

2017 IRRIGATED FARM LEASING ARRANGEMENTS IN KANSAS

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Sources of Kansas Irrigated Lease Information

Understanding lease arrangements is important for Kansas agricultural landowners and operators to make better decisions and be more competitive. Each year, the Land Use Survey Center (LUSC)¹ in the Department of Agricultural Economics at Kansas State University (KSU) conducts one of four surveys in conjunction with the Kansas Department of Revenue. The LUSC rotates irrigated, non-irrigated, pasture, and input cost related surveys on a four-year basis. In 2017, the LUSC conducted a survey to collect information on Kansas irrigated farm lease arrangements. Similar surveys were conducted in the past by the National Agricultural Statistics Service-Kansas Office (NASS), in conjunction with the Kansas Department of Revenue and the Land Use Value Project in the Department of Agricultural Economics at Kansas State University; the last survey was conducted in 2012. Previous surveys had focused solely on crop share leasing. Additional questions regarding cash leases were included in the 2017 survey, given the increasing use of cash leases. The 2017 Irrigated Farm Lease Arrangement Survey requested information for the 2016-17 crop year. The following information represents a summary of the 2017 survey results. This information should be useful to extension personnel, consultants, lenders, producers, and landowners to better understand the various farm leasing arrangements that exist for irrigated land in Kansas.

NASS divides Kansas into nine crop reporting districts (CRD). 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. The 2017 Kansas Irrigated Farm Lease Arrangement survey was distributed to a representative sample of owners and operators of irrigated cropland across these six CRD in Kansas. The online version of the survey was made available for a more user-friendly presentation. Respondents to the survey were contacted through traditional mail outlets, as well as email and online outlets. Additional information pertaining to the survey is available from Leah Tsoodle (ltsoodle@ksu.edu) at Kansas State University Department of Agricultural Economics.

General Statewide Lease Information

The 2017 Kansas Irrigated Farm Lease Agreement Survey provides information about the distribution and characteristics of irrigated crop lease arrangements in Kansas. Various types of lease agreements are currently used in renting irrigated farmland in Kansas. The *Crop Share* type of lease is the most commonly used lease arrangement, where the landlord receives a percentage

of the crop as the rental payment. 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 arrangements. *Flexible Cash* leases vary the cash rent each year according to the tenant's crop income. With *Net Share* leases, 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 aforementioned categories. On a statewide average, 63.3% of the respondents indicated they lease irrigated farmland in 2017. This suggests that lease arrangement information is important to many stakeholders in Kansas agriculture. In 2008, 54% of respondents indicated they leased irrigated farmland, and for the 2012 survey, that information was not available.

Table 1 contains information on the distribution of the different types of leases across the six crop reporting districts. The *Crop Share* rental agreement was the primary method of leasing cropland in Kansas. Approximately 48.7% of the respondents utilized *Crop share* leases, while 36.8% used *Fixed Cash* leases. The respective percentages were 63.5% and 23.0% in 2012. In 2008, those percentages were 70% and 27%. The other types of leases, e.g., *Crop and Cash*, *Flexible Cash*, *Net Share*, and *Other*, were used by roughly 14.5% of the respondents in 2017, a slight increase from the 13.5% in 2012. Among these types of leases, in 2017, the use of *Flexible Cash* agreements increased to 5.3% from 3.5% in 2012, and the use of *Net Share* agreements increased to 5.9% from 1.0% in 2012. The *Crop Share & Fixed Cash* rental agreement was used by 1.3% of the respondents in 2017, close to the 1.1% in 2008 but lower than the 7.7% in 2012.

The percent of respondents using crop share leases ranged from 56.8% in Southwest Kansas to 38.1% in North Central Kansas (Table 1). The most common crop share split on irrigated crop land is one-third to the landlord and two-thirds to the tenant in the Southwest and Central region and, in the Northwest and West Central regions, one-fourth to the landlord and three-fourths to the tenant. In 2017, the use of *Crop Share* leases dropped to 48.7%; the percentage was 63.5% in 2012 and 70.3% in 2008. On the other hand, the use of *Fixed Cash* leases averaged 36.8% in 2017, an increase from 23.0% in 2012. Meanwhile, the use of *Flexible Cash* and *Net Share* leases also increased. However, from 2012 to 2017, only the average change in the *Crop share* lease category was statistically different from zero at the 1% level.

The 2017 survey shows that the major source of irrigation water was from a well (Table 2). About 92.7% of the reported irrigated lease units used a well as the water source. In North Central Kansas, 48.7% of the irrigated lease units used a well as the water source, and 33.3% of the units used river water. Low pressure pivot systems (<40 psi) dominated the irrigation systems, accounting for 78.8% of the irrigation systems. About 13.5% of the reported units used high pressure irrigation systems (>40 psi). Other types of irrigation systems, including roll sprinkler, gated pipe, and ditch, accounted for 7.6% of the irrigation systems used in the reported lease units. The average well depth was about 247 feet; depths ranged from 99.3 feet to 383.2

feet. Well output averaged 697.5 gallons per minute, and average output across the state ranged from 412.0 gpm to 840.4 gpm. In the 2012 survey, the well depth averaged 216.9 feet, and the well output averaged 606.9 gpm. Although the average well depth and average well output increased from 2012 to 2017, the increases were not statistically different from zero at the 5% level.

Tables 3-5 present characteristics of and leasing information on well and major irrigation equipment in each district. The information regarding gated pipe is not included, because we received too few responses. The average of age of the well was about 29 years, which is older than other irrigation equipment. The average ages of power units and center pivot units were less than the ages of pump/gearhead and underground pipe. Average landlord ownership shares and average landlord repair and maintenance shares of major irrigation equipment expenses in each district are shown in Tables 4 and 5, respectively. Percentages varied across the state and across equipment. As expected, landlord percentage ownership and repairs and maintenance shares were the highest generally in the well, pump/gearhead, and underground pipe categories.

Crop Share Leasing Arrangements

In the 2017 Kansas Irrigated Farm Lease Arrangement Survey, respondents were asked to provide information on a maximum of four crop share leases for the 2016-2017 crop year. If the respondents had more than four leases, they were asked to respond regarding their most typical leases. Also, if the respondents had leases for more than one crop on the same acreage, they were asked to respond for each crop separately.

Table 6 shows the general characteristics of the crop share leases. The number of landlords per respondents averaged 2.4 at the state level, an increase from 2.2 in the 2012 survey. The average acres per lease unit also increased from 189.3 in 2012 to 240.1 acres in 2017. On average, each lease unit had been rented for 17.5 years, lower than the 19.2 years in 2012. Tenant and landlord were related in about 29.3% of the reported lease units in 2017, lower than the 41.5% in 2012. The percent of written leases increased from 37.3% in 2012 to 76.7% in 2017. The changes in the 2017 results from the 2012 survey, regarding average acres per lease unit, tenant and landlord relationship, and percentage of written leases, were statistically significant at the 5% level. These changes may be a reflection of the higher percentage of cash leases in most districts. In 2017, the landlord received an average of 34.4% of the government payments and 31.8% of insurance indemnity payments.

The 2017 survey results show that the 33/67 landlord tenant crop share arrangement was the most common split reported in irrigated farmland rental arrangements (Table 7). About 39.3% of the reported irrigated lease units in Kansas used the 33/67 crop share. Landlords received 50% of the crop share in 19.2% of the reported irrigated lease units. The 25/75 landlord tenant crop share arrangement was used in 16.5% of the reported irrigated lease units. Crop share arrangements varied across districts. Tables 8-13 contain response information specific to each CRD. These tables show the percent of leases in different crop share splits and the percent of

leases where landowners share expenses at the same rate as the crop for each of the major crops. The following section discusses regional crop share leasing arrangements by crop reporting districts.

Northwest Kansas

Almost 48% of the crop share leases in Northwest Kansas were a one-quarter/three-quarter (25/75) landlord/tenant split (table 7). The 33/67 and 50/50 crop share arrangements were used by 39.1% and 4.3% of respondents, respectively. In 2012, the 33/67 split was the predominant split, at 43.1%. The majority of respondents produced corn in 2017, same as in 2012; sunflowers, soybeans, and sorghum were the other crops in production in the Northwest (table 8). As in 2012, the 25/75 arrangement was the typical lease arrangement in corn crops in the 2017 survey. In the 25/75 arrangement, 55.6% of the landlords paid 25% of the corn fertilizer expenses, relatively higher than the 47.6% of the landlords in the 2012 survey. In the 33/67 arrangement for corn, 85.7% of the landlords paid 33% of the fertilizer expenses, relatively lower than the 92.9% in 2012. In 2017 survey, 44.4% of landlords in the 25/75 arrangement for corn paid 25% of herbicide and insecticide expenses, and 0% of the landlords paid 25% of the irrigation energy costs. Whereas in the 33/67 arrangement, 42.9% of the landlords paid 33% of the herbicide and insecticide expenses for corn. When landlords received 33% of the sunflower and soybeans crop in the 2017 survey, it was fairly common for them to share fertilizer, herbicide, insecticide, and irrigation energy expenses in this same percentage (i.e., 33%). However, when landlords received 25% of the sunflowers and sorghum crop, landlords did not share any of the expenses.

West Central Kansas

In West Central Kansas, within crop share leases, a 25/75 landlord/tenant arrangement was predominant, with 36.8% of the leases (table 7). The 33/67 crop share arrangement comprised another 34.2% of the total district lease responses in 2017. In 2012, the 33/67 lease arrangement was the most common arrangement, with 51.5% of respondents using this split, and the 25/75 landlord/tenant crop share accounted for 36.4% of the district leases. In both the 2012 and 2017 surveys, the majority of respondents produced corn; wheat was the second most reported crop (table 9). In the 25% crop share arrangement, none of the landlords paid the same share of production costs as the crop share they received. The exception was for corn; about 27.3% of the landlords paid 25% of fertilizer costs when receiving 25% of the crop. Landlord participation in production costs was more common when landlords received higher crop shares. In the 33/67 arrangement, 83.3% of landlords paid 33% of fertilizer and insecticide costs for corn; 100% of landlords paid 33% of fertilizer and herbicide costs for wheat and sunflowers. Twenty percent of landlords who received 33% of the corn crop paid 33% of herbicide costs; 33.3% of landlords shared one-third of the crop and herbicide costs for wheat. In the 50/50 crop share arrangement, inputs including fertilizer, herbicide, insecticide, and irrigation energy were shared in the same percentage as the crop for corn, wheat and soybeans.

Southwest Kansas

In Southwest Kansas, the predominant crop share arrangement was a 33/67 split. This arrangement was used by 58.3% of the respondents (table 7). The 25/75 crop share arrangement

was used by 16.7% of the respondents in the district. In the 2012 survey these rates were 66.0% and 10.3%, respectively. The majority of respondents produced corn in 2012 and 2017; with wheat as the second most reported crop (table 10). The 33/67 crop share lease was predominant for all crops in both years. In the 33/67 arrangement, 96.3% of landlords paid 33% of fertilizer expenses for corn; smaller percentages of landlords paid 33% of herbicide, insecticide, and energy expenses. For wheat, soybeans, and sorghum crops, all landlords paid 33% of fertilizer, herbicide, and energy costs when they received 33% of the crops. For the 40/60 and 50/50 arrangements, fertilizer, herbicide, and insecticide expenses were shared in the same percentage as the crop for corn and sorghum. In 2012, in the 33% crop share arrangement, percentages of landlords paying 33% of expenses were similar to those in the 2017 survey for corn and were smaller than the corresponding percentages in 2017 for other crops.

North Central Kansas

Of the crop share leases in North Central Kansas, 50% of the respondents used a 40/60 landlord/tenant split (table 7), and 43.8% of the respondents used the 50/50 crop share arrangement. In 2012, the 40/60 split was reported by 32.3% of the respondents, and the 50/50 crop share arrangements comprised 30.8% of the district leases. Corn and soybeans were the two crops reported in the 2017 survey (table 11). Corn and soybeans were also the two major crops in 2012. For both corn and soybean crops in the 2017 survey, 100% of landlords shared input expenses in the same percentage as the crop share. An exception to this pattern was for insecticide and irrigation energy costs for corn. In the 40/60 arrangement for corn, percentages of landlords sharing 40% of insecticide and irrigation energy costs were 66.7% and 20.0%, respectively. In 2012, in the 40/60 arrangement, 90% and 87.5% of landlords paid 40% of fertilizer expenses for corn and soybeans, respectively; 60% and 50% of landlords paid 40% of herbicide costs for corn and soybeans, respectively. .

Central Kansas

In Central Kansas, 37.9% of respondents used a 33/67 landlord/tenant crop share (table 7). The 45/55 and 50/50 crop share arrangements were also common in 2017, comprising 27.6% and 24.1%, respectively. In 2012, the 33/67 split occurred 34.8% of the time, whereas the 50/50 crop share arrangements comprised 31.5% of the district total. The majority of respondents produced corn or soybeans (table 12), as was the case in 2012. The 33/67 crop share was the most common arrangement for both corn and soybeans, similar to 2012. Regardless of lease arrangement or crop, 100% of landlords shared in fertilizer, herbicide, and insecticide costs in the same percent share as the crop. A smaller percentage of landlords shared the same percentage of irrigation energy costs as they did in the crop. An exception to this pattern was noted with all leases that fell into the 'other' percentage of crop share arrangements regarding herbicide and insecticide costs. No landlords shared in herbicide expenses at the same rate as crop received for the 'other' crop share arrangement. However, 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.

South Central Kansas

The 50/50 and 33/67 landlord/tenant splits were used by 47.8% and 28.3% of the

respondents, respectively (table 7), in South Central Kansas. In the 2012 survey, the 33/67 arrangement was predominant, comprising 54.7% of the total district leases; the 50/50 arrangement accounted for 27.7% of the district total. In 2017, most respondents produced corn; soybean was the second most important crop (table 13). These were also the main crops in both 2012 and 2008. The 50/50, 33/67, and 40/60 splits were all commonly used in corn leases in 2017. The predominant arrangement for all other crops including soybeans, wheat, and sorghum was 50/50. Across all crops, landlords shared in fertilizer, herbicide, and insecticide costs at an equal percentage as the share of crop they received in 2017. A smaller percentage of landlords shared the same share of irrigation energy costs as the crop. Compared to the 2017 survey, in most cases, a smaller percentage of landlords shared the same split on expenses and crops in the 2012 survey.

Cash Rent Leasing Arrangements

Arrangements involving cash rent are also commonly used in Kansas irrigated farmland leases. In the 2016-2017 crop year, 36.8% of the respondents reported the use of fixed cash lease arrangements and 5.3% used flexible cash (table 1). The cash rent information was not collected in previous surveys. The 2017 survey, however, included questions about cash rents for the first time because of the increased use of cash rent leases. Similar to the crop share lease arrangement, respondents were asked to provide information on a maximum of four irrigated leases units involving cash rent for the 2016-2017 crop year. If the respondents had more than four leases, they were asked to respond regarding their most typical leases. Also, if the respondents had leases for more than one crop on the same acreage, they were asked to respond for each crop separately. Because there are so few responses for flexible cash arrangements, the discussion below on cash rent arrangements includes information only on fixed cash leases.

Table 14 contains general characteristics of the 2017 Kansas irrigated cash leases. The average number of landlords per respondents for cash lease was 1.7, significantly lower than the average 2.4 landlords per respondent for crop share leases. The lease unit involving cash rent averaged 225.9 acres, lower than the 240.1 acres for crop share lease units. However, the difference was not statistically significant. The irrigated cash lease unit had been rented for an average of 12 years, statistically significantly lower than the average 17.5 years for crop share lease units. In 41.5% of the reported irrigated cash leases, landlords and tenants were related, significantly higher than the 29.3% average for crop share leases. About 80.8% of the cash rent leases were written, slightly higher than the 76.7% for crop share leases.

In the 2017 survey, the cash rent average \$115.32 per acre. Among the crops, hay and alfalfa had the highest rent of \$165 per acre per year (table 15). The average cash rent for corn, soybeans, and wheat were \$114.83, \$133.83, and \$85.82 per acre, respectively. Cash rent also varied across crop reporting districts (table 16). Average cash rent was highest in Northwest Kansas at \$137 per acre, followed by North Central Kansas, at \$135 per acre per year. Cash rent was lowest in the West Central region, at \$84.46 per acre. There were large differences in individual cash rent payments, even within the same crop reporting district. For example, the lowest reported cash

rent payment for corn in the State was \$32 per acre, while the highest reported cash rent payment for corn was \$200 per acre. In South Central Kansas, cash rent payments ranged from \$37 to \$200 per acre per year.

Table 17 shows the average cash rent payment for each crop by crop reporting district. The average cash rent payment for corn was highest in Northwest Kansas, at \$146.25 per acre per year, and lowest in West Central Kansas, at \$79.43 per acre per year. Cash rent for soybean acreage averaged highest in South Central Kansas, at \$153.33 per acre, and lowest in the Central district, at \$105.50 per acre per year.

Conclusion

Results of the 2017 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. Fixed cash arrangements were used by 36.8% of the respondents in the 2016-2017 crop year, higher than the 23% in 2012. The growing use of cash rental arrangements tends to increase the rate of tenant turnover. Comparing between cash rent leases and crop share leases, the number of years a tenant has rented land in 2017 was significantly lower for cash leases than for crop share leases.

In 2017, the 33/67 landlord tenant crop share arrangement was still the most common split in the State. Thirty-nine percent of landlords received 33% of the crop in the reported lease units in 2017. Lease arrangements for irrigated land are more variable than those for non-irrigated land, according to the 2017 survey results (Tsoodle and Li, 2016). The 33/67 split on non-irrigated land is overwhelmingly dominant across the state, except in North Central and Northeast Kansas where 40/60 split was the mode. For irrigated land, however, the 33/67 split dominated only in Southwest and Central Kansas. The 25/75 split was the most popular arrangement in Northwest and West Central Kansas. In the Central district, 37.9%, 27.6%, 21.4% of landlords received 33%, 45%, and 50% of the crop share, respectively. The different lease terms may be due to differences in the ownership of irrigation equipment. Additionally, the 2017 results confirmed extension specialists' acknowledgement that higher landlord crop shares are more popular in the central third of the state than in the western third of the state. As landlords negotiate rental arrangements, their perceptions of production risk and expectations for crop income play key roles (Albright, O'Brien, and Sartwelle, 1996).

In the 2017 survey, most landlords shared in fertilizer, herbicide, and insecticide costs in the same percent share as the crop. It was less common for landlords to share the same percentage of irrigation energy costs as they shared in the crop. The crop mix has not changed much since 2012. Corn and soybeans were the two major crops planted in the central third of the state. In West Central and Southwest Kansas, corn and wheat were the two major crops in 2017.

Because of the increased use of cash rental arrangements in irrigated farmland, the 2017 Kansas Irrigated Farm lease Arrangement Survey included questions about cash lease arrangements. The survey results show that the average cash rent per acre was \$115.32 in 2017. As expected, cash rent for irrigated farmland was higher than for non-irrigated farmland. Cash rent varied widely across crops, districts, and across each individual lease.

Rental arrangements can be affected by many factors. 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. Respondents were asked to rate influences of some possible factors in the 2017 survey. Table 18 summarizes respondents' opinions towards various factors. The relationship between landlords and tenants was regarded as the most important factor. Only 7.6% of the respondents considered it the least important factor, and 32.1% of the respondents regarded it as the most important factor for deciding rental rates. Land quality was another important factor for irrigated farm lease arrangements. About 65% of the respondents ranked it as a three or above in the scale of importance; and about 3.9% of the respondents thought it was the least important factor. Crop price and land location were also considered important in deciding rental rate. About 61.7% and 58.1% of the respondents ranked crop price and land location, respectively, as a three or above in the scale of importance. Input costs was another important factor in deciding rental rate. Land size and length of the lease could play roles in determining lease arrangements, but those were not considered as important by respondents as the other factors listed in the survey. Respondents also suggested water quality and quantity could affect the rental rate.

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Figure 1. Irrigated Land Use Districts

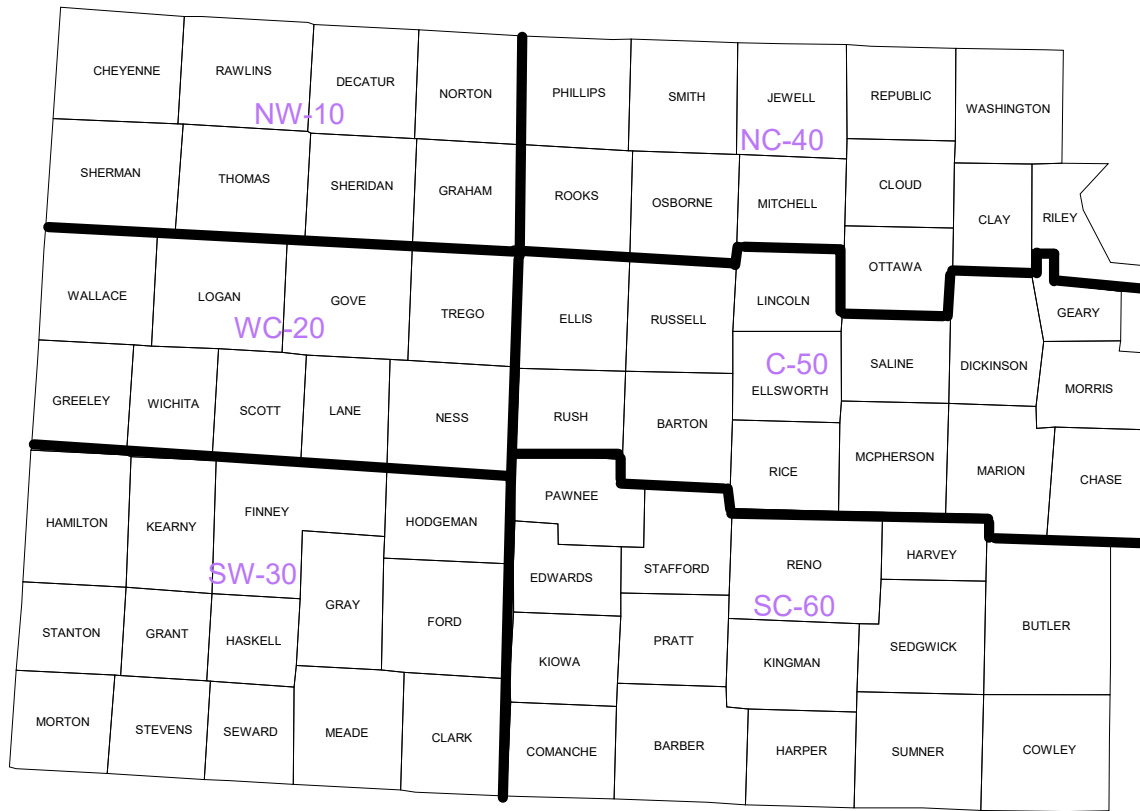


Table 1. Irrigated Lease Types

District	Fixed Cash	Crop Share	Crop Share & Fixed Cash	Flexible Cash	Net Share	Other
Northwest-10	47.1%	41.2%	0.0%	0.0%	5.9%	5.9%
West Central-20	20.0%	55.0%	0.0%	5.0%	20.0%	0.0%
Southwest-30	20.5%	56.8%	4.5%	9.1%	6.8%	2.3%
North Central-40	52.4%	38.1%	0.0%	9.5%	0.0%	0.0%
Central-50	50.0%	40.0%	0.0%	0.0%	5.0%	5.0%
South Central-60	46.7%	50.0%	0.0%	3.3%	0.0%	0.0%
State	36.8%	48.7%	1.3%	5.3%	5.9%	2.0%

Table 2. General Irrigation Information

District	Source of Water			Irrigation System			Average Well Depth (Feet)	Average Well Output (Gallons/Min.)
	Well	River	Lake	Pivot (High Pressure>40 psi)	Pivot (Low Pressure<40 psi)	Gated Pipe		
Northwest-10	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	215.0	479.8
West Central-20	100.0%	0.0%	0.0%	11.1%	86.1%	2.8%	182.6	412.0
Southwest-30	98.8%	1.2%	0.0%	7.9%	79.8%	3.4%	383.2	747.7
North Central-40	48.7%	33.3%	17.9%	31.0%	45.2%	19.0%	99.3	840.4
Central-50	100.0%	0.0%	0.0%	14.8%	85.2%	0.0%	106.8	738.2
South Central-60	100.0%	0.0%	0.0%	18.0%	82.0%	0.0%	218.9	801.0
State	92.7%	4.9%	2.4%	13.5%	78.8%	4.2%	247.1	697.5

Table 3. Average Age of Well & Irrigation Equipment

District	Average Age (Years)				
	Well	Pump & Gearhead	Power Unit	Underground Pipe	Center Pivot Unit
Northwest-10	39.7	22.6	11.3	28.8	21.8
West Central-20	34.1	11.5	4.6	17.0	9.6
Southwest-30	31.6	25.3	10.7	27.7	12.3
North Central-40	21.2	11.9	12.5	8.9	8.5
Central-50	29.1	14.7	12.5	21.4	11.1
South Central-60	16.7	14.7	9.5	10.4	7.1
State	29.2	17.9	10.1	21.0	11.9

Table 4. Average Landlord Repairs & Maintenance Share of Irrigation Equipment

District	Repairs and Maintenance (%)				
	Well	Pump & Gearhead	Power Unit	Underground Pipe	Center Pivot Unit
Northwest-10	100.0%	86.4%	14.8%	100.0%	30.7%
West Central-20	100.0%	85.2%	40.9%	100.0%	17.3%
Southwest-30	94.2%	75.5%	6.7%	77.4%	20.8%
North Central-40	31.6%	11.8%	16.9%	37.5%	20.8%
Central-50	100.0%	69.6%	58.2%	81.3%	50.0%
South Central-60	73.3%	70.0%	44.1%	61.9%	52.9%
State	89.0%	71.4%	27.8%	79.5%	31.4%

Table 5. Average Landlord Ownership Share of Irrigation Equipment

District	Ownership (%)				
	Well	Pump & Gearhead	Power Unit	Underground Pipe	Center Pivot Unit
Northwest-10	100.0%	85.2%	13.6%	100.0%	81.8%
West Central-20	100.0%	90.2%	52.2%	100.0%	37.0%
Southwest-30	92.2%	80.0%	14.3%	89.6%	23.3%
North Central-40	44.1%	30.2%	31.2%	76.9%	37.5%
Central-50	100.0%	78.3%	65.2%	93.8%	73.7%
South Central-60	73.3%	74.2%	38.3%	61.9%	48.5%
State	89.0%	76.3%	32.8%	88.0%	45.1%

Table 6. General Leasing Characteristics: Crop Share Leases

District	Crop share Leases						
	Ave. Landlords Per Respondent	Ave. Acres Per Lease	Ave. # Years Rented Land	% Related To Landlord	% With A Written Lease	% Government Payment Landlord Received	% Insurance Indemnity payments Landlord Received
Northwest-10	2.0	155.2	16.5	31.8%	86.4%	39.8%	27.3%
West Central-20	1.5	272.7	16.7	53.1%	81.3%	25.8%	29.0%
Southwest-30	3.3	324.4	17.9	18.6%	67.1%	31.3%	29.3%
North Central-40	1.3	93.6	24.1	21.1%	63.2%	37.6%	34.3%
Central-50	2.4	132.9	14.0	57.7%	76.9%	37.5%	34.3%
South Central-60	2.6	252.3	16.9	15.2%	89.1%	39.2%	37.4%
State	2.4	240.1	17.5	29.3%	76.7%	34.4%	31.8%

Table 7. Percent of Respondents Using Specific Landlord Crop Share Arrangements by District

Landlord Share	Northwest-10	West Central-20	Southwest-30	North Central-40	Central-50	South Central-60	State
20%	0.0%	18.4%	5.6%	0.0%	0.0%	0.0%	4.9%
25%	47.8%	36.8%	16.7%	0.0%	0.0%	0.0%	16.5%
30%	0.0%	0.0%	2.8%	0.0%	0.0%	0.0%	0.9%
33%	39.1%	34.2%	58.3%	0.0%	37.9%	28.3%	39.3%
40%	0.0%	0.0%	13.9%	50.0%	10.3%	21.7%	13.8%
45%	0.0%	0.0%	0.0%	6.3%	27.6%	0.0%	4.0%
50%	4.3%	10.5%	2.8%	43.8%	24.1%	47.8%	19.2%
Other	8.7%	0.0%	0.0%	0.0%	0.0%	2.2%	1.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8. Northwest-10 Irrigated Crop Share Arrangements*

Crop	Landlord's Percent of Crop Received (and of Costs Paid)*				
	25%	33%	40%	50%	Other %
Corn (19 Leases)					
Total Leases in Lease Arrangement	9	7		1	2
% of Total Leases in Lease Arrangement	47.4%	36.8%		5.3%	10.5%
% of Leases Sharing Fertilizer Costs	55.6%	85.7%	No Responses	100.0%	0.0%
% of Leases Sharing Herbicide Costs	44.4%	42.9%	Responses	100.0%	0.0%
% of Leases Sharing Insecticide Costs	44.4%	42.9%		100.0%	0.0%
% of Leases Sharing Irrigation Energy Costs	0.0%	75.0%		100.0%	0.0%
Soybeans (1 Lease)					
Total Leases in Lease Arrangement		1			
% of Total Leases in Lease Arrangement		100.0%			
% of Leases Sharing Fertilizer Costs	No Responses	100.0%	No Responses	No Responses	No Responses
% of Leases Sharing Herbicide Costs	Responses	100.0%	Responses	Responses	Responses
% of Leases Sharing Insecticide Costs		100.0%			
% of Leases Sharing Irrigation Energy Costs		100.0%			
Sorghum (1 Lease)					
Total Leases in Lease Arrangement	1				
% of Total Leases in Lease Arrangement	100.0%				
% of Leases Sharing Fertilizer Costs	0.0%	No Responses	No Responses	No Responses	No Responses
% of Leases Sharing Herbicide Costs	0.0%	Responses	Responses	Responses	Responses
% of Leases Sharing Insecticide Costs	0.0%				
% of Leases Sharing Irrigation Energy Costs	0.0%				
Sunflowers (2 Leases)					
Total Leases in Lease Arrangement	1	1			
% of Total Leases in Lease Arrangement	50.0%	50.0%			
% of Leases Sharing Fertilizer Costs	0.0%	100.0%	No Responses	No Responses	No Responses
% of Leases Sharing Herbicide Costs	0.0%	100.0%	Responses	Responses	Responses
% of Leases Sharing Insecticide Costs	0.0%	100.0%			
% of Leases Sharing Irrigation 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, 85.7% of landlords receiving 33% of the corn crop paid 33% of fertilizer expenses.

Table 9. West Central-20 Irrigated Crop Share Arrangements*

Crop	Landlord's Percent of Crop Received (and of Costs Paid)*				
	25%	33%	40%	50%	Other %
Wheat (9 Leases)					
Total Leases in Lease Arrangement	2	4		1	2
% of Total Leases in Lease Arrangement	22.2%	44.4%		11.1%	22.2%
% of Leases Sharing Fertilizer Costs	0.0%	100.0%	No Responses	100.0%	0.0%
% of Leases Sharing Herbicide Costs	0.0%	33.3%	Responses	100.0%	0.0%
% of Leases Sharing Insecticide Costs	0.0%	100.0%		100.0%	0.0%
% of Leases Sharing Irrigation Energy Costs	0.0%	50.0%		100.0%	0.0%
Corn (23 Leases)					
Total Leases in Lease Arrangement	11	6		2	4
% of Total Leases in Lease Arrangement	47.8%	26.1%		8.7%	17.4%
% of Leases Sharing Fertilizer Costs	27.3%	83.3%	No Responses	100.0%	0.0%
% of Leases Sharing Herbicide Costs	0.0%	20.0%	Responses	100.0%	0.0%
% of Leases Sharing Insecticide Costs	0.0%	83.3%		100.0%	0.0%
% of Leases Sharing Irrigation Energy Costs	0.0%	50.0%		100.0%	0.0%
Soybeans (2 Lease)					
Total Leases in Lease Arrangement				1	1
% of Total Leases in Lease Arrangement				50.0%	50.0%
% of Leases Sharing Fertilizer Costs	No Responses	No Responses	No Responses	100.0%	0.0%
% of Leases Sharing Herbicide Costs	Responses	Responses	Responses	100.0%	0.0%
% of Leases Sharing Insecticide Costs				100.0%	0.0%
% of Leases Sharing Irrigation Energy Costs				100.0%	0.0%
Sorghum (1 Lease)					
Total Leases in Lease Arrangement	1				
% of Total Leases in Lease Arrangement	100.0%				
% of Leases Sharing Fertilizer Costs	0.0%	No Responses	No Responses	No Responses	No Responses
% of Leases Sharing Herbicide Costs	0.0%	Responses	Responses	Responses	Responses
% of Leases Sharing Insecticide Costs	0.0%				
% of Leases Sharing Irrigation Energy Costs	0.0%				
Sunflowers (2 Leases)					
Total Leases in Lease Arrangement		2			
% of Total Leases in Lease Arrangement		100.0%			
% of Leases Sharing Fertilizer Costs	No Responses	100.0%	No Responses	No Responses	No Responses
% of Leases Sharing Herbicide Costs	Responses	50.0%	Responses	Responses	Responses
% of Leases Sharing Insecticide Costs		100.0%			
% of Leases Sharing Irrigation 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, 100.0% of landlords receiving 33% of the wheat crop paid 33% of fertilizer expenses.

Table 10. Southwest-30 Irrigated Crop Share Arrangements*

Crop	Landlord's Percent of Crop Received (and of Costs Paid)*				
	25%	33%	40%	50%	Other %
Wheat (16 Leases)					
Total Leases in Lease Arrangement	5	10			1
% of Total Leases in Lease Arrangement	31.3%	62.5%			6.3%
% of Leases Sharing Fertilizer Costs	40.0%	100.0%	No Responses	No Responses	100.0%
% of Leases Sharing Herbicide Costs	20.0%	100.0%			100.0%
% of Leases Sharing Insecticide Costs	60.0%	100.0%			100.0%
% of Leases Sharing Irrigation Energy Costs	20.0%	50.0%			0.0%
Corn (53 Leases)					
Total Leases in Lease Arrangement	7	27	5	1	2
% of Total Leases in Lease Arrangement	16.7%	64.3%	11.9%	2.4%	4.8%
% of Leases Sharing Fertilizer Costs	42.9%	96.3%	100.0%	100.0%	100.0%
% of Leases Sharing Herbicide Costs	16.7%	81.5%	100.0%	100.0%	50.0%
% of Leases Sharing Insecticide Costs	50.0%	92.6%	100.0%	100.0%	100.0%
% of Leases Sharing Irrigation Energy Costs	16.7%	61.5%	80.0%	100.0%	0.0%
Soybeans (2 Lease)					
Total Leases in Lease Arrangement		1			1
% of Total Leases in Lease Arrangement		50.0%			50.0%
% of Leases Sharing Fertilizer Costs	No Responses	100.0%	No Responses	No Responses	100.0%
% of Leases Sharing Herbicide Costs		100.0%			0.0%
% of Leases Sharing Insecticide Costs		100.0%			100.0%
% of Leases Sharing Irrigation Energy Costs		100.0%			0.0%
Sorghum (6 Lease)					
Total Leases in Lease Arrangement		5	1		
% of Total Leases in Lease Arrangement		83.3%	16.7%		
% of Leases Sharing Fertilizer Costs	No Responses	100.0%	100.0%	No Responses	No Responses
% of Leases Sharing Herbicide Costs		100.0%	100.0%		
% of Leases Sharing Insecticide Costs		100.0%	100.0%		
% of Leases Sharing Irrigation Energy Costs		0.0%	0.0%		

*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, 100.0% of landlords receiving 33% of the wheat crop paid 33% of fertilizer expenses.

Table 11. North Central-40 Irrigated Crop Share Arrangements*

Crop	Landlord's Percent of Crop Received (and of Costs Paid)*				
	25%	33%	40%	50%	Other %
Corn (10 Leases)					
Total Leases in Lease Arrangement			6	4	
% of Total Leases in Lease Arrangement			60.0%	40.0%	
% of Leases Sharing Fertilizer Costs	No Responses	No Responses	100.0%	100.0%	No Responses
% of Leases Sharing Herbicide Costs			100.0%	100.0%	
% of Leases Sharing Insecticide Costs			66.7%	100.0%	
% of Leases Sharing Irrigation Energy Costs			20.0%	100.0%	
Soybeans (6 Leases)					
Total Leases in Lease Arrangement			2	3	1
% of Total Leases in Lease Arrangement			33.3%	50.0%	16.7%
% of Leases Sharing Fertilizer Costs	No Responses	No Responses	100.0%	100.0%	100.0%
% of Leases Sharing Herbicide Costs			100.0%	100.0%	100.0%
% of Leases Sharing Insecticide Costs			100.0%	100.0%	100.0%
% of Leases Sharing Irrigation Energy Costs			100.0%	100.0%	0.0%

*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, 100.0% of landlords receiving 33% of the wheat crop paid 33% of fertilizer expenses.

Table 12. Central-50 Irrigated Crop Share Arrangements*

Crop	Landlord's Percent of Crop Received (and of Costs Paid)*				
	25%	33%	40%	50%	Other %
Wheat (4 Leases)					
Total Leases in Lease Arrangement		1			3
% of Total Leases in Lease Arrangement		25.0%			75.0%
% of Leases Sharing Fertilizer Costs	No	100.0%	No	No	100.0%
% of Leases Sharing Herbicide Costs	Responses	100.0%	Responses	Responses	0.0%
% of Leases Sharing Insecticide Costs		100.0%			66.7%
% of Leases Sharing Irrigation Energy Costs		0.0%			0.0%
Corn (16 Leases)					
Total Leases in Lease Arrangement		7	2	5	2
% of Total Leases in Lease Arrangement		43.8%	12.5%	31.3%	12.5%
% of Leases Sharing Fertilizer Costs	No	100.0%	100.0%	100.0%	100.0%
% of Leases Sharing Herbicide Costs	Responses	100.0%	100.0%	100.0%	0.0%
% of Leases Sharing Insecticide Costs		100.0%	100.0%	100.0%	50.0%
% of Leases Sharing Irrigation Energy Costs		42.9%	50.0%	80.0%	0.0%
Soybeans (8 Lease)					
Total Leases in Lease Arrangement		3	1	1	3
% of Total Leases in Lease Arrangement		37.5%	12.5%	12.5%	37.5%
% of Leases Sharing Fertilizer Costs	No	100.0%	100.0%	100.0%	100.0%
% of Leases Sharing Herbicide Costs	Responses	100.0%	100.0%	100.0%	0.0%
% of Leases Sharing Insecticide Costs		100.0%	100.0%	100.0%	66.7%
% of Leases Sharing Irrigation Energy Costs		66.7%	100.0%	0.0%	0.0%

*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, 100.0% of landlords receiving 33% of the wheat crop paid 33% of fertilizer expenses.

Table 13. South Central-60 Irrigated Crop share Arrangements*

Crop	Landlord's Percent of Crop Received (and of Costs Paid)*				
	25%	33%	40%	50%	Other %
Wheat (4 Leases)					
Total Leases in Lease Arrangement				4	
% of Total Leases in Lease Arrangement				100.0%	
% of Leases Sharing Fertilizer Costs	No Responses	No Responses	No Responses	100.0%	No Responses
% of Leases Sharing Herbicide Costs				100.0%	
% of Leases Sharing Insecticide Costs				100.0%	
% of Leases Sharing Irrigation Energy Costs				100.0%	
Corn (24 Leases)					
Total Leases in Lease Arrangement		8	7	8	1
% of Total Leases in Lease Arrangement		33.3%	29.2%	33.3%	4.2%
% of Leases Sharing Fertilizer Costs	No Responses	100.0%	100.0%	100.0%	100.0%
% of Leases Sharing Herbicide Costs		100.0%	100.0%	100.0%	100.0%
% of Leases Sharing Insecticide Costs		100.0%	100.0%	100.0%	100.0%
% of Leases Sharing Irrigation Energy Costs		75.0%	28.6%	57.1%	100.0%
Soybeans (10 Lease)					
Total Leases in Lease Arrangement		2	3	5	
% of Total Leases in Lease Arrangement		20.0%	30.0%	50.0%	
% of Leases Sharing Fertilizer Costs	No Responses	100.0%	100.0%	100.0%	No Responses
% of Leases Sharing Herbicide Costs		50.0%	100.0%	100.0%	
% of Leases Sharing Insecticide Costs		100.0%	100.0%	100.0%	
% of Leases Sharing Irrigation Energy Costs		100.0%	66.7%	80.0%	
Sorghum (1 Lease)					
Total Leases in Lease Arrangement				1	
% of Total Leases in Lease Arrangement				100.0%	
% of Leases Sharing Fertilizer Costs	No Responses	No Responses	No Responses	100.0%	No Responses
% of Leases Sharing Herbicide Costs				100.0%	
% of Leases Sharing Insecticide Costs				100.0%	
% of Leases Sharing Irrigation 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, 100.0% of landlords receiving 33% of the corn crop paid 33% of fertilizer expenses.

Table 14. General Leasing Characteristics: Cash Rent Leases

District	Cash Rent Leases				
	Ave. Landlords Per Respondent	Ave. Acres Per Lease	Ave. # Years Rented Land	% Related To Landlord	% With A Written Lease
Northwest-10	1.3	175.6	11.5	50.0%	66.7%
West Central-20	1.8	240.5	9.9	30.0%	88.9%
Southwest-30	2.9	494.5	14.9	35.0%	93.3%
North Central-40	2.0	96.8	9.7	76.2%	83.3%
Central-50	1.3	108.4	9.0	37.5%	60.0%
South Central-60	1.2	138.3	14.0	48.0%	73.9%
State	1.7	225.9	12.0	41.5%	80.8%

Table 15. Average Cash Rent Payment by Crop

Crop	# Reports	Cash Rent Payment (\$/Acre per Year)		
		Average Payment	Min	Max
Corn	63	114.83	32	200
Soybeans	12	133.83	90	200
Wheat	11	85.82	32	130
Hay & Alfalfa	4	165.00	100	200
Brome	1	50.00	50	50
All Crops	91	115.32	32	200

Table 16. Average Cash Rent Payment by Crop Reporting District (CRD)

District	# Reports	Cash Rent Payment (\$/Acre per Year)		
		Average Payment	Min	Max
Northwest-10	10	137.00	100	200
West Central-20	13	84.46	32	125
Southwest-30	24	99.08	60	200
North Central-40	17	135.00	90	185
Central-50	7	126.57	100	200
South Central-60	20	123.35	37	200
State	91	115.32	32	200

Table 17. Average Cash Rent Payment by Crop and Crop Reporting District

District	Cash Rent Payment (\$/Acre per Year)				
	Corn	Soybeans	Wheat	Hay & Alfalfa	Brome
Northwest-10	146.25	.	100.00	100.00	.
West Central-20	79.43	.	98.40	.	50.00
Southwest-30	85.19	140.00	78.75	186.67	.
North Central-40	136.36	132.50	.	.	.
Central-50	135.00	105.50	.	.	.
South Central-60	123.13	153.33	37.00	.	.
State	114.83	133.83	85.82	165.00	50.00

- indicates no response.

Table 18. Importance of Factors Affecting Rental Rate

Factors Affecting Rental Rate	# of Responses	Avg.	Percentage of Responses (%)							
			Most Important				Least Important			Not Applicable
			1	2	3	4	5	6	7	8
Relationship between Landowner and Operator	106	3.20	32.1%	18.9%	16.0%	9.4%	3.8%	2.8%	7.6%	9.4%
Land Quality	104	3.25	23.1%	26.0%	16.4%	10.6%	6.7%	4.8%	3.9%	8.7%
Crop Price	107	3.50	26.2%	18.7%	16.8%	11.2%	4.7%	3.7%	3.7%	15.0%
Land Location	105	3.56	14.3%	25.7%	18.1%	12.4%	11.4%	5.7%	3.8%	8.6%
Input Costs	106	3.75	12.3%	27.4%	15.1%	15.1%	7.6%	4.7%	6.6%	11.3%
Length of the Lease	105	4.52	5.7%	16.2%	19.1%	12.4%	11.4%	8.6%	14.3%	12.4%
Land Size	104	4.91	6.7%	8.7%	11.5%	16.4%	14.4%	11.5%	20.2%	10.6%
Other	22	6.36	13.6%	0.0%	4.6%	9.1%	0.0%	0.0%	9.1%	63.6%

¹ The Land Use Survey Center (LUSC) was formerly known and referenced in previous publications as the Agricultural Land Use Survey Center (ALUSC).