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South Dakota
**Agricultural Land
Market Trends
1991–2012**

The 2012 SDSU South Dakota Farm Real Estate Survey

Dr. Larry Janssen and Dr. Burton Pflueger



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 2012 SDSU South Dakota Farm Real Estate Market Survey, the 22nd annual SDSU survey developed to estimate agricultural land values and cash rental rates by land use in different regions of South Dakota.

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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.

Finally, we wish to thank all of the respondents who participated in the 2012 South Dakota Farm Real Estate Market Survey. Many have also participated in one or more past annual land market surveys. Without their responses, this report would not be possible.

The electronic version of this report is available at:
<http://igrow.org/up/resources/03-3007-2012.pdf>

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SUMMARY

The 2012 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 values continue to boom for all land uses and in most regions of South Dakota. The most recent annual (2011 to 2012) increase of 26.8% for all agricultural land values in South Dakota is the highest annual rate of increase in the past 22 years of this survey.

From 2000 to 2011, statewide annual increases in all-agricultural land values varied from 5.1% to 22.5%, with two years of annual increases exceeding 20%. Overall, agricultural land values in South Dakota have more than doubled since 2007 and have increased nearly five-fold from 2000. From 1991 to 2000, annual increases in all-agricultural land values varied from 4% to 9%.

• Cropland values increased at a higher rate than per acre value increases for other agricultural land uses. There were considerable regional differences in land value changes.

Cropland values increased statewide by 29.1% compared to increases of 27.1% for hay land, and 20.5% for rangeland and pasture. Cropland and hay land values increased in all regions, while rangeland and pasture increased in most regions. The strongest increases in land values (above 20% for all agricultural land uses) occurred in the southeast, central, and north central regions. The lowest percentage change in land values occurred in the northwest and southwest regions.

• From 2011 to 2012, statewide average cash rental rates per-acre increased for all land uses, with substantial increases (>20%) in cropland and hay land cash rental rates in several regions.

Statewide average cash rental rates per-acre increased \$22.60 for cropland, \$8.75 for hay land,

and \$1.90 for rangeland. Cash rental rate increases for all land uses were strongest in the south-east, central, and north-central regions. Cropland cash rental rates increased in all regions of South Dakota, while rangeland and hay land cash rental rates increased in all but one region.

• Current average rates of cash return on agricultural land in South Dakota are lower in 2012 than in any of the past 22 years.

For 2012 the average ratio of gross cash rent to current land value for all agricultural land was 3.8%, for non-irrigated cropland was 4.2%, and for rangeland was 3.4%. During the 1990s, the same ratios were 7.4% for all agricultural land, 8.0% for cropland, and 6.8% for rangeland.

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

- (1) Sharp declines in farm mortgage interest rates from early 2001 to late 2004 and continued relatively low mortgage interest rates.
- (2) Federal farm program provisions of the 1996 and 2002 farm bills, especially the level of crop subsidies and removal of planting restrictions.
- (3) Substantial increase in use of crop insurance for yield or revenue protection.
- (4) Technology change in agriculture that expanded the geographic range of corn and soybean production, along with rapid development of ethanol plants.
- (5) General economic conditions of low inflation rates in most years.

From 1991 to 2012, agricultural land values increased more rapidly than the rate of general price inflation in all regions of South Dakota. Also, continued increases in cash rental rates provide 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.

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

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

The average value of non-irrigated agricultural land (as of Feb. 2012) in South Dakota is \$1,742 per acre. Non-irrigated agricultural land varies from \$4,014 per acre in the southeast to \$369 per acre in the northwest region.

Average non-irrigated cropland values vary from \$4,817 per acre in the southeast to \$2,946 per acre in the central region and \$496 per acre in the northwest region.

Average rangeland values vary from \$2,108 per acre in the east-central to \$341 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 cropland values and cash rental rates continue to occur in the Minnehaha-Moody county cluster where the average value of cropland in 2012 is above \$6,100 per-acre and average cash rental rate for cropland is \$221 per-acre. Cropland values exceed \$5,900 and cash rental rates exceed \$190 per-acre in the Clay-Lincoln-

Turner-Union county cluster. These are the highest average land values and cash rental rates reported during the past 22 years of the SDSU Farm Real Estate Market Survey.

At the regional level, average cash rental rates per-acre for cropland in 2012 vary from \$184.60 in the east central region to \$31.15 in the northwest region. Average rangeland and pasture rental rates vary from nearly \$62 per-acre in the east central region to \$11.65 per-acre in the southwest region.

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

High farm commodity prices, low mortgage interest rates, and high farm profits and good crop yields were the major positive factors in the farmland market. Higher input costs, general economic conditions (slow recovery and a lot of uncertainty), and financial pressure were the three major negative factors, although 14% of responses indicate “no negative factors” were present in the farmland market.

• The booming market psychology of recent years has returned and strengthened. Most respondents were optimistic about current and prospective land market conditions.

Most respondents, 84% to 91% depending on land use, providing forecasts expect land values to increase in the next 12 months and the remainder projected no change in land values. None of the respondents forecast a decline in land values during the next 12 months!

South Dakota Agricultural Land Market Trends 1991–2012

Dr. Larry Janssen and Dr. Burton Pflueger¹

The *2012 SDSU Farm Real Estate Market Survey* is the 22nd 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 2012 estimates are based on reports from 202 responses to the 2012 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 farmland market trends in their localities.

Copies of the SDSU survey were mailed in February and March 2012. The surveys requested information

on cash rental rates and agricultural land values as of February 2012. Response characteristics and estimation procedures are discussed in Appendix I.

Results are presented in a format similar to farmland market reports published by Janssen and Pflueger from 1991 through 2011. Regional information on land values and cash rents by land use (crop, hay, range, and pasture) 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 greater outside interest in recent years. Land market trends are influenced by changing conditions in agriculture and the general economy and strongly

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

² 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. The number of responses to the 2011 survey was the lowest in the 21 years of the SDSU Farmland Market Survey. More details are provided in Appendix 1.

³ 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 non-irrigated 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. Because most irrigated land in South Dakota is used for crop or hay production, we report the value and rental rates of irrigated land used for these purposes. These major land uses comprise nearly 98% of privately owned land in farms in South Dakota (Janssen, 1999).

influenced by land market participants' expectations of future trends and availability of debt or equity financing.

The agricultural commodity price boom that restarted in the summer of 2010 is the major economic factor influencing South Dakota farmland market conditions in 2011 and in 2012. From June or July 2010, cash prices of corn, wheat and soybeans increased from 50% to nearly 80% and beef calf prices have increased beyond previous (historical) highs. Of course, input costs (especially fossil fuel dependent items) are also increasing, but considerable profit enhancement opportunities continue to be available. Secondly, farm mortgage interest rates remain low – generally less than 5.9% for fixed term loans and less than 5.3% for variable rate loans- although credit standards have probably tightened (Minneapolis Federal Reserve – Agricultural Credit Conditions Survey, 4th Qtr, 2011)

South Dakota's economy has continued to slowly recover from the recession with unemployment rates declining from 5.2% in January 2010 to 4.7% in January 2011 and 4.2% in January 2012. Personal income continues to increase at rates faster than the U.S. economy. Gains in employment and personal income in South Dakota are linked in part to the economic strength of its agricultural sector. Further information about the South Dakota general economy can be obtained by consulting U.S. Dept. of Commerce – Bureau of Economic Analysis and U.S. Dept. of Labor – Bureau of Labor Statistics.

SOUTH DAKOTA AGRICULTURAL LAND VALUES, 2012

Procedures to estimate and report land values

Respondents to the *2012 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 one year earlier. Responses for nonirrigated land uses are grouped into eight agricultural regions (fig.1). The six regions in eastern and central South Dakota correspond with USDA Agricultural Statistics Districts. In western South Dakota, farmland values and cash

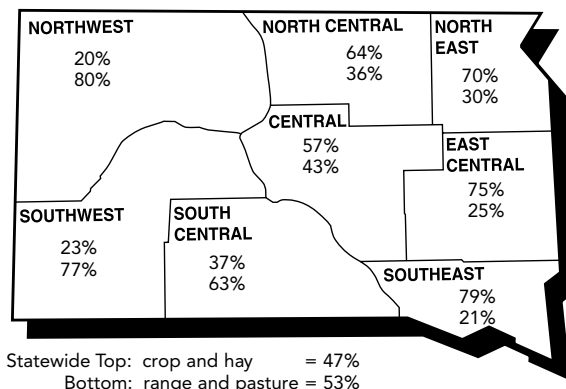
rental rates are reported for the northwest and southwest regions. Land values and cash rental rates are reported only for privately owned land and should not be considered as estimated values for tribal lands or federal lands.

Irrigated land is only one percent of farmland acres in South Dakota. Responses for irrigated land values and rental rates are only reported in regions where sufficient 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 (nonirrigated land) value estimates are weighted averages based on the relative acreage and value of each nonirrigated agricultural land use in each region of South Dakota. In this report, land use acreage weights for each region and statewide were developed from data reported in the 2002 Census of Agriculture and related sources (Appendix I). These land-use acreage weights have considerable impact on regional and statewide estimates of all nonirrigated land values.

Regional differences in all-agricultural land values are primarily related to major differences in 1) agricultural land productivity among regions, 2) per-acre values of cropland and rangeland in each region,

Fig 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

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 the three regions west of the Missouri River.

All-agricultural land value estimates, 2012

Agricultural land values are booming in most regions of South Dakota for all land uses. Depending on land use, the statewide estimated annual percentage change from Feb. 2011 to 2012 varied from 20.5% to 29.1%. The six eastern and central regions reported double-digit increases (10%+) for most land uses, while the two western regions reported changes of less than 10% for most land uses (table 1).

As of February 2012, the average value of all-agricultural land in South Dakota was \$1,742 per acre, a 26.8% increase in value from one year earlier (figure 2 and table 1). Three regions had higher percentage rates of increase than the statewide average – southeast, central and north-central regions. Three regions – northeast, east-central, and south central reported increases varying from 13.8% to 17.4%. There was a minimal increase in all-land values in the southwest region and a 7.9% increase in the northwest region.

The statewide change of 26.8% is the highest annual rate of increase in the past 22 years! From 2000 to 2011, annual increases in all-agricultural land values varied from 5.1% to 22.5%, with two years of annual increases exceeding 20%. Overall, agricultural land values in South Dakota have more than doubled since 2007 and have increased nearly five-fold from 2000 (appendix table 2).

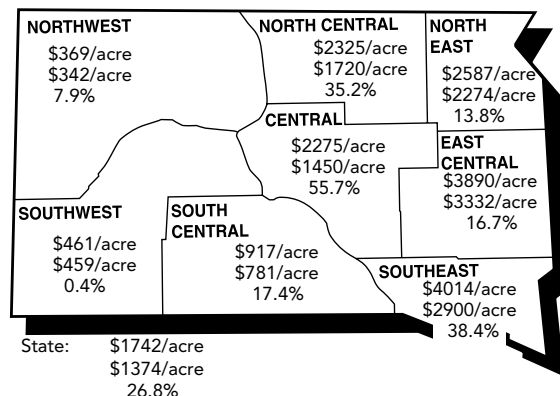
The all-land average values are highest in the southeast and east-central regions with per-acre values

of \$4,014 and \$3,890, respectively (table 1 and figure 2). This is the first year that all-land values are close to \$4,000 per acre in any region! In the other regions east of the Missouri River, per-acre values of all-agricultural land varied from \$2,257 in the central region to \$2,325 in the north-central to \$2,587 in the northeast region. Per-acre increases in these five regions varied from \$313 in the northeast to \$1104 in the southeast.

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 \$917 in the south-central region to \$369 per acre in the northwest region, respectively. The per-acre change in land values varied from \$136 in the south central to \$27 in the northwest and only \$2 in the southwest region (table 1).

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.

Fig 2. Average value of South Dakota agricultural land, February, 2012 and 2011, 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 nonirrigated land use by region.

Top: Average per-acre value—February 1, 2012
 Middle: Average per-acre value—February 1, 2011
 Bottom: Annual percent change in per-acre land value

Source: 2012 South Dakota Farm Real Estate Market Survey, SDSU.

Table 1. Average reported value and annual percentage change in value of South Dakota agricultural land by type of land by region, February 2007-2012.

Type of Land	South-east	East-Central	North-east	North-Central	Central	South-Central	South-west	North-west	STATE
dollars per acre									
All Agricultural Land (nonirrigated)									
Average value, 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
Annual % change 12/11	38.4%	16.7%	13.8%	35.2%	55.7%	17.4%	0.4%	7.9%	26.8%
Nonirrigated Cropland									
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
Annual % change 12/11	41.6%	17.6%	15.5%	31.5%	57.9%	20.9%	8.3%	2.7%	29.1%
Rangeland (native)									
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
Annual % change 12/11	21.5%	18.5%	10.5%	46.0%	47.7%	14.2%	-2.0%	10.4%	20.6%
Pasture (tame, improved)									
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
Annual % change 12/11	31.8%	13.9%	12.3%	33.5%	50.3%	10.8%	-7.3%	8.4%	20.5%
Hayland									
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
Annual % change 12/11	39.0%	9.7%	3.0%	46.4%	64.8%	21.7%	1.3%	1.8%	27.7%
Type of Land	South-east	East Central	North-east	North Central	Central	Western			
dollars per acre									
Irrigated land									
Average value, 2012	6341	4239	4140	4372	***	1483			
High Productivity	7259	5859	5940	5382	***	2023			
Low Productivity	4592	3152	3040	3455	***	1167			
Average value, 2011	4212	3952	***	2895	2711	***			
Average value, 2010	3611	3632	3142	2986	2468	1533			
Average value, 2009	3373	3429	3085	2083	2095	1162			
Average value, 2008	3020	3070.9	2681	1607	2156	925			
Average value, 2007	2547	2649	2100	1531	1578	951			
Annual % change 12/11	50.5%	7.3%	***	51.0%	***	***			

Source: 2012 and earlier South Dakota Farm Real Estate Market Surveys
 Statewide average land values are based on 2002 land use weights

LAND VALUES AND VALUE CHANGES BY TYPE OF LAND AND REGION

In each region, per-acre values are highest for irrigated land, followed by nonirrigated cropland, hayland, tame pasture, and native rangeland. For each nonirrigated land use, per-acre land values are highest in the three eastern regions and lowest in the 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 largely remained consistent over time and are closely related to climate patterns, soil productivity differences, and crop/forage yield differences across the state.

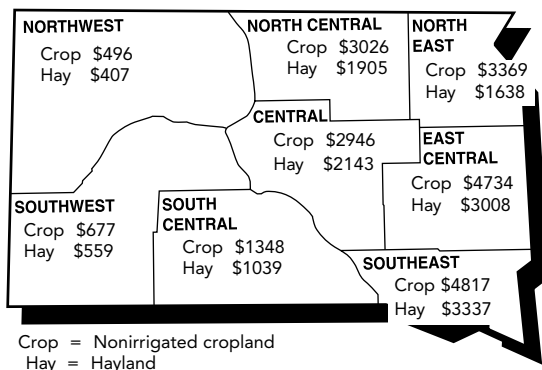
Cropland values

The weighted average value of South Dakota's non-irrigated cropland (as of February 2012) is \$3,084 per acre, a 29.1% increase from 2011 (table 1) This represents the largest annual percent rate of increase in the past 22 years and is the first time that statewide average non-irrigated cropland values exceed \$3,000 per-acre!

Statewide per-acre cropland values have more than doubled since 2007 and have increased nearly five-fold 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)!

Cropland values increased more than 30% in the southeast, central, and north-central regions and between 15% and 21% in the northeast, east-central, and north-central regions.

Fig 3. Average value of South Dakota cropland, and hayland, by region, February 2012, dollars per acre.



Source: 2012 South Dakota Farm Real Estate Market Survey, SDSU.

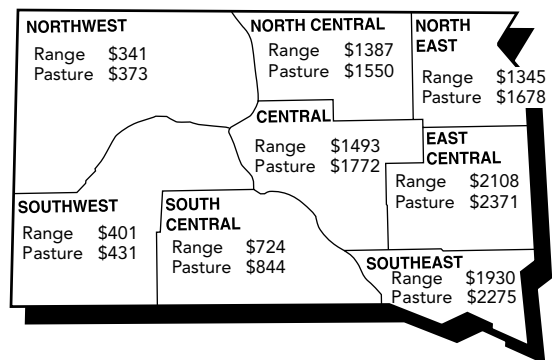
and south-central regions. Single digit increases in cropland values were reported in the northwest and southwest regions.

Regional cropland values clustered in three groups. The highest cropland values are found in the southeast and east-central regions with average values of \$4,817 and \$4,734 per-acre, respectively. The second cropland value cluster consists of the northeast, north-central, and central regions with average cropland values declining from \$3,369 to \$2,946 per-acre. Cropland values are considerably lower in the third cluster which contains the three regions west of the Missouri River. As of February 2012, per-acre cropland values averaged \$1,348 in the south-central region, \$677 in the southwest and \$496 in the northwest region (table 1 and figure 3).

Cropland values from 2011 to 2012 increased more than \$1000 per-acre in the central and southeast regions and about \$700 per-acre in the east-central and north-central regions. These massive increases are the highest average annual dollar amount of increases in per-acre value recorded for cropland in South Dakota! Cropland values also increased \$450 per-acre in the northeast region and \$146 per-acre in the south-central region, which are also the highest dollar amount of annual increases reported in these regions (table 1).

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

Fig 4. Average value of South Dakota rangeland and tame pasture, by region, February 2012, dollars per acre.



Source: 2012 South Dakota Farm Real Estate Market Survey, SDSU.

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.

Hayland values

South Dakota hay land values averaged \$1,758 per acre as of February 2012, a 27.7% increase from one year earlier (table 1). The strongest annual increases, above the statewide average, were reported in the southeast, north-central, and central regions with a 21.7% increase reported in the south central region. Changes of less than 10% were reported in the east-central, northeast, and the two western regions of South Dakota. Statewide, hay land values have doubled since 2007 and increased by a factor of 4.8 times since 2000 (appendix table 2).

Average hay land values also cluster into three regional groups. The highest average values are in the southeast and east-central regions, with per-acre values of \$3,337 and \$3,008, respectively. Hay land values are considerably lower in the other regions east of the Missouri River, varying from \$1,638 in the northeast to about \$2,143 per-acre in the central region. This is the first time that average hay land values are reported as higher in the central and north-central region than in the northeast region.

Substantially lower values of hay land are found in all regions west of the Missouri River, varying from \$1,039 in the south-central, to \$559 in the southwest, and \$407 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 2012, the value of South Dakota native rangeland averaged \$737 per-acre, while the average value of tame pasture was \$1,218 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.

The statewide average rangeland and tame pasture values per-acre increased 20.5%, during the past year (Feb. 2011 to Feb. 2012). Rangeland and pasture values have increased more than 10% annually for nine of the past 12 years since 2000. Statewide, per-acre values of tame pasture have doubled and rangeland has increased by 90% since 2006. Since 2000, per-acre value of rangeland has nearly quadrupled while tame pasture values increased by a factor of 4.35 (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 (\$2,108 and \$1,930 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 \$1,345 in the northeast to \$1,493 per acre in the central region. This is the first time that average rangeland values are reported higher in the central and north-central regions compared to the northeast region. The lowest rangeland values per-acre occur west of the Missouri River varying from \$341 in the northwest, \$401 in the southwest, and \$724 in the south-central regions (figure 4 and table 1).

Tame pasture values follow a similar regional pattern as rangeland values. In most regions, average values of tame pasture varied from 8% to 18% higher than the average value of rangeland. However, due to differences in regional concentration, the statewide average value of tame pasture was 65% higher than the statewide average value of rangeland. Three-fourths of rangeland acres are located west of the Missouri River, compared to less than half of tame pasture acres.

In the cropland-intensive regions of eastern South Dakota and in the north-central region, the average per-acre value of nonirrigated cropland varies from 2.2 to 2.5 times the average value of native rangeland. In the more rangeland intensive central and western regions, the average per-acre value of cropland varies from 1.45 to 1.9 times the average value of rangeland. Pasture land values per-acre are

in between the rangeland and hay land values in all regions.

Irrigated land values

Irrigated land values for 2012 are estimated for five regions, including a combined western region (table 1). 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 24% of all respondents were familiar with and able to provide irrigated land data. Irrigated land values are highest in the southeast region and average \$6,340 per-acre. Per-acre average irrigated land values vary from \$4,140 to \$4,370 in the northeast, east-central, and northeast region compared to \$1,483 in the western region. In the three eastern and in the 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 nonirrigated agricultural land use, there is considerable variation in land values. In this section we report the February 2012 per-acre values of average productivity, high-productivity, and low-productivity land by agricultural land use 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 and north-central regions. Land values (and cash rental rates) are not reported for county clusters in the central, 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 is the first annual report with no land value and cash rental rate estimates provided for county clusters in the central region and for the Campbell-Potter-Walworth county cluster in the north-central region. The main reason is too few reports from county clusters in these locations.

Substantial variation in per-acre land value occurs by degree of land productivity for each land use in each region. For example, 2012 cropland values in the southeast region vary from an average of \$3,460 per acre for low-productivity cropland to \$6,313 per acre for high-productivity cropland. At the other extreme, the average value of low productivity cropland in the northwest region is \$355 compared to \$667 per-acre for high-productivity cropland. Across all regions, average values of low-productivity cropland were 49% to 55% of the average values of high-productivity cropland (table 2).

Rangeland values in the east-central region vary from an average of \$1,654 per-acre for low-productivity rangeland to \$2,624 per-acre for high productivity rangeland. In the northwest region, at the other extreme, the average value of low-productivity rangeland is \$216 per-acre, compared to \$484 per-acre for high-productivity rangeland. Across most regions, the average value of low-productivity rangeland varies from 55% to 63% of high-productivity rangeland (table 2).

In 2012, cropland and hay land values per-acre increased in all regions, while rangeland and pasture values per-acre increased in all except the southwest region. Cropland values increased in all 11 county clusters where estimates were made, while rangeland, pasture, and hay land values increased in 10 of 11 county clusters. Overall, land value increases continue to occur in most areas of South Dakota.

In 2012, average nonirrigated cropland values were \$6,116 per-acre in the Minnehaha-Moody county cluster compared to \$5,844 per-acre in the Clay-Lincoln-Turner-Union (CLTU) county cluster and \$4,717 per-acre in the Brookings-Lake-McCook county cluster. Cropland values average between \$3,254 and \$4,068 per-acre in six of eight county clusters in eastern and north-central regions of South Dakota. The lowest average cropland values in the same regions are reported in the Clark-Day-Marshall and Edmunds-Faulk-McPherson county clusters, with values of \$2,867 and \$2,320 per-acre respectively (table 2).

Similar patterns, but much lower values, also occur for rangeland and pasture across county clusters in the same regions. For example, rangeland values are

Table 2. Average reported value per acre of agricultural land by South Dakota region, county clusters, type of land, and land productivity, February 2007 - 2012.

Agricultural Land Type and Productivity	Southeast				East Central			
	All	Clay Lincoln Turner Union	Bon Homme Hutchinson Yankton	Charles Mix Douglas	All	Minnehaha Moody	Brookings Lake McCook	Sanborn Davison Hanson Kingsbury Miner
	dollars per acre							
Nonirrigated Cropland								
Average 2012	4817	5844	4068	3254	4734	6116	4717	3621
High Productivity	6313	7768	5160	4277	6153	7614	6217	4901
Low Productivity	3460	4143	2928	2485	3440	4509	3373	2329
Average 2011	3402	4567	3106	2487	4024	5197	3672	3007
Average 2010	2841	3577	2547	1994	3291	4298	3419	2536
Average 2009	2741	3337	2651	1807	3155	4064	3099	2295
Average 2008	2510	3246	2304	1656	2894	3778	2823	2250
Average 2007	1999	2527	1881	1253	2242	2892	2288	1874
Rangeland (native)								
Average 2012	1930	2252	1765	1677	2108	2344	1950	2105
High Productivity	2371	2714	2191	2108	2624	2900	2405	2649
Low Productivity	1460	1688	1387	1238	1654	1887	1445	1694
Average 2011	1589	1993	1458	1388	1779	2084	1651	1632
Average 2010	1339	1454	1314	1154	1536	1925	1467	1402
Average 2009	1258	1325	1244	1184	1458	1903	1379	1204
Average 2008	1239	1384	1231	1091	1539	1790	1602	1351
Average 2007	1073	1264	1032	870	1293	1547	1292	1204
Pastureland (tame, improved)								
Average 2012	2275	2489	2247	1835	2371	3027	2194	2265
High Productivity	2933	3278	2922	2160	2902	3664	2682	2790
Low Productivity	1796	1939	1772	1510	1883	2400	1680	1860
Average 2011	1726	2108	1700	1427	2082	2610	1936	1833
Average 2010	1480	1592	1464	1275	1628	2171	1664	1444
Average 2009	1378	1513	1289	1253	1803	2531	1590	1489
Average 2008	1365	1625	1362	1055	1675	2105	1756	1368
Average 2007	1167	1389	1085	927	1461	1703	1440	1403
Hayland								
Average 2012	3337	4046	2888	2445	3008	4117	2680	2472
High Productivity	4480	5563	3931	2918	3746	5217	3170	3148
Low Productivity	2398	2775	2081	2036	2208	2994	1950	1848
Average 2011	2401	3531	2125	1717	2742	3633	2561	2078
Average 2010	2158	2665	2002	1779	2074	3064	2067	1609
Average 2009	2098	2377	2111	1569	2116	2952	1977	1382
Average 2008	1871	2353	1770	1409	2127	2826	1987	1694
Average 2007	1659	2084	1669	1000	1637	2265	1685	1328

Source: *South Dakota Farm Real Estate Market Survey, SDSU, 2012 and earlier.*

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

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

Table 2. (continued)

Agricultural Land Type and Productivity	Northeast				North Central			
	All	Codington Deuel Hamlin	Grant Roberts	Clark Day Marshall	All	Brown Spink	Edmund Faulk McPherson	Campbell Potter Walworth
	dollars per acre							
Nonirrigated Cropland								
Average 2012	3369	3793	3629	2867	3026	3479	2320	**
High Productivity	4762	5438	4857	4140	4364	5119	3327	**
Low Productivity	2456	2510	2600	2330	2234	2481	1853	**
Average 2011	2918	3250	2721	2570	2301	2980	1467	1831
Average 2010	2560	3007	2536	2234	1945	2573	1435	1541
Average 2009	2305	2608	2294	2024	1673	2350	1187	998
Average 2008	2076	2274	2107	1822	1532	2318	1168	957
Average 2007	1762	1856	1866	1558	1187	1691	951	814
Rangeland (native)								
Average 2012	1345	1356	1383	1168	1387	1575	1190	**
High Productivity	1650	1955	1587	1434	1746	1957	1483	**
Low Productivity	1014	1114	1083	894	951	1083	783	**
Average 2011	1217	1389	1136	1038	950	1116	815	792
Average 2010	1070	1242	1107	929	875	1143	744	662
Average 2009	1125	1230	1063	1045	755	976	702	478
Average 2008	1100	1202	1143	937	714	932	686	519
Average 2007	889	937	912	808	634	798	611	400
Pastureland (tame,improved)								
Average 2012	1678	1777	1767	**	1550	1775	1297	**
High Productivity	2067	2292	2183	**	2051	2320	1743	**
Low Productivity	1170	1208	1200	**	1068	1186	897	**
Average 2011	1494	1673	1380	**	1161	1343	996	1009
Average 2010	1178	1332	1210	1017	991	1400	757	680
Average 2009	1373	1479	1425	1215	827	1055	735	581
Average 2008	1304	1362	1260	1224	795	1004	810	617
Average 2007	987	1027	1000	908	698	910	694	408
Hayland								
Average 2012	1638	1883	1633	1456	1905	2311	1357	**
High Productivity	2056	2460	1958	1825	2475	2860	1817	**
Low Productivity	1178	1367	1200	1019	1295	1511	917	**
Average 2011	1590	1679	1725	1333	1301	1755	900	991
Average 2010	1581	2005	1330	1346	1202	1733	900	762
Average 2009	1387	1600	1192	1282	962	1295	744	643
Average 2008	1347	1414	1558	1077	939	1077	753	640
Average 2007	1028	1084	1013	964	749	1020	663	474

Table 2. (continued)

Agricultural Land Type and Productivity	Central	South Central	South West	North West
	All***	All***	All***	All***
	dollars per acre			
Nonirrigated Cropland				
Average 2012	2946	1348	677	496
High Productivity	3792	1889	925	667
Low Productivity	2004	944	497	355
Average 2011	1866	1115	625	483
Average 2010	1644	967	560	474
Average 2009	1577	1007	597	428
Average 2008	1450	904	502	399
Average 2007	1086	702	426	368
Rangeland (native)				
Average 2012	1493	724	401	341
High Productivity	1922	922	563	484
Low Productivity	1089	577	312	216
Average 2011	1011	634	409	309
Average 2010	865	514	365	296
Average 2009	898	570	358	277
Average 2008	836	544	339	271
Average 2007	708	448	295	265
Pastureland (tame, improved)				
Average 2012	1772	844	431	373
High Productivity	2258	1073	588	485
Low Productivity	1300	703	331	271
Average 2011	1179	762	465	344
Average 2010	1061	650	473	320
Average 2009	1042	571	429	314
Average 2008	943	571	384	307
Average 2007	760	524	303	297
Hayland				
Average 2012	2142	1039	559	407
High Productivity	2721	1386	703	538
Low Productivity	1505	728	426	308
Average 2011	1300	854	552	400
Average 2010	1121	681	455	391
Average 2009	1109	720	489	373
Average 2008	1050	649	450	334
Average 2007	815	526	356	327

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

highest in the Minnehaha-Moody and CLTU clusters and average \$2,344 and \$2,252 per-acre, respectively. Average rangeland values vary from \$1,677 to \$2,105 per-acre in all other county clusters in the south-east and east-central regions. Across the five county cluster reports for the northeast and north-central regions, average rangeland values vary from \$1,168 to \$1,575 per-acre (table 2). Pastureland values are an average of 8% to 31% higher than rangeland values in the same county cluster.

Average hay land values are also highest in the Minnehaha-Moody cluster at \$4,117 per-acre and in the CLTU county cluster at \$4,046 per-acre. For the other four county clusters in the east-central and southeast region, average hay land values vary from \$2,445 to \$2,888 per-acre. In the northeast and north-central regions, average hay land values vary from \$1,357 to \$2,311 per-acre (table 2).

Average land values per land use are relatively close to each other in the north-central and central regions. For 2012, average cropland and hay land values are higher in the north-central region, compared to average per-acre values in the central region, while rangeland and pasture land values were lower. Land values, especially for cropland, are generally much higher in the Brown-Spink county cluster than in other counties located in these two regions.

For regions west of the Missouri River, average land values for each land use are highest in the south-

central region and lowest in the northwest region. Average land values vary from \$341 per acre for rangeland in the northwest region to \$1,348 per-acre for non-irrigated cropland in the south-central region. 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

During each of the 22 years of the SDSU Farm Real Estate Market Survey, respondents have been asked to provide major reasons for buying and selling farmland in their localities. Nearly 95% of 2012 respondents provided one or two reasons in each category.

Farm expansion (38%) continues as the most common reason given for purchasing farmland (figure 5). Twenty-five percent cited high commodity prices and related increases in farm profits as the major reasons for purchasing farmland. Another 18% referred to long-term investment related purposes as the motivating factor for purchasing farmland. Other key reasons for purchasing farmland include low mortgage interest rates, hunting / recreation opportunities, and various other factors.

Farm expansion continues as the most commonly cited reason for purchasing farmland. The prospect of higher farm profits and commodity prices has emerged as a major factor motivating farmland purchases in recent years.

Fig 5. Reasons for buying farmland

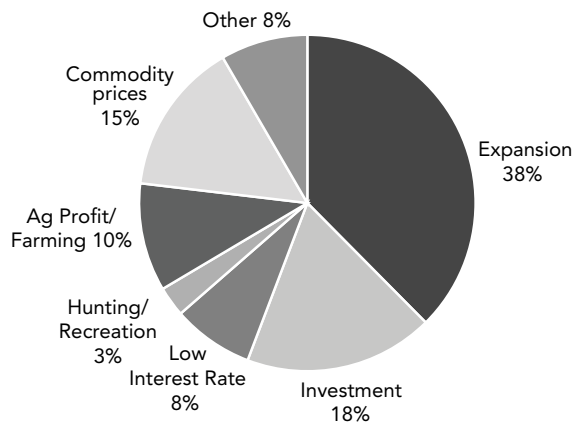
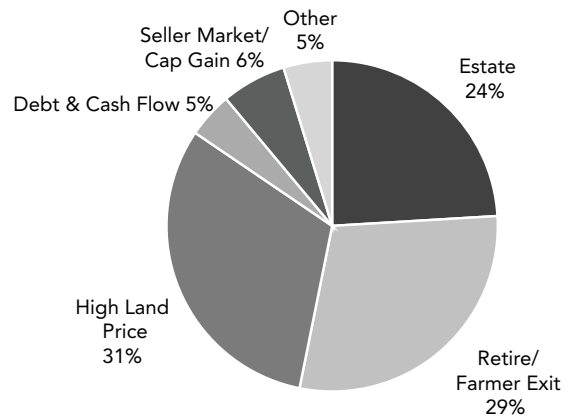


Fig 6. Reasons for selling farmland



Retirement, high land prices, and estate settlement continue as the three most common reasons for selling farmland (figure 6). Retirement or farmer exit was listed by 29% of responses, while another 24% listed estate settlement as the major reason for selling. Selling farmland to capitalize on current high land prices and resulting capital gains were listed by 37% of responses -the highest percent recorded in our 22 year survey history!

Only 5% of responses cited financial pressures and seller's need to reduce debt and generate greater cash flow as major reasons for selling farmland (figure 6). The incidence of financial pressure as a primary motivation for selling farmland has varied from 4% to 10% of responses in the past seven years of this survey.

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).

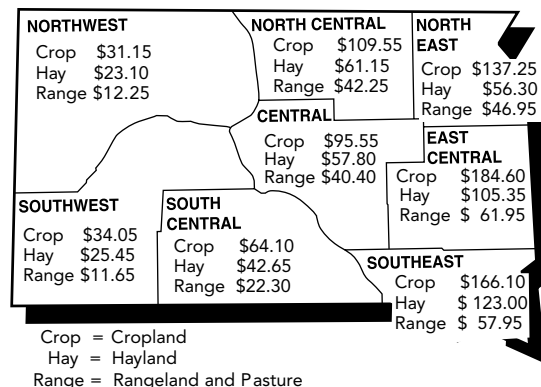
Respondents were asked about average cash rental rates per acre for non-irrigated cropland, irrigated land, and hayland in their locality. Cash rental rates for pasture / rangeland were provided on a per-acre basis and, if possible, on an Animal Unit Month (AUM) basis. Respondents were also asked to report cash rental rates for high-productivity and low-productivity land by different land uses in their locality. Cash rental rates by land use by region are summarized in figure 7 and table 3. The same information is summarized by region and county cluster in table 4.

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

Cash rental rates increased substantially in most regions of South Dakota for cropland, hay land and rangeland. From 2011 to 2012, statewide average cash rental rates increased \$22.60 per-acre for cropland, \$8.75 per-acre for hay land, and \$1.90 per-acre for pasture and rangeland. The statewide average percentage change in cash rental rates was 22.8% for cropland, 15.3% for hay land, and 9.2% for pasture and rangeland. The statewide change (both dollar amount and percentage) in cropland and hay land cash rental rates for 2012 is the highest recorded over the 22 year period of the SDSU land market survey.

Cash rental rates for cropland increased between \$32 and \$34.50 per-acre in the east-central and southeast regions and varied between increases of \$18 and \$26 per-acre in the northeast, north-central, and central regions. In the south-central region, cash rental rates for cropland increased about \$11 per-acre compared to increases of \$3.25 to \$3.45 per-acre in the southwest and northwest regions.

Fig 7. Average cash rental rate of South Dakota non-irrigated cropland, hayland, and rangeland, by region, February 2012, dollars per acre.



Source: 2012 South Dakota Farm Real Estate Market Survey, SDSU.

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

Table 3. Reported cash rental rates of South Dakota agricultural land by type of land by region, February 2007-2012.

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 2012 rate	166.10	184.60	137.25	109.55	95.55	64.10	34.05	31.15	121.50
High Productivity	242.50	279.55	225.57	166.35	136.50	96.20	43.00	40.82	
Low Productivity	106.85	118.00	90.30	70.35	65.35	40.90	24.55	21.60	
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	128.85	97.00	72.50	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	32.65	23.35	21.80	64.80
Hayland									
Average 2012 rate	123.00	105.35	56.30	61.15	57.80	42.65	25.45	23.10	65.85
High Productivity	177.15	141.40	77.25	83.40	79.45	58.55	31.85	29.80	
Low Productivity	77.35	74.30	36.65	39.85	41.95	30.55	16.65	16.30	
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
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	50.80	42.60	38.40	28.00	17.75	20.00	47.40
Average 2007 rate	74.00	67.55	45.10	34.25	31.35	25.70	18.80	18.40	41.35
Pasture/Rangeland									
Average 2012 rate	57.95	61.95	46.95	42.25	40.40	22.30	11.65	12.55	22.60
High Productivity	75.00	83.54	59.15	57.55	54.40	31.10	16.25	16.85	
Low Productivity	39.05	41.05	33.00	29.45	25.85	16.10	8.15	8.80	
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
Average 2009 rate	46.60	49.60	39.60	33.40	33.20	21.40	13.30	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
dollars per Animal Unit Month									
Average 2012 rate	36.90	***	***	32.30	***	32.20	28.45	25.25	
High Productivity	41.80	***	***	45.00	***	39.00	37.20	31.45	
Low Productivity	29.00	***	***	27.50	***	25.00	20.55	18.85	
Average 2011 rate	35.20	***	***	***	30.20	31.85	26.80	23.75	
Average 2010 rate	29.70	***	***	***	28.00	26.25	27.40	23.20	
Average 2009 rate	26.45	29.40	***	26.40	28.90	27.70	26.65	21.05	
Average 2008 rate	29.80	***	***	27.70	27.80	26.90	25.20	21.00	
Average 2007 rate	22.70	***	26.50	27.00	25.35	23.80	24.30	21.95	
Type of Land	South-east	East-Central	North-east	North-Central	Central	Western			
dollars per acre									
Irrigated land									
Average 2012 rate	229.00	177.85	***	180.90	***	91.25			
High Productivity	315.60	266.10	***	238.25	***	106.25			
Low Productivity	172.20	138.25	***	128.25	***	81.25			
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			
Average 2009 rate	178.15	158.50	143.10	108.65	120.15	67.50			
Average 2008 rate	154.75	139.80	134.00	87.85	113.00	62.50			
Average 2007 rate	131.65	113.80	98.70	89.65	89.60	65.30			

*** Insufficient number of reports to make regional estimates

Source: *South Dakota Farm Real Estate Market Surveys, SDSU, 2012* and earlier year reports.

Statewide average rental rates are based on 2002 regional land use weights

Table 4. Reported cash rental rates of South Dakota agricultural land by type of land by region and county clusters, February, 2007 - 2012

	Southeast				East Central			
	All	Clay Lincoln Turner Union	Bon Homme Hutchinson Yankton	Charles Mix Douglas	All	Minnehaha Moody	Brookings Lake McCook	Sanborn Davison Hanson Kingsbury Miner
	dollars per acre							
Nonirrigated Cropland								
Average 2012 rate	166.10	190.50	152.20	111.35	184.60	220.90	197.15	136.45
High Productivity	242.50	284.65	217.20	151.35	279.55	316.65	294.45	228.25
Low Productivity	106.85	123.90	92.95	79.10	118.00	143.90	125.30	85.45
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
Average 2009 rate	114.50	138.90	109.10	75.90	128.85	155.10	135.60	95.70
Average 2008 rate	101.90	121.90	96.30	74.90	109.00	140.10	110.90	84.70
Average 2007 rate	92.30	110.30	88.70	64.20	91.65	118.60	96.00	75.05
Hayland								
Average 2012 rate	123.00	144.60	121.85	66.25	105.35	149.70	99.25	78.65
High Productivity	177.15	207.50	177.65	92.50	141.40	210.95	127.25	103.65
Low Productivity	77.35	95.70	68.40	48.15	74.30	106.55	73.75	51.35
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
Average 2009 rate	87.50	105.20	92.65	52.25	88.70	117.60	98.70	56.00
Average 2008 rate	81.70	99.60	82.80	53.70	80.90	117.40	81.80	58.90
Average 2007 rate	74.00	88.50	77.90	46.25	67.55	94.15	75.90	52.00
Pasture/Rangeland								
Average 2012 rate	57.95	66.25	53.20	47.00	61.95	65.25	63.15	58.85
High Productivity	75.00	89.60	64.75	59.50	83.55	89.45	83.05	80.30
Low Productivity	39.05	41.55	40.00	30.50	41.05	45.00	42.90	37.10
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
Average 2009 rate	46.60	53.20	43.20	41.00	49.60	57.50	50.00	44.20
Average 2008 rate	45.60	51.35	44.60	39.60	47.15	51.25	51.25	41.50
Average 2007 rate	44.00	48.00	43.00	39.30	42.80	48.40	43.00	40.10

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, 2012* and earlier reports.

	Northeast				North Central			
	All	Codington Deuel Hamlin	Grant Roberts	Clark Day Marshall	All	Brown Spink	Edmund Faulk McPherson	Campbell Potter Walworth
	dollars per acre							
Nonirrigated Cropland								
Average 2012 rate	137.25	161.65	142.15	114.00	109.55	122.60	92.25	**
High Productivity	225.55	281.90	203.55	190.55	166.35	187.80	136.55	**
Low Productivity	90.30	101.45	98.55	76.30	70.35	78.70	60.75	**
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
Average 2009 rate	97.00	112.00	100.70	82.20	72.50	93.70	58.10	49.60
Average 2008 rate	87.80	95.80	87.85	78.95	65.70	86.60	57.60	47.65
Average 2007 rate	77.85	84.20	80.00	67.70	56.75	76.30	48.05	39.25
Hayland								
Average 2012 rate	56.30	71.65	**	50.55	61.15	69.50	48.75	**
High Productivity	77.25	101.65	**	68.65	83.40	95.50	66.55	**
Low Productivity	36.65	43.75	**	34.35	39.85	43.30	35.75	**
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
Average 2009 rate	58.50	72.20	**	46.40	40.60	49.20	37.00	31.40
Average 2008 rate	50.80	56.90	52.50	39.40	42.60	60.60	33.85	32.40
Average 2007 rate	45.10	51.30	45.00	38.25	34.25	44.55	33.00	22.20

Pasture/Rangeland								
Average 2012 rate	46.95	52.40	42.10	44.55	42.25	44.90	41.85	**
High Productivity	59.15	69.05	50.00	54.85	57.55	60.20	57.30	**
Low Productivity	33.00	35.50	30.85	31.85	29.45	30.70	30.00	**
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
Average 2009 rate	39.60	45.15	37.90	34.60	33.40	39.25	34.30	22.60
Average 2008 rate	38.30	42.40	37.00	33.65	31.30	39.70	30.00	22.10
Average 2007 rate	34.95	40.35	31.45	29.70	28.50	33.70	29.65	18.15
	Central		South Central		South West		North West	
	All **		All **		All**		All**	
Nonirrigated Cropland								
Average 2012 rate	95.55		64.10		34.05		31.15	
High Productivity	136.40		96.22		43.00		40.80	
Low Productivity	65.35		40.85		24.55		21.90	
Average 2011 rate	69.80		53.05		30.80		28.70	
Average 2010 rate	66.55		38.10		26.60		24.30	
Average 2009 rate	66.50		42.60		27.50		24.25	
Average 2008 rate	62.10		37.05		24.50		24.20	
Average 2007 rate	48.95		32.65		23.35		21.80	
Hayland								
Average 2012 rate	57.80		42.65		25.45		23.10	
High Productivity	79.45		58.55		31.85		29.80	
Low Productivity	41.95		30.55		19.65		16.30	
Average 2011 rate	47.70		32.70		22.95		21.10	
Average 2010 rate	43.30		26.00		21.00		18.60	
Average 2009 rate	39.80		27.50		21.00		18.70	
Average 2008 rate	38.40		27.95		17.75		20.00	
Average 2007 rate	31.35		25.70		18.80		18.40	
Pasture/Rangeland								
Average 2012 rate	40.40		22.30		11.65		12.55	
High Productivity	54.40		31.10		16.25		16.85	
Low Productivity	25.85		16.10		8.15		8.80	
Average 2011 rate	31.20		23.30		10.90		11.35	
Average 2010 rate	31.60		16.15		11.00		10.45	
Average 2009 rate	33.20		21.40		13.30		10.40	
Average 2008 rate	32.25		17.90		10.75		11.00	
Average 2007 rate	26.85		16.90		11.60		9.95	

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

Cash rental rates for hay land increased a record \$31.70 per-acre in the southeast region and varied between \$9.95 and \$12.75 per-acre in the south-central, central, and north-central regions. Average cash rental rates for hay land increased from \$2 to \$2.90 per-acre in the northwest, southwest, and east-central regions. Surprisingly, average cash rental rates for hay land decreased in the northeast region. A possible explanation is that most hay land reports for 2012 from the northeast region were for native hay compared to reports for "all hay" or alfalfa hay in 2011.

Rangeland cash rental rates increased an average of \$9.15 per-acre in the central region. In the north-central and three eastern regions, increases

in rangeland cash rental rates varied from \$1.30 to \$4.30 per-acre. For regions west of the Missouri River, rangeland cash rental rates showed modest changes of \$1.20 per-acre or lower.

Overall, very strong increases (>20%) in cash rental rates and land values occurred for cropland and hay land in the southeast, north-central, and south-central regions and for all land uses in the central region. Pasture and rangeland values also increased more than 20% in the southeast and north-central regions, while cash rental rates increased around 10%. Strong increases in land values and cash rental rates of 8 to 18%, depending on land use, occurred in the east-central region.

2012 cash rental rates – non-irrigated cropland

Cropland cash rental rates increased in all South Dakota regions and in the 11 county clusters where estimates were made. In many regions and county clusters, the increases were substantial (>20%).

Average cash rental rates in 2012 for nonirrigated cropland vary from \$31.15 to \$34.50 per-acre in the two western regions to \$109.55 in the north-central region to \$184.60 per acre in the east-central region (figure 7 and table 3).

Average cash rental rates for cropland are highest at \$220.90 per-acre in the Minnehaha-Moody county cluster. The next two highest cash rental rates average \$197.15 per-acre for cropland in the Brookings-Lake-McCook county cluster and \$190.50 per-acre in the Clay-Lincoln-Turner-Union (CLTU) county cluster (table 4).

Average cropland cash rental rates vary from \$136 to \$162 per-acre across four other county clusters in eastern South Dakota. These four county clusters include Bon Homme-Hutchinson-Yankton in the southeast, Codington-Deuel-Hamlin and Grant-Roberts in the northeast, and the five western counties in the east central region.

Average cash rental rates are lower in the remaining four county clusters: Edmund-Faulk-McPherson and Brown-Spink in the north-central region and adjacent Clark-Day-Marshall cluster in the northeast as well as Charles Mix-Douglas in the southeast region. Across these four county clusters, average cash rental rates vary from \$92 to \$123 per-acre (table 4).

Cropland cash rental rates are lower in the central region, averaging \$95.55 per acre, than in the north-central region where the average is \$109.55 per-acre. However, average cash rental rates are much lower in all regions west of the Missouri River varying from \$64.10 in the south-central to \$31.15 per-acre in the northwest 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 \$118 per acre for low-productivity cropland and \$279.55 per acre for high-productivity cropland. In the northwest region, the average cash rent for low-productivity cropland is \$21.60 per-acre while cash rental rates for high-productivity cropland average \$40.80 per-acre (tables 3 and 4).

2012 cash rental rates – hayland and irrigated land

Cash rental rates for hay land are also much higher in the southeast and east-central region, \$123 and \$105.35 per-acre respectively, than in all other regions of South Dakota. Average cash rental rates for hay land in the northeast, north-central, and central regions only vary from \$56.30 to \$61.15 per-acre. West of the Missouri River, hay land cash rental rates in 2012 vary from an average of \$23.10 per-acre in the northwest to \$42.65 per-acre in the south-central region (figure 7 and table 3).

Two county clusters, Minnehaha-Moody and CLTU have average cash rental rates of \$149.70 and \$144.60 per-acre, respectively. Hay land cash rental rates in two other county clusters (Bon Homme-Hutchinson-Yankton and Brookings-Lake-McCook) are \$121.85 and \$99.25 per-acre respectively. Average cash rental rates varying from \$49 to \$79 per-acre are reported in the other six county clusters in eastern and north-central regions (table 4).

Within each region and county cluster 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 Minnehaha-Moody cluster are \$106.55 and \$210.95 per acre, respectively, compared to \$16.30 and \$29.80 per acre in the northwest region. In many regions, the lower cash rental rates are reported for native hayland, while the higher rates are quoted for alfalfa or other tame hayland.

Cash rental rates for irrigated land in 2012 were estimated for only four regions: southeast, east central, north-central and western. In western South Dakota, the average cash rental rate was \$91.25 per-acre compared to average rates varying of \$178 to \$229 per-acre in the eastern and north-central regions (table 3).

2012 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 2012 cash rental rates per acre and per AUM on privately owned rangeland and pastureland in their locality.

Average cash rental rates per acre reflect regional differences in productivity and carrying capacity of pasture and rangeland tracts. Average cash rental rates vary from \$11.65 to \$12.55 per-acre in western South Dakota to \$61.95 per-acre in the east central region. Typical cash rental rates for low-productivity and high-productivity rangeland vary from \$8.15 to \$16.25 per acre in the southwest region and from \$41.05 to \$83.55 per acre in the east central region (figure 7 and table 3).

Across county clusters in the eastern and north-central regions, average cash rental rates for rangeland and pasture vary from highs of \$65.25 and \$66.25 per-acre in the CLTU and Minnehaha-Moody county cluster to average lows of \$42.10 and \$41.85 per-acre in the Grant-Roberts and Edmund-Faulk-McPherson county clusters (table 4).

Rangeland rates per AUM in 2012 vary from an average of \$25.25 per AUM in the northwest region to \$36.90 per AUM in the southeast region. The number of responses for AUM rates is too low to provide estimates for three regions: east-central, northeast, and central.

Publications on agricultural land rental arrangements in South Dakota

There are several recent 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. In addition, a 2011 report summarized crop share lease activity in South Dakota (Bourlion et.al. 2011).

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 2012 trend of gross rent to value ratio is depicted in figure 8.

In 2012, the statewide average gross rate of return (rent-to-value ratio) is 4.2% for non-irrigated cropland, 3.7% for hay land, 3.4% for rangeland, and 3.8% for all agricultural land. These annual average rates are the lowest gross annual cash rates of return calculated over the past 22 years! This is also the sixth consecutive year that gross rates of return have been lower than 4.5% for all-agricultural land, compared to an average of 7.4% during the 1990's, and 5.6% from 2000 to 2008 (table 5).

The practical range of gross rate of return is obtained for the middle 90% of the distribution of responses for each land use. For most respondents, the estimated cash rent-to-value ratio (gross rate of return) for 2012 varies from 2.6% to 6.25% for cropland, from 2.0% to 6.0% for hay land, and 1.8% to 4.8% for rangeland. The median rent-to-value ratio

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

is 3.85% for cropland, 3.6% for hay land, and 3.0% 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).

Average net rates of return for 2012 varied from 3.7% for non-irrigated cropland and hay land and 3.5% for rangeland and averaged 3.6% for all land (table 5). In recent years, respondent estimates of percent net rate of return have been very close to, and more variable than, the gross rate of return which is calculated from reported cash rents and value of rented land. The authors suggest the average gross rate of return reported in table 5 and figure 8) is the more reliable rate of return measure.

LONGER-TERM PERSPECTIVE ON FARMLAND MARKET CHANGES, 1991–2012

Longer-term historical data from annual SDSU surveys of agricultural land values and cash rental rates in South Dakota from 1991 to 2012 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. Regional and statewide comparisons of annual percent changes in all-agricultural land values in four time periods from 1991 to 2012 are shown in figure 9.

Based on 22 years of examining trends in agricultural land values, cash rental rates, and rates of return by land use and across regions, a few key observations are offered.

First, agricultural land values increased more rapidly from 2001 to 2008 than in the other time periods (figure 9). From 2001 to 2008, average annual increases in land values were 11% or more in all regions of the state, with statewide increases averaging

15.3%. In the earlier time periods, statewide average annual increases in land values were between 4.7% and 7.4%, with most regional increases varying from 2% to 8% annually.

During the past four years of general U.S. economic recession and slow recovery, statewide agricultural land values increased at an annual rate of 13.7%. Much of this increase is due to the farm commodity price boom in the past few years. Sharp regional differences in annual rates of increase in land values emerged, with considerably lower rates of increase in the regions west of the Missouri River.

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

The third period, 2001 to 2008, reflects the impacts of major reductions in farm mortgage interest rates, continued farm program support and planting flexibility, growing use of crop revenue insurance, and relatively low rates of inflation. Federal policy shifts in favor of renewable fuels and the growing importance of ethanol production from corn has further increased commodity prices and indirectly contributed to increased cash rental rates and land values.

The most recent period, 2008 to 2012, reflects the impact of the major economic recession and its aftermath on the farm sector, interacting with the commodity price boom in the past few years. The national (and global) economic recession continues to have much more negative impacts on other sectors of the U.S. economy.

Third, cash rates of return (gross cash rent to land value ratio) to agricultural land were relatively stable from 1991 to 2000 and declined substantially from 2001 to 2012. These findings indicate that increased land values during the 1990's were supported by

Table 5. Estimated rates of return to South Dakota agricultural land by type of land and by region, 1991–2012

Type of land-statewide ^c	2012	2011	2010	2009	Average 2000-2008	Average 1991-1999	2012	2011	2010	2009	Average 2000-2008	Average 1991-1999
	GROSS rate of return (%) ^a						NET rate of return (%) ^b					
All agricultural land	3.8	3.9	4.0	4.3	5.6	7.4	3.6	3.5	3.2	3.6	4.3	5.4
Nonirrigated cropland	4.2	4.3	4.4	4.7	6.3	8.0	3.7	4.0	3.9	4.3	4.8	6.1
Rangeland & pasture	3.4	3.6	3.6	4.1	5.1	6.8	3.5	3.2	2.7	3.0	3.9	4.8
Hayland	3.7	4.1	4.3	4.5	6.2	8.0	3.7	3.5	3.6	3.8	4.4	5.6
Region ^d	GROSS rate of return (%)						NET rate of return of return (%)					
Southeast	3.4	3.7	4.2	4.1	6.0	7.4	3.7	4.0	3.7	3.8	4.7	5.9
East-Central	3.6	3.7	3.8	4.0	5.6	7.6	3.4	3.6	3.3	3.8	4.6	5.5
Northeast	4.0	3.9	4.2	4.2	6.2	8.1	3.5	3.8	3.7	4.2	4.8	6.2
North-Central	3.6	4.0	4.2	4.6	6.0	7.9	3.3	3.2	3.8	4.2	5.0	6.1
Central	2.9	3.7	3.9	3.9	5.7	7.7	2.6	3.6	3.4	4.0	4.4	5.3
South-Central	3.6	3.6	3.3	4.2	5.5	6.9	3.7	3.3	3.1	3.5	4.3	5.2
Southwest	3.4	3.8	3.3	4.1	5.1	6.7	3.8	3.6	2.4	2.6	3.5	4.4
Northwest	4.7	4.4	4.4	4.3	5.5	7.1	4.1	3.4	3.0	3.4	3.9	5.1

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

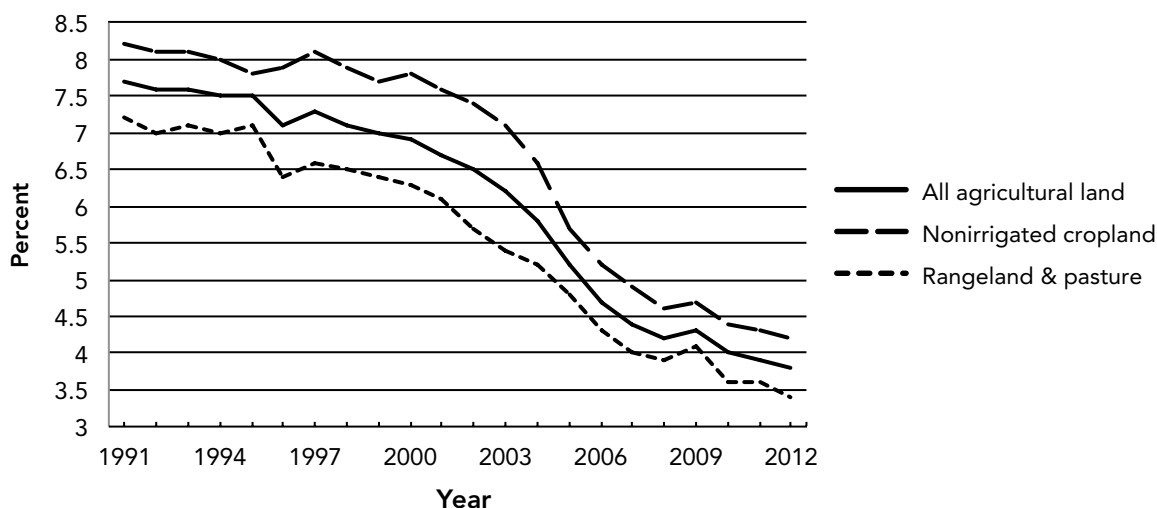
^b NET rate return is the reporter's estimate of the percentage rate of cash return to ownership given current land values. Appraisers often refer to this measure as the market capitalization rate.

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

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

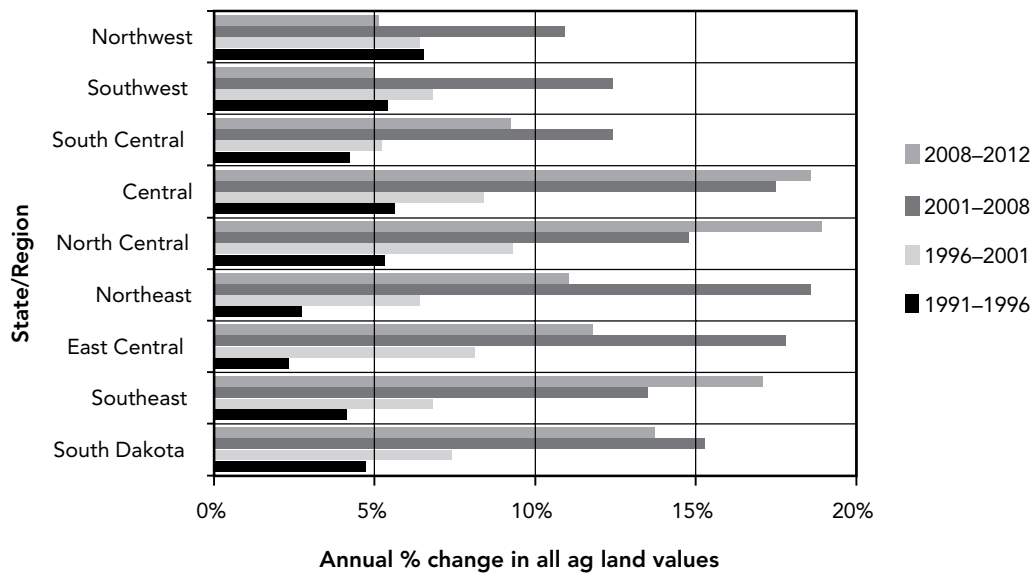
Source: South Dakota Farm Real Estate Survey, SDSU, 2012 and earlier reports.

Fig 8. Gross rent-to-value ratio by land use, 1991–2012



Source: 2012 SDSU Farm Real Estate Market Survey and earlier publications.

Fig 9. Annual percentage change in all ag land values in four time periods, 1991–2011



comparable rates of increase in cash rental rates. However, from 2001 to 2012, cash rental rates usually increased at a slower rate than land values. This finding illustrates the much greater impact of reduced interest rates on land values compared to its impacts on cash rental rates. During all 22 years of farmland market reporting, average rates of return to cropland exceeded average rates of return to rangeland (figure 8).

Fourth, cash rates of return to farmland are very low. For most years during the 2001 to 2012 period, farmland investors were in speculative market conditions where most of the total returns were from expectations of capital appreciation instead of current cash returns. This pattern of declining rates of cash return to land also occurs during the latter stages of land market price booms. The national economic recession and financial turmoil in the second half of 2008 and through 2009 slowed the rate of increase in farmland values and likely altered farmland market psychology to greater emphasis on current income and cash flow. However, the subsequent boom in commodity prices has led to major increases in both cash rental rates and land values, especially for cropland.

Fifth, regional and county cluster rankings in per-acre land values and cash rental rates are relatively stable for most land uses, reflecting fundamental differences in soil productivity and long-term weather

patterns and relatively slow shifts in the economic structure of most counties in South Dakota. Three county clusters along the I-29 corridor in eastern South Dakota (Minnehaha-Moody, Clay-Lincoln-Turner-Union, and Brookings-Lake-McCook) consistently have the highest average per-acre land values and cash rental rates for each agricultural land use.

Sixth, during the 22 year period, cropland and hay land values have generally increased more rapidly than rangeland and pasture values, especially in the more cropland-intensive regions east of the Missouri River. Both land values and cash rents per-acre have increased more rapidly in the five regions east of the Missouri River, compared to the three regions west of the Missouri River. The relative increase in crop productivity compared to rangeland / pasture productivity due to production technology changes, changing crop mix favoring corn and soybeans, and growth of ethanol production have been some of the contributing factors.

Finally, longer-term trends in agricultural land values show increases above the rate of price inflation in all regions. From 1991 to 2012, the average annual rate of general price inflation has been less than 3%. The statewide average annual rate of increase for all-agricultural land was 10.3% during this period, with regional variation from 7.3% to 11.7% (appendix table 2).

RESPONDENTS' ASSESSMENT OF FACTORS INFLUENCING FARMLAND MARKETS IN SOUTH DAKOTA

Respondents were asked to list major positive and negative factors affecting the farm real estate market in their localities. These factors help explain changes in the amount of farmland for sale, sale prices, and rental rates. Eighty five percent of survey respondents listed one to three positive reasons, but only 65% listed one to three negative reasons.

Thirty seven percent of total responses listed high commodity prices as the main positive factor. Low mortgage interest rates, farm profitability / productivity and farm finance / investment climate were three other key positive factors (figure 10).

Higher input costs and general economic conditions (slow recovery and uncertainty / volatility) were the two most common negative factors and consisted of 48% of negative responses (figure 11). Farm financial factors (tight credit and financial pressure), few new farmers, uncertainty of future federal tax and farm programs, and various "other" items were also listed as negative factors. However, 14% indicated that all farmland market factors were positive.

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 86% of respondents provided their perception of previous year cropland value changes, compared to 72% for rangeland and 62% for hay land. Nearly three-fourths of respondents projected cropland value changes for next year, compared to 59% estimating changes in rangeland values and 54% estimating changes in hay land values. The proportion of respondents providing forecasts for the next 12 months was lower in 2012 than in most prior surveys.

During the past year, respondents' estimated percentage increases in land values averaged 18% for cropland, 16% for hay land, and 13% for rangeland. The median rate of increase was 17% for cropland, 15% for hay land, and 10% for rangeland. There were no reports of declining land values, and relatively few reports of no change in land values. Overall, nearly 94% of rangeland and hay land reports and 98% of cropland reports indicated land value increases in the past year.

The 2012 and 2011 survey reports were considerably more positive than the 2009 or 2010 surveys, when a substantial proportion of respondents (40 to 60 percent depending on land use and survey period) reported no change or declines in land values. For most surveys, including 2012, respondent perception of percentage change in land values was generally lower than the actual percent changes calculated from the survey data.

Most respondents, 84% to 91% depending on land use, providing forecasts expect land values to increase in the next 12 months and the remainder

Fig 10. Positive factors in the farm real estate market

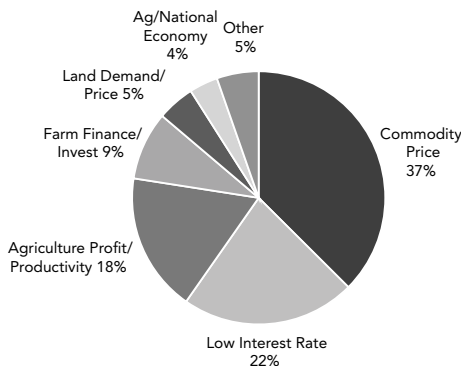
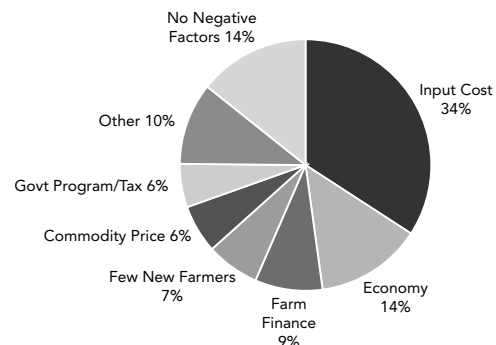


Fig 11. Negative factors in the farm real estate market



projected no change in land values. None of the respondents forecast a decline in land values during the next 12 months! The median (mean) forecast in per-acre values for cropland was 10% (9%) compared to 5% (7%) for hay, pasture, and rangeland.

In summary, respondents to the 2012 survey are very optimistic about farmland market conditions for the following year. This optimism reflects the impact of very high agricultural commodity prices on farm

profits and on cash rental rates which are capitalized into increasing land values. There are concerns about impacts of future possible federal policies for deficit reduction, taxation, credit / finance, agriculture, and renewable energy. However, most respondents continue to indicate the farm sector is in good shape, from a financial perspective, and expect continued resilience in the next few years.

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APPENDIX I: SURVEY METHODS AND RESPONDENT CHARACTERISTICS

The primary purpose of the *2012 South Dakota Farm Real Estate Market Survey* was to obtain regional and statewide information on 2012 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. For 2012, a supplemental survey on pasture land leasing was also conducted.

Copies of this survey were mailed to 590 potential respondents on February 10, with a follow-up mailing on March 2. Potential respondents were persons employed in one of the following occupations: 1) agricultural lenders (senior agricultural loan officers of commercial banks or Farm Credit Service), 2) loan officers or county directors of the USDA Farm Service Agency (FSA), 3) Cooperative Extension Service agricultural 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-half 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 180 respondents provided 202 useable responses.

The distribution of 202 responses is summarized by location and reported occupation in appendix table 1. Sixty-one percent of responses are from the three eastern regions of South Dakota, 20% were from the central and north-central region, and 19% were from the south-central and western regions. The relatively low number of responses from the central,

south-central and western regions is becoming a major concern in providing land value and rental rate estimates for these regions.

Sixty four percent of responses are from agricultural lenders or FSA officials, and 23% of responses are from appraisers. The remaining responses are from Extension agricultural field specialists and assessors. Over the past several years, the proportion of responses from agricultural lenders and appraisers has increased relative to other respondent categories.

Most responses (92%) provided land value and cash rental rate information for non-irrigated cropland in their locality. Nearly 80% of responses provided the same information for rangeland, compared to nearly 68% of responses reporting hay land values and cash rental rates. Almost one-fourth of responses reported irrigated land values and cash rental rates, while only 17% reported cash rental rates per AUM on rangeland. This is the lowest proportion of responses reporting AUM cash rental rates in the 22 year history of this land market survey!

Regional average land values by land use are simple average (mean) values of usable responses. State-wide 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 agricultural land use for privately owned non-irrigated 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. The land-use weighting factors were developed from county-level data in the *2002 South Dakota Census of Agriculture* and other sources.

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

**Appendix Table 1. Selected characteristics of responses, 2012.
Number of responses = 202**

Responses:			Primary Occupation		
Reporting location	N	%	N	%	
Southeast	39	19.3%	Banker/loan officer	94	46.5%
East-Central	55	27.2%	Farm Service Agency	36	17.8%
Northeast	29	14.4%	Assessor	16	7.9%
North-Central	24	11.9%	Appraiser/realtor	46	22.8%
Central	15	7.4%	Extension educators	10	5.0%
South-Central	14	6.9%		202	100.0%
Southwest	14	6.9%			
Northwest	12	5.9%			
	202	100.0%			

Response rates:			Cash Rental Rates		
Land values	N	%	N	%	
Nonirrigated cropland	187	92.6%	Nonirrigated cropland	187	92.6%
Irrigated cropland	48	23.8%	Irrigated cropland	48	23.8%
Hayland	138	68.3%	Hayland	138	68.3%
Rangeland (native)	155	76.7%	Rangeland (acre)	159	78.7%
Pastureland (tame)	123	60.9%	Rangeland (AUM)	34	16.8%

Source: 2012 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, 1991–2012

Appendix Table 2. Average reported value and annual percentage change in value of South Dakota agricultural land by type of land by region, February, 1991-2012.

Type of Land	South-east	East-Central	North-east	North-Central	Central	South-Central	South-west	North-west	STATE
	dollars per acre								
All Agricultural Land (nonirrigated)									
Average value, 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 12/91	10.2%	10.6%	9.8%	11.7%	11.6%	8.1%	7.7%	7.3%	10.3%
Annual % change 12/11	38.4%	16.7%	13.8%	35.2%	55.7%	17.4%	0.4%	7.9%	26.8%
	dollars per acre								
Nonirrigated Cropland									
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 12/91	10.2%	10.8%	10.1%	11.7%	11.5%	7.9%	6.4%	5.8%	10.4%
Annual % change 12/11	41.6%	17.6%	15.5%	31.5%	57.9%	20.9%	8.3%	2.7%	29.1%

Source: South Dakota Farm Real Estate Market Surveys, SDSU, 2012 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
	dollars per acre								
Rangeland (native)									
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 12/91	9.9%	10.3%	9.4%	11.3%	11.1%	8.3%	8.4%	7.9%	9.4%
Annual % change 12/11	21.5%	18.5%	10.5%	46.0%	47.7%	14.2%	-2.0%	10.4%	20.6%
Pasture (tame, improved)									
	dollars per acre								
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 12/91	9.9%	9.9%	9.4%	11.1%	11.0%	8.1%	7.6%	6.8%	9.6%
Annual % change 12/11	31.8%	13.9%	12.3%	33.5%	50.3%	10.8%	-7.3%	8.4%	20.5%

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								
Hayland									
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 12/91	9.9%	10.7%	9.3%	12.2%	12.2%	8.2%	7.4%	5.9%	10.1%
Annual % change 12/11	39.0%	9.7%	3.0%	46.4%	64.8%	21.7%	1.3%	1.8%	27.7%

Appendix Table 3. Reported cash rental rates of South Dakota agricultural land by type of land by region, 1991-2012.

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 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
Hayland									
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, 2012* 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								
Pasture/Rangeland									
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
	dollars per Animal Unit Month								
Average 2012 rate	36.90	***	***	32.30	***	32.20	28.45	25.25	
Average 2011 rate	35.20	20.00	30.00	26.25	30.20	31.85	26.80	23.75	
Average 2010 rate	29.70	***	***	***	28.00	26.25	27.40	23.20	
Average 2009 rate	26.45	29.40	***	26.40	28.90	27.70	26.65	21.05	
Average 2008 rate	29.80	***	***	27.70	27.80	26.90	25.20	21.00	
Average 2007 rate	22.70	***	26.50	27.00	25.40	23.80	24.30	21.90	
Average 2006 rate	25.15	26.00	25.25	23.10	24.45	24.45	24.15	20.85	
Average 2005 rate	21.45	21.10	23.75	22.40	20.60	23.20	22.30	19.45	
Average 2004 rate	21.30	***	***	21.10	24.00	23.60	21.90	19.80	
Average 2003 rate	20.30	***	***	20.40	20.40	21.50	19.90	19.30	
Average 2002 rate	20.70	18.00	17.70	16.30	16.30	21.20	19.10	17.60	
Average 2001 rate	20.00	21.00	18.60	16.80	17.40	19.80	17.80	15.75	
Average 2000 rate	18.70	17.90	19.80	15.50	17.40	19.20	16.20	16.70	
Average 1999 rate	18.50	15.80	18.80	15.40	16.30	18.50	16.50	16.40	
Average 1998 rate	16.00	19.00	17.70	15.00	19.80	19.10	16.10	16.30	
Average 1997 rate	17.60	18.00	16.20	13.40	17.00	17.30	15.90	16.10	
Average 1996 rate	17.50	16.70	15.60	14.70	16.30	16.60	16.40	16.20	
Average 1995 rate	17.30	16.70	13.60	15.00	16.10	16.80	16.40	15.50	
Average 1994 rate	15.40	15.00	15.60	14.80	16.50	17.00	15.60	16.50	
Average 1993 rate	15.60	13.90	14.25	13.25	14.90	16.40	15.40	14.50	
Average 1992 rate	15.40	14.50	12.50	13.10	15.50	15.90	14.00	15.00	
Average 1991 rate	13.70	15.90	15.50	12.80	14.80	15.20	14.30	13.00	

*** Insufficient number of reports

Source: South Dakota Farm Real Estate Market Surveys, SDSU, 2012 and earlier year reports.