C278

South Dakota

# Agricultural Land Market Trends 1991–2011

The 2011 SDSU South Dakota Farm Real Estate Survey

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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 2011 SDSU South Dakota Farm Real Estate Market Survey, the 21th 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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We also wish to thank Penny Stover for developing and maintaining the mailing lists and for assistance with various survey and publication related tasks. Penny Stover is a secretary in the Economics Department. Finally, we wish to thank Nelly Bourlion, Economics graduate assistant, who conducted many daily tasks related to the survey and drafted updated charts and tables for this report.

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Finally, we wish to thank all of the respondents who participated in the 2011 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.

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**http://pubstorage.sdstate.edu/AgBio_Publications/articles/C278.pdf**


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# SUMMARY

The *2011 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 are booming again for all land uses and in most regions of South Dakota. The most recent annual (2010–2011) increase of 16.5% for all agricultural land values in South Dakota was the third highest annual rate of increase since 1991.**

From 2001 to 2008, agricultural land values in South Dakota increased more than 10% each year, including more than 20% in two years (2004–2005 and 2007–2008) during this period. From 1991 to 2000 and from 2008 to 2010, annual increases in South Dakota 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 17.7%, compared to increases of 15.2% for hayland and 13.1% for rangeland. The strongest increases in land values (above 15% for most land uses) occurred in the east central, southeast, and south central regions. Land value changes were positive for each land use in all regions, with the lowest rates of increase in the northwest region.

**• From 2010–2011, statewide average cash rental rates per acre increased for all land uses, with substantial increases (>10%) in cash rental rates in several regions.**

Statewide average cash rental rates per acre increased $12.25 for cropland, $5.60 for hayland, and $2.10 for rangeland. In general, cash rental rate increases for cropland and rangeland were strongest in the three eastern regions and in the north central and south central regions. Cash rental rates increased for hayland in all except the southeast region.

**• Current average rates of cash return on agricultural land in South Dakota are lower in 2010 and in 2011 than in any of the past 21 years.**

For 2011, the average ratio of gross cash rent to current land value was 3.9% for all agricultural land, 4.3% for non-irrigated cropland, and 3.6% for rangeland . During the 1990s, the same ratios were 7.4% for all agricultural land, 8.0% for cropland, and 6.8% for rangeland.

**• 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 2011, farmland 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 non-irrigated 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. 2011) in South Dakota is $1,374 per acre. Non-irrigated agricultural land varies from $3,332 per acre in the east-central region to $342 per acre in the northwest region. Average non-irrigated cropland values vary from $4,024 per acre in the east central region to $1,866 per acre in the central region to $483 per acre in the northwest region.

Average rangeland values vary from $1,779 per acre in the east-central region to $309 per acre in the northwest region. 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 2011 is nearly $5,200 and average cash rental rate for cropland is $180 per acre. Cropland values exceed $4,550 and cash rental rates exceed $170 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 21 years of the SDSU Farm Real Estate Market Survey.

At the regional level, average cash rental rates per acre for cropland in 2011 vary from $152.70 in the east-central region to $28.70 in the northwest region. Average rangeland and pasture rental rates vary from slightly above $57.65 per acre in the east central region to about $11 per acre in the northwest and southwest regions.

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

High agricultural commodity prices were listed by a majority of respondents as the major positive factor in the farmland market. Low mortgage interest rates, farm profits, good crop yields, and investment potential for farmland were also discussed. Higher input costs, general economic conditions (slow recovery and a lot of uncertainty), concern the land market has peaked, and tight credit/financial pressure were the main negative factors.

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

Most respondents (78 to 84% 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. No respondent forecasted a decline in land values during the next 12 months!

South Dakota

# Agricultural Land Market Trends 1991–2011

Dr. Larry Janssen and Dr. Burton Pflueger[1]

The *2011 SDSU Farm Real Estate Market Survey* is the 21st 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 2011 estimates are based on reports from 194 responses[2] to the 2011 SDSU survey. Responses are from agricultural lenders, Farm Service Agency officials, rural appraisers, assessors, realtors, professional farm managers, and Extension agricultural educators. All are familiar with farmland market trends in their localities.

Copies of the SDSU survey were mailed in February and March 2011. The surveys requested information on cash rental rates and agricultural land values as of February 2011. 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 2010. Regional information on land values and cash rents by land use (crop, hay, range, pasture, and irrigated crop/hay)[3] 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 are 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 early 2011. From June or July 2010, cash prices of corn, wheat, and soybeans have nearly doubled, and beef stocker prices have increased beyond previous (historical) highs. Of course, input costs (especially fossil-fuel-dependent items) are also increasing, but considerable profit-enhancement opportunities are available. Secondly, farm mortgage interest rates remain low—generally less than 6.5% for fixed-term loan and less than 6.0% for variable-rate loans—although credit standards have probably tightened (Minneapolis Federal Reserve–Agricultural Credit Conditions Survey, 4th Qtr, 2010).

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.

Personal income increased in 2009 and 2010, with considerable variation from farm-sector income changes. At this point there are some gains in employment, and personal income in South Dakota contributed in part by the economic strength of its agricultural sector. Further information about the South Dakota general economy can be obtained from Opoku and Fausti (2011) or from 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, 2011

### Procedures to estimate and report land values

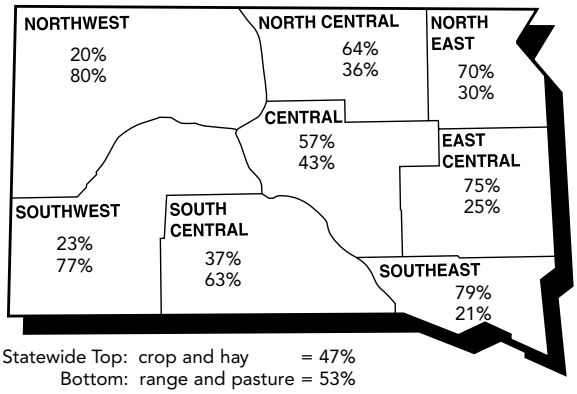
Respondents to the *2011 South Dakota Farm Real Estate Market Survey* estimated the per-acre value of non-irrigated cropland, hayland, rangeland, tame pastureland, and irrigated land in their county and the percent change in value from one year earlier. Responses for non-irrigated land uses are grouped 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 or federal lands.

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

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

Regional differences in all-agricultural land values are primarily related to major differences in 1) agri-

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




Statewide Top: crop and hay = 47%
Bottom: range and pasture = 53%

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

cultural land productivity among regions, 2) per-acre values of cropland and rangeland in each region, and 3) the proportion of cropland and rangeland in each region. More than 80% of farmland acreage in each region is cropland or rangeland, and most of the remainder is tame pasture or hay. Native rangeland is the dominant land use in western South Dakota, while most agricultural land in eastern South Dakota is non-irrigated cropland or hay (fig. 1).

Statewide, an estimated 47% of privately owned farmland acres are cropland or hayland, and 53% is rangeland or tame pasture (fig. 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, 2011

Agricultural land values are booming again in South Dakota for all land uses. Depending on land use, the statewide estimated annual percentage change from Feb. 2010 to 2011 varied from 13.1% to 18.4%, with most regions reporting double-digit increases (10% or more) for most land uses.

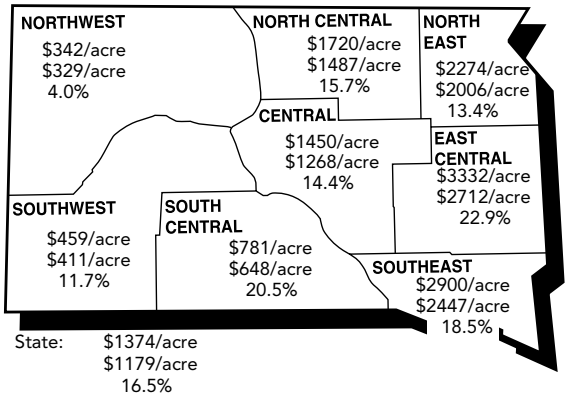
As of February Feb. 2011, the average value of all--agricultural land in South Dakota was $1,374 per acre, a 16.5% increase in value from one year earlier (fig.ure 2 and table 1). Agricultural land values increased more than 11% in all except the northwest region, which showed a 4% increase. Three regions—southeast, east central, and south centrals—had higher percentage rates of increase than the statewide average—southeast, east central, and south central region.

The statewide change of 16.5% is the third highest annual rate of increase in the past 21 years—with annual rates of increase exceeding 20% from 2004 to 2005 and from 2007 to 2008. During the past decade, annual increases in all-agricultural land value were usually between 7.5% and 17.5%, with a low of 5.1% reported in 2010. Overall, agricultural land values in South Dakota have more than doubled since 2005 and have increased six-fold since 1991 (Appendix table 2).

The all-land average values are highest in the eastern regions, with per-acre values ranging from $3,332 in the east-central region to $2,900 in the southeast region and $2,274 in the northeast region. This is the first year that all-land values averaged more than $3,000 per -acre in any region! Per-acre increases from 2010 to 2011 varied from $268 per -acre in the northeast to $620 per -acre in the east central region (table 1)! These three eastern regions contain the most- productive land in South Dakota. Cropland and hay land are the dominant agricultural land uses in eastern South Dakota, varying from 70% of farmland acres in the northeast to 79% in the southeast (figure 1).

Average per-acre agricultural- land values in the north-central and central regions are much higher than corresponding land values in western and south-central South Dakota and considerably lower than average land values in the eastern regions. Average land values were $1,720 per -acre in the north-central region and $1,450 per acre in the cen tral region (table 1). Average land values are usually higher in the north-central region due to the greater proportion of crop- and hay land. Both regions had percentage increases in land values close to 15%, with per-acre value changes of $233 in the north-central and $182 in the central region.

**Fig 2. Average value of South Dakota agricultural land, February 1, 2008 and 2009, 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, 2011
Middle: Average per-acre value—February 1, 2010
Bottom: Annual percent change in per-acre land value

*Source: 2011 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, 2006–2011.**

| 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, 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 |
| Annual % change 11/10 | 18.5% | 22.9% | 13.4% | 15.7% | 14.4% | 20.5% | 11.7% | 4.0% | 16.5% |
| **Nonirrigated Cropland** | | | | | | | | | |
| 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 |
| Annual % change 11/10 | 19.7% | 22.3% | 14.0% | 18.3% | 13.5% | 15.3% | 11.6% | 1.9% | 17.7% |
| **Rangeland (native)** | | | | | | | | | |
| 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 |
| Annual % change 11/10 | 18.7% | 15.8% | 13.7% | 8.6% | 16.9% | 23.3% | 12.1% | 4.4% | 13.1% |
| **Pasture (tame, improved)** | | | | | | | | | |
| 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 |
| Annual % change 11/10 | 16.6% | 27.8% | 26.8% | 17.2% | 11.1% | 17.2% | 8.4% | 7.5% | 18.4% |
| **Hayland** | | | | | | | | | |
| 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 |
| Annual % change 11/10 | 11.3% | 32.2% | 0.6% | 8.2% | 16.0% | 25.4% | 16.7% | 2.3% | 15.2% |

| Type of Land | South-east | East Central | North-east | North Central | Central | Western | STATE |
|---|---|---|---|---|---|---|---|
| | | | | dollars per acre | | | |
| **Irrigated land** | | | | | | | |
| Average value, 2011 | 4212 | 3952 | *** | 2895 | 2711 | *** | *** |
| High Productivity | 5492 | 4800 | *** | 3495 | 3067 | *** | *** |
| Low Productivity | 3220 | 3182 | *** | 2263 | 2167 | *** | *** |
| Average value, 2010 | 3611 | 3632 | 3142 | 2986 | 2468 | 1533 | 2578 |
| Average value, 2009 | 3373 | 3429 | 3085 | 2083 | 2095 | 1162 | 2240 |
| Average value, 2008 | 3020 | 3070.9 | 2681 | 1607 | 2156 | 925 | 1970 |
| Average value, 2007 | 2547 | 2649 | 2100 | 1531 | 1578 | 951 | 1699 |
| Average value, 2006 | 2354 | 2305 | 1610 | 1329 | 1422 | 871 | 1518 |
| Annual % change 11/10 | 16.6% | 8.8% | *** | -3.0% | 9.8% | *** | *** |

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

*Source: 2011 and earlier South Dakota Farm Real Estate Market Surveys*
*Statewide average land values are based on 2002 land use weights*

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 $781 in the south-central region to $342 per acre in the northwest region, respectively. The per-acre change in land values varied from $133 in the south central to only $13 in the northwest region (table 1). Rangeland and pasture are the dominant agricultural- land uses.

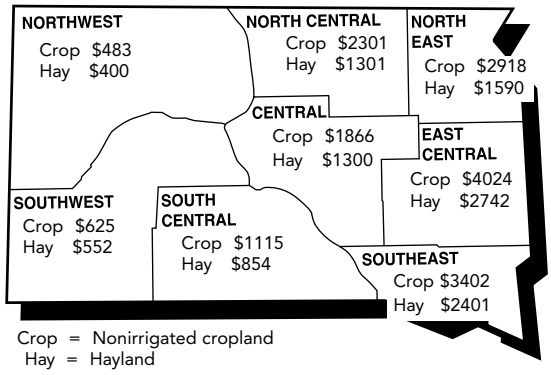
## LAND VALUES AND VALUE CHANGES BY TYPE OF LAND AND REGION

In each region, per-acre values are highest for irrigated land, followed by non-irrigated cropland, hayland, tame pasture, and native rangeland. For each non-irrigated land use, per-acre land values are highest in the three eastern regions and lowest in the three regions west of the Missouri River—northwest, southwest, and south-central (figs. 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 Feb. 2011) is $2,389 per acre, a 17.7% increase from 2010 (table 1). This is the second year that statewide average non-irrigated cropland values exceed $2,000 per acre! Statewide per-acre cropland values have more than doubled since 2005 and have increased six-fold since 1991 (Appendix table 2).

**Fig 3. Average value of South Dakota cropland, and hayland, by region, February 2011, dollars per acre.**




*Source: 2011 South Dakota Farm Real Estate Market Survey, SDSU.*

Cropland values increased more than 11% in all except the northwest region, which showed little change (+1.9%). The highest percentage rates and per-acre dollar amounts of increase are in the east-central and southeast regions.

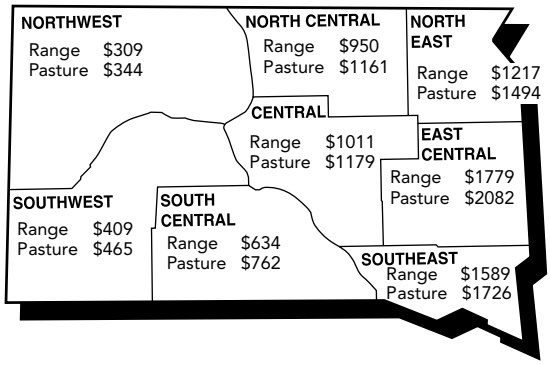
This is the first year that average cropland values exceed $4000 per acre in any South Dakota region. The east-central region has the highest cropland value of $4,024 per acre, followed by cropland values of $3,402 in the southeast region and $2,918 in the northeast region. The per-acre increase in cropland values varied from $358 in the northeast region to $733 in the east-central region (fig. 3; table 1; Appendix table 2).

The three eastern regions contain 45% of South Dakota's cropland, while the north-central and central regions contain 33% of South Dakota's cropland acres. Corn and soybeans are the major crops in most counties in the eastern regions, compared to corn, soybeans, sunflowers, wheat and some other small grains in most counties of the north-central and central regions.

Average cropland values of $2,301 per acre in the north-central region are higher than the average of $1,866 per acre in the central region. The per-acre change in cropland values was $356 in the north central region and $222 in the central region.

Cropland values are considerably lower in the three regions west of the Missouri River. As of February 2011, per-acre cropland values averaged $1,115

**Fig 4. Average value of South Dakota rangeland and tame pasture, by region, February 2011, dollars per acre.**




*Source: 2011 South Dakota Farm Real Estate Market Survey, SDSU.*

in the south-central region, $625 in the southwest region, and $483 in the northwest region. This is the first time that average cropland values exceed $1,000 per acre in any region west of the Missouri River. At the beginning of the 21st century (the year 2000), cropland values were less than $1,000 per acre in all regions of South Dakota (Appendix table 2)!

These three regions- south central, southwest, and northwest, 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. In most years since 2000, cropland values have been increasing at a slower rate in these three regions compared to the more cropland intensive regions east of the Missouri River.

## Hayland values

South Dakota hayland values averaged $1,377 per acre as of Feb. 2011, a 15.2% increase from one year earlier (table 1). The strongest annual increases, above 20%, were reported in the east-central and south-central regions. Changes of less than 10% were reported in the three northern regions of South Dakota—northwest, north-central, and northeast. Statewide, hayland values have more than doubled since 2005 and quintupled from 1992 (Appendix table 2).

Average hayland values are highest in the east-central and southeast regions, with per-acre values of $2,742 and $2,401, respectively. Hayland values are considerably lower in the other regions east of the Missouri River, varying from $1,590 in the northeast to about $1,300 in the north-central and central regions.

Substantially lower values for hayland are found in all regions west of the Missouri River, varying from $854 in the south-central, to $552 in the southwest, to $400 per acre in the northwest region (fig. 3; 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 2011, the value of South Dakota native rangeland averaged $611 per acre, while the average value of tame pasture was $1,011 per acre (table 1). This is the first year that statewide tame-pasture values exceed $1,000 per acre! Native rangeland is concentrated in the western and central regions of South Dakota, while tame pasture is concentrated in the central and eastern regions.

Statewide, average rangeland and tame-pasture per-acre values increased 13.1% and 18.4%, respectively, during the past year (Feb. 2010 to Feb. 2011). Rangeland and pasture values have increased more than 10% annually for six consecutive years (2002 to 2008) and in the current year. Statewide, per-acre values of rangeland and tame pasture have more than doubled since 2004, and increased more than five-fold since 1991 (Appendix table 2)

Average rangeland values are highest in the east-central and southeast regions, $1,779 and $1,589 per acre, respectively, and lowest in the southwest and northwest regions, with average values of $409 and $309 per acre, respectively. In other regions, average rangeland values vary from $634 per acre in the south-central region to $1,217 per acre in the northeast region (fig. 4; table 1).

In most regions, average values of tame pasture varied from 9 to 22% 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 non-irrigated cropland varies from 2.1 to 2.4 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 1.5 to 1.85 times the average value of rangeland. Pasture-land values per acre are between the rangeland and hayland values in all regions.

## Irrigated land values

Irrigated-land-value reports are consolidated into six regions (table 1). Very few irrigated-land reports were received from respondents in the western regions and in the northeast region. Consequently, no irrigated-land-value estimates were made for these regions or statewide for 2011.

We continue to caution readers that irrigated-land-value data are less reliable than data on land values reported for other agricultural land uses. Irrigated land is not common (less than 1% of total acres) in most regions, and there are few sales of irrigated-land tracts. Consequently, only 23% of all respondents were familiar with and able to provide information on irrigated-land values.

Irrigated-land values increased in the southeast, east-central, and central regions, and decreased slightly in the north-central region. Irrigated-land values in these four regions varied from an average of $4,212 to $3,952 per acre, respectively, in the southeast and east central regions, to $2,895 and $2,711 per acre, respectively, in the north-central and central regions (table 1). In these four regions, the value of irrigated land was reported for center-pivot irrigation systems, excluding the value of the center pivot.

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

Within each region and for each non-irrigated-agricultural-land use, there is considerable variation in land values. In this section we report the Feb. 2011 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 land-value characteristics. Three county clusters are identified in each of the following five regions: southeast, east-central, northeast, north-central, and central. Land values are not reported for county clusters in regions west of the Missouri River because there are too few reports. This survey is not designed to reflect the substantially higher land values in or near the Black Hills. Also, few reports for pasture and hayland in two county clusters prevented making value estimates.

Substantial variation in per-acre land value occurs by degree of land productivity for each land use in each region. For example, 2011 cropland values in the east-central region vary from an average of $3,013 per acre for low-productivity cropland to $5,164 per acre for high-productivity cropland. At the other extreme, the average value of low-productivity cropland in the northwest region is $387, compared to $559 per acre for high-productivity cropland. Across regions, average values of low-productivity cropland were 53% to 70% of the average values of high-productivity cropland.

Rangeland values in the east-central region vary from an average of $1,382 per acre for low-productivity rangeland, to $2,202 per acre for high-productivity rangeland. In the northwest region, at the other extreme, the average value of low-productivity rangeland is $247 per acre, compared to $378 per acre for high-productivity rangeland. Across all regions, the average value of low-productivity rangeland varies from 56% to 66% of high-productivity rangeland (table 2).

In 2011, cropland and rangeland values per acre increased in all regions and in all county clusters. Pastureland values increased in all regions and in all 13 (of 15) county clusters where estimates were made. Hayland values increased in each region and in 13 county clusters. In short, land value increases were pervasive in almost all areas of South Dakota.

In 2011, average non-irrigated cropland values were nearly $5,200 per acre in the Minnehaha-Moody county cluster, compared to $4,567 per acre in the Clay-Lincoln-Turner-Union (CLTU) county cluster, and $3,672 per acre in the Brookings-Lake-McCook county cluster. Cropland values were between $2,487 and $3,250 per acre in the other six county clusters of eastern South Dakota.

In the north-central and central regions, cropland values were substantially higher in Brown-Spink counties, averaging $2,980 per acre, than in the other five county clusters; cropland values varied from $1,467 in the Edmunds-Faulk-McPherson county cluster to $2,010 per acre in the Aurora-Beadle-Jerauld county cluster.

Similar patterns, but much lower values, also occur for rangeland and pasture across county clusters in the same regions. For example, rangeland values are highest in the Minnehaha-Moody and CLTU clusters, where they average $2,084 and $1,993 per

**Table 2. Average reported value per acre of agricultural land by South Dakota region, county clusters, type of land, and land productivity, February, 2006–2011.**

| 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 2011 | 3402 | 4567 | 3106 | 2487 | 4024 | 5197 | 3672 | 3007 |
| High Productivity | 4441 | 6105 | 4220 | 2883 | 5164 | 6767 | 4683 | 3771 |
| Low Productivity | 2659 | 3386 | 2529 | 2021 | 3013 | 3914 | 2688 | 2297 |
| 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 |
| Average 2006 | 1817 | 2266 | 1603 | 1219 | 1914 | 2595 | 2019 | 1434 |
| **Rangeland (native)** | | | | | | | | |
| Average 2011 | 1589 | 1993 | 1458 | 1388 | 1779 | 2084 | 1651 | 1632 |
| High Productivity | 1931 | 2580 | 1675 | 1659 | 2202 | 2509 | 2113 | 2005 |
| Low Productivity | 1194 | 1420 | 1168 | 1026 | 1382 | 1677 | 1256 | 1241 |
| 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 |
| Average 2006 | 925 | 1047 | 881 | 791 | 1055 | 1432 | 1041 | 973 |
| **Pastureland (tame, improved)** | | | | | | | | |
| Average 2011 | 1726 | 2108 | 1700 | 1427 | 2082 | 2610 | 1936 | 1833 |
| High Productivity | 2102 | 2646 | 2017 | 1733 | 2482 | 3027 | 2300 | 2255 |
| Low Productivity | 1389 | 1731 | 1353 | 1137 | 1609 | 2060 | 1469 | 1410 |
| 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 |
| **Average 2006** | **1085** | **1242** | **986** | **933** | **1166** | **1453** | **1134** | **1063** |
| **Hayland** | | | | | | | | |
| Average 2011 | 2401 | 3531 | 2125 | 1717 | 2742 | 3633 | 2561 | 2078 |
| High Productivity | 3076 | 4662 | 2773 | 2025 | 3437 | 4702 | 3179 | 2496 |
| Low Productivity | 1720 | 2362 | 1613 | 1280 | 2060 | 2874 | 1826 | 1509 |
| 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 |
| Average 2006 | 1383 | 1700 | 1312 | 932 | 1371 | 2250 | 1315 | 1037 |

Source: *South Dakota Farm Real Estate Market Survey, SDSU, 2011 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 All | Codington Deuel Hamlin | Grant Roberts | Clark Day Marshall | North Central All | Brown Spink | Edmund Faulk McPherson | Campbell Potter Walworth |
|---|---|---|---|---|---|---|---|---|
| | | | | dollars per acre | | | | |
| **Nonirrigated Cropland** | | | | | | | | |
| Average 2011 | 2918 | 3250 | 2721 | 2570 | 2301 | 2980 | 1467 | 1831 |
| High Productivity | 3982 | 4411 | 3643 | 3619 | 3227 | 4288 | 2023 | 2392 |
| Low Productivity | 2123 | 2353 | 2057 | 1803 | 1720 | 2144 | 1146 | 1477 |
| 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 |
| Average 2006 | 1448 | 1541 | 1557 | 1298 | 1088 | 1498 | 818 | 775 |
| **Rangeland (native)** | | | | | | | | |
| Average 2011 | 1217 | 1389 | 1136 | 1038 | 950 | 1116 | 815 | 792 |
| High Productivity | 1535 | 1884 | 1279 | 1282 | 1223 | 1500 | 873 | 1085 |
| Low Productivity | 915 | 1000 | 836 | 875 | 759 | 843 | 723 | 646 |
| 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 |
| Average 2006 | 751 | 763 | 771 | 728 | 548 | 704 | 489 | 422 |
| **Pastureland (tame,improved)** | | | | | | | | |
| Average 2011 | 1494 | 1673 | 1380 | *** | 1161 | 1343 | 996 | 1009 |
| High Productivity | 1912 | 2153 | 1720 | *** | 1559 | 1871 | 1212 | 1373 |
| Low Productivity | 1048 | 1133 | 960 | *** | 880 | 955 | 850 | 773 |
| 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 |
| Average 2006 | 843 | 834 | 860 | 847 | 598 | 760 | 537 | 437 |
| **Hayland** | | | | | | | | |
| Average 2011 | 1590 | 1679 | 1725 | 1333 | 1301 | 1755 | 900 | 991 |
| High Productivity | 2042 | 2250 | 2075 | 1689 | 1688 | 2311 | 1054 | 1364 |
| Low Productivity | 1123 | 1114 | 1325 | 956 | 993 | 1258 | 777 | 791 |
| 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 |
| Average 2006 | 831 | 924 | 844 | 736 | 640 | 814 | 591 | 477 |

Table 2. (continued)

| Agricultural Land Type and Productivity | Central All | Central Aurora Beadle Jerauld | Central Buffalo Brule Hand Hyde | Central Hughes Sully | South Central All | South West All | North West All |
|---|---|---|---|---|---|---|---|
| | | | | dollars per acre | | | |
| **Nonirrigated Cropland** | | | | | | | |
| Average 2011 | 1866 | 2010 | 1744 | 1830 | 1115 | 625 | 483 |
| High Productivity | 2424 | 2590 | 2267 | 2400 | 1372 | 750 | 559 |
| Low Productivity | 1338 | 1460 | 1256 | 1290 | 844 | 467 | 387 |
| Average 2010 | 1644 | 1709 | 1624 | 1599 | 967 | 560 | 474 |
| Average 2009 | 1577 | 1768 | 1379 | 1440 | 1007 | 597 | 428 |
| Average 2008 | 1450 | 1601 | 1315 | 1300 | 904 | 502 | 399 |
| Average 2007 | 1086 | 1110 | 1139 | 977 | 702 | 426 | 368 |
| Average 2006 | 986 | 1068 | 994 | 858 | 612 | 387 | 342 |
| **Rangeland (native)** | | | | | | | |
| Average 2011 | 1011 | 1120 | 1100 | 822 | 634 | 409 | 309 |
| High Productivity | 1288 | 1490 | 1467 | 926 | 782 | 524 | 378 |
| Low Productivity | 728 | 860 | 822 | 512 | 467 | 350 | 247 |
| Average 2010 | 865 | 1067 | 839 | 631 | 514 | 365 | 296 |
| Average 2009 | 898 | 1030 | 797 | 788 | 570 | 358 | 277 |
| Average 2008 | 836 | 998 | 774 | 636 | 544 | 339 | 271 |
| Average 2007 | 708 | 780 | 821 | 459 | 448 | 295 | 265 |
| Average 2006 | 599 | 677 | 611 | 450 | 397 | 255 | 234 |
| **Pastureland (tame,improved)** | | | | | | | |
| Average 2011 | 1179 | 1240 | 1311 | *** | 762 | 465 | 344 |
| High Productivity | 1456 | 1570 | 1667 | *** | 964 | 585 | 395 |
| Low Productivity | 899 | 940 | 1000 | *** | 607 | 385 | 282 |
| Average 2010 | 1061 | 1167 | 1126 | 811 | 650 | 473 | 320 |
| Average 2009 | 1042 | 1190 | 845 | *** | 571 | 429 | 314 |
| Average 2008 | 943 | 1060 | 858 | 810 | 571 | 384 | 307 |
| Average 2007 | 760 | 854 | 854 | 481 | 524 | 303 | 297 |
| Average 2006 | 711 | 771 | 728 | 531 | 425 | 283 | 282 |
| **Hayland** | | | | | | | |
| Average 2011 | 1300 | 1470 | 1378 | *** | 854 | 552 | 400 |
| High Productivity | 1622 | 1890 | 1711 | *** | 1074 | 638 | 462 |
| Low Productivity | 956 | 1070 | 1022 | *** | 652 | 407 | 312 |
| Average 2010 | 1121 | 1313 | 1156 | 723 | 681 | 455 | 391 |
| Average 2009 | 1109 | 1244 | 1022 | 833 | 720 | 489 | 373 |
| Average 2008 | 1050 | 1264 | 949 | 775 | 649 | 450 | 334 |
| Average 2007 | 815 | 931 | 876 | 560 | 526 | 356 | 327 |
| Average 2006 | 758 | 812 | 767 | 558 | 498 | 346 | 300 |

acre, respectively. Average rangeland values vary from $1,380 to $1,650 per acre in all other county clusters in the southeast and east-central regions and in the Codington-Deuel-Hamlin county cluster of the northeast region. Across the other eight county clusters in the central, north-central, and northeast regions, average rangeland values are between $790 and $1,140 per acre. Pastureland values are an average of 6% to 26% higher than rangeland values in the same county cluster.

Across the five regions east of the Missouri River, average hayland values are highest in the Minnehaha-Moody cluster at $3,663 per acre, followed by $3,531 per acre in the CLTU county cluster, and $2,561 per acre in the Brookings-Lake-McCook county cluster. Hayland values averaged between $1,675 and $2,125 in six county clusters and between $900 and $1,470 in five other county clusters. The lower per-acre hayland values were usually located in central or north-central counties located west of the James River Valley (table 2).

For regions west of the Missouri River, average land values for each land use are highest in the south-central region and lowest in the northwest region. Average land values vary from $309 per acre for rangeland in the northwest region to $1,115 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 21 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 96% of respondents in 2011 provided one or two reasons in each category.

Farm expansion (31%) was the most common reason given for purchasing farmland (fig. 5). Twenty-two percent cited investment-related purposes, while 18% referred to high commodity prices and related increase in farm profits as major reasons for purchasing farmland. Other key reasons for purchasing farmland include tract location, farming pursuit, hunting/recreation, and low interest rates, with each item listed by 5% to 10% of responses.

Farm expansion continues as the most commonly cited reason for purchasing farmland, but the proportion of responses has declined from 48% of responses in 1994 to 31% in both 2008 and 2011.

Retirement, high land prices, and estate settlement continue as the three most common reasons for selling farmland (fig. 6). Retirement or farmer exit was listed by 32% of responses, while another 20% listed estate settlement as the major reason for selling. Selling farmland to capitalize on current high land prices or to take advantage of currently low capital gains tax rates were listed by 35% of responses,

**Fig 5. Reasons for buying farmland**

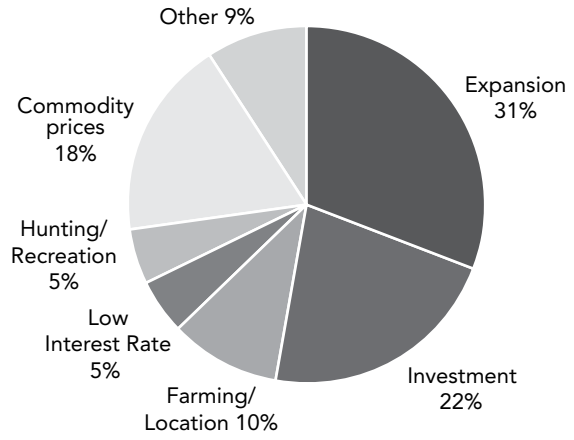
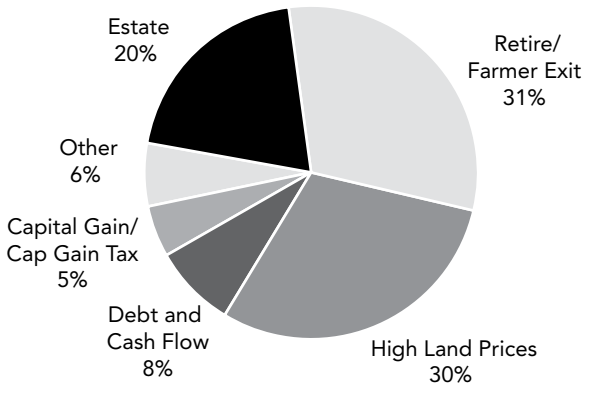



**Fig 6. Reasons for selling farmland**



which is the largest proportion recorded in our survey's 21-year history!

Another 8% of responses cited financial pressures and seller's need to reduce debt and generate greater cash flow as major reasons for selling farmland. The incidence of financial pressure as a primary motivation for selling farmland has varied from 4% to 10% of responses in the past six 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 (S.D. 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[4]. 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.

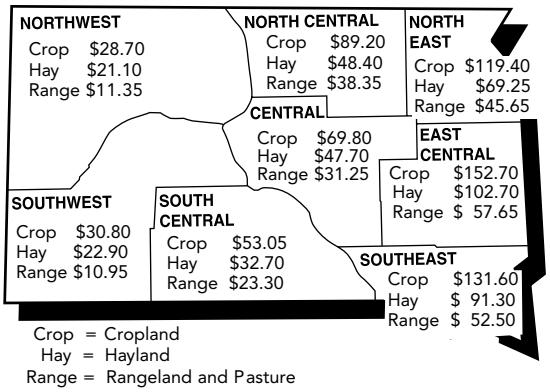
Cash rental rates differ greatly by region and by land use. For non-irrigated land uses, cash rental rates per acre are highest in the southeast and east-central regions and lowest in northwest and southwest South Dakota. In every region, cash rental rates are highest for cropland and lowest for rangeland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

Cash rental rates increased substantially (more than 10%) in most regions of South Dakota for cropland, hayland, and rangeland. From 2010 to 2011, statewide average cash rental rates increased $12.25 per acre for cropland, $5.60 per acre for hayland, and $2.10 per acre for pasture and rangeland. The statewide average percentage change in cash rental rates was +14.1% for cropland, +10.8% for hayland, and +11.2% for pasture and rangeland. This change in annual cash rental rates was much higher than reported in the previous two survey periods, and similar to percentage changes reported from 2007 to 2008 for all land uses and from 2008 to 2009 for cropland.

Cash rental rates for cropland increased an average of $19.50 per acre in the east-central region, and the increase varied between $13 and $15 per acre in the northeast, north-central, southeast, and south-central regions. All other regions showed increases between $3 and $4.50 per acre in average cash rental rates for cropland.

Cash rental rates for hayland increased nearly $19 per acre in the east-central region, and the increase varied between $4.40 and $6.70 per acre in the central, northeast, north central ,and south central regions. The other regions showed changes of $2.50 or lower.

**Fig 7. Average cash rental rate of South Dakota non-irrigated cropland, hayland, and rangeland, by region, 2011, dollars per acre.**




*Source: 2011 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, 2005–2009.

| 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 2011 rate | 131.60 | 152.70 | 119.40 | 89.20 | 69.80 | 53.05 | 30.80 | 28.70 | 98.90 |
| High Productivity | 185.25 | 215.45 | 178.90 | 132.60 | 104.85 | 71.85 | 41.35 | 37.45 | |
| Low Productivity | 96.45 | 105.40 | 78.00 | 60.80 | 45.95 | 32.60 | 20.95 | 18.90 | |
| 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 |
| Average 2006 rate | 89.25 | 82.60 | 70.50 | 53.85 | 46.35 | 34.00 | 24.70 | 21.45 | 60.95 |
| **Hayland** | | | | | | | | | |
| Average 2011 rate | 91.30 | 102.45 | 69.25 | 48.40 | 47.70 | 32.70 | 22.90 | 21.10 | 57.10 |
| High Productivity | 121.00 | 137.10 | 93.15 | 64.15 | 66.50 | 47.35 | 31.00 | 25.85 | |
| Low Productivity | 64.15 | 71.55 | 44.00 | 35.50 | 25.80 | 21.60 | 18.55 | 16.15 | |
| 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 |
| Average 2006 rate | 72.90 | 60.50 | 40.20 | 30.20 | 34.60 | 27.30 | 19.55 | 18.15 | 39.80 |
| **Pasture/Rangeland** | | | | | | | | | |
| Average 2011 rate | 52.50 | 57.65 | 45.65 | 38.35 | 31.25 | 23.30 | 10.95 | 11.35 | 20.70 |
| High Productivity | 69.45 | 78.65 | 62.65 | 51.30 | 45.20 | 29.70 | 15.70 | 15.35 | |
| Low Productivity | 34.35 | 39.90 | 28.90 | 27.35 | 20.20 | 17.45 | 7.40 | 8.00 | |
| 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 |
| Average 2006 rate | 42.10 | 40.00 | 31.35 | 25.90 | 26.30 | 19.60 | 10.70 | 9.25 | 16.50 |
| | | | | | dollars per Animal Unit Month | | | | |
| Average 2011 rate | 35.20 | *** | *** | *** | 30.20 | 31.85 | 26.80 | 23.75 | |
| High Productivity | 44.50 | *** | *** | *** | 39.20 | 38.60 | 33.65 | 28.55 | |
| Low Productivity | 25.30 | *** | *** | *** | 22.00 | 24.00 | 19.25 | 19.10 | |
| 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 | |
| Average 2006 rate | 25.15 | 26.00 | 25.25 | 23.10 | 24.45 | 24.45 | 24.15 | 20.85 | |

| Type of Land | South-east | East-Central | North-east | North-Central | Central | Western | State |
|---|---|---|---|---|---|---|---|
| | | | | dollars per acre | | | |
| **Irrigated land** | | | | | | | |
| Average 2011 rate | 197.30 | 160.60 | *** | 138.30 | 144.40 | *** | *** |
| High Productivity | 246.70 | 208.50 | *** | 158.30 | 194.40 | *** | *** |
| Low Productivity | 158.30 | 124.20 | *** | 110.00 | 118.90 | *** | *** |
| Average 2010 rate | 171.20 | 141.90 | 127.10 | 121.90 | 131.70 | 90.70 | 125.70 |
| Average 2009 rate | 178.15 | 158.50 | 143.10 | 108.65 | 120.15 | 67.50 | 118.55 |
| Average 2008 rate | 154.75 | 139.80 | 134.00 | 87.85 | 113.00 | 62.50 | 106.05 |
| Average 2007 rate | 131.65 | 113.80 | 98.70 | 89.65 | 89.60 | 65.30 | 93.50 |
| Average 2006 rate | 121.20 | 109.50 | 96.25 | 84.75 | 84.40 | 60.00 | 87.25 |

*** Insufficient number of reports to make regional estimates
Source: *South Dakota Farm Real Estate Market Surveys, SDSU, 2011* and earlier year reports
Statewide average rental rates are based on 2002 regional land use weights

**Table 4. Reported cash rental rates of South Dakota agricultural land by region and county clusters, 2006–2011 rates.**

| | Southeast | | | | East Central | | | |
|---|---|---|---|---|---|---|---|---|
| | All | Clay Lincoln Turner Union | Bon Homme Hutchinson Yankton | Charles Mix Douglas | All | Minnehaha Moody | Brookings Lake McCook | Sanborn Davison Hanson Kingsbury Miner |
| | dollars per acre | | | | | | | |
| **Nonirrigated Cropland** | | | | | | | | |
| Average 2011 rate | 131.60 | 170.85 | 122.50 | 90.30 | 152.70 | 180.05 | 153.90 | 119.70 |
| High Productivity | 185.25 | 239.15 | 175.25 | 125.25 | 215.45 | 248.90 | 221.10 | 170.81 |
| Low Productivity | 96.45 | 123.50 | 92.05 | 65.60 | 105.40 | 131.55 | 104.55 | 75.95 |
| 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 |
| Average 2006 rate | 89.25 | 106.15 | 82.85 | 59.65 | 82.60 | 109.30 | 85.75 | 67.00 |
| **Hayland** | | | | | | | | |
| Average 2011 rate | 91.30 | 128.60 | 90.75 | 54.65 | 102.45 | 139.30 | 102.95 | 73.50 |
| High Productivity | 121.00 | 175.00 | 119.75 | 68.65 | 137.10 | 187.60 | 140.00 | 95.95 |
| Low Productivity | 64.15 | 90.00 | 67.40 | 34.00 | 71.55 | 102.15 | 74.40 | 45.95 |
| 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 |
| Average 2006 rate | 72.90 | 85.50 | 72.55 | 47.45 | 60.50 | 94.15 | 57.95 | 48.05 |
| **Pasture/Rangeland** | | | | | | | | |
| Average 2011 rate | 52.50 | 61.90 | 47.05 | 45.70 | 57.65 | 60.80 | 60.20 | 52.10 |
| High Productivity | 69.45 | 81.65 | 63.95 | 58.55 | 78.65 | 81.40 | 80.95 | 73.65 |
| Low Productivity | 34.35 | 39.30 | 33.10 | 28.55 | 39.90 | 44.20 | 42.75 | 32.90 |
| 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 |
| Average 2006 rate | 42.10 | 47.70 | 38.40 | 36.55 | 40.00 | 51.50 | 41.60 | 35.65 |

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, 2011 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 2011 rate | 119.40 | 130.25 | 108.65 | 109.55 | 89.20 | 106.50 | 71.35 | 68.40 |
| High Productivity | 178.90 | 200.90 | 151.65 | 164.55 | 132.60 | 163.70 | 100.00 | 95.55 |
| Low Productivity | 78.00 | 88.20 | 75.00 | 60.90 | 60.80 | 71.85 | 51.80 | 45.40 |
| 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 |
| Average 2006 rate | 70.50 | 77.00 | 73.55 | 63.05 | 53.85 | 68.85 | 46.60 | 40.35 |
| **Hayland** | | | | | | | | |
| Average 2011 rate | 69.25 | 84.05 | *** | 57.75 | 48.40 | 54.10 | 43.80 | 43.25 |
| High Productivity | 93.15 | 113.15 | *** | 79.10 | 64.15 | 71.20 | 63.35 | 57.25 |
| Low Productivity | 44.00 | 55.95 | *** | 26.80 | 35.50 | 42.35 | 31.65 | 28.10 |
| 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 |
| Average 2006 rate | 40.20 | 50.70 | 33.00 | 31.45 | 30.20 | 34.20 | 30.75 | 24.70 |
| **Pasture/Rangeland** | | | | | | | | |
| Average 2011 rate | 45.65 | 51.15 | 36.50 | 44.65 | 38.35 | 42.65 | 38.10 | 31.00 |
| High Productivity | 62.65 | 70.90 | 46.70 | 63.65 | 51.30 | 53.70 | 57.75 | 41.60 |
| Low Productivity | 28.90 | 32.50 | 26.35 | 24.55 | 27.35 | 29.30 | 30.00 | 21.70 |
| 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 |
| Average 2006 rate | 31.35 | 36.80 | 29.45 | 27.75 | 25.90 | 31.60 | 27.25 | 16.90 |

Table 4. (continued)

| | Central | | | | South Central | South West | North West |
|---|---|---|---|---|---|---|---|
| | All | Aurora Beadle Jerauld | Buffalo Brule Hand Hyde | Hughes Sully | All | All | All |
| | | | | dollars per acre | | | |
| **Nonirrigated Cropland** | | | | | | | |
| Average 2011 rate | 69.80 | 81.90 | 68.35 | 61.40 | 53.05 | 30.80 | 28.70 |
| High Productivity | 104.85 | 128.15 | 109.45 | 82.10 | 71.85 | 41.35 | 37.45 |
| Low Productivity | 45.95 | 50.00 | 41.70 | 46.60 | 32.60 | 20.95 | 18.90 |
| Average 2010 rate | 66.55 | 74.30 | 65.90 | 60.35 | 38.10 | 26.60 | 24.30 |
| Average 2009 rate | 66.50 | 74.10 | 60.20 | 57.50 | 42.60 | 27.50 | 24.25 |
| Average 2008 rate | 62.10 | 68.20 | 59.60 | 54.40 | 37.05 | 24.50 | 24.20 |
| Average 2007 rate | 48.95 | 58.00 | 45.40 | 43.75 | 32.65 | 23.35 | 21.80 |
| Average 2006 rate | 46.35 | 53.40 | 42.10 | 42.40 | 34.00 | 24.70 | 21.45 |
| **Hayland** | | | | | | | |
| Average 2011 rate | 47.70 | 60.00 | *** | 35.25 | 32.70 | 22.95 | 21.10 |
| High Productivity | 66.50 | 81.25 | *** | 47.00 | 47.35 | 31.00 | 25.85 |
| Low Productivity | 25.80 | 33.75 | *** | 19.00 | 21.60 | 18.55 | 16.15 |
| Average 2010 rate | 43.30 | 49.00 | 42.65 | 33.60 | 26.00 | 21.00 | 18.60 |
| Average 2009 rate | 39.80 | 43.55 | 34.60 | *** | 27.50 | 21.00 | 18.70 |
| Average 2008 rate | 38.40 | 42.10 | 40.00 | 29.60 | 27.95 | 17.75 | 20.00 |
| Average 2007 rate | 31.35 | 38.70 | 30.95 | 21.00 | 25.70 | 18.80 | 18.40 |
| Average 2006 rate | 34.60 | 37.90 | 31.95 | *** | 27.30 | 19.55 | 18.15 |
| **Pasture/Rangeland** | | | | | | | |
| Average 2011 rate | 31.20 | 45.00 | 29.90 | 21.40 | 23.30 | 10.90 | 11.35 |
| High Productivity | 45.20 | 60.00 | 48.90 | 30.00 | 29.70 | 15.70 | 15.35 |
| Low Productivity | 20.20 | 30.00 | 18.35 | 14.00 | 17.45 | 7.40 | 8.00 |
| Average 2010 rate | 31.60 | 38.85 | 30.40 | 23.85 | 16.15 | 11.00 | 10.45 |
| Average 2009 rate | 33.20 | 37.90 | 29.70 | 25.00 | 21.40 | 13.30 | 10.40 |
| Average 2008 rate | 32.25 | 38.60 | 31.50 | 21.50 | 17.90 | 10.75 | 11.00 |
| Average 2007 rate | 26.85 | 33.20 | 27.10 | 19.45 | 16.90 | 11.60 | 9.95 |
| Average 2006 rate | 26.30 | 30.10 | 25.80 | 20.20 | 19.60 | 10.70 | 9.25 |

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

Rangeland cash rental rates increased nearly $7 per acre in the east-central and south-central regions, and the increase varied between $2.10 and $4.30 in the southeast, northeast, and north central regions. All other regions showed minor changes of $0.90 or lower.

Overall, strong increases in cash rental rates and land values occurred for all land uses in the east-central, northeast, north-central, and south-central regions. In three other regions—southeast, central, and southwest—there were strong increases for cropland rental rates and cropland values, but not necessarily for hayland or rangeland. In the northwest, the percentage rate of increase in cash rental rates was considerably greater than the percentage increase in land values.

## 2011 cash rental rates – non-irrigated cropland

Cropland cash rental rates increased in all South Dakota regions and in 14 of 15 county clusters. In many regions and county clusters the increases were substantial (>10%).

Average cash rental rates in 2011 for non-irrigated cropland vary from $28.70 to $30.80 per acre in the western regions to $152.70 per acre in the east-central region (figure 7 and table 3). This is the first time that average cash rental rates for cropland exceeds $150 per acre in any region of South Dakota.

Average cash rental rates for cropland are highest in the Minnehaha-Moody county cluster, $180 per acre. The next two highest average cash rental rates are $170.85 per acre for cropland in the Clay-Lincoln-Turner-Union (CLTU) county cluster and $153.90 per acre for cropland in the Brookings-Lake-McCook county cluster (table 4). Cash rental rates for high-productivity cropland in these same three county clusters vary from $249 to $221 per acre.

Average cash rental rates vary from $106 to $130 per acre across six other county clusters in eastern

and north central South Dakota. These six county clusters include Bon Homme-Hutchinson-Yankton in the southeast, Brown-Spink in the north-central, all county clusters in the northeast, and the five western counties in the east-central region. Average cash rental rates for high-productivity cropland in these county clusters vary from $151 to $201 per acre.

Average cash rental rates in the remaining six county clusters of the central, north-central, and southeast regions vary from $61.40 in the Hughes-Sully county cluster to $90.30 in Charles Mix-Douglas. Within these six county clusters, average cash rental rates for high-productivity cropland varied from about $82 to $128 per acre (table 4).

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

Within each region and county cluster, cash rental 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 $105.40 per acre for low-productivity cropland and $215.40 per acre for high-productivity cropland. In the northwest region, the average cash rent for low-productivity cropland is $18.90 per acre, while cash rental rates for high-productivity cropland average $37.45 per acre (tables 3 and 4).

Cropland cash rental rates from 2010 to 2011 increased in all South Dakota regions and in 14 of 15 county clusters. Cropland cash rents increased between $10 and $25 per acre in most county clusters of the north-central and three eastern regions in South Dakota.

## 2011 cash rental rates – hayland and irrigated land

East of the Missouri River, cash rental rates for hayland vary from an average of nearly $48 per acre, respectively, in the central and north-central regions to $102.45 per acre in the east central region (fig. 7; table 3). West of the Missouri River, hayland cash rental rates in 2011 vary from an average of $21.10 per acre in the northwest region to $32.70 per acre in the south-central region.

Two county clusters, Minnehaha-Moody and CLTU, have average cash rental rates of $139.30 and $128.60 per acre, respectively. Three other county clusters in eastern South Dakota have average hayland cash rental rates between $103 and $84 per acre: Brookings-Lake-McCook, Codington-Deuel-Hamlin, and Bon Homme-Hutchinson-Yankton. County clusters in the central and north-central regions have cash rental rates between $35 and $60 per acre (table 4).

Within each region and county cluster there are considerable differences in average cash rental rates for high- and low-productivity hayland. For example, average rental rates for high- and low-productivity hayland in the Minnehaha-Moody cluster are $187.60 and $102.15 per acre, respectively, compared to $25.85 and $16.15 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 2011 could be estimated for only four regions: southeast, east-central, central and north-central. In these four regions, irrigated land cash rental rates vary from an average of $138.30 per acre in north-central South Dakota to $197.30 per acre in the southeast region (table 3). Reported cash rental rates increased from $12.70 per acre in the central region to $26.10 per acre in the southeast region.

## 2011 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 2011 cash rental rates per acre and per AUM on privately owned rangeland and pastureland in their locality.

Average cash rental rates per acre reflect regional differences in productivity and carrying capacity of

pasture and rangeland tracts. Average cash rental rates vary from $10.95 to $11.35 per acre in western South Dakota to $57.65 in the east-central region. Typical cash rental rates for low- and high-productivity rangeland vary from $7.40 to $15.70 per acre in the southwest region and from $39.90 to $78.65 per acre in the east-central region (fig. 7; table 3).

In counties east of the Missouri River, average cash rental rates for rangeland and pasture vary from a high of $61.90 per acre in the CLTU cluster to a low of $21.40 per acre in the Hughes-Sully county cluster (table 4).

Rangeland rates per AUM in 2011 vary from an average of $23.75 per AUM in the northwest region to $35.20 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 north 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.

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

Two approaches (gross rates of return and net rates of return) are used in each annual survey to obtain information on current rates of return to agricultural land. The 1991 to 2011 trend of gross rent-to-value ratio and net rate of return by land use is depicted in figures 8a and 8b, respectively.

First, gross rent-to-value ratios (gross cash rent as a percent of land value) are calculated from respondents' reported cash rental rates and 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.

In 2011, the statewide average gross rate of return (rent-to-value ratio) is 4.3% for non-irrigated cropland, 4.1% for hayland, 3.6% for rangeland, and 3.9% for all agricultural land. These annual average rates are the lowest gross annual cash rates of return calculated over the past 21 years! This is also the fifth 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 1990s, and 5.8% from 2000 to 2007 (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 2011 varies from 2.9% to 6.5% for cropland, from 2.25% to 6.25% for hayland, and from 2% to 5% for rangeland. The median rent-to-value ratio is 4.0% for cropland and hayland, and 3.3% for rangeland.

Next, respondents were asked to estimate the current **net rate of return** (percent) that landowners in their locality could expect given current land values. Appraisers refer to the current annual net rate of return as the market-derived capitalization rate, which is widely used in the income approach to farmland appraisal. The net rate of return is a return to agricultural land ownership **after** deducting property taxes, real estate maintenance, and other ownership expenses[5].

[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.

Average net rates of return for 2011 varied from 4.0% for non-irrigated cropland to 3.5% for hayland to 3.2% for rangeland, and averaged 3.5% for all agricultural land. This is the third consecutive year that average net rates of return were below 3.7% for all agricultural land, compared to an average of 5.4% during the 1990s and 4.3% from 2000 to 2008.

The practical range of **net rates of return** to land for 2011 reported by respondents varies from 2.0% to 7.5% for cropland, from 2.0% to 5.5% for hayland, and from 1.0% to 5.0% for rangeland. The median net rate of return was 3.8% for cropland, 3.3% for hayland, and 3.0% for rangeland.

## LONGER-TERM PERSPECTIVE ON FARMLAND MARKET CHANGES, 1991–2011

Longer-term historical data from annual SDSU surveys of agricultural land values and cash rental rates in South Dakota from 1991 to 2011 are located in Appendix tables 2 and 3 of this report. Long-term trends in average annual cash rates of return are shown in figures 8a and 8b. Regional and statewide comparisons of annual percentage changes in all agricultural land values in four time periods from 1991 to 2011 are shown in figure 9.

Based on 21 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 (fig. 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 three years of general U.S. economic recession and slow recovery, statewide agricultural land values increased by 9.7%, with most regional increases varying from 5 to 11%. Much of this increase is due to the farm commodity price boom in the past year.

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 fourth and most recent period, 2008 to 2011, reflects the impact of the major economic recession and its aftermath on the farm sector interacting with the commodity price boom in the past 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 2011. These findings indicate that increased land values during the 1990s were supported by comparable increases in cash rental rates. However, from 2001 to 2011, 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 impact on cash rental rates. During all 21 years of farmland market reporting, average rates of return to cropland exceeded average rates of return to rangeland (figs. 8a and 8b).

Fourth, cash rates of return to farmland are very low. From 2001 to 2008 and in the current year, 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

**Table 5. Estimated rates of return to South Dakota agricultural land by type of land and by region, 1991–2011**

| Type of land-statewide[c] | 2011 | 2010 | 2009 | 2008 | Average 2000-2007 | Average 1991-1999 | 2011 | 2010 | 2009 | 2008 | Average 2000-2007 | Average 1991-1999 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | GROSS rate of return (%)[a] | | | | | | NET rate of return (%)[b] | | | | | |
| All agricultural land | 3.9 | 4.0 | 4.3 | 4.2 | 5.8 | 7.4 | 3.5 | 3.2 | 3.6 | 3.9 | 4.4 | 5.4 |
| Nonirrigated cropland | 4.3 | 4.4 | 4.7 | 4.6 | 6.5 | 8.0 | 4.0 | 3.9 | 4.3 | 4.3 | 4.9 | 6.1 |
| Rangeland & pasture | 3.6 | 3.6 | 4.1 | 3.9 | 5.2 | 6.8 | 3.2 | 2.7 | 3.0 | 3.4 | 4.0 | 4.8 |
| Hayland | 4.1 | 4.3 | 4.5 | 4.4 | 6.4 | 8.0 | 3.5 | 3.6 | 3.8 | 4.2 | 4.5 | 5.6 |
| **Region[d]** | **GROSS rate of return (%)** | | | | | | **NET rate of return (%)** | | | | | |
| Southeast | 3.7 | 4.2 | 4.1 | 4.2 | 6.2 | 7.4 | 4.0 | 3.7 | 3.8 | 4.4 | 4.8 | 5.9 |
| East-Central | 3.7 | 3.8 | 4.0 | 3.7 | 5.8 | 7.6 | 3.6 | 3.3 | 3.8 | 3.8 | 4.7 | 5.5 |
| Northeast | 3.9 | 4.2 | 4.2 | 4.2 | 6.5 | 8.1 | 3.8 | 3.7 | 4.2 | 4.2 | 4.9 | 6.2 |
| North-Central | 4.0 | 4.2 | 4.6 | 4.5 | 6.2 | 7.9 | 3.2 | 3.8 | 4.2 | 4.2 | 5.1 | 6.1 |
| Central | 3.7 | 3.9 | 3.9 | 4.0 | 5.9 | 7.7 | 3.6 | 3.4 | 4.0 | 5.3 | 4.3 | 5.3 |
| South-Central | 3.6 | 3.3 | 4.2 | 3.8 | 5.7 | 6.9 | 3.3 | 3.1 | 3.5 | 4.3 | 4.3 | 5.2 |
| Southwest | 3.8 | 3.3 | 4.1 | 3.5 | 5.3 | 6.7 | 3.6 | 2.4 | 2.6 | 3.2 | 3.6 | 4.4 |
| Northwest | 4.4 | 4.4 | 4.3 | 5.1 | 5.5 | 7.1 | 3.4 | 3.0 | 3.4 | 3.4 | 4.0 | 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, 2011* and earlier reports.

**Fig 8a. Gross rent-to-value ratio by land use, 1991–2011**

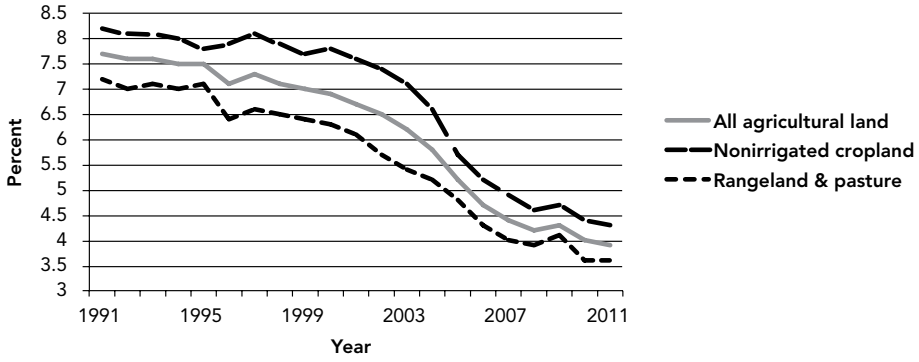
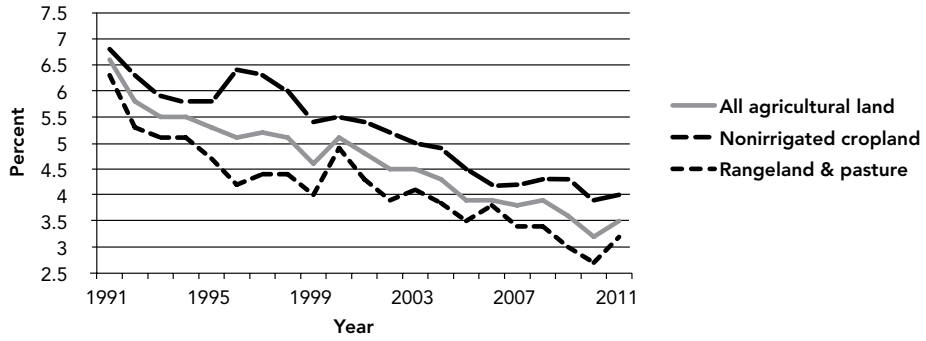
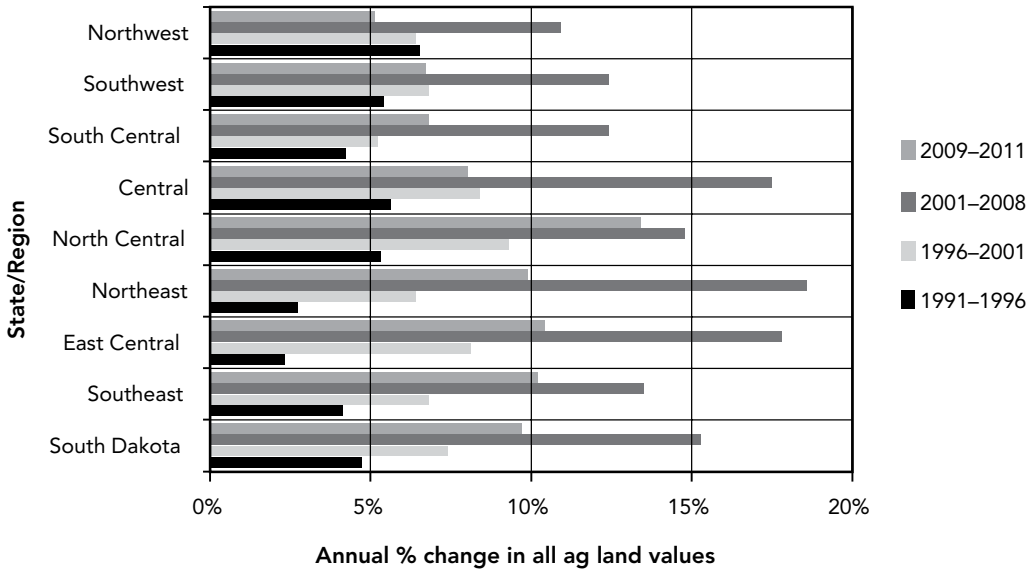



**Fig 8b. Net rent to return by land use, 1991–2011**




*Source: 2011 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**




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 renewed interest in agricultural land purchases.

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. However, 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. 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.

The greatest changes in land values are generally occurring near growing urban centers and in cropland-intensive areas that are shifting from wheat and small grains to soybeans and corn. This includes the I-29 corridor counties, which are all cropland intensive and located relatively close to metropolitan Sioux Falls or Sioux City. In addition, other county clusters in northeast South Dakota and in the James River Valley have also experienced higher rates of increase in land values due to shifts in cropping patterns toward more corn and soybeans. The development of ethanol and soybean processing plants throughout eastern South Dakota is also closely related to these changes.

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

Finally, longer-term trends in agricultural land values show increases above the rate of price inflation in all regions. From 1991 to 2011, 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 9.5% during this period, with regional variation from 7.3% to 10.7% (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. Ninety percent of survey respondents listed one to three positive reasons, but only 73% listed one to three negative reasons.

High commodity prices, especially crop prices, were listed by a majority (51%) of respondents as a positive factor in the current (2011) and 2008 survey periods—the only two instances in which a majority listed a single factor. Low mortgage interest rates, farm-related factors of favorable crop yields and farm profits, and investment factors were three other major positive factors, accounting for another 35% of responses (fig. 10). Since 2002, low interest rates have usually been cited as one of the top three positive factors in the farm real estate market.

No single negative factor was dominant in 2011. Higher input costs, general economic conditions (slow recovery), uncertainty/volatility in economic conditions, and concern that the land market had peaked were the four most common negative factors and comprised 63% of the negative responses (fig. 11). Tight credit and financial pressure, along with many other items, were also listed as negative factors. However, 12% wrote "none" and stated 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 89% of respondents provided their perception of previous-year cropland value changes, compared to 73% for rangeland and 68% for hayland. Four-fifths of respondents projected cropland value changes for next year, compared to 66% estimating changes in rangeland values and 62% estimating changes in hayland values.

During the past year, respondents' estimated percentage increases in land values averaged 10.5% for cropland, 8% for hayland, and 7% for rangeland. The median increase was 10% for cropland, 8% for hayland, and 6% for rangeland. There were very few reports (less than 2%) of declining land values, and relatively few reports of no change in land values. Overall, nearly 80% of rangeland and hayland reports and 90% of cropland reports indicated land-value increases in the past year. Respondent perceptions of land-value percentage changes were typically lesser than the actual percentage changes calculated from the survey data.

The 2011 survey reports were considerably more positive than the 2009 or 2010 surveys, when a substantial proportion of respondents (40 to 60%, depending on land use and survey period) reported no change or declines in land values.

**Fig 10. Positive factors in the farm real estate market**

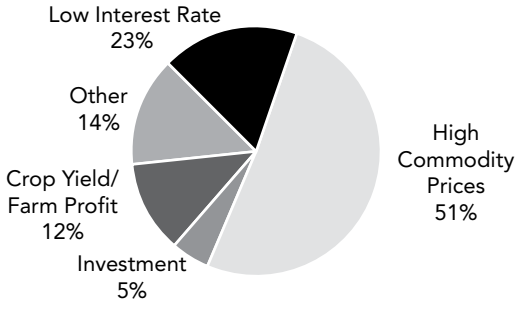
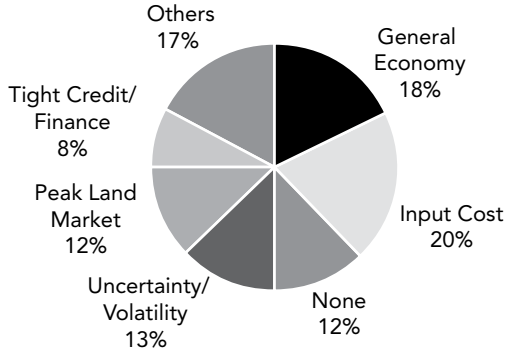



**Fig 11. Negative factors in the farm real estate market**



Most respondents (78 to 84%, depending on land use) providing forecasts expect land values to increase in the next 12 months, and the remainder of respondents project no change in land values. No respondent forecasts a decline in land values during the next 12 months! The median forecast in per-acre values for all land uses was a 5% increase, while the mean (average) forecast varied from 7.3% for cropland, 6.1% for rangeland, and 5.5% for hayland. These forecasts are considerably more optimistic than responses to the 2009 or 2010 survey, and closer to respondent forecasts each year from 2001 to 2008.

In summary, respondents to the 2011 survey are optimistic about farmland market conditions for the following year. This optimism reflects the impact of very high agricultural commodity prices on farm profits and 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 reasonably well positioned, from a financial perspective, to withstand many of the negative impacts of the economic recession and slow recovery of the past few years 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 *2011 South Dakota Farm Real Estate Market Survey* was to obtain regional and statewide information on 2011 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 2011, a survey on share-leasing arrangements for cropland and hayland was also conducted.

Copies of this survey were mailed to 638 potential respondents on February 15, with a follow-up mailing on March 15. Potential respondents were persons employed in one of the following occupations: 1) agricultural lenders (senior agricultural loan officers of commercial banks or Farm Credit Service), 2) loan officers or county directors of the USDA Farm Service Agency (FSA), 3) Cooperative Extension Service agricultural educators and area farm-management specialists, and 4) licensed appraisers and assessors. Some appraisers were also realtors or professional farm managers, while some lenders were also appraisers.

Respondents were asked to report land values and cash rental rate information for non-irrigated cropland, hayland, rangeland, improved pasture, and irrigated land in their locality. Three-fourths of respondents provided information for two or more counties, while one-fourth reported information for one county.

The distribution of 194 responses is summarized by location and reported occupation in appendix table 1. Fifty-six percent of responses are from the three eastern regions of South Dakota, 22% were from the central and north-central region, and 22% 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. The total number of useable responses to the 2011 survey is the lowest number since the annual survey was started in 1991.

Sixty-three percent of responses are from agricultural lenders or FSA officials, and 20% of responses are from appraisers. The remaining responses are from Extension educators and assessors.

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 178 respondents provided 194 useable responses.

Most respondents (over 90%) were able to supply land value and cash rental rate information for non-irrigated cropland in their locality. Nearly 80% of respondents provided the same information for rangeland, compared to nearly 70% of respondents reporting hayland values and cash rental rates. Almost 25% of respondents reported irrigated land values, irrigated cash rental rates, and rental rates per AUM on rangeland.

Regional average land values by land use are simple average (mean) values of usable responses. Statewide average land values by land use are weighted by the relative number of acres in each region in the same land use. All-agricultural land values, regional and statewide, are weighted by the proportion of acres in each agricultural land use. Thus all-agricultural land values in this report are weighted average values by region and land use. This weighted average approach is analogous to the cost (inventory) approach of estimating farmland values in rural land appraisal.

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

The weighting factors used to develop statewide average land values are based on estimates of 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. Irrigated land is also excluded from regional and statewide all-land values. The land-use weighting factors were developed from county-level data in the *2002 South Dakota Census of Agriculture* and other sources.

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

**Appendix Table 1. Selected characteristics of respondents, 2011.**

**Number of respondents = 194**

**Respondents:**

| Reporting location | N | % |
|---|---|---|
| Southeast | 33 | 17.0% |
| East-Central | 53 | 27.3% |
| Northeast | 24 | 12.4% |
| North-Central | 27 | 13.9% |
| Central | 15 | 7.7% |
| South-Central | 12 | 6.2% |
| Southwest | 11 | 5.7% |
| Northwest | 19 | 9.8% |
| | 194 | 100.0% |

| Primary Occupation | N | % |
|---|---|---|
| Banker/loan officer | 84 | 43.3% |
| Farm Service Agency | 38 | 19.6% |
| Assessor | 14 | 7.2% |
| Appraiser/realtor | 38 | 19.6% |
| Extension educators | 20 | 10.3% |
| | 194 | 100.0% |

**Response rates:**

| Land values | N | % |
|---|---|---|
| Nonirrigated cropland | 180 | 92.8% |
| Irrigated cropland | 44 | 22.7% |
| Hayland | 132 | 68.0% |
| Rangeland (native) | 155 | 79.9% |
| Pastureland (tame) | 131 | 67.5% |

| Cash Rental Rates | N | % |
|---|---|---|
| Nonirrigated cropland | 177 | 91.2% |
| Irrigated cropland | 47 | 24.2% |
| Hayland | 138 | 71.1% |
| Rangeland (acre) | 154 | 79.4% |
| Rangeland (AUM) | 44 | 22.7% |

Source: *2011 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, 1991–2011

**Appendix Table 2. Average reported value and annual percentage change in value of South Dakota agricultural land by type of land by region, 1991–2011.**

| 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, 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 11/91 | 8.9% | 10.3% | 9.6% | 10.7% | 9.8% | 7.7% | 8.1% | 7.3% | 9.5% |
| Annual % change 11/10 | 18.5% | 22.9% | 13.4% | 15.7% | 14.4% | 20.5% | 11.7% | 4.0% | 16.5% |
| | | | | | dollars per acre | | | | |
| **Nonirrigated Cropland** | | | | | | | | | |
| 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 11/91 | 8.9% | 10.4% | 9.8% | 10.8% | 9.6% | 7.3% | 6.3% | 5.9% | 9.6% |
| Annual % change 11/10 | 19.7% | 22.3% | 14.0% | 18.3% | 13.5% | 15.3% | 11.6% | 1.9% | 17.7% |

Source: *South Dakota Farm Real Estate Market Surveys, SDSU, 2011* 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, 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 11/91 | 9.3% | 9.9% | 9.3% | 9.8% | 9.6% | 8.0% | 8.9% | 7.8% | 8.9% |
| Annual % change 11/10 | 18.7% | 15.8% | 13.7% | 8.6% | 16.9% | 23.3% | 12.1% | 4.4% | 13.1% |
| **Pasture (tame, improved)dollars per acre** | | | | | | | | | |
| 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 11/91 | 8.9% | 9.7% | 9.3% | 10.1% | 9.3% | 8.0% | 8.4% | 6.7% | 9.0% |
| Annual % change 11/10 | 16.6% | 27.8% | 26.8% | 17.2% | 11.1% | 17.2% | 8.4% | 7.5% | 18.4% |

**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, 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 11/91 | 8.6% | 10.7% | 9.6% | 10.7% | 10.1% | 7.6% | 7.7% | 6.1% | 9.3% |
| Annual % change 11/10 | 11.3% | 32.2% | 0.6% | 8.2% | 16.0% | 25.4% | 16.7% | 2.3% | 15.2% |

**Appendix Table 3. Reported cash rental rates of South Dakota agricultural land by type of land by region, 1991–2011.**

| 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 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 | 82.6 | 65.70 | 49.40 | 45.80 | 31.50 | 24.90 | 22.90 | 58.90 |
| Average 2004 rate | 83.70 | 78.80 | 64.50 | 47.60 | 43.40 | 34.10 | 23.10 | 21.40 | 56.80 |
| Average 2003 rate | 78.80 | 74.70 | 59.50 | 44.90 | 40.60 | 29.20 | 22.00 | 21.00 | 53.25 |
| Average 2002 rate | 76.50 | 69.80 | 57.50 | 42.20 | 35.95 | 29.40 | 22.60 | 20.40 | 50.65 |
| Average 2001 rate | 72.95 | 64.60 | 52.20 | 37.80 | 35.30 | 27.20 | 20.10 | 17.50 | 47.00 |
| Average 2000 rate | 67.50 | 56.40 | 49.30 | 36.20 | 31.90 | 30.00 | 18.70 | 18.70 | 43.70 |
| Average 1999 rate | 63.20 | 56.00 | 46.20 | 36.00 | 33.20 | 27.00 | 19.50 | 16.90 | 42.30 |
| Average 1998 rate | 65.20 | 55.00 | 45.30 | 34.70 | 30.90 | 25.90 | 19.00 | 17.90 | 41.75 |
| Average 1997 rate | 57.40 | 49.20 | 44.70 | 32.70 | 29.30 | 23.60 | 19.10 | 19.30 | 38.70 |
| Average 1996 rate | 54.70 | 45.30 | 41.50 | 28.70 | 26.30 | 21.60 | 17.00 | 16.00 | 35.50 |
| Average 1995 rate | 52.50 | 42.10 | 40.40 | 27.60 | 25.10 | 21.00 | 17.60 | 15.90 | 34.05 |
| Average 1994 rate | 51.90 | 45.10 | 40.30 | 29.80 | 25.00 | 22.10 | 17.60 | 14.90 | 34.85 |
| Average 1993 rate | 51.80 | 47.10 | 40.30 | 26.60 | 24.20 | 22.80 | 16.60 | 14.60 | 34.40 |
| Average 1992 rate | 48.00 | 45.70 | 39.70 | 25.50 | 22.70 | 21.40 | 17.70 | 15.10 | 33.00 |
| Average 1991 rate | 49.30 | 43.20 | 38.50 | 24.50 | 23.20 | 22.20 | 15.90 | 13.50 | 32.40 |
| **Hayland** | | | | | | | | | |
| Average 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, 2011* 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 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 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 | 25.40 | 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, 2011* and earlier year reports.