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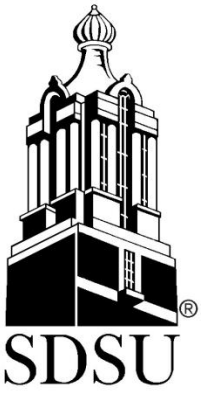
Farmland Leasing in South Dakota 2011:

Emphasis on Share Lease Arrangements

by

Nelly Bourlion, Larry Janssen, Burton Pflueger



Department of Economics

South Dakota State University

Farmland Leasing in South Dakota 2011: Emphasis on Share Lease Arrangements

by
Nelly Bourlion, Larry Janssen, and Burton Pflueger*

ABSTRACT

Farmland leasing is an important source of capital and method of controlling land resources in production agriculture allowing land owners and tenants flexibility to enhance, maintain or expand their income-generating capacity. In this report, we (1) provide information on the importance of farmland leasing in South Dakota, and (2) update information on crop-share leasing and hay-share leasing arrangements in South Dakota, based on a survey conducted in 2011.

Farmland leasing is important in South Dakota where over 70% of farm operators are involved in farmland leasing and nearly two-fifths of agricultural land acres are leased. Leased farmland acres comprise even higher percentages in the crop-intensive eastern part of the state. An estimated 23% of South Dakota cropland acres rented are in crop-share leases, while 77% are in cash leases. An estimated 20% of South Dakota hay land acres rented are in hay-share leases, while 80% are in cash leases.

The four prevalence crop share arrangements in South Dakota are: 2/3-1/3 tenant-landlord output shares, 3/5-2/5 output shares, 1/2-1/2 output shares, and 3/4-1/4 output shares. Most (80%) crop-share lease respondents reported the landlord and renter sharing expenses for one or more variable inputs, with the number and type of shared input expenses varying by region and output share.

Keywords: crop share leasing, farmland rental agreements, crop share, land resources, leases

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Farmland Leasing in South Dakota 2011: Emphasis on Share Lease Arrangements

Farmland leasing is an important source of capital and method of land resource control in production agriculture. Leasing farmland provides rental income to land owners and flexibility for farmers and ranchers to enhance, maintain or expand their income-generating capacity.

The two most common types of farmland leases are cash and share leases. Cash leasing is the predominant method of leasing pasture and rangeland, while both cash and share leases are important for leasing cropland. In a cash lease the renter makes a cash payment to the landowner for the use of their land for a specified time period, such as one year or for a grazing season. In a share lease, the crop output is shared between the renter and landlord in a mutually agreed-upon ratio (or percentage). Selected input costs (such as fertilizer, herbicides, seed or other variable costs) may also be shared between the renter and landlord based on negotiations between the two parties. Real estate taxes on leased farmland are formally paid by the land owner, although the lease payment (share or cash) rate is greatly influenced by the amount of real estate taxes paid. More information on different types of farmland rental arrangements is available in a series of Extension Extra publications by Pflueger, several of which are included in the reference list.

In this report, we (1) provide information on the importance of farmland leasing in South Dakota, and (2) update information on crop-share leasing and hay-share leasing arrangements in South Dakota. The main data source for the share lease updates is from a 2011 survey supplement: *Lease Terms on Share Rented Land* completed by 160 respondents.[1] Most of these share lease survey respondents were agricultural lenders or Farm Service Agency (FSA) officials

[1] The survey supplement on share leasing was included with the 21st annual (2011) South Dakota Farm Real Estate Market Survey conducted by SDSU's Economics Department. The primary purpose of the annual farm real estate market survey is to obtain regional and statewide information on per-acre agricultural land values and cash rental rates by land use (crop, hay, tame pasture, and range land) and land productivity. Data on cash rental rates by land use from 1991 through 2011 are available in the SDSU publication "South Dakota Agricultural Land Market Trends, 1991 – 2011" by Dr. Larry Janssen and Dr. Burton Pflueger. The electronic version of the 2011 annual report is available at: http://pubstorage.sdstate.edu/AgBio_Publications/articles/C278.pdf.

71% of respondents), along with real estate appraisers and assessors (17%) and Extension agricultural educators (12%).[2]

Importance of Farmland Leasing in South Dakota

The most complete information on South Dakota farmland leasing arrangements is found in SDSU research bulletin B739: "Farmland Leasing" by Janssen and Xu (2003). The main sources of information reported in this bulletin were from: (1) a 1996 South Dakota farmland leasing survey completed by 513 South Dakota farm operators, and (2) South Dakota data in various Census of Agriculture reports and the 1999 Agricultural Economics Land Ownership Survey (AELOS) supplement to the Census.[3] Data from research bulletin B739 provide a benchmark for comparisons with more recent data examined in this report.

The relative importance of farmland leasing can be examined from the amount of land acres leased, number of farm operators (and landlords) involved in leasing, and relative importance of leasing expenses and revenues. Data from the 2007 and 2002 Censuses of Agriculture for South Dakota (completed by farm operators) provides some of the needed information, but does not include information that can only be obtained from landlords.

First, nearly two-fifths of South Dakota's agricultural land acres are leased, with higher percentages of leased farmland acres in the crop-intensive eastern regions of the state.

Based on data from the Census of Agriculture, 39.3% of South Dakota's 43.7 million acres of land in farms were leased in 2007 compared to 37.2% in 2002 (Table 1 and Figure 1). Further analysis of 2007 data by Pflueger notes that "in all counties in the James River Valley and further east, the percentage of rented acres was between 39% and 57%. For many of the.

[2] A total of 160 of 194 respondents to the 2011 South Dakota Farm Real Estate Market Survey also completed the share leasing survey supplement. A higher proportion of agricultural lenders, FSA officials, and Extension educators completed the share lease survey supplement, compared to the Farm Real Estate Market Survey.

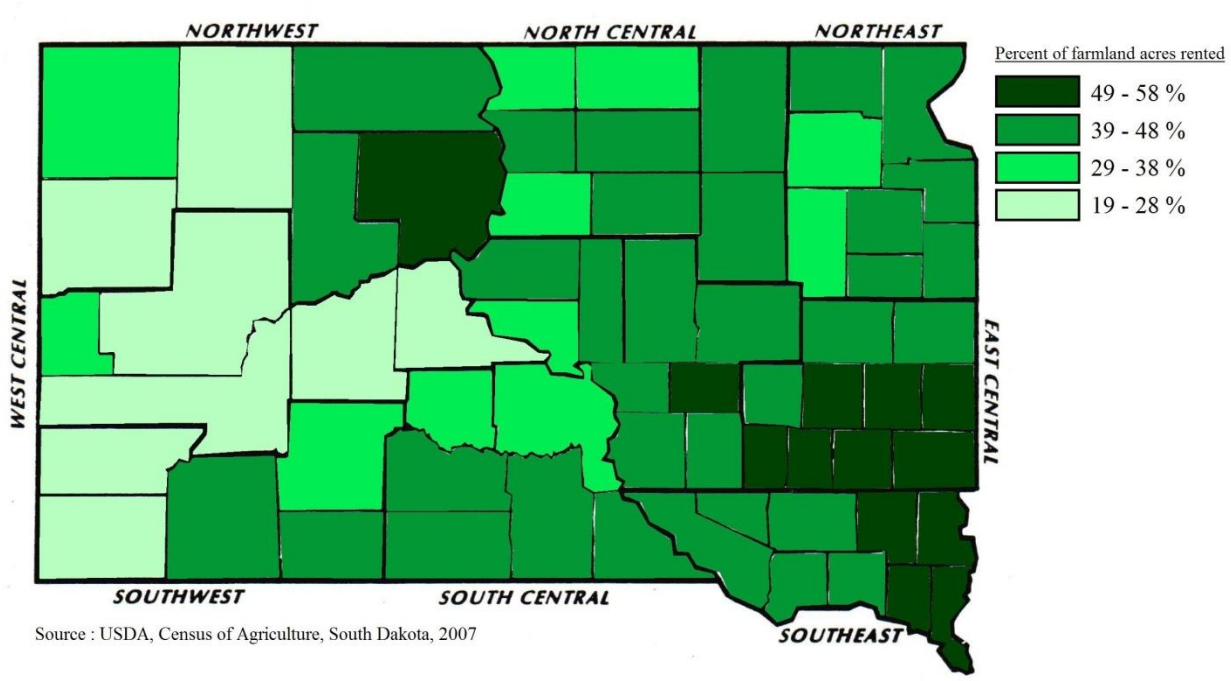
[3] The 1996 South Dakota farmland leasing survey results emphasized: (1) characteristics of rental market participants and the farmland leasing market, (2) detailed provisions of cash leases and share leases for cropland, and (3) economic evaluation of farmland leasing arrangements. The 1999 AELOS is the most recent national survey of land ownership, leasing, and finance completed by both farm operators and landlords (USDA, 2001). Key results from the 1999 AELOS for South Dakota are reported in the research bulletin by Janssen and Xu, 2003.

Table 1. Importance of Farmland Leasing in South Dakota, selected statistics, 2007 and 2002

	2007		2002	
Number of Farm Operators:	Number	% of total	Number	% of total
Total	31,169	100.0%	31,736	100.0%
Leasing Farmland from Others	15,761	50.6%	15,850	52.6%
Leasing Farmland to others	8,341	26.8%	6,593	20.8%
Land in Farms:	Thousand acres	% of acres	Thousand acres	% of acres
Total	43,666	100.0%	43,785	100.0%
Leased Farmland from Others	17,148	39.3%	16,295	37.2%
Leased Farmland to Others	6,658	15.2%	5,788	13.2%

Source: U.S. Department of Agriculture, 2007 and 2002 Census of Agriculture, South Dakota, Vol.1

Figure 1. Leased farmland as percent of total land in farms, by South Dakota county, 2007



counties west of the Missouri River, the percentage of rented acres was less than 40% and some counties had less than 25% of agricultural land acres rented" (Figure 1). This same pattern is also consistent with the 1999 AELOS results that indicate South Dakota cropland is more likely to be leased than is pastureland.

Second, over 70% of South Dakota farm operators are involved in farmland leasing.

A majority of South Dakota farm operators in 2002 and 2007 leased farmland from others -- primarily from non-operator landlords (Table 1).[4] Most of these farm operators (82% in 2007) were part-owner operators who combined owned and leased farmland in their farm business operation. The remaining lessees were full-tenants who leased all of the land in their farm or ranch operation. The share of full-tenants (as measured by percent of farm operators or land acres controlled) continued to slowly decline.

A growing proportion (26.8% in 2007 compared to 20.8% in 2002) of farm operators rented out some of their farmland to other farmers (Table 1). By 2007, an estimated 6.66 million acres of South Dakota farmland (15.2% of total land in farms) were owned by farmers – mostly full-owner operators – but leased to other farmers. This trend is probably related to the increased age of farm operators – especially that of full-owner operators – who may wish to downsize their operation via leasing land to other farmers, but also continue to own all of their land.

Third, farmland leasing revenues and expenses are an important economic component of production agriculture in South Dakota.

The share of cash rent paid for farmland and farm buildings increased from 8.2% of farm production expenses in 2002 to 10.0% in 2007. The total amount of cash rent paid in South Dakota increased from $273 million in 2002 to almost $500 million in 2007 (Table 2). Nearly 90% of farm operators leasing land paid cash rent on one or more leases.

[4] Four major land tenure classes included in this report are defined as:
Full-owner operators only operate land that they own. They may also lease land to other farmers.
Part-owners operate owned land and also lease additional land from others. Some part-owners may also lease land to other farmers.
Full-tenants operate only land they lease from others.
Non-operator landlords lease all of their owned land to farmers and do not operate any of their owned land.

Table 2. Economic Importance of Farmland Leasing in South Dakota, 2007 and 2002.

Farm Revenue Items	2007		2002	
	Number of farms	Thousand dollars	Number of farms	Thousand dollars
Market value of farm products sold				
All South Dakota farms	31,169	$6,570,450	31,736	$3,834,625
Value of landlord's share of total sales	2728	$117,533	3337	$94,414
Percent of total farms	8.8%		10.5%	
Percent of total sales volume		1.8%		2.5%
	Number	Thousand	Number	Thousand
Farm Production Expense Items	Of farms	dollars	of farms	dollars
Total Farm Production Expenses a	31,169	$4,989,172	31,736	$3,311,884
Cash rent paid for land & buildings	14,161	$499,619	14,162	$272,995
Percent of total farms	45.4%		44.7%	
Percent of production expense		10.0%		8.2%
Production expenses paid by landlords	1,849	$21,253	2,695	$22,533
Percent of total farms	6.0%		8.5%	
Percent of production expense		0.42%		0.68%

a Includes all farm production expenses paid by farm operators and landlords (as reported by farm operators), excluding property taxes paid by landlords

Source: U.S. Department of Agriculture, 2007 and 2002 Census of Agriculture, South Dakota, Vol.1

Landlords generally pay all farm real estate taxes levied on their leased land. Other production expenses paid by landlords are usually incorporated into share leases so that some input costs are shared between the renter and land lord. The amount of other production expenses, such as fertilizer and herbicides, paid by landlords decreased from $22.5 million in 2002 to $21.25 million in 2007. The proportion of other farm production expenses (excluding farm real estate taxes) paid by landlords declined from 0.68% in 2002 to 0.42% in 2007. Also, a declining number and proportion of South Dakota farms reported any production expenses paid by landlords. In 2007, only 11.8% of farmers renting land reported landlord sharing of expenses, compared to 17% in 2002.

The changing importance and nature of share leasing in South Dakota is also evident from data on the value of landlords' share of total sales as first reported in the 2002 Census of Agriculture and repeated in 2007. The estimated value of landlords' share of total farm product sales increased from $94.4 million in 2002 to $117.5 million in 2007, but the share of total farm product sales value received by landlords declined from 2.5% in 2002 to only 1.8% in 2007 (Table 2). The proportion of share lease farms to all farms renting land from others in South Dakota declined from 21% in 2002 to 17.3% in 2007 (Table 1 and 2).

The higher number of share lease farms compared to the number of farms reporting landlord sharing of production expenses (refer to data in Table 1 and 2) suggest that input costs are not shared on many share leases.

A more complete economic accounting of farmland leasing would also include information on farm real estate taxes and other expenses incurred by landlords (some repairs and maintenance, crop insurance, capital improvements) and government payments received by landlord that are not likely to be reported by the farm operator in the Census of Agriculture. Also missing are more specific data on land use and estimated value of the leased land and on the distribution of leases by renters and landlords. Finally, data on specific lease arrangements are missing, especially for share leases.

Crop Share Leasing Arrangements in South Dakota: Update for 2011

This section contains updated information on crop-share and hay-share leasing in South Dakota in 2011 with emphases on output shares and the extent of input cost sharing. As mentioned earlier, the primary data source is results from a 2011 survey supplement on share leasing completed by 160 respondents, primarily agricultural lenders, appraisers, and Extension agricultural educators. The respondents are largely knowledgeable about farm real estate market conditions in their locality (county), including information on crop-share and hay-share leasing information. It is important to note that data are reported as the number or percent of responses instead of number or percent of share lease agreements. Also, data are reported by output share or by regional locations used in the annual farm real estate market report. A copy of the share lease survey supplement is in appendix A.

Extent of Crop-Share and Hay-Share Leasing

Corn, soybeans, wheat, and hay are the top four crops produced in South Dakota, both measured in acres harvested and in production value. Other principal crops such as sunflowers, oats, barley, sorghum, and flax comprised less than 10% of planted or harvested crop acres since 2000. The diversity of crops grown and their relative profitability over time affect cash rental rates and also the structure of share lease agreements, in terms of output shares and extent of input cost sharing. In particular, hay share leases often have different provisions than other crop share leases. Hence, other crop-share leases are reported separately from hay-share leases.

Based on 157 responses, an estimated 23% of South Dakota rented cropland acres are in crop-share leases, while 77% are in cash leases. The percent of crop-share lease acres is considerably higher in all regions west of the Missouri River (often referred to as West River) than in the eastern and central regions of the state.

Nearly 64% of respondents indicated that the incidence of crop share leasing had declined in the past three years, 30% indicated no change, and 6% reported an increase. The proportion of respondents reporting declines in crop share leasing was considerably higher in the crop-intensive regions of eastern and north-central South Dakota.

Based on 145 responses, an estimated 20% of South Dakota hay land acres rented were in hay-share leases, while 80% were in cash leases. Again, the percent of hay-share lease acres

were much higher in all three West River regions, compared to the eastern and central regions of South Dakota.

A majority of respondents (52%) indicated that the extent of hay-share leasing had not changed in the past three years, while 44% indicated a decline in hay-share leasing. Very few respondents (4%) perceived an increase in the extent of hay-share leasing; the response pattern varied considerably by region. A majority of respondents in the three eastern regions (northeast, east central and southeast) perceived a decline in hay-share leasing. In most other regions a majority or plurality of respondents perceived no change in the extent of hay-share leasing.

Based on evidence from several sources including the 2011 share lease survey and earlier farmland rental surveys (1996 and 1986), the incidence and extent of crop-share and hay-share leasing has declined throughout South Dakota. However, the greatest declines have occurred in the crop-intensive eastern regions and James River valley counties of the north-central and central regions. These regions have the highest percent of leased land and greatest shift in crop production mix toward corn and soybeans. The rapid adoption of revenue insurance for major crops may also influence decisions concerning cash or share leasing. Revenue insurance has given producers more risk management alternatives that provide relatively greater downside protection and greater producer willingness to accept cash leasing.

Crop Output Shares

According to the survey, there are four common crop share arrangements in South Dakota; 2/3-1/3 tenant-landlord output shares, 3/5-2/5 output shares, 1/2-1/2 output shares, and 3/4-1/4 output shares (Table 3).[5] The relative importance of specific crop output shares depends on location in the State as shown on the South Dakota county map (Figure 2 and Table 3).

The 2/3-1/3 crop-share lease is the most frequently used share arrangement (68% of responses) reported for the state (Group B in Figure 2). This crop-share lease is dominant in all South Dakota regions and represents 90% of the share-leases in the Central, South Central, South West, and North East regions (Table 3). It is also the output share of 75% of crop-share leases in the North Central and more than 50% in the Southeast, East Central, and Northwest regions.

[5] A few respondents reported other output share arrangements such as 70/30, 64/36 or 80/20 tenant / landlord shares of output. For reporting purposes, these responses were respectively included in the 2/3-1/3, 3/5-2/5, and 3/4-1/4 tenant / landlord output shares in table 3.

The 3/5-2/5 crop-share lease was reported by 23% of the respondents and was mostly used in the Southeast and East Central regions. This crop-share arrangement is also reported by 10 to 15% of the respondents in the Central, South Central, South West, and Northwest regions.

The 1/2-1/2 output share lease arrangements were reported only by 5% of the respondents. These arrangements are all located in the Eastern and North Central regions of the state with greatest concentration in ten eastern counties (Figure 2).

The 3/4-1/4 output share lease was reported by a few respondents in only two regions; North Central and Northwest. In the Northwest region this arrangement represents 31% of the responses.

Figure 2. South Dakota cropland share rental terms and regions, 2011

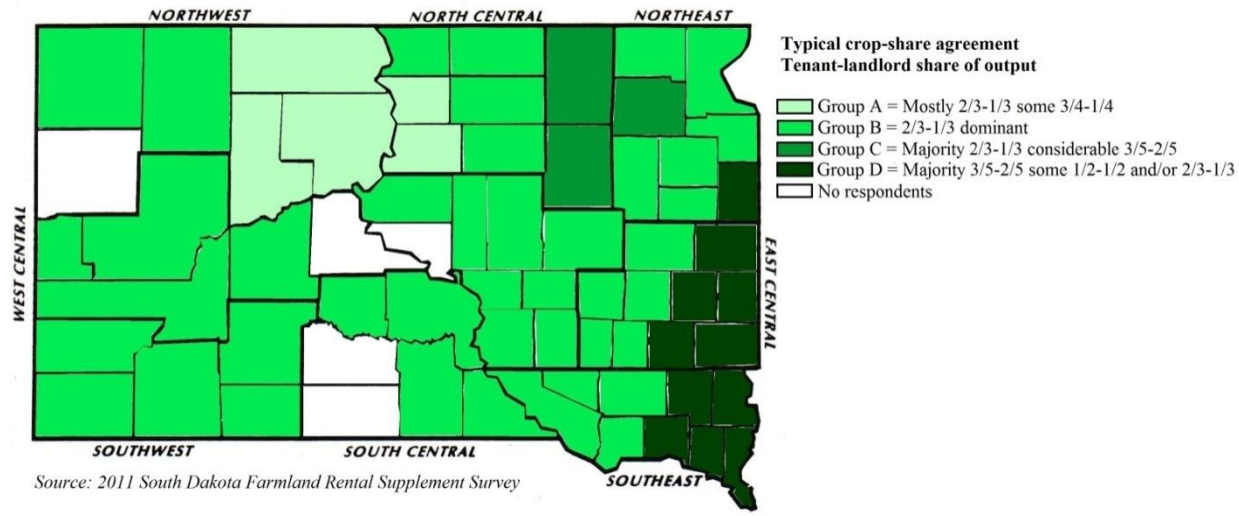


Table 3.Tenant's share of non-irrigated crop output for respondents to South Dakota cropland leasing survey by region, 2011.

	Tenant's share of crop output			
	1/2	3/5	2/3	3/4
	percent of responses			
South Dakota	5	23	68	4
Region				
Southeast	10	39	51	0
East Central	5	37	58	0
Northeast	6	6	88	0
North Central	10	5	75	10
Central	0	10	90	0
Northwest	0	15	54	31
South Central	0	10	90	0
South West	0	13	87	0

Source: 2011 South Dakota Farmland Rental Supplement Survey

Sharing of crop input expenses

Most (80%) crop-share lease respondents reported the landlord and renter shared expenses for one or more variable inputs, but the number and type of shared input expenses varied by region and output share.

Fertilizer expenses were the most commonly shared input expenses, followed by herbicide and spraying (Table 4). Statewide, fertilizer expenses were reported shared by 79% of the respondents. These expenses were shared by 100% of the respondents reporting a 1/2 - 1/2 share lease and by respondents located in the Central and South Central regions. Ninety one percent of the respondents reported a 3/5 – 2/5 crop share lease also reported shared expenses for fertilizer. Most of these 3/5 – 2/5 leases were located in the South East and East Central regions. Fertilizer expenses were also shared by 76% of the respondents reporting a 2/3-1/3 share lease throughout South Dakota.

Herbicide expenses were shared in a majority of crop-share lease (46%) while insecticide expenses were shared by 30% of the respondents. In the Central region, 70% of respondents reported shared herbicide expenses. Otherwise, herbicide expenses were mostly shared in the eastern region of the state. Herbicide expenses were shared in most 1/2-1/2 and 3/5-2/5 share lease arrangements (respectively 75% and 56%) and by 42% of respondents reporting 2/3-1/3 crop-share leases.

Insecticide expenses were reported shared by 41% of the respondents of 3/5-2/5 crop-share leases, by 38% of the respondents of 1/2-1/2 crop-share leases, and by 26% of the respondents of 2/3-1/3 crop-share leases. Sharing of insecticide expenses was more likely to be reported by respondents in the Central (50%), East Central (45%), Northeast (35%), and Southeast (29%) regions.

Statewide, crop spraying costs were shared by 38% of the respondents. Spraying expenses were most frequently shared on 1/2-1/2 share leases (63% of responses). These costs were mostly shared in the Northeast (53%), North Central (58%), Central regions (50%), and in the South Central (40%) and South West (43%) regions. Spraying expenses were more likely to be shared if both fertilizer and herbicide expenses were shared.

Seed costs were reported as shared by 37% of the respondents. Seed costs were mostly likely to be shared (75% of responses) by the respondents reporting 1/2-1/2 output share leases. From a regional perspective, seed costs were much more likely to be shared in all regions east of the Missouri River (and varied from 35% to 50% of responses in the latter regions). Very few West River respondents reported landlord sharing of seed costs.

Drying expenses were shared by 23% of the respondents, and was mostly by those reporting a 1/2-1/2 output share lease (50% of responses). The likelihood of sharing of these expenses (15% to 35% of responses) occurred in all except the southwest region of the State.

Input costs were more frequently shared on 1/2-1/2 or 3/5-2/5 output share leases than on 2/3-1/3 or 3/4-1/4 share leases.

Some input expenses (fertilizer, herbicide, insecticide) are directly related to the output level. Therefore, in a crop share lease landlords and tenants have an interest in managing input

application so that output levels are optimized. Input expenses sharing patterns and crop-share leases are closely related as landlord share of output increases from 33% to 40% or to 50%. However, the 3/4-1/4 output share leases, prevalent in the Northwest and North Central regions, seemed to have their own pattern that did not conform to the general pattern observed for other leases.

Generally, if fertilizer expenses were not shared, it was not likely that any other input costs were shared. Moreover, the incidence of sharing fertilizer expenses only was about the same as the incidence of sharing fertilizer and herbicide costs or sharing fertilizer, herbicide, and seed expenses.

Table 4. Proportion of respondents reporting shared input expense on crop share leases by region and output share, South Dakota, 2011

Region	Seed	Fertilizer	Herbicides	Insecticides	Spraying	Drying
			percent of responses			
South Dakota	37	79	46	30	38	23
Southeast	35	90	45	29	32	17
East Central	48	79	55	45	29	26
Northeast	47	94	47	35	53	35
North Central	37	68	53	11	58	26
Central	50	100	70	50	50	30
Northwest	23	23	23	15	15	15
South Central	10	100	30	10	40	20
South West	0	71	14	14	43	0
Output Share						
Tenant-Landlord			percent of responses			
50-50	75	100	75	38	63	50
60-40	44	91	56	41	41	34
67-33	30	76	42	26	34	17
75-25	50	50	17	17	50	17

Source: 2011 South Dakota Farmland Rental Supplement Survey

Hay Share Leasing

Only 70% (112 of 160) of respondents provided information on output shares for hay leasing in their locality. Results from the 2011 survey indicate a much different statewide and regional pattern for hay share leases than for other crop share leases (Table 5).

The most common output share for hay leases is 1/2 - 1/2 tenant / landlord share (38% of responses) followed by 2/3-1/3 (or 70/30) output shares and 3/5-2/5 output shares. Relatively few respondents (8%) reported 3/4-1/4 hay share arrangements in their locality (Table 5).[6]

A majority of respondents in the Southeast, East Central and Central region reported the 1/2-1/2 tenant / landlord hay share as the most common lease arrangement. The 3/5 – 2/5 hay share lease was more prominent in the western regions than elsewhere, but such leases did not constitute a majority of reported leases in any region. The 2/3-1/3 hay share lease was more prominent in the northern regions (Northeast, North Central, and Northwest) regions than elsewhere, but were not a majority of reports in any region. The 3/4 -1/4 hay share lease was only reported in the eastern and north central regions.

Only 15 respondents provided information on input costs shared in a hay lease. Fertilizer was the most commonly shared input cost in a hay lease. It may not be surprising that survey results indicate that hay share leases differ from share leases of other crops. Because hay is a perennial crop, it may be seeded in one year and then harvested for the next three to five years. On land leased for hay production where the crop is already established, the share of production costs between landlord and tenant differs from other crops that need to be seeded annually. For those acres already established for hay production, fertilizer may be the only yield increasing input, so fertilizer expense may be shared in some proportion between landlord and tenant.

[6] A few respondents reported other output share arrangements such as 71/29, 65/35, 64/36, or 45/55 tenant / landlord shares of output. For reporting purposes, the 71/29 share responses were included in the 2/3-1/3 share arrangement; the 65/35 and 64/36 shares were included in the 3/5-2/5 share arrangement and the 45/55 share was included in the 1 /2 – 1 / 2 hay share arrangement.

Table 5. Tenant's share of hay production for respondents to South Dakota cropland leasing survey by region, 2011

	Tenant's share of hay output			
	3/4	2/3 or 7/10	3/5	1/2
	percent of responses			
South Dakota	7	29	26	38
Region				
Southeast	5	10	25	60
East Central	8	12	25	54
Northeast	20	40	20	20
North Central	17	50	11	22
Central	0	33	11	55
Northwest	0	46	46	8
South Central	0	22	33	44
South West	0	33	44	22

Source: 2011 South Dakota Cropland Leasing Survey

Comparisons of and changes in crop-share leasing patterns in South Dakota, 1996 to 2011[7]

Statewide, the tenants' share of crop output has been maintained over the past 15 years. However, at the regional level, the proportion of 2/3-1/3 crop share leases seems to have increased while the proportion of 3/4-1/4 and 1/2-1/2 crop share lease decreased. The decline in 1/2-1/2 share leases is probably related to the increased proportion of cash leasing in the same counties where these leases were prevalent. Increased crop productivity and cash production costs may have contributed to the declining use of the 3/4-1/4 share lease.

Input costs were more frequently shared on 1/2-1/2 or 3/5-2/5 output share leases than on 2/3-1/3 or 3/4-1/4 share leases. This differential pattern of cost sharing is consistent with findings from the 1996 farmland leasing survey in South Dakota (Janssen and Xu, 2003).

[7] Comparisons made in this section are between data reported in the 2011 farmland leasing survey and those of the 1996 South Dakota farmland leasing survey reported by Janssen and Xu (2003).

The proportion of crop share leases with no input costs shared has remained close to 20% of share leases in both periods. Most crop share leases have costs of one or more inputs shared between landlord and renter.

Some major changes have occurred in the input cost sharing patterns. The proportion of share leases with shared fertilizer expense is similar in both periods (about 80%). However, the incidence of shared seed and spraying expenses has sharply increased for all types of tenant-landlord output share leases while the incidence of sharing herbicide, insecticide, and drying expenses has considerably decreased. Some of the changes in the incidence of input cost sharing may be due to changes in cropping patterns in a crop share lease agreement. Cash leasing has become more prominent in counties that shifted toward relatively more corn production acres.

Hay share leases were not reported in the 1996 survey so no comparisons can be made**.**

Summary and Conclusions

This report provides information on the: (1) importance of farmland leasing in South Dakota based on data from the Census of Agriculture, and (2) updated (2011) information on crop-share leasing and hay-share leasing in South Dakota. The main data source for the share lease updates is a 2011 survey supplement: *Lease Terms on Share Rented Land* completed by 160 respondents.

Key findings related to the importance of farmland leasing in South Dakota are:

- Nearly two-fifths of South Dakota's agricultural land acres are leased, with higher percentages of leased farmland acres in the crop-intensive regions of the State. The percentage of rented acres varied between 39% and 57% in counties located in eastern South Dakota or James River Valley.
- More than 70% of South Dakota farm operators are involved in farmland leasing. A majority of farm operators leased some farmland from non-operator landlords or from other farmers. A growing proportion of farm operators (26.8% in 2007) rent out some of their farmland to other farmers.

- Farmland leasing revenues and expenses are an important economic component of production agriculture in South Dakota. For example, cash rent paid for farmland and farm buildings comprised 10% of total South Dakota farm production expenses in 2007.
- The relative importance of share leasing has declined compared to the extent of cash leasing. In 2007, only 17.3% of farm operators leasing land from others reported landlords receiving a share of production output, while 90% reported cash rent payments.

Key findings related to crop-share or hay-share leasing arrangements in 2011 are:

- An estimated 23% of rented cropland and 21% of rented hay land are in share leases. The percentages of rented cropland acres in crop-share or hay-share leases are considerably higher in regions west of the Missouri River.
- Nearly two-thirds of respondents indicated that the proportion of cropland acres in a share lease has declined in the past three years.
- The 2/3 – 1/3 (tenant / landlord share of output) is the most frequently used crop-share lease arrangement (68% of responses) and is dominant in almost all regions of South Dakota.
- The 3/5 – 2/5 crop-share lease was reported by 23% of respondents and was mostly used in the Southeast and East Central regions. Other crop-share leases, such as 1/2-1/2 crop-share or 3/4-1/4 crop-share leases, were important in a few local areas.
- Most crop-share leases (80%) include renter and landlord sharing expenses for one or more variable inputs. Fertilizer expenses were the most commonly shared input expenses followed by herbicide and spraying. Seed, insecticide, and crop drying expenses were also shared in some leases.
- Input costs were more frequently shared on 1/2-1/2 or 3/5-2/5 output share leases than on 2/3–1/3 or 1/4 -1/4 crop-share leases.
- For hay-share leases, the 1/2-1/2 hay-share lease was the most prominent followed by the 2/3-1/3 and 3/5-2/5 output share.

LIST OF REFERENCES

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

Janssen, Larry and Burton Pflueger. 2011. South Dakota agricultural land market trends, 1991 – 2011. SDSU Ag. Expt. Station Circular 278. Brookings, SD.
http://pubstorage.sdstate.edu/AgBio_Publications/articles/C278.pdf

Peterson, Scott and Larry Janssen. 1988. Farmland leasing in South Dakota. Ag Expt. Station Bulletin 704. South Dakota State University, Brookings, SD.

Pflueger, Burton. 2011. Percentage of South Dakota Agricultural Land Operated Under a Rental Agreement. Extension Extra 5080. South Dakota State University.
http://pubstorage.sdstate.edu/AgBio_Publications/articles/ExEx5080.pdf

-----. Crop cash lease agreements. Extension Extra 5063. South Dakota State University, 2007. http://agbiopubs.sdstate.edu/articles/ExEx5063.pdf.
http://pubstorage.sdstate.edu/AgBio_Publications/articles/ExEx5063.pdf

-----. Cash farm lease (short version). Extension Extra 5064. South Dakota State University, 2007.
http://pubstorage.sdstate.edu/AgBio_Publications/articles/ExEx5064.pdf

-----. Crop Share Lease Agreements, Extension Extra 5065. South Dakota State University, 2007.
http://pubstorage.sdstate.edu/AgBio_Publications/articles/ExEx5065.pdf.

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

-----. Flexible-Cash Lease Agreements. Extension Extra 5067. South Dakota State University, 2007.
http://pubstorage.sdstate.edu/AgBio_Publications/articles/ExEx5067.pdf

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

-----. South Dakota's Rental Agreements: What is a Fair Lease. Extension Extra 5078. South Dakota State University, 2010. http://pubstorage.sdstate.edu/AgBio_Publications/articles/ExEx5078.pdf

U.S. Dept. of Agriculture. 2007 Census of Agriculture, South Dakota. v. 41.

U.S. Dept. of Agriculture. 2002 Census of Agriculture, South Dakota. v. 41.

U.S. Dept. of Agriculture. 2001. Agricultural economics and land ownership survey (1999). 1997 Census of Agriculture 3, special studies, part IV.

Appendix A: 2011 Share Lease Supplement Survey

2011 South Dakota Farm Real Estate Market Survey

Dr. Burton W. Pflueger and Dr. Larry Janssen

All replies will be handled on a strictly confidential basis

Please return the completed survey in the same business reply envelope to :
Dr. Larry **Janssen;** College of Agriculture and Biological Sciences; Economics Department
Box 504, Scobey Hall; SDSU; Brookings, SD 57007-0895
Phone: 605-688-4141 Fax: 605-688-6386

2011 Survey Supplement
Lease Terms on Share Rented Land

We continue to receive questions regarding terms of leased land. We are asked about current or common leasing practices and, in particular, leasing practices related to share leased land.

IF you have the time available after completing the Farm Real Estate Market Survey, and if you would be willing to do so, please complete this survey supplement addressing share leased land.

If you are aware of land being leased under a share crop lease basis, please provide the following information.

For those tracts of crop and hayland that you are familiar with, please answer the following:

Please list the county(s) included in this report:

COUNTY(s) _____

CROPLAND

1. Of the land that is being leased, what percentage of that land is leased under a:
   a. share lease agreement? _____%
   b. cash lease agreement? _____%

   100 %

2. Over the last three years, has the percentage of land that is leased under a share rent agreement: (check) _____ Increased _____ Decreased _____ Remained Constant

3. For the most common share lease agreements you are aware of. What percent of the crop is received by the Landlord? _____ %
    a. For the share lease agreements where the Landlord receives the stated percent of the crop, which expenses are shared in that same proportion:

    _____ Seed _____ Fertilizer _____Herbicide

    _____ Insecticide _____ Spraying _____ Drying

HAYLAND

1. Of the hayland that is being leased, what percentage of that land is leased under a:
    a. share lease agreement? _____%
    b. cash lease agreement? _____%

    100 %

2. Over the last three years, has the percentage of land that is leased under a share rent agreement: (check) _____ Increased _____ Decreased _____ Remained Constant

3. For the most common share lease agreements you are aware of. What percent of the hay crop is received by the Landlord? _____ %

4. Does the Landlord share any expenses under the share lease agreements where the landlord receives the stated percent of the hay crop? (check) _____ Yes _____ No
5. If you answered Yes to Question 4, what expenses are shared?

_____
_____
_____

OTHER COMMENTS or suggestions you would like to offer: