East-Central	North-east	North-Central	Central	South-Central	South-west	North-west	STATE
<b>All Agricultural Land (nonirrigated)</b>	dollars per acre								
Average value, 2015	4995	5186	3940	3226	3035	1634	964	737	2505
Average value, 2014	5385	5763	3962	3319	2931	1461	620	512	2470
Average value, 2013	4954	5504	3684	3217	2678	1294	606	536	2328
Average value, 2012	4014	3890	2587	2325	2257	917	461	369	1742
Average value, 2011	2900	3332	2274	1720	1450	781	459	342	1374
Average value, 2010	2447	2712	2006	1487	1268	648	411	329	1179
Average value, 2009	2355	2634	1863	1270	1246	690	413	307	1121
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 15/91	9.8%	10.6%	10.5%	11.7%	11.5%	9.7%	10.0%	9.5%	10.6%
Annual % change 15/14	-7.2%	-10.0%	-0.6%	-2.8%	3.5%	11.8%	55.5%	43.9%	1.4%
<b>Nonirrigated Cropland</b>	dollars per acre								
Average value, 2015	5887	6329	5066	4275	3895	2283	1347	1193	4265
Average value, 2014	6331	7114	5291	4614	3953	2087	820	870	4478
Average value, 2013	5903	6828	4843	4562	3580	1994	900	792	4249
Average value, 2012	4817	4734	3369	3026	2946	1348	677	496	3084
Average value, 2011	3402	4024	2918	2301	1866	1115	625	483	2389
Average value, 2010	2841	3291	2560	1945	1644	967	560	474	2030
Average value, 2009	2741	3155	2305	1673	1577	1007	596	428	1900
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 15/91	9.8%	10.7%	10.6%	11.8%	11.3%	9.3%	8.6%	8.9%	10.6%
Annual % change 15/14	-7.0%	-11.0%	-4.3%	-7.3%	-1.5%	9.4%	64.3%	37.1%	-4.8%

Source: South Dakota Farm Real Estate Market Surveys, SDSU, 2015 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
<b>Rangeland (native)</b>	dollars per acre								
Average value, 2015	2719	2727	2136	1758	2100	1338	851	630	1187
Average value, 2014	2698	2861	1859	1600	1828	1187	571	436	987
Average value, 2013	2308	2765	1759	1473	1636	994	529	444	909
Average value, 2012	1930	2108	1345	1387	1493	724	401	341	737
Average value, 2011	1589	1779	1217	950	1011	634	409	309	611
Average value, 2010	1339	1536	1070	875	865	514	365	296	540
Average value, 2009	1258	1458	1125	755	898	570	358	277	530
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 15/91	10.1%	10.1%	10.3%	10.9%	11.2%	10.0%	10.7%	9.7%	10.3%
Annual % change 15/14	0.8%	-4.7%	14.9%	9.9%	14.9%	12.7%	49.0%	44.5%	20.3%
<b>Pasture (tame, improved)</b>	dollars per acre								
Average value, 2015	2945	2908	2545	2224	2557	1500	943	769	1820
Average value, 2014	2968	3098	2244	1958	2220	1309	596	483	1603
Average value, 2013	2721	3176	2074	1778	2222	1129	571	523	1542
Average value, 2012	2275	2371	1678	1550	1772	844	431	373	1218
Average value, 2011	1726	2082	1494	1161	1179	762	465	344	1011
Average value, 2010	1480	1629	1178	991	1061	650	429	320	854
Average value, 2009	1378	1802	1373	827	1042	571	429	314	857
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 15/91	9.8%	9.6%	10.1%	11.3%	11.2%	9.7%	10.2%	9.2%	10.1%
Annual % change 15/14	-0.8%	-6.1%	13.4%	13.6%	15.2%	14.6%	58.2%	59.2%	13.5%

**Appendix Table 2. (continued)**

Type of Land	South- east	East Central	North- east	North Central	Central	South- Central	South- west	North- west	STATE
	dollars per acre								
<b>Hayland</b>									
Average value, 2015	4030	4220	2675	2687	2755	1843	1166	917	2535
Average value, 2014	4762	4598	2466	2458	2525	1630	640	590	2458
Average value, 2013	4196	4003	2639	2223	2552	1453	678	610	2285
Average value, 2012	3337	3008	1638	1905	2143	1039	559	407	1758
Average value, 2011	2401	2742	1590	1301	1300	854	552	400	1377
Average value, 2010	2158	2074	1581	1202	1121	681	473	391	1195
Average value, 2009	2098	2116	1387	962	1109	720	488	373	1142
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 15/91	9.5%	10.8%	10.3%	12.2%	11.8%	9.8%	9.7%	8.8%	10.5%
Annual % change 15/14	-15.4%	-8.2%	8.5%	9.3%	9.1%	13.1%	82.2%	55.4%	3.1%

**Appendix Table 3. Reported cash rental rates of South Dakota agricultural land by type of land use by region, 1991-2015.**

Type of Land	South-east	East Central	North-east	North-Central	Central	South-Central	South-west	North-west	State
	dollars per acre								
<b>Nonirrigated Cropland</b>									
Average 2015 rate	195.55	204.25	191.70	121.60	118.70	76.60	43.60	45.05	145.10
Average 2014 rate	209.20	220.95	193.15	128.25	117.10	75.65	28.60	40.10	150.10
Average 2013 rate	193.20	214.75	187.00	128.65	105.10	76.15	37.05	37.35	144.30
Average 2012 rate	166.10	184.60	137.25	109.55	95.55	64.10	34.05	31.15	121.50
Average 2011 rate	131.60	152.70	119.40	89.20	69.80	53.05	30.80	28.70	98.90
Average 2010 rate	116.95	133.20	106.40	75.40	66.55	38.10	26.60	24.30	86.65
Average 2009 rate	114.50	129.00	97.00	72.60	66.50	42.60	27.50	24.25	83.90
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	82.60	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
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
<b>Hayland</b>									
Average 2015 rate	132.35	133.50	98.20	66.50	73.50	52.30	34.10	38.80	82.15
Average 2014 rate	169.40	145.25	87.50	67.10	60.90	52.45	22.50	26.10	84.40
Average 2013 rate	143.20	119.40	100.85	64.40	66.55	49.30	28.40	29.50	79.30
Average 2012 rate	123.00	105.35	56.30	61.15	57.80	42.65	25.45	23.10	65.85
Average 2011 rate	91.30	102.45	69.25	48.40	47.70	32.70	22.95	21.10	57.10
Average 2010 rate	92.40	83.50	64.60	43.40	43.30	26.00	21.00	18.60	51.50
Average 2009 rate	87.50	88.70	58.50	40.60	39.80	27.50	21.00	18.70	50.15
Average 2008 rate	81.70	80.90	58.50	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	28.45
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, 2015 and earlier year reports. Statewide rental rates based on 2002 land use weights



**Appendix Table 3. (continued)**

Type of Land	South- east	East Central	North- east	North- Central	Central	South- Central	South- west	North- west	State
	dollars per acre								
<b>Pasture/Rangeland</b>									
Average 2015 rate	67.60	76.50	63.00	51.15	52.90	45.00	18.30	18.90	31.40
Average 2014 rate	67.95	73.80	57.05	49.75	44.90	33.15	14.00	17.10	28.40
Average 2013 rate	58.15	67.70	52.65	46.65	45.20	32.50	14.35	15.00	26.65
Average 2012 rate	57.95	61.95	46.95	42.25	40.40	22.30	11.65	12.55	22.60
Average 2011 rate	52.50	57.65	45.65	38.35	31.20	23.30	10.90	11.35	20.70
Average 2010 rate	50.40	50.70	41.95	34.05	31.60	16.10	11.00	10.45	18.60
Average 2009 rate	45.60	49.60	39.60	33.40	33.20	21.40	14.30	10.40	19.80
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

\*\*\* Insufficient number of reports

Source: South Dakota Farm Real Estate Market Surveys, SDSU, 2015 and earlier year reports.