

## 2012 IRRIGATED CROP-SHARE LEASING ARRANGEMENTS IN KANSAS

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## **Sources of Crop-Share Lease Information**

The National Agricultural Statistics Service-Kansas Office (NASS) conducts one survey each year in conjunction with the Land Use Value Project in the Department of Agricultural Economics at Kansas State University (KSU). There are four surveys rotated by NASS in conjunction with KSU: irrigated leases, non-irrigated leases, pasture leases, and input costs. During 2012, the Irrigated Farm Lease Arrangement Survey was conducted to gather data on the 2012 crop year. The following represents a summary of the survey results. This information should be useful to Extension personnel, consultants, lenders, producers, and landowners to better understand the various crop-share leasing arrangements that exist for irrigated land in Kansas. The last survey of irrigated crop-share leasing arrangements, compiled in 2008, was also conducted by NASS and KSU. Similar to the 2008 survey, the 2012 survey requested information on the current crop year's lease arrangements. The format and survey population for the two surveys are similar, so direct comparison between the results is appropriate.

NASS divides Kansas into nine crop reporting districts. The NASS surveys, conducted for the Land Use Value Project, are focused toward landlords. This is done because the purpose of the Land Use Value Project is to calculate landlord net income for different soil types in the NASS crop reporting districts (CRD) for the Kansas Department of Revenue. Additional information pertaining to the survey is available from Leah Tsoodle (ltsoodle@ksu.edu.) in the Department of Agricultural Economics at Kansas State University.

NASS follows the same sampling procedure for all surveys conducted for KSU. NASS draws a sample from their database, which contains landowners, producers, and owner/operators. The sample size is large enough to ensure that a statistically significant number of responses are received from each district. In the 2012 survey, NASS received 504 survey responses from 3,475 mailed for an 14.5% statewide response rate. In 2008, NASS received 581 survey responses from 3,116 mailed for an 18.6% statewide response rate. Because irrigated crop production in Kansas is largely confined to the western two-thirds of the state, six regions established by the Division of Property Valuation (PVD) are used in the irrigated cropland analysis. The six districts roughly correspond to the NASS CRD; they are: Northwest-10, West Central-20, Southwest-30, North Central-40, Central-50, and South Central-60. Figure 1 displays the area covered by each district. District response rates ranged from 11.6% in North Central-40 to 17.7% in Southwest-30. Table 1 shows individual district response rates.

## **General Statewide Lease Information**

The KSU/NASS 2012 Irrigated Crop Lease Survey provides information about the distribution and characteristics of irrigated crop lease arrangements in Kansas. In 2012, due to procedural changes by NASS, it is not possible to calculate the percentage of respondents who indicated they lease farmland; in 2008, that percentage was 54%. Table 1 shows the response rate from the 2012 Survey. Table 2 contains information on the distribution of the different types

of leases. The *Crop-Share* rental agreement was the primary method of leasing cropland in Kansas. Approximately 63.5% of the respondents utilized *Crop-Share* leases, while 23% used *Fixed Cash* leases. In 2008, the respective percentages were 70% and 27%. The use of other types of leases (e.g., *Crop and Cash*, *Flexible Cash*, *Net Share*, and *Other*) increased dramatically between 2012 and 2008; the other lease types were used by roughly 13.5% of the respondents in 2012 as compared to 3% in 2008.

The percent of respondents using crop-share leases ranged from 75.3% in West Central Kansas to 52.5% in Northwest Kansas. In the *Crop-Share* type of lease, the landlord receives a percentage of the crop as the rental payment. The most common crop-share split on irrigated crop land in Kansas is one-third to the landlord and two-thirds to the tenant. The *Fixed Cash* lease entails a fixed cash rental payment to the landlord each year. In *Fixed Cash* lease arrangements, landowners are capable of shifting production risk to producers, and tenants must be able to pay cash rents to compete for land. The *Crop & Cash* type is a combination of the fixed cash and crop-share types. *Flexible Cash* leases vary the cash rent each year according to the tenant's crop income. With *Net Share* type lease arrangements, the landlord receives a set percentage of each year's crop, but pays no crop expenses. The percentage is typically smaller than a crop-share lease percentage because the landlord does not pay any production expenses. Although the landlord crop-share percentage is stable across years with this type of arrangement, the actual rental income will change as crop yields and prices vary. *Other* lease types are any lease arrangements that do not fall into the above categories. Since 2008, we have seen a decrease in the use of *Fixed Cash* and *Crop-Share* leases and an increase in alternative lease types. However, from 2008 to 2012, only the average change in the *Crop-Share* lease type category was statistically different from zero at the 5% level.

Table 3 displays general characteristics of the survey respondents, their leases, and irrigation well characteristics. Results show that producers averaged 2.2 landlords per respondent in 2012, up from 2.0 landlords per respondent in 2008. Leases averaged 183.2 acres and have been continuously rented for approximately 19 years. About 44% of the tenants were related to the landlord, and less than 38% of the leases across the state were written. The average well depth was just under 178 feet; depths ranged from 80.9 feet to 351.2 feet. Well output averaged 606.9 gallons per minute, and average output across the state ranged from 395.8 gpm to 765.0 gpm. Most of the table 3 category averages have increased since 2008, except the average number of leases that are written and the average well output. Between 2008 and 2012, most of the mean changes in Table 3 categories were statistically different from zero at the 95% level. *Ave. Acres Per Lease*, *Ave. # Years Rented Land*, *% With a Written Lease*, and *Average Well Depth* changed significantly between 2008 and 2012.

Average landlord ownership shares of major irrigation equipment expenses in each district are shown in Table 4. Percentages varied across the state, across equipment, and across both flood and sprinkler irrigation system types. As expected, landlord percentage ownership was highest generally in the well, pump/gearhead, and power unit categories.

## **Regional Information**

The 2012 survey for the 2011 crop year asked each respondent for information on a maximum of four crop-share leases. If the respondents had more than four leases, they were asked to respond regarding their most typical leases. Also, if the respondent had leases for more than one crop on the same acreage, they were asked to respond for each crop separately. The “Regional Information” section discusses tables containing response information specific to each crop reporting district. These tables show the percent of leases in different crop-share divisions and the percent of leases where landowners share expenses at the same rate as the crop for each of the major crops.

### **Northwest Kansas**

Over 43% of the crop-share leases in northwest Kansas were a one-third/two-thirds (33/67) landlord/tenant split (table 5). The 25/75 and 50/50 crop-share arrangements were used by 36.1% and 8.3% of respondents, respectively. In 2008, the 33/67 split was the predominant split at 41.4%. The majority of respondents produced corn in 2012; soybeans, sunflowers, and alfalfa were next in production in the Northwest region (table 6). The 33/67 arrangement was the typical lease arrangement in all crops, except corn and sunflowers. In the 25/75 arrangement, 47.6% of the landlords paid 25% of the corn fertilizer expenses. This compares to 100% of the landlords sharing fertilizer expense in the 2008 survey. In the 2012 33/67 arrangement, 100% of the landlords paid 33% of the soybean fertilizer expenses, the same as 2008. However, fertilizer cost on soybean is relatively small and in some instances may even be zero. When landlords received 25%, 40%, or 50% of the crop it was fairly common for them to share fertilizer, herbicide, and insecticide expenses in this same percentage (i.e., 25%, 40%, or 50%). Responses to other crops have been included in table 6, but are not discussed.

### **West Central Kansas**

In this region within crop-share leases, a 33/67 landlord/tenant arrangement remained predominant at 51.5% (table 5). In 2008, the 33/67 lease arrangement was also the most common arrangement with 70.0% of respondents using this split. The 25/75 crop-share arrangement comprised 36.4% of the total district leases in 2012. The majority of respondents produced corn; wheat was the second most reported crop (table 7). In the 33% crop share arrangement, 100% of the landlords paid the same share of fertilizer costs as the crop share they received, except for corn. For corn, 92.0% of the landlords paid 33% of fertilizer costs when receiving 33% of the crop. Landlord participation in herbicide and insecticide was less common. In the 33/67 arrangement, 32% of landlords paid 33% of corn herbicide and insecticide cost; 28.6% landlords paid 33% of wheat herbicide cost. Approximately 97% of the landlords paid for 33% of the herbicide and insecticide expenses when receiving 33% of the crop in 2008.

### **Southwest Kansas**

In southwest Kansas, the predominant crop-share arrangement was a 33/67 split. This arrangement was used by 66.0% of the respondents (table 5). The 25/75 crop-share arrangement was used by 10.3% of the respondents in the district. In the 2008 survey these rates were 68.4% and 10.2%, respectively. The majority of respondents produced corn in 2008 and 2012; with wheat as the second most reported crop in 2012 (table 8). The 33/67 crop-share lease was

predominant for all crops in 2012. In the 33/67 arrangement, 95% of landlords paid 33% of fertilizer expenses for corn and wheat; smaller percentages of landlords paid 33% of herbicide and insecticide expenses. For the 40/60 and 50/50 arrangements, however, inputs are shared in the same percentage as the crop for most crops. In 2008, in the 33% crop share arrangement 99.6% of landlords paid the same share of fertilizer, herbicide, and insecticide costs regardless of crop. For other lease arrangements, inputs were also shared in the same percentage as the crop.

### **North Central Kansas**

Over 32% of the crop-share leases in North Central Kansas used a 40/60 landlord/tenant split (table 5). The 50/50 and 33/67 crop-share arrangements were used by 30.8% and 24.6% of respondents, respectively. In 2008, the 40/60 split was predominant, and 61.5% of the respondents used it. In that survey, the 50/50 and 33/67 crop-share arrangements comprised 26.5% and 6.0%, respectively. As in 2008, most respondents in 2012 produced corn or soybeans (table 9), and the 50/50 crop-share was the typical arrangement. The 40/60 and 33/67 splits were also commonly used. For all other crops, the 40/60 arrangement dominated. In 2008, the 40/60 crop-share was the most commonly used arrangement for all crops, followed by the 50/50 arrangement. In 2012, over 90% of landlords receiving 50% of the corn or soybean crop paid 50% of the fertilizer and herbicide expenses, and 70% of landlords paid 50% of the insecticide costs. In the 40/60 arrangements, 90% of the landlords paid 40% of corn fertilizer expenses, and 60% of landlords paid 40% of corn herbicide or insecticide expenses. For 40/60 soybeans, 50% of landlords paid 40% of soybean herbicide or insecticide expenses, and 87.5% of landlords paid 40% of soybean fertilizer costs. For the 40% wheat arrangement, 100% of landlords shared the same percentage of the fertilizer, herbicide, and insecticide expenses. For sorghum, 100% of landlords receiving 40% of the crop paid 40% of the fertilizer costs. In 2008, in both the 40% and 50% crop-share arrangements, landlords shared fertilizer, insecticide, and herbicide expenses in the same percentage as the crop-share 100% of the time.

### **Central Kansas**

In this region, 34.8% of respondents used a 33/67 landlord/tenant crop-share (table 5). The 50/50 and 40/60 crop-share arrangements were also common in 2012, comprising 31.5% and 22.5%, respectively. In 2008, the 33/67 split occurred 38.9% of the time, whereas the 50/50 and 40/60 crop-share arrangements comprised 20.8% and 27.3%, respectively, of the district total. The majority of respondents produced corn or soybeans (table 10), as was the case in 2008. The 50/50 and 33/67 crop-share were the most common arrangements for both corn and soybeans. The 33/67 arrangement led in wheat and sorghum leases. In 2008, the 33/67 crop-share was the most common arrangement for soybeans, while the 50/50 arrangement was the most common for corn. In 2008, 100% of landlords shared in fertilizer, herbicide, and insecticide costs in the same percent share as the crop in all crops. In 2012, in most cases it was not common for landlords to pay the same percentage of fertilizer, herbicide, and insecticide expenses as they received of the crop for corn and soybeans. The exception was in corn, where 100% of landlords sharing 33% of the crop shared 33% of the fertilizer expenses. For most of the wheat and sorghum crop-share arrangements in 2012, landlords typically shared fertilizer and herbicide costs in the same share as the crop.

## **South Central Kansas**

The 33/67 and 50/50 landlord/tenant splits were used by 54.2% and 27.7% of the respondents, respectively (table 5). Those percentages were 54.0% and 21.0% in the 2008 survey. In 2012, most respondents produced corn; soybean was the second most important crop (table 11). These were also the main crops in both 2008 and 2004. The predominant arrangement for all crops in 2012 and 2008 was 33/67. For corn and soybeans, fertilizer, herbicide, and insecticide expenses generally were not paid in the same percentage as the crop share, except for the 25/75 split for corn. In the 33/67 lease arrangement in 2012, landlords typically shared fertilizer, herbicide, and insecticide costs in the same share as the crop for wheat, sorghum, and alfalfa. In 2008, across all crops, in the 33/67 crop-share arrangement, 100% of landlords shared in fertilizer, herbicide and insecticide costs at an equal percentage as the share of the crop they received.

## **District Summary**

The crop-share lease rental arrangement was dominant in all districts with the fixed cash arrangement following. Compared to the 2008 survey, the use of the crop-share and fixed cash leases has dropped: 63.5% of the respondents used a crop-share arrangement in 2002, a decrease of 6.8% from 2008, and 23% of the respondents use a fixed cash arrangement (table 2), a decrease of 3.6% from 2008. The 33/67 landlord tenant crop-share arrangement was the most commonly reported in the northwest, west central, southwest, central and south central districts in Kansas. In the north central district, the 40/60 landlord tenant crop-share arrangement dominated. Landlord participation in expenses varied across the state.. Sharing in herbicide and insecticide expenses appeared to be less common than sharing fertilizer expenses in all districts.

## **Conclusion**

Results of the 2012 *Irrigated Farm Lease Arrangement Survey* indicate that crop-share rental arrangements remain the most popular type of lease in Kansas, however, these results, along with extension specialists' comments, suggest that other lease types, especially cash leases, are increasing in popularity. The growing use of cash rental arrangements tends to increase the rate of tenant turnover. Contrary to evidence in prior surveys, a comparison of the 2012 and 2008 results indicate there is evidence of a positive, rather than negative, correlation between the use of cash leases and number of years a tenant has rented land.

In 2012, the predominant split was 33/67, except for the North Central-40 region. In 2008, 61.5% of landlords received 40% of the crop in North Central-40 region; now, survey results indicate that the percentage of landlords using 40/60 split in that region is 32.3%. Lease arrangements for irrigated land are much more variable than those for nonirrigated land. The 33/67 split on nonirrigated land is overwhelmingly dominant across the state, except in northeast Kansas. However, there are much closer percentages in the different splits for irrigated land (Schlegel and Tsoodle, 2008). For instance, in Central-50, 34.8%, 22.5%, 31.5% of landlords received 33%, 40%, and 50% of the crop share, respectively. The different lease terms are possibly due in large part to differences in the ownership of irrigation equipment. Additionally, the 2012 results confirmed extension specialists' acknowledgement that higher landlord crop-shares are more popular in the eastern portion of the state. As landlords negotiate rental

arrangements, their perceptions of income risk and expectations for crop income play a key role (Albright, O'Brien, and Sartwelle, 1996).

Since 2008, a few major factors likely impacting crop land lease arrangements are gradually rising fuel prices and increased ethanol production. Higher fuel prices contribute to increased costs in many categories, such as transportation, final products and inputs, and pumping costs, just to name a few. The change in ethanol production has impacted commodity prices and competition for land.

The 2012 Farm Bill could potentially impact future crop land lease arrangements once it is implemented. However since the Bill's final form was still being decided at the time this survey was conducted this Bill likely had no impact on this survey. Once implemented the proposed reductions in payment limits could provide incentives to move from cash leases to share crop arrangements in the years to come, assuming payment limits are more binding on producers than landlords.

Since the 2008 survey, based on planted acreage, the crop mix has changed. In 2008, "multiple crops" were produced in many leases. In 2012, however, corn and soybeans are popular crops in all areas of the state. There were a few leases involving "other crops", or crops other than corn, wheat, soybeans, sorghum, sunflowers, and alfalfa. While this is interesting to note, it is probably a reflection of commodity prices, normal crop fluctuations, and the impact of ethanol and other alternative fuels on crop choice. As always, weather conditions, relative price changes between crops since 2008, and crop rotation patterns all impact producer crop choices.

The land rental market in Kansas is quite dynamic. Changes in farm policy, commodity prices, and technology obviously affect farm structure, rental arrangements, and crop diversity. It is difficult to determine exactly what forces have been driving current rental changes. Some possible influences have been discussed. However, one of the most powerful influences, the effect of the traditional arrangements present in a region, has not been considered. Albright (1996) previously suggested that traditional arrangements, which have been in place for lengthy time periods, might not be affected by changes in markets, legislation, or farming practices. However, anecdotal evidence suggests that what has traditionally been done is rapidly changing.

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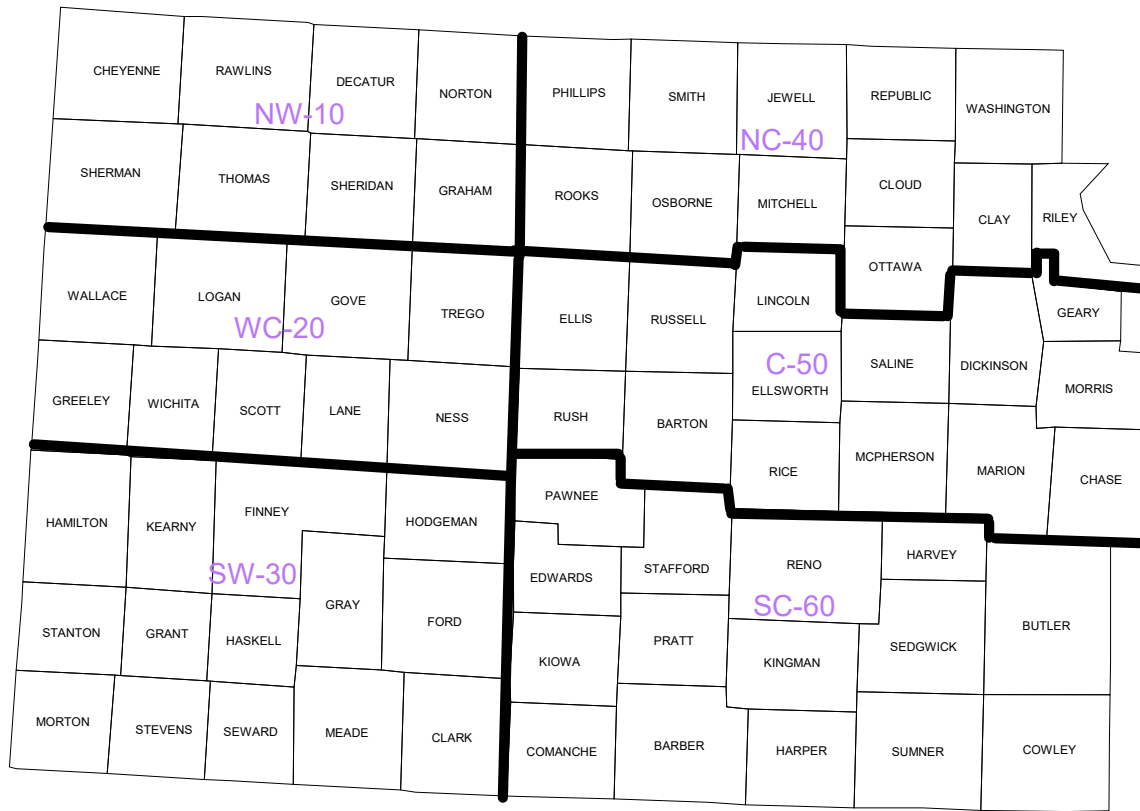
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# Figure 1. Irrigated Land Use Districts



**Table 1. Irrigated Crop-Lease Survey**

District	Surveys Sent	Leasing Respondents	Response Rate *
Northwest-10	450	57	12.7%
West Central-20	350	43	12.3%
Southwest-30	900	159	17.7%
North Central-40	475	55	11.6%
Central-50	475	57	12.0%
South Central-60	825	133	16.1%
State	3475	504	14.5%

\* The response rate is a reflection of the respondents who are leasing divided by the total number of surveys sent. People that responded but do not lease land are not included in the numerator.

**Table 2. Irrigated Lease Types**

District	Fixed Cash	Crop Share	Crop Share & Fixed Cash	Flexible Cash	Net Share	Other
Northwest-10	23.7%	52.5%	5.9%	11.0%	2.5%	4.2%
West Central-20	19.2%	75.3%	4.1%	1.4%	0.0%	0.0%
Southwest-30	14.9%	66.9%	13.1%	2.6%	1.8%	0.8%
North Central-40	35.8%	61.7%	1.2%	1.2%	0.0%	0.0%
Central-50	21.6%	71.6%	4.3%	1.7%	0.9%	0.0%
South Central-60	31.4%	57.8%	5.3%	3.6%	0.0%	2.0%
State	23.0%	63.5%	7.7%	3.5%	1.0%	1.3%

**Table 3. General Information**

District	Ave. Landlords Per Respondent	Ave. Acres Per Lease	Ave. # Years Rented Land	% Related To Landlord	% With A Written Lease	Average Well Depth	Ave. Output (Gallons/Min.)
Northwest-10	2.2	213.4	18.5	53.5%	40.3%	229.0	470.6
West Central-20	1.7	254.0	19.2	47.0%	43.9%	190.5	395.8
Southwest-30	2.4	216.1	20.2	36.7%	35.6%	351.2	618.9
North Central-40	1.4	103.7	18.6	49.2%	30.3%	108.4	634.5
Central-50	2.0	144.8	19.2	34.8%	37.1%	80.9	756.8
South Central-60	2.3	167.1	18.1	42.7%	38.9%	105.4	765.0
State	2.2	189.3	19.2	41.5%	37.3%	216.9	606.9

**Table 4. Average Landlord Ownership Share of Irrigated Equipment**

	NW-10		WC-20		SW-30		NC-40		C-50		SC-60	
	Flood	Sprinkler	Flood	Sprinkler	Flood	Sprinkler	Flood	Sprinkler	Flood	Sprinkler	Flood	Sprinkler
<b>Well</b>	100.0%	100.0%	100.0%	100.0%	98.6%	98.9%	96.0%	92.6%	99.0%	96.7%	94.2%	96.7%
<b>Pump and Gearhead</b>	92.9%	100.0%	100.0%	98.3%	100.0%	99.2%	86.0%	85.7%	99.1%	98.9%	96.2%	97.2%
<b>Power Unit/Engine</b>	91.7%	100.0%	100.0%	96.1%	100.0%	91.2%	78.8%	84.5%	98.0%	92.5%	100.0%	95.5%
<b>Underground Pipe (1,320 feet)</b>	85.0%		100.0%		100.0%		100.0%		96.8%		100.0%	
<b>Conventional Furrow Flood System (2,640 feet)</b>	100.0%		0.0%		73.2%		94.4%		97.4%		87.5%	
<b>Tailwater Reuse System</b>	No Responses		100.0%		63.3%		72.5%		33.0%		100.0%	
<b>Land Leveling (\$/acre)</b>	100.0%		100.0%		79.1%		89.0%		70.2%		100.0%	
<b>Sprinkler System</b>		96.2%		100.0%		91.3%		85.3%		91.8%		93.5%
<b>UG Pipe &amp; Wiring (1,320 feet)</b>		100.0%		100.0%		98.8%		92.8%		100.0%		95.8%

**Table 5. Percent of Respondents Using Specific Landlord Crop-Share Arrangements by District**

<b>Landlord Share</b>	<b>Northwest-10</b>	<b>West Central-20</b>	<b>Southwest-30</b>	<b>North Central-40</b>	<b>Central-50</b>	<b>South Central-60</b>
15%	0.0%	0.0%	1.1%	0.0%	0.0%	0.6%
16.5%	0.0%	0.0%	1.1%	1.5%	0.0%	0.6%
20%	0.0%	0.0%	3.9%	3.1%	0.0%	0.6%
25%	36.1%	36.4%	10.3%	0.0%	5.6%	1.1%
30%	5.6%	1.5%	5.3%	0.0%	0.0%	1.7%
33%	<b>43.1%</b>	<b>51.5%</b>	<b>66.0%</b>	24.6%	<b>34.8%</b>	<b>54.2%</b>
40%	6.9%	1.5%	5.7%	<b>32.3%</b>	22.5%	9.6%
50%	8.3%	3.0%	3.5%	30.8%	31.5%	27.7%
Other	0.0%	6.1%	3.2%	7.7%	5.6%	4.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**Table 6. Northwest-10 Irrigated Crop-Share Arrangements\***

Crop	Landlord's Percent of Crop Received (or of Costs Paid)**				
	25%	33%	40%	50%	Other
<b>Wheat (3 Leases)</b>					
% of Total Leases in Lease Arrangement	33.3%	33.3%			33.3%
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	No	No	100.0%
% of Leases Sharing Herbicide Costs	100.0%	100.0%	Response	Response	100.0%
% of Leases Sharing Insecticide Costs	0.0%	100.0%			100.0%
% of Leases Sharing Energy Costs	0.0%	0.0%			100.0%
<b>Corn (41 Leases)</b>					
% of Total Leases in Lease Arrangement	51.2%	36.6%	7.3%	2.4%	11.1%
% of Leases Sharing Fertilizer Costs	47.6%	92.9%	100.0%		
% of Leases Sharing Herbicide Costs	9.5%	57.1%	100.0%	No	No
% of Leases Sharing Insecticide Costs	4.8%	57.1%	100.0%	Response	Response
% of Leases Sharing Energy Costs	4.8%	42.9%	66.7%		
<b>Sorghum (4 Leases)</b>					
% of Total Leases in Lease Arrangement		50.0%		50.0%	
% of Leases Sharing Fertilizer Costs	No	100.0%	No	100.0%	No
% of Leases Sharing Herbicide Costs	Response	50.0%	Response	100.0%	Response
% of Leases Sharing Insecticide Costs		0.0%		100.0%	
% of Leases Sharing Energy Costs		100.0%		100.0%	
<b>Soybeans (10 Leases)</b>					
% of Total Leases in Lease Arrangement		70.0%	20.0%		10.0%
% of Leases Sharing Fertilizer Costs	No	100.0%	100.0%	No	100.0%
% of Leases Sharing Herbicide Costs	Response	100.0%	100.0%	Response	100.0%
% of Leases Sharing Insecticide Costs		66.7%	100.0%		100.0%
% of Leases Sharing Energy Costs		33.3%	50.0%		100.0%
<b>Sunflowers (6 Leases)</b>					
% of Total Leases in Lease Arrangement	50.0%	33.3%		16.7%	
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	No	100.0%	No
% of Leases Sharing Herbicide Costs	0.0%	50.0%	Response	100.0%	Response
% of Leases Sharing Insecticide Costs	0.0%	50.0%		100.0%	
% of Leases Sharing Energy Costs	100.0%	0.0%		0.0%	
<b>Alfalfa (6 Leases)</b>					
% of Total Leases in Lease Arrangement	16.7%	50.0%		33.3%	
% of Leases Sharing Fertilizer Costs	100.0%	66.7%	No	100.0%	No
% of Leases Sharing Herbicide Costs	100.0%	66.7%	Response	100.0%	Response
% of Leases Sharing Insecticide Costs	100.0%	0.0%		0.0%	
% of Leases Sharing Energy Costs	0.0%	33.3%		100.0%	
<b>Other Crops (2 Leases)</b>					
% of Total Leases in Lease Arrangement		50.0%			50.0%
% of Leases Sharing Fertilizer Costs	No	100.0%	No	No	100.0%
% of Leases Sharing Herbicide Costs	Response	100.0%	Response	Response	100.0%
% of Leases Sharing Insecticide Costs		100.0%			100.0%
% of Leases Sharing Energy Costs		0.0%			100.0%

\*The percentages calculated in this table represent the percent of landlords sharing the same percent of costs as they share of the crop. For example, 100% of landlords receiving 33% of the wheat crop paid 33% of fertilizer expenses.

**Table 7. West Central-20 Irrigated Crop-Share Arrangements**

Crop	Landlord's Percent of Crop Received (or of Costs Paid)*				
	25%	33%	40%	50%	Other
<b>Wheat (19 Leases)</b>					
% of Total Leases in Lease Arrangement	47.4%	36.8%	5.3%	5.3%	5.3%
% of Leases Sharing Fertilizer Costs	25.0%	100.0%		100.0%	
% of Leases Sharing Herbicide Costs	25.0%	28.6%	No Response	100.0%	No Response
% of Leases Sharing Insecticide Costs	25.0%	14.3%		100.0%	
% of Leases Sharing Energy Costs	25.0%	42.9%		100.0%	
<b>Corn (49 Leases)</b>					
% of Total Leases in Lease Arrangement	38.8%	51.0%		2.0%	8.2%
% of Leases Sharing Fertilizer Costs	15.8%	92.0%	No Response	100.0%	
% of Leases Sharing Herbicide Costs	33.3%	32.0%		100.0%	No Response
% of Leases Sharing Insecticide Costs	5.3%	32.0%		100.0%	
% of Leases Sharing Energy Costs	10.5%	56.0%		100.0%	
<b>Sorghum (1 Lease)</b>					
% of Total Leases in Lease Arrangement		100.0%			
% of Leases Sharing Fertilizer Costs	No Response	100.0%	No Response	No Response	No Response
% of Leases Sharing Herbicide Costs		0.0%			
% of Leases Sharing Insecticide Costs		0.0%			
% of Leases Sharing Energy Costs		0.0%			
<b>Soybeans (1 Lease)</b>					
% of Total Leases in Lease Arrangement		100.0%			
% of Leases Sharing Fertilizer Costs	No Response	100.0%	No Response	No Response	No Response
% of Leases Sharing Herbicide Costs		No Response			
% of Leases Sharing Insecticide Costs		No Response			
% of Leases Sharing Energy Costs		100.0%			

\*The percentages calculated in this table represent the percent of landlords sharing the same percent of costs as they share of the crop. For example, 100% of landlords receiving 33% of the wheat crop paid 33% of fertilizer expenses.

**Table 8. Southwest-30 Irrigated Crop-Share Arrangements**

Crop	Landlord's Percent of Crop Received (or of Costs Paid)*				
	25%	33%	40%	50%	Other
<b>Wheat (66 Leases)</b>					
% of Total Leases in Lease Arrangement	9.1%	63.6%	4.5%	7.6%	15.2%
% of Leases Sharing Fertilizer Costs	33.3%	95.2%	100.0%	100.0%	100.0%
% of Leases Sharing Herbicide Costs	33.3%	76.7%	100.0%	100.0%	42.9%
% of Leases Sharing Insecticide Costs	40.0%	83.3%	100.0%	100.0%	44.4%
% of Leases Sharing Energy Costs	60.0%	64.3%	33.3%	100.0%	22.2%
<b>Corn (180 Leases)</b>					
% of Total Leases in Lease Arrangement	11.1%	65.0%	6.1%	2.2%	15.6%
% of Leases Sharing Fertilizer Costs	45.0%	95.7%	100.0%	100.0%	94.1%
% of Leases Sharing Herbicide Costs	50.0%	82.3%	90.9%	100.0%	80.0%
% of Leases Sharing Insecticide Costs	22.2%	85.3%	100.0%	100.0%	66.7%
% of Leases Sharing Energy Costs	15.0%	64.7%	100.0%	100.0%	47.8%
<b>Sorghum (22 Leases)</b>					
% of Total Leases in Lease Arrangement	18.2%	68.2%		4.5%	9.1%
% of Leases Sharing Fertilizer Costs	66.7%	86.7%	No	100.0%	100.0%
% of Leases Sharing Herbicide Costs	66.7%	75.0%	Response	100.0%	100.0%
% of Leases Sharing Insecticide Costs	33.3%	80.0%		100.0%	100.0%
% of Leases Sharing Energy Costs	0.0%	53.3%		100.0%	0.0%
<b>Soybeans (15 Leases)</b>					
% of Total Leases in Lease Arrangement	6.7%	86.7%	6.7%		
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	100.0%	No	No
% of Leases Sharing Herbicide Costs	100.0%	69.2%	100.0%	Response	Response
% of Leases Sharing Insecticide Costs	100.0%	92.3%	100.0%		
% of Leases Sharing Energy Costs	0.0%	76.9%	100.0%		
<b>Sunflowers (4 Leases)</b>					
% of Total Leases in Lease Arrangement		50.0%			50.0%
% of Leases Sharing Fertilizer Costs	No	50.0%	No	No	0.0%
% of Leases Sharing Herbicide Costs	Response	50.0%	Response	Response	0.0%
% of Leases Sharing Insecticide Costs		50.0%			0.0%
% of Leases Sharing Energy Costs		0.0%			0.0%
<b>Alfalfa (28 Leases)</b>					
% of Total Leases in Lease Arrangement	6.7%	86.7%	6.7%		
% of Leases Sharing Fertilizer Costs	100.0%	84.6%	100.0%	No	No
% of Leases Sharing Herbicide Costs	100.0%	69.2%	0.0%	Response	Response
% of Leases Sharing Insecticide Costs	100.0%	76.9%	100.0%		
% of Leases Sharing Energy Costs	0.0%	61.5%	100.0%		
<b>Other Crops (4 Leases)</b>					
% of Total Leases in Lease Arrangement		50.0%	25.0%	25.0%	
% of Leases Sharing Fertilizer Costs	No	100.0%	100.0%	100.0%	No
% of Leases Sharing Herbicide Costs	Response	100.0%	100.0%	100.0%	Response
% of Leases Sharing Insecticide Costs		100.0%	100.0%	100.0%	
% of Leases Sharing Energy Costs		50.0%	0.0%	100.0%	

\*The percentages calculated in this table represent the percent of landlords sharing the same percent of costs as they share of the crop. For example, 100% of landlords receiving 33% of the wheat crop paid 33% of fertilizer expenses.



**Table 9. North Central-40 Irrigated Crop-Share Arrangements**

Crop	Landlord's Percent of Crop Received (or of Costs Paid)*				
	25%	33%	40%	50%	Other
<b>Wheat (1 Leases)</b>					
% of Total Leases in Lease Arrangement			100.0%		
% of Leases Sharing Fertilizer Costs	No	No	100.0%	No	No
% of Leases Sharing Herbicide Costs	Response	Response	100.0%	Response	Response
% of Leases Sharing Insecticide Costs			100.0%		
% of Leases Sharing Energy Costs			0.0%		
<b>Corn (35 Leases)</b>					
% of Total Leases in Lease Arrangement		25.7%	28.6%	31.4%	14.3%
% of Leases Sharing Fertilizer Costs	No	100.0%	90.0%	90.9%	100.0%
% of Leases Sharing Herbicide Costs	Response	66.7%	60.0%	90.9%	100.0%
% of Leases Sharing Insecticide Costs		33.3%	60.0%	72.7%	75.0%
% of Leases Sharing Energy Costs		66.7%	50.0%	45.5%	75.0%
<b>Sorghum (2 Leases)</b>					
% of Total Leases in Lease Arrangement			100.0%		
% of Leases Sharing Fertilizer Costs	No	No	100.0%	No	No
% of Leases Sharing Herbicide Costs	Response	Response	0.0%	Response	Response
% of Leases Sharing Insecticide Costs			0.0%		
% of Leases Sharing Energy Costs			0.0%		
<b>Soybeans (28 Leases)</b>					
% of Total Leases in Lease Arrangement		25.0%	28.6%	35.7%	10.7%
% of Leases Sharing Fertilizer Costs	No	85.7%	87.5%	90.0%	100.0%
% of Leases Sharing Herbicide Costs	Response	57.1%	50.0%	90.0%	100.0%
% of Leases Sharing Insecticide Costs		28.6%	50.0%	70.0%	50.0%
% of Leases Sharing Energy Costs		28.6%	37.5%	40.0%	100.0%
<b>Alfalfa (2 Leases)</b>					
% of Total Leases in Lease Arrangement			50.0%		50.0%
% of Leases Sharing Fertilizer Costs	No	No	No	No	100.0%
% of Leases Sharing Herbicide Costs	Response	Response	Response	Response	100.0%
% of Leases Sharing Insecticide Costs					100.0%
% of Leases Sharing Energy Costs					100.0%

\*The percentages calculated in this table represent the percent of landlords sharing the same percent of costs as they share of the crop. For example, 100% of landlords receiving 33% of the wheat crop paid 33% of fertilizer expenses.

**Table 10. Central-50 Irrigated Crop-Share Arrangements**

Crop	Landlord's Percent of Crop Received (or of Costs Paid)*				
	25%	33%	40%	50%	Other
<b>Wheat (4 Leases)</b>					
% of Total Leases in Lease Arrangement	25.0%	50.0%		25.0%	
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	No	100.0%	No
% of Leases Sharing Herbicide Costs	100.0%	50.0%	Response	100.0%	Response
% of Leases Sharing Insecticide Costs	0.0%	100.0%		100.0%	
% of Leases Sharing Energy Costs	100.0%	0.0%		100.0%	
<b>Corn (46 Leases)</b>					
% of Total Leases in Lease Arrangement	4.3%	32.6%	23.9%	32.6%	6.5%
% of Leases Sharing Fertilizer Costs	No	100.0%	63.6%	93.3%	100.0%
% of Leases Sharing Herbicide Costs	Response	86.7%	63.6%	93.3%	0.0%
% of Leases Sharing Insecticide Costs		73.3%	45.5%	73.3%	0.0%
% of Leases Sharing Energy Costs		40.0%	54.5%	46.7%	0.0%
<b>Sorghum (3 Leases)</b>					
% of Total Leases in Lease Arrangement		66.7%	33.3%		
% of Leases Sharing Fertilizer Costs	No	100.0%	100.0%	No	No
% of Leases Sharing Herbicide Costs	Response	100.0%	100.0%	Response	Response
% of Leases Sharing Insecticide Costs		0.0%	100.0%		
% of Leases Sharing Energy Costs		0.0%	100.0%		
<b>Soybeans (34 Leases)</b>					
% of Total Leases in Lease Arrangement	8.6%	31.4%	22.9%	34.3%	2.9%
% of Leases Sharing Fertilizer Costs	66.7%	81.8%	71.4%	91.7%	0.0%
% of Leases Sharing Herbicide Costs	66.7%	81.8%	71.4%	83.3%	0.0%
% of Leases Sharing Insecticide Costs	33.3%	81.8%	71.4%	66.7%	0.0%
% of Leases Sharing Energy Costs	33.3%	27.3%	71.4%	66.7%	0.0%
<b>Alfalfa (1 Lease)</b>					
% of Total Leases in Lease Arrangement			100.0%		
% of Leases Sharing Fertilizer Costs	No	No	100.0%	No	No
% of Leases Sharing Herbicide Costs	Response	Response	100.0%	Response	Response
% of Leases Sharing Insecticide Costs			100.0%		
% of Leases Sharing Energy Costs			100.0%		

\*The percentages calculated in this table represent the percent of landlords sharing the same percent of costs as they share of the crop. For example, 100% of landlords receiving 33% of the wheat crop paid 33% of fertilizer expenses.

**Table 11. South Central-60 Irrigated Crop-Share Arrangements**

Crop	Landlord's Percent of Crop Received (or of Costs Paid)*				
	25%	33%	40%	50%	Other
<b>Wheat (14 Leases)</b>					
% of Total Leases in Lease Arrangement	7.1%	57.1%	7.1%	21.4%	7.1%
% of Leases Sharing Fertilizer Costs	100.0%	75.0%	100.0%	100.0%	100.0%
% of Leases Sharing Herbicide Costs	100.0%	75.0%	100.0%	100.0%	100.0%
% of Leases Sharing Insecticide Costs	100.0%	50.0%	100.0%	100.0%	100.0%
% of Leases Sharing Energy Costs	0.0%	25.0%	0.0%	100.0%	100.0%
<b>Corn (97 Leases)</b>					
% of Total Leases in Lease Arrangement	1.0%	53.6%	8.2%	30.9%	6.2%
% of Leases Sharing Fertilizer Costs	100.0%	90.4%	87.5%	83.3%	100.0%
% of Leases Sharing Herbicide Costs	100.0%	82.7%	62.5%	83.3%	66.7%
% of Leases Sharing Insecticide Costs	100.0%	65.4%	87.5%	76.7%	50.0%
% of Leases Sharing Energy Costs	0.0%	42.3%	25.0%	80.0%	0.0%
<b>Sorghum (6 Leases)</b>					
% of Total Leases in Lease Arrangement		66.7%	16.7%	16.7%	
% of Leases Sharing Fertilizer Costs	No	75.0%	100.0%	100.0%	No
% of Leases Sharing Herbicide Costs	Response	75.0%	0.0%	100.0%	Response
% of Leases Sharing Insecticide Costs		75.0%	0.0%	100.0%	
% of Leases Sharing Energy Costs		25.0%	0.0%	100.0%	
<b>Soybeans (54 Leases)</b>					
% of Total Leases in Lease Arrangement		51.9%	1.0%	5.8%	41.3%
% of Leases Sharing Fertilizer Costs	No	92.6%	100.0%	86.7%	100.0%
% of Leases Sharing Herbicide Costs	Response	81.5%	80.0%	86.7%	75.0%
% of Leases Sharing Insecticide Costs		66.7%	100.0%	60.0%	75.0%
% of Leases Sharing Energy Costs		44.4%	40.0%	80.0%	25.0%
<b>Alfalfa (8 Leases)</b>					
% of Total Leases in Lease Arrangement	12.5%	62.5%		25.0%	
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	No	100.0%	No
% of Leases Sharing Herbicide Costs	100.0%	100.0%	Response	100.0%	Response
% of Leases Sharing Insecticide Costs	100.0%	80.0%		100.0%	
% of Leases Sharing Energy Costs	0.0%	0.0%		0.0%	
<b>Other Crop (1 Lease)</b>					
% of Total Leases in Lease Arrangement		100.0%			
% of Leases Sharing Fertilizer Costs	No	100.0%	No	No	No
% of Leases Sharing Herbicide Costs	Response	100.0%	Response	Response	Response
% of Leases Sharing Insecticide Costs		100.0%			
% of Leases Sharing Energy Costs		100.0%			

\*The percentages calculated in this table represent the percent of landlords sharing the same percent of costs as they share of the crop. For example, 100% of landlords receiving 33% of the wheat crop paid 33% of fertilizer expenses.