

CROP LEASE ARRANGEMENTS ON KANSAS FARM MANAGEMENT ASSOCIATION FARMS*

Larry N. Langemeier, Martin L. Albright, and Fredrick D. DeLano**

ABSTRACT

Over 90% of the agricultural producers in the Kansas Farm Management Associations (KFMA) lease part or all of their land, frequently from more than one landlord. Therefore, crop lease arrangements are important. A survey was conducted in 1994 to obtain information on current lease arrangements. A total of 1,436 completed questionnaires was obtained, representing about 53.1% of KFMA farms (1,205 nonirrigated and 231 irrigated). One-third sharing of the crop by the landlord was the primary arrangement, except for nonirrigated crops in the northeast and irrigated crops in south central, where 50 and 40% crop share arrangements were prevalent, respectively. Fertilizer was the most commonly shared input, with the shared percentage similar to that for crops. Costs for herbicides and insecticides and their application were shared by the landlord at a lower percentage. For nonirrigated crops, only in the northeast region did the landlord share substantial percentages of variable costs, such as seed, harvesting, and hauling. Landlords shared a significant percentage of drying and irrigation fuel costs for irrigated crops. A basic principle of a good lease is the sharing of production in the same proportion as resources contributed. If sharing of crop production is not based on the relative value of the resources contributed by the landlord and tenant, then lease adjustments should be made related to the sharing of the variable costs.

^{*}Contribution No. 96-337-S from the Kansas Agricultural Experiment Station.

^{**}Professor, Extension Assistant, and Administrator, Kansas Farm Management Association Program, respectively, Department of Agricultural Economics, Kansas State University, Manhattan, KS 66506.

INTRODUCTION

Over 90% of the agricultural producers in the Kansas Farm Management Associations (KFMA) lease part or all of the land they operate (Table 1). Partial ownership is the dominant arrangement at 83.3% of all farms, whereas complete tenant operations comprise 8.1%.¹The percentage of owner-operator organizations is highest in northeast Kansas, but even there, 88.6% of the producers lease a proportion of their land. Given that most producers lease land from more than one landlord, the importance of crop lease arrangements is obvious.

TYPE OF LEASE ARRANGEMENT

Landlords and tenants can choose from several types of rental arrangements, such as crop share, crop share/cash, cash, or flexible cash. Both crop-share and cash-rent arrangements have advantages and disadvantages. Some points to consider in deciding what type of rental arrangement to use are outlined in the following discussion.

Advantages of Crop-Share Arrangements

- 1, Less operating capital may be "tied up" by the tenant with the landlord sharing costs compared to cash rents.
- 2. Management can be shared between an experienced landlord and tenant, resulting in more effective decisions.
- 3. Sales of crops can be timed for tax management. Likewise, purchased inputs can be timed to shift expenses for tax purposes. Under a share arrangement and cash reporting of taxable income, the amount of taxable income can be shifted somewhat through timing of crop sales before or after the end of the year. Similarly, purchase of fertilizer and seed for the next growing season can be made in the closing months of any tax year to reduce taxable income.
- 4. Risks caused by low yields or prices, as well as profits from high yields or prices, are shared between the two parties.
- 5. The landlord's "material participation" can be proved more easily for "use value estate purposes" than under cash or

flexible cash leasing. Also, the landlord can build a social security base through material participation, which may cause social security payments to be decreased for eligible persons.

Disadvantages of Crop-Share Arrangements

- 1. The landlord's income will be variable because of yield and price variation, as well as changes in shared production input costs.
- 2. Accounting must be maintained for shared expenses and crop production.
- 3. Marketing decisions may be necessary by the landlord.
- 4. The tenant and landlord need to discuss annual cropping practices and make joint management decisions.
- 5. As prices and contribution values change, the lease should be reviewed for fairness. Sharing arrangements may need to be changed.

Advantages of Cash Renting

- 1. Less landlord managerial input is required than with other leasing arrangements. The tenant is allowed a relatively free hand in making management decisions.
- 2. Reduced involvement in management reduces the possibility of disagreements between the landlord and tenant involving management decisions.
- 3. Concern over accurate division of crop(s) and expenses is reduced.
- 4. The landlord does not have to handle the marketing of crops. However, additional profits from high yields and/or prices will not occur.
- 5. Fixed cash rent lessens the landlord's concern over variations in prices and yields. Price, cost, and production risks are borne by the tenant.
- 6. For those interested in drawing social security payments, cash renting greatly reduces the likelihood that the landlord will be considered a "participating landlord." Also, cash rent can be received without affecting social security payments.

¹Larry N. Langemeier, "Farm Management Data Bank Documentation", Staff Paper 95-1, Department of Agricultural Economics, Kansas State University, Manhattan, KS, August, 1994.

Disadvantages of Cash Renting

- 1. A cash rent amount acceptable to both parties may be difficult to determine and may require annual negotiation.
- Once a cash-rent rate is set, a change in the rental rate may be difficult to renegotiate as yields, crop prices, and costs change.
- 3. In average or above-average years, the landlord may receive less net income than from share rents.
- 4. The landlord has little opportunity for income tax management.
- 5. Some danger exists that a tenant renting on a cash basis will tend to "mine" the l a n d. Competition for land and appropriate requirements in a written lease serve to minimize this problem.
- 6. The landlord has little opportunity to build a base for social security payments, because of the difficulty in establishing acceptable evidence of material participation.
- 7. Risk from price and yield variations is assumed by the tenant.

LEASE PRINCIPLES²

Agriculture is an industry in which land, machinery-equipment, labor, and management are combined to produce crops. Each of these inputs may be owned or contributed by different parties, that is, the tenant and landlord. Shared payment for the inputs must be equal to the value contributed toward production. Equitable income to both the landlord and tenant is the reason for developing a fair lease.

Therefore, a good lease must be developed using some basic rules or principles. Six important principles to follow are:

Principle No. 1. Variable expenses that are yield-increasing should be shared in the same percentage as the crop share.

Principle No. 2 All crops should be shared alike.

Principle No. 3. Both parties should share in total returns in the same proportion as they contribute resources.

Principle No. 4. As new technologies are

adopted, share arrangements need to be adjusted to reflect their impact upon costs and returns.

Principle No. 5. Tenants and/or landlords should be compensated at the termination of the lease for the unexhausted portion of long-term investments.

Principle No. 6. Continuous communication should be maintained between the landlord and tenant.

With any lease, the landlord furnishes the land and also may share in providing management and other inputs, such as fertilizer. The tenant, in turn, provides the machinery, labor, management, and other inputs. For an optimal crop-share lease, the total returns, or crop production, should be shared in the same proportion as the value of resources contributed by each party. The relationship between contributed resources is that on high-priced, productive land, the landlord's share of the crop should be increased. This fact results because the tenant's costs (management, labor, and machinery) are basically fixed whether lowpriced, less productive land or high-priced, productive land is used. The same relationship would exist if the landlord furnished a large proportion of other inputs, such as seed or chemicals.

One problem with crop-share leasing is that share percentages are influenced strongly by customary arrangements in the region. Crop shares based on custom change little over time, even though the values of land, machinery, labor, and management may change drastically. Therefore, if the customary base arrangement for the region is being followed, the tenant and landlord may need to change the sharing of inputs to achieve an equitable lease.

Inputs or expenses used in production, such as seed, chemicals, fertilizer, and harvesting, may be shared between the landlord and tenant. Some inputs, such as fertilizer, are yield-increasing and, thus, should be shared in the same proportion as crop production. This fact encourages both parties to utilize the amount of fertilizer that maximizes net returns to the total business operation. Otherwise, the

²For additional information on provisions related to "good" cropshare leases, see the following publications: Larry N. Langemeier, Crop Share or Crop Share/Cash Rental Arrangements for Your Farm, North Central Regional Extension Publication 105 (Revised), Cooperative Extension Service, Manhattan, Kansas, 1995; and Wilfred H. Pine and Joseph L Kramer, Crop-Share Leases in Kansas, Bulletin 606, Kansas Agricultural Experiment Station, Manhattan, KS, 1977.

tenant who pays the full cost of the input will not want to use as much as an owner-operator; this results in lower total production.

The failure of the landlord and tenant to share inputs that do not increase yield probably will not impact total business returns. Even if the total cost of fuel for harvesting is borne by the tenant, this will not cause the tenant to avoid performing the operation. Therefore, if the landlord and tenant desire to adjust resource contributions to obtain a certain crop-share percentage, then inputs that do not increase yields should be used. Crop-share percentages may or may not need to be adjusted because of the adoption of new technologies. For example, the use of chemicals may completely replace cultivation with no change in the tenant's overall expenses.

The sharing of crop production, say 60% -40% or 50% each, should be determined by the relative value of the resources contributed by the landlord and tenant. The lease arrangement should provide for all crops produced on the leased land to be shared in the same proportion as the resources contributed. If not, the party receiving a higher percentage of a given crop will want more resources, such as fertilizer, applied to that crop. The part-owner operator has an economic incentive to utilize more resources, say labor, on owned land than on leased land. The same incentive exists if all crops are not shared in the same proportion on leased land.

An optimal or perfect lease may be impossible to develop. Contributions by each party will change over time, and the relative values of the resources are not easily determined. Should the crop share arrangement change each year as land values fluctuate in the region? How is the value of the tenant's machinery determined? In any lease arrangement, the important factor is for the operation to produce at maximum economic efficiency without either the landlord or tenant gaining at the expense of the other. To achieve this, communication must be maintained between the tenant and landlord.

In this study, crop lease arrangements in Kansas were analyzed relative to the following two principles: (1) proper sharing of inputs, especially yield-increasing inputs and (2) sharing all crops alike.³The relative values of resources contributed by each party were not determined, and, therefore, the question of whether current leases provide for the sharing of production in the same proportion as resources provided was not answered.

PROCEDURES

A lease arrangement survey was conducted to obtain information for 1994 from a sample of agricultural producers enrolled in the Kansas Farm Management Association program.⁴ A total of 1,436 completed questionnaires was obtained--1,205 from nonirrigated farms and 231 from irrigated farms, representing 53.1% of all association farms. Additional data were derived from the Kansas Farm Management Data Bank regarding other farm characteristics, such as size and land ownership.⁵ It should be noted that KFMA farms, on the average, are larger than most Kansas farms (Figure 1).

RESULTS: NONIRRIGATED FARMS

Table 2 provides information on the distribution by number and percentage of leases on nonirrigated farms for regions and the state. For the state, crop-share leases were most common (58.1%) followed by cash only leases (31.1%). Crop-share/cash comprised 9.5% of the leases. The cash-only lease was the most frequent in the southeast, whereas the crop-share-only lease was the predominant type in the southwest. In most cases, land was rented from more than one landlord, averaging 5.33 landlords per farm.

Approximately 35% of the leases were between relatives, with the lowest percentages in

³ In this regard, this analysis provides an update of Wilfred H. Pine and Joseph L Kramer, Crop-Share Leases in Kansas, Bulletin 606, Kansas Agricultural Experiment Station, Manhattan, KS, 1977.

⁴Extension Agricultural Economists, Farm Management Associations, collected the lease arrangement surveys during farm visits with cooperating agricultural producers in the Kansas Farm Management Association program.

⁵Larry N. Langemeier, Farm Management Data Bank Documentation, Staff Paper 95-1, Department of Agricultural Economics, Kansas State University, Manhattan, KS, 1994.

eastern Kansas (Table 3). Only 7% of the tenants lived on the leased land. A total of 19.2% percent of the leases were written. Northwest Kansas had the highest proportion of written leases at 25.3%, whereas only 14.2% of the leases were written in northeast Kansas. Producers in southeast Kansas had the lowest proportions for leases between relatives (24.4%) and for living on the rented tracts (2.9%). The average length of time the specific tracts of land surveyed had been leased was 13.1 years.

Cash Leases

Information on cash rent was obtained from 582 farms--259 for nonirrigated cropland and 323 for pastureland.⁶ For the state, cash rents paid per acre averaged \$34.60 and \$11.40 for nonirrigated cropland and pasture, respectively (Table 4).⁷ The highest cash rents paid per acre for both nonirrigated cropland and pasture were in northeast Kansas.

Crop-Share Leases

Tables 5-10 show the distribution of cropshare leases based on crop share received and input costs paid by the landlord for various crops. One-third sharing of the crop was the primary lease arrangement for all crops in all areas of the state for all crops, except for the northeast region. The most common lease in the northeast region was 40% crop share (Appendix Tables 1-6). In all regions, the landlord's share of crop production was basically equal for all crops.

Table 11 presents information on the average landlord's share of crop production and input costs for all crops. Except for lime and conservation, fertilizer was the most commonly shared input, with the shared percentage somewhat similar to the landlord's share of the crop. Herbicide and insecticide costs were also shared extensively by the landlord, but at a lower percentage. The landlord's share of herbicide costs ranged from 35.7% in the northeast to 14.0% in the northwest. In many cases, application costs for fertilizer and chemicals also were shared. On a statewide basis, landlords shared 48.9 and 63.8% of the lime and conservation costs, respectively.

Except for northeast Kansas, other input costs, such as seed, harvesting, hauling, gasfuel-oil, and repairs, were shared at a very low level by the landlord. In contrast, the landlord's shares of seed, harvesting, and hauling costs in the northeast region were 26.2, 17.9, and 11.3%, respectively.

RESULTS: IRRIGATED FARMS

Table 12 presents the distribution by number and percentage of leases for irrigated farms on a statewide basis. The most common lease arrangement was crop-share only (80.7%), followed by cash only. Irrigated land was leased from more than one landlord in most cases, with an average of 2.03 landlords per farm.

A total of 36.1% of the leases for irrigated farms were written, versus only 19.2% for the nonirrigated farms. Approximately 55.4% of the leases were between relatives, and 12.9% of the tenants lived on the leased land. For the specific rented tracts surveyed, the average length of time for leases was 13.3 years. For cash-only leases, cash rent paid per acre averaged \$56.51.⁸

Crop-Share Leases

Tables 13-21 show the distribution of cropshare leases by type of system based on crop share received and input costs paid by the landlord for various crops.⁹ (See Appendix Tables 8-13 for lease information by crops for the northwest and southwest regions.) For the

^bInformation was not obtained on the type and/or class of land leased.

['] In comparison, the Kansas State Board of Agriculture reported cash rents paid per acre of \$36.60 for nonirrigated cropland and \$12.80 for pastureland in 1994. Kansas Agricultural Statistics, Kansas State Board of Agriculture, US. Department of Agriculture, Topeka, KS.

⁸ In comparison, the Kansas State Board of Agriculture reported cash rent paid per acre of \$69.20 for irrigated cropland in 1994. Kansas Agricultural Statistics, Kansas State Board of Agriculture, U.S. Department of Agriculture, Topeka, KS.

⁹A crop was not considered in the analysis unless it was included in at least five completed questionnaires.

western region and on a statewide basis, onethird sharing of the crop was the primary lease arrangement. In the south central region, a majority of the leases had the landlord receiving a 40% share of crop production for both center pivot and flood systems.

Table 22 provides information on the average landlord's share of crop production and input costs on a statewide basis by type of system for all irrigated crops. The shared percentage for fertilizer costs was similar to the landlord's share of the crop, with lower shared percentages for chemicals. Application costs for these inputs also were shared, as well as drying and irrigation fuel expenses. The percentages paid by the landlord for land leveling, ditching, and conservation were 47.53, 34.59, and 67.53, respectively. Other inputs were shared at a very low level by the landlord.

The landlord's share of irrigation equipment expenses was over 68% for the power unit, with the share of all other inputs being similar to the share of crop production (Table 23). Table 24 provides information on the landlord's ownership share of specific irrigation equipment. Landlords owned over 91% of the wells and approximately 80% of the power units and buried pipe. Less than 50% of the center pivots, power units, and gated pipe were owned by landlords.

CONCLUSIONS

The landlord's share of crop production was basically equal for both nonirrigated and irrigated crops in all regions of Kansas. For nonirrigated, the crop-share difference between crops ranged from .2% in southwest Kansas to 3.2% in the northeast. One-third sharing of the crop was the primary lease arrangement for all nonirrigated crops in all regions, except for the northeast, where a 50% crop share was most common. For irrigated crops, one-third sharing of the crop was the basic lease arrangement for the western region and on a statewide basis. A 40-60% crop-share arrangement was the most common lease in south central Kansas.

Fertilizer was the most commonly shared input, with the shared percentage being similar to the landlord's share of the crop. Considering only nonirrigated wheat, corn, and grain sorghum, the differences between the landlord's shares of the crop and fertilizer ranged from 1.9% in south central Kansas to 9.9% in the northeast. For all nonirrigated crops statewide, the difference was 4.1%.

Herbicide and insecticide costs, as well as

application expenses, were shared by landlords, but at a lower percentage than fertilizer. Other input costs, such as seed, harvesting, drying, hauling, gas-fuel-oil, and repairs, were shared at a very low level by the landlord for nonirrigated crops, except in the northeast region. The same basic level of sharing by the landlord existed for irrigated crops, except the landlord paid significant percentages of irrigation fuel and drying expenses. The landlord's shares of seed, harvesting, and hauling input costs for nonirrigated crops in the northeast region were 26.2, 17.9, and 11.3%, respectively.

The low level of the landlord's sharing of the variable inputs, other than fertilizer and chemicals, could be related to customary lease arrangements in a region. However, one of the basic principles of a good lease is the sharing of production in the same proportion as resources contributed. If sharing of crop production is not based on the relative value of the resources contributed by the landlord and tenant, then lease adjustments should be made related to the sharing of such variable inputs as seed, harvesting, and hauling costs.

TABLE 1.	PERCENTAGE	OF KANSAS	FARM MAN	AGEMENT	ASSOCIATION	FARMS	UTILIZING
	RENTED LANI	D IN THEIR	OPEATIONS	, 1994*			

	Percent of Farms				
Region	Total Acres Operated	Crop Acres operated			
Northwest	88.6	85.1			
Southwest	95.3	94.0			
North Central	92.2	91.2			
South Central	93.2	92.1			
Northeast	93.4	91.0			
Southeast	92.6	87.5			
State	92.6	89.8			

*Source: Larry N. Langemeier and Fredrick D. DeLano, The Annual Report, Management Information, 1994, Department of Agricultural Economics, Cooperative Extension Service, Kansas State University, Manhattan, KS.

FIGURE 1. SIZE COMPARISON OF FARMS ENROLLED IN THE KANSAS FARM MANAGEMENT ASSOCIATION PROGRAM AND KANSAS AGRICULTURAL CENSUS FARMS, 1992



^{*}Sources: Larry N. Langemeier and Fredrick D. DeLano, The Annual Report, Management Information, 1992, Department of Agricultural Economics, Kansas State University, Manhattan, KS and Kansas Agricultural Census, Bureau of the Census, U.S. Department of Commerce, Washington, DC.

TABLE 2. DISTRIBUTION OF LEASES FOR NONIRRIGATED FARMS IN KANSAS BY NUMBER AND PERCENTAGE, 1994.

Region	# Farms	Cash Only	Crop-Share Only	Crop-Share/Cash	Flexible Cash	Livestock Share	Other	Landlords/Farm
				(Number)				
Northwest	86	50	206	30	0	5	1	3.46
Southwest	85	37	364	3	0	0	0	4.79
North Central	258	445	565	238	8	17	4	4.91
South Central	159	172	707	63	1	1	0	5.96
Northeast	225	426	713	35	6	5	6	5.24
Southeast	392	900	1,232	251	12	13	2	5.92
State	1,205	2,030	3,787	620	27	41	13	5.33
				(Percent)				
Northwest		17.1	70.5	10.3	.0	1.7	1.7	
Southwest		9.2	90.1	.7	.0	.0	.0	
North Central		34.8	44.2	18.6	.6	1.3	1.3	
South Central		18.2	74.9	6.7	.1	.1	.1	
Northeast		35.8	59.9	2.9	.5	.4	.4	
Southeast		37.3	51.1	10.4	.5	.5	.5	
State		31.1	58.1	9.5	.4	.6	.6	

TABLE 3. GENERAL LEASE CHARACTERISTICS FOR NONIRRIGATED LAND RENTED BY KANSAS FARM OPERATORS, 1994.

1

	Years Rented	Related to Landlord		<u>Tenant Liv</u>	ves on Land	Written Lease	
Region	Land	Yes	No	Yes	No	Yes	No
		(Per	rcent)	(Per	cent)	(Per	rcent)
Northwest	14.3	48.2	51.8	3.7	96.3	25.3	74.7
Southwest	18.0	39.0	61.0	7.3	92.7	18.3	81.7
North Central	13.4	37.9	62.1	8.2	91.8	21.8	78.2
South Central	14.2	44.7	55.3	9.5	90.5	17.0	83.0
Northeast	11.5	35.9	64.1	12.2	87.8	14.2	85.8
Southeast	11.9	24.4	75.6	2.9	97.1	19.9	80.1
State	13.1	34.8	65.2	7.0	93.0	19.2	80.8

00

		Cropland			Pastureland	
Region	No. Farms	No. Acres	\$/Acre	No. Farms	No. Acres	\$/Acre
Northwest	13	217.2	\$21.50	23	430.8	\$6.80
Southwest	5	541.4	27.80	10	559.2	5.60
North Central	71	152.0	32.50	103	173.6	11.90
South Central	19	200.2	34.00	34	166.1	9.80
Northeast	67	120.2	42.00	26	232.5	17.10
Southeast	84	108.3	32.40	127	274.6	11.70
State	259	143.9	\$34.60	323	247.5	\$11.40

TABLE 4. CASH RENT PAID PER ACRE FOR KANSAS NONIRRIGATED CROPLAND AND PASTURELAND, 1994.

NONIRRIGATED NORTHWEST KANSAS TABLE 5. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and costs	Wheat	Grain Sorghum	Sunflowers
% of Crop to Landlord	33.3	34.2	32.4
% Paid by Landlord			
Fertilizer	24.2	25.5	13.3
Lime	.0	.0	.0
Fertilizer Application	2.2	3.9	6.7
Herbicide	14.1	14.7	8.3
Herbicide Application	8.6	11.1	8.3
Insecticide	9.5	22.2	.0
Insecticide Application	9.5	22.2	.0
Seed	1.0	3.9	.0
Harvesting	.0	.0	.0
Drying	18.5	25.0	.0
Hauling	.0	.0	.0
Gas-Fuel-Oil	.0	.0	.0
Repairs	.0	.0	.0
Conservation	30.9	66.7	.0

NONIRRIGATED

SOUTHWEST KANSAS TABLE 6. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Wheat	Grain Sorghum
% of Crop to Landlord	33.5	33.3
% Paid by Landlord		
Fertilizer	24.8	24.6
Lime	.0	.0
Fertilizer Application	8.2	8.7
Herbicide	15.0	14.3
Herbicide Application	12.4	12.7
Insecticide	16.3	15.2
Insecticide Application	13.8	12.1
Seed	.7	.0
Harvesting	.7	.0
Drving	5.9	13 3
Hauling	.7	.0
Gas-Fuel-Oil	.0	.0
Repairs	.0	.0
Conservation	15.4	16.7

NONIRRIGATED NORTH CENTRAL KANSAS TABLE 7. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994. .

Landlord's Share and Costs	Wheat	Grain Sorghum	Soybeans	Alfalfa
% of Crop to Landlord	34.9	34.8	36.6	37.9
% Paid by Landlord				
Fertilizer	28.9	28.6	18.8	28.3
Lime	41.7	45.5	76.7	61.1
Fertilizer Application	12.6	12.3	11.5	11.9
Herbicide	20.9	20.2	25.2	17.6
Herbicide Application	12.9	12.7	17.9	10.4
Insecticide	24.5	22.3	28.5	25.4
Insecticide Application	10.9	6.9	14.6	10.3
Seed	1.2	1.1	3.5	4.7
Harvesting	.8	.3	2.2	5.8
Drying	1.0	12.9	5.6	.0
Hauling	.8	.3	1.5	.0
Gas-Fuel-Oil	.0	.0	.0	.0
Repairs	.0	.0	.0	.0
Conservation	75.6	79.2	81.0	33.3

NONIRRIGATED

-

.

SOUTH CENTRAL KANSAS TABLE 8. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Wheat	Chain Sorghum	Soybeans	Alfalfa
% of Crop to Landlord	34.0	34.1	34.4	35.9
% Paid by Landlord				
Fertilizer Lime Fertilizer Application	32.3 42.6 17.8	32.6 40.4 18.5	34.8 38.9 26.7	28.2 30.0 13.1
Herbicide Herbicide Application	24.3 15.2	22.9 15.7	24.8 21.4	30.8 16.7
Insecticide Insecticide Application	23.6 18.6	20.5 14.5	.0 .0	28.2 18.0
Seed Harvesting Drying Hauling Gas-Fuel-Oil Repairs	.5 .5 16.2 .2 .2 .2	.7 .7 17.2 .4 .4 .4	2.3 1.2 .0 1.2 1.2 1.2 1.2	2.0 2.9 .0 2.9 .0 .0
Conservation	56.8	56.3	6.7	25.0

NONIRRIGATED NORTHEAST KANSAS TABLE 9. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Wheat	Corn	Grain Sorghum	Soybeans
% of Crop to Landlord	42.1	45.3	43.0	43.3
% Paid by Landlord				
Fertilizer	35.2	39.5	33.1	33.9
Lime	47.9	50.3	34.9	43.9
Fertilizer Application	12.2	15.8	9.9	15.3
Herbicide	32.5	39.1	32.5	36.4
Herbicide Application	11.8	15.2	9.9	13.2
Insecticide	25.6	38.2	31.6	31.4
Insecticide Application	11.9	12.9	13.3	17.7
Seed	23.0	32.3	24.6	27.0
Harvesting	16.3	21.4	15.3	17.7
Drying	3.8	13.9	13.3	3.3
Hauling	9.0	15.7	9.7	11.0
Gas-Fuel-Oil	.0	.0	.0	.0
Repairs	.0	.0	.0	.0
Conservation	81.8	87.2	82.6	81.0

NONIRRIGATED

SOUTHEAST KANSAS TABLE 10. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Wheat	Corn	Grain Sorghum	Soybeans
% of Crop to Landlord	34.4	34.5	34.0	34.2
% Paid by Landlord				
Fertilizer	35.7	35.9	35.9	31.3
Lime	72.2	70.2	71.4	81.3
Fertilizer Application	8.4	11.2	9.0	7.4
Herbicide	20.7	20.3	18.2	20.6
Herbicide Application	7.5	8.9	7.1	7.8
Insecticide	27.3	23.2	16.9	20.5
Insecticide Application	13.3	5.8	5.0	7.7
Seed	2.3	2.3	.4	2.5
Harvesting	1.7	.8	.4	1.2
Drying	9.8	6.1	11.2	2.0
Hauling	1.4	.8	.6	1.6
Gas-Fuel-Oil	.3	.0	.4	.0
Repairs	.3	.0	.4	.0
Conservation	76.4	81.8	66.3	73.8

TABLE 11. LANDLORD'S AVERAGE SHARE OF CROP PRODUCTION AND INPUT COSTS PAID FOR ALL NONIRRIGATED CROPS, KANSAS, 1994.

Landlord's Share and Costs	Northwest	Southwest	North Central	South Central	Northeast	Southeast	State*
% of Crop to Landlord	33.5	33.6	35.4	34.2	43.4	34.5	36.1
% of Govn't Payments to Landlord	33.1	33.7	34.3	33.7	40.7	33.2	34.9
% Paid by Landlord							
Lime Fertilizer Fertilizer Application	.0 23.6 3.3	9.0 25.5 9.9	51.1 27.1 12.4	41.0 31.9 18.4	45.4 35.9 14.0	74.3 35.3 8.9	48.9 32.0 11.9
Herbicide Herbicide Application	14.0 10.0	16.2 13.3	21.4 14.4	23.8 16.1	35.7 13.1	20.1 7.8	23.2 12.0
Insecticide Insecticide Application	7.8 7.8	18.4 15.5	24.1 9.9	21.4 15.6	32.9 14.7	21.7 8.3	23.0 11.8
Seed Harvesting Drying Hauling Gas-Fuel-Oil Repairs	1.5 .0 21.1 .0 .0	$ \begin{array}{r} 1.0 \\ 1.0 \\ 6.2 \\ 1.0 \\ .0 \\ 0 \end{array} $	1.9 1.2 2.7 5.4 .1	.9 .8 15.7 .6 .5 5	26.2 17.9 8.5 11.3 .0	2.0 1.2 9.2 1.3 .4 4	6.2 4.2 9.7 3.6 .2 2
Conservation	31.8	18.1	76.9	51.8	81.7	73.2	63.8

*Weighted by number of questionnaires received from nonirrigated crop-share farms.

ถึ

TABLE 12 DISTRIBUTION OF LEASES FOR IRRIGATED FARMS BY NUMBER AND PERCENTAGE KANSAS. 1994.

Item	# Farms	Cash Only	Crop-Share Only	Crop-Share/Cash	Flexible Cash	Other	Landlords/Farm
Number	251	47	251	8	0	5	2.03
Percentage		15.1	80.7	2.6	0	1.6	

IRRIGATED ALL SYSTEMS WESTERN KANSAS

TABLE 13. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Corn	Wheat	Grain Sorghum	Soybeans
No. of Leases*	61	45	12	6
% of Crop to Landlord	31.83	31.99	30.42	33.06
% Paid by Landlord				
Fertilizer	24.90	25.33	24.86	33.00
Lime	0.00	11.11	0.00	0.00
Fertilizer Application	14.18	12.93	13.75	28.00
Herbicide	19.42	19.69	18.03	33.06
Herbicide Application	13.21	15.78	18.03	23.33
Insecticide	20.56	20.65	17.78	35.56
Insecticide Application	15.54	22.04	17.78	24.44
Seed	6.53	3.73	0.00	11.11
Harvesting	2.54	3.57	0.00	0.00
Grain Hauling	2.12	0.60	0.00	0.00
Drying	22.14	20.51	14.29	0.00
Gas-Fuel-Oil	1.13	1.59	2.78	5.56
Irrigation Fuel	14.80	13.80	22.22	11.11
Repairs	1.41	2.78	4,17	8.33
Conservation	33.33	9.52	16.67	0.00
Land Leveling	67.95	55.56	66.67	0.00
Ditching	16.67	0.00	0.00	0.00
Maintenance:				
Pump/Gearhead	75.52	77.78	66,67	100.00
Power Unit	29.63	27.45	27.78	25.00
Pivot	25.00	38.24	0.00	0.00
Pipe	23.89	25.00	40.00	50.00
Ownership:				
Well	92.73	91.89	90.00	100.00
Pump/Gearhead	84.31	85.71	77.78	100.00
Power Unit	40.48	36.67	28.57	33.33
Gated Pipe	12.50	15.87	46.67	50.00
Pivot	52.16	60.00	33.33	100.00
Buried Pipe	88.30	90.91	85.71	100.00

*Lease questionnaires received for alfalfa and sunflowers were less than five.

IRRIGATED CENTER PIVOT SYSTEM WESTERN KANSAS

TABLE 14. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Corn	Wheat
No. of Leases*	35	20
% of Crop to Landlord	32.87	33.25
% Paid by Landlord		
Fertilizer	25.26	24.08
Lime	0.00	0.00
Fertilizer Application	15.10	13.67
Herbicide	22.49	23.78
Herbicide Application	13.59	18.22
Insecticide	22.49	28.96
Insecticide Application	16.87	28.96
Seed	9.38	7.83
Harvesting	4.41	2.50
Grain Hauling	3.68	1.25
Drying	21.49	27.78
Gas-Fuel-Oil	0.98	1.67
Irrigation Fuel	17.57	18.98
Repairs	0.98	2.56
Conservation	25.00	0.00
Land Leveling	78.57	100.00
Maintenance:		
Pump/Gearhead	71.30	75.00
Power Unit	34.00	36.67
Pivot	27.27	37.50
Ownership:		
Well	93.94	93.75
Pump/Gearhead	83.33	86.67
Power Unit	47.83	50.00
Pivot	58.85	66.67
Buried Pipe	88.89	92.31

*Lease questionnaires received for grain sorghum, soybeans, alfalfa, and sunflowers were less than five.

IRRIGATED FLOOD SYSTEM WESTERN KANSAS

TABLE 15. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Corn	Wheat	Grain Sorghum
No. of Leases*	26	25	9
% of Crop to Landlord	30.44	30.99	34.07
% Paid by Landlord			
Fertilizer	24.40	26.51	30.00
Lime	0.00	16.67	0.00
Fertilizer Application	12.93	12.22	13.33
Herbicide	14.60	16.08	20.00
Herbicide Application	12.62	13.63	20.00
Insecticide	17.19	14.00	21.33
Insecticide Application	13.25	16.50	21.33
Seed	2.67	0.00	0.00
Harvesting	0.00	4.55	0.00
Grain Hauling	0.00	0.00	0.00
Drying	23.08	14.29	16.67
Gas-Fuel-Oil	1.33	1.52	4.17
Irrigation Fuel	11.11	9.09	28.57
Repairs	2.00	2.94	6.25
Conservation	40.00	13.33	16.67
Land Leveling	55.56	33.33	66.67
Ditching	26.67	0.00	0.00
Maintenance:			
Pump/Gearhead	80.95	80.00	100.00
Power Unit	24.17	20.18	41.67
Pipe	14.81	17.65	50.00
Ownership:			
Well	90.91	90.48	100.00
Pump/Gearhead	85.71	85.00	100.00
Power Unit	31.58	27.78	40.00
Gated Pipe	11.11	18.52	46.67
Buried Pipe	87.50	90.00	100.00

*Lease questionnaires received for alfalfa, soybeans, and sunflowers were less than five.

IRRIGATED ALL SYSTEMS SOUTH CENTRAL KANSAS

TABLE 16. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Corn	Wheat	Grain Sorghum	Soybeans
No. of Leases*	31	9	9	18
% of Crop to Landlord	39.25	34.63	36.48	38.52
% Paid by Landlord				
Fertilizer	37.47	36.19	40.83	37.45
Lime	33.00	34.00	40.00	41.43
Fertilizer Application	20.34	30.48	30.83	22.35
Herbicide	30.34	36.19	30.83	31.30
Herbicide Application	19.77	30.48	30.83	22.04
Insecticide	29.42	34.17	30.00	26.00
Insecticide Application	16.35	24.17	30.00	15.33
Seed	12.53	0.00	12.50	12.41
Harvesting	0.00	0.00	0.00	0.00
Grain Hauling	0.00	0.00	0.00	0.00
Drying	22.33	26.67	20.00	15.42
Gas-Fuel-Oil	0.00	0.00	0.00	0.00
Irrigation Fuel	20.40	16.67	33.33	23.61
Repairs	5.98	0.00	35.00	10.00
Conservation	70.37	75.00	100.00	57.14
Land Leveling	79.17	50.00	100.00	40.00
Ditching	55.56	50.00	50.00	16.67
Maintenance:				
Pump/Gearhead	53.46	80.00	80.00	56.43
Power Unit	42.00	20.00	50.00	50.00
Pivot	37.30	0.00	50.00	35.00
Pipe	40.00	0.00	46.67	36.67
Ownership:				
Well	85.19	100.00	100.00	100.00
Pump/Gearhead	66.67	80.00	100.00	66.67
Power Unit	51.85	20.00	75.00	60.00
Gated Pipe	56.25	0.00	100.00	62.50
Pivot	42.11	0.00	0.00	45.45
Buried Pipe	65.00	0.00	66.67	66.67

*Lease questionnaires received for alfalfa and sunflowers were less than five.

IRRIGATED CENTER PIVOT SYSTEM SOUTH CENTRAL KANSAS

TABLE 17. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Corn	Wheat	Soybeans
No. of Leases*	20	7	12
% of Crop to Landlord	38.83	31.67	38.89
% Paid by Landlord			
Fertilizer	38.43	32.50	39.39
Lime	36.11	32.50	50.00
Fertilizer Application	20.20	32.50	23.33
Herbicide	32.55	32.50	39.39
Herbicide Application	21.18	32.50	27.88
Insecticide	32.56	32.22	32.50
Insecticide Application	17.44	32.22	15.83
Seed	13.73	0.00	12.12
Harvesting	0.00	0.00	0,00
Grain Hauling	0.00	0.00	0.00
Drying	22.17	22.22	16.67
Gas-Fuel-Oil	0.00	0.00	0.00
Irrigation Fuel	19.71	8.33	22.88
Repairs	1.96	0.00	3.64
Conservation	66.67	66.67	50.00
Land Leveling	100.00	33.33	0.00
Maintenance:			
Pump/Gearhead	46.88	66.67	55.00
Power Unit	34.38	0.00	45.00
Pivot	34.31	0.00	35.00
Ownership:			
Well	82.35	100.00	100.00
Pump/Gearhead	58.82	66.67	60.00
Power Unit	41.18	0.00	50.00
Pivot	41.18	0.00	44.44
Buried Pipe	58.33	0.00	50.00

*Lease questionnaires received for alfalfa, grain sorghum, and sunflowers were less than five.

IRRIGATED FLOOD SYSTEM SOUTH CENTRAL KANSAS

TABLE 18 CROP-SHARE LEASES ACCORDING TO AVERAGE
CROP SHARE RECEIVED AND INPUT COSTS
PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Corn	Grain Sorghum	Soybeans
No. of Leases*	11	6	6
% of Crop to Landlord	40.00	39.44	37.78
% Paid by Landlord			
Fertilizer	36.11	40.83	33.89
Lime	28.33	40.00	20.00
Fertilizer Application	20.56	30.83	20.56
Herbicide	27.22	30.83	18.57
Herbicide Application	17.78	30.83	12.86
Insecticide	25.15	30.00	21.67
Insecticide Application	14.85	30.00	15.00
Seed	10.83	12.50	12.86
Harvesting	0.00	0.00	0.00
Grain Hauling	0.00	0.00	0.00
Drying	22.67	20.00	13.33
Gas-Fuel-Oil	0.00	0.00	0.00
Irrigation Fuel	21.39	33.33	24.76
Repairs	11.67	35.00	20.00
Conservation	72.22	100.00	66.67
Land Leveling	72.22	100.00	66.67
Ditching	50.00	50.00	33.33
Maintenance:			
Pump/Gearhead	64.00	80.00	60.00
Power Unit	55.56	50.00	66.67
Pipe	44.00	46.67	35.00
Ownership:			
Well	90.00	100.00	100.00
Pump/Gearhead	80.00	100.00	80.00
Power Unit	70.00	75.00	80.00
Gated Pipe	66.67	100.00	60.00
Buried Pipe	75.00	66.67	100.00

*Lease questionnaires received for wheat, alfalfa, and sunflowers were less than five.

IRRIGATED ALL SYSTEMS STATE

TABLE 19. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Corn	Wheat	Grain Sorghum	Sovbeans	Alfalfa	Sunflowers
No. of Leases	104	56	26	32	7	6
% of Crop to Landlord	35.21	32.49	34.49	37.92	37.38	27.78
% Paid by Landlord						
Fertilizer	29.79	27.19	31.19	34.67	22.29	11.11
Lime	42.94	22.59	40.00	40.83	33.33	0.00
Fertilizer Application	16.34	15.87	15.63	23.44	10.42	11.11
Herbicide	24.12	22.76	22.08	30.78	26.67	11.11
Herbicide Application	15.73	18.74	18.08	23.75	16.67	11.11
Insecticide	23.65	24.28	21.85	30.39	26.67	16.67
Insecticide Application	16.09	23.62	21.85	22.16	26.67	0.00
Seed	9.89	4.05	2.38	15.00	12.50	0.00
Harvesting	2.97	2.94	0.00	4.69	0.00	0.00
Grain Hauling	2.23	0.49	0.00	1.56	0.00	0.00
Drying	22.31	22.28	15.56	12.38	0.00	25.00
Gas-Fuel-Oil	1.16	1.31	1.59	2.60	0.00	0.00
Irrigation Fuel	17.04	13.65	21.57	20.63	13.89	0.00
Repairs	3.04	2.19	9.05	8.75	0.00	0.00
Conservation	55.56	33.33	58.33	54.55	0.00	33.33
Land Leveling	73.72	53.57	75.00	66.67	50.00	100.00
Ditching	39.74	25.00	20.00	45.45	0.00	0.00
Maintenance:						
Pump/Gearhead	64.64	76.19	60.00	63.18	80.00	100.00
Power Unit	35.04	25.83	26.92	47.62	50.00	44.44
Pivot	32.10	29.55	20.00	42.31	33.33	0.00
Pipe	31.47	20.00	34.00	38.95	100.00	0.00
Ownership:						
Well	88.33	93.02	88.24	100.00	83.33	100.00
Pump/Gearhead	76.70	82.93	80.00	76.92	60.00	100.00
Power Unit	46.20	33.33	42.86	56.00	25.00	66.67
Gated Pipe	33.67	13.33	57.58	56.25	33.33	0.00
Pivot	47.41	45.00	25.00	47.06	33.33	0.00
Buried Pipe	80.41	81.08	75.00	77.78	60.00	100.00

IRRIGATED CENTER PIVOT SYSTEM STATE

TABLE 20. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Corn	Wheat	Grain Sorghum	Soybeans	Alfalfa
No. of Leases	59	28	7	18	6
% of Crop to Landlord	35.60	32.31	27.14	36.85	38.06
% Paid by Landlord					
Fertilizer	29.74	25.19	19.67	34.12	29.72
Lime	41.67	21.67	0.00	41.67	33.33
Fertilizer Application	16.30	16.13	19.67	19.02	13.89
Herbicide	25.66	24.33	19.67	33.24	33.33
Herbicide Application	15.71	20.17	19.67	24.31	20.83
Insecticide	25.61	29.85	0.00	32.67	33.33
Insecticide Application	16.37	29.85	0.00	19.33	33.33
Seed	11.86	6.27	0.00	10.20	16.67
Harvesting	3.64	2.00	0.00	0.00	0.00
Grain Hauling	2.27	1.00	0.00	0.00	0.00
Drying	22.11	23.33	0.00	13.89	0.00
Gas-Fuel-Oil	0.61	1.33	0.00	1.96	0.00
Irrigation Fuel	18.58	16.52	0.00	19.44	20.83
Repairs	1.21	1.85	0.00	2.35	0.00
Conservation	55.56	40.00	0.00	50.00	0.00
Land Leveling	85.00	66.67	0.00	0.00	0.00
Maintenance:					
Pump/Gearhead	57.98	70.00	0.00	50.00	75.00
Power Unit	32.95	28.95	0.00	40.91	33.33
Pivot	29.37	28.13	0.00	31.82	33.33
Ownership:					
Well	88.46	95.00	75.00	100.00	75.00
Pump/Gearhead	70.59	78.95	25.00	64.29	50.00
Power Unit	44.19	37.50	0.00	46.15	0.00
Pivot	50.28	50.00	33.33	46.15	33.33
Buried Pipe	78.57	80.00	0.00	60.00	33.33

IRRIGATED FLOOD SYSTEM STATE

TABLE 21. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	Corn	Wheat	Grain Sorghum	Soybeans
No. of Leases*	45	28	19	14
% of Crop to Landlord	34.70	32.67	37.19	39.29
% Paid by Landlord				
Fertilizer Lime Fertilizer Application	29.86 44.76 16.38	29.20 24.44 15.60	34.79 40.00 14.38	35.38 40.00 29.23
Herbicide Herbicide Application Insecticide Insecticide Application	22.14 15.75 20.93 15.69	21.27 17,38 19.17 17.92	22.89 17.56 24.58 24.58	28.00 23.11 29.44 23.33
Seed Harvesting Grain Hauling Drying Gas-Fuel-Oil Irrigation Fuel Repairs Conservation Land Leveling Ditching	7.54 2.17 22.58 1.81 15.20 5.22 55.56 66.67 40.74	$ \begin{array}{r} 1.92\\ 3.85\\ 0.00\\ 21.11\\ 1.28\\ 10.90\\ 2.50\\ 27.78\\ 43.75\\ 20.00\\ \end{array} $	$\begin{array}{c} 3.13 \\ 0.00 \\ 0.00 \\ 17.50 \\ 2.08 \\ 26.19 \\ 11.88 \\ 58.33 \\ 75.00 \\ 20.00 \end{array}$	20.44 10.00 3.33 11.25 3.33 21.90 16.00 57.14 85.71 71.43
Maintenance: Pump/Gearhead Power Unit Pipe	73.33 37.75 27.47	81.82 23.02 15.79	84.00 35.00 42.50	76.36 55.00 44.00
Ownership: Well Pump/Gearhead Power Unit Gated Pipe	88.16 85.14 48.61 36.76	91.30 86.36 30.00 17.54	92.31 100.00 50.00 63.33	100.00 91.67 66.67 58.33

*Lease surveys received for alfalfa were less than three.

TABLE 22 LANDLORD'S AVERAGE SHARE OF CROP PRODUCTION AND INPUT COSTS PAID FOR ALL IRRIGATED CROPS, KANSAS, 1994.

		State			Western			South Centra	1
Landlord's Share of Costs	All Systems	Center Pivot	Flood	All Systems	Center Pivot	Flood	All Systems	Center Pivot	Flood
No. of Leases	231	121	110	135	68	67	69	44	25
% of Crop to Landlord	34.72	34.46	34.99	31.78	32.26	31.28	38.16	37.27	39.73
% Paid by Landlord									
Fertilizer	29.46	28.64	30.32	24.59	24.02	25.22	37.68	38.24	36.93
Lime	37.42	36.09	39.22	6.67	0.00	16.67	35.97	39.38	29.17
Fertilizer Appl.	16.86	16.56	17.18	13.53	13.81	13.22	23.56	23.92	23.07
Herbicide	24.58	26.42	22.64	19.81	22.39	16.86	31.72	35.29	27.05
Herbicide Appl.	17.85	18.28	17.40	14.59	14.60	14.58	23.17	25.88	19.62
Insecticide	24.45	26.47	22.38	20.68	22.98	17.89	29.67	33.26	25.56
Insecticide Appl.	18.54	19.12	17.95	17.08	18.95	14.82	18.85	21.04	16.35
Seed	8.50	9.93	7.04	5.15	7.96	2.15	11.44	12.25	10.38
Harvesting	2.78	2.29	3.27	2.34	3.03	1.61	0.00	0.00	0.00
Drying	20.02	20.51	19.50	20.37	22.22	18.52	20.17	19.56	21.21
Hauling	1.39	1.38	1.40	1.17	2.27	0.00	0.00	0.00	0.00
Gas-Fuel-Oil	1.39	.92	1.87	1.56	1.52	1.61	0.00	0.00	0.00
Irrigation Fuel	16.73	17.51	15.96	13.98	16.14	11.90	22.50	20.69	24.87
Repairs	4.24	1.37	7.13	2.30	1.13	3.51	8.22	2.16	16.15
Conservation	47.53	45.00	49.02	20.63	14.29	23.81	66.67	54.55	77.78
Land Leveling	67.53	67.50	67.54	66.05	86.36	52.08	61.67	37.50	77.78
Ditching	39.81		39.81	11.11		11.11	50.00		50.00

TABLE 23. LANDLORD'S PERCENTAGE SHARE OF IRRIGATION EQUIPMENT EXPENSES, KANSAS, 1994.

R

State					Western		South Central		
Equipment	All Systems	Center Pivot	Flood	All Systems	Center Pivot	Flood	All Systems	Center Pivot	Flood
Center Pivot	28.07	28.07		26.25	26.25		33.33	33.33	
Power Unit	34.28	31.48	37.18	29.17	30.43	28.00	43.48	36.67	56.25
Pump/Gearhead	68.02	58.33	78.29	76.72	66.50	84.62	59.59	53.33	69.47
Pipe	28.58		28.58	21.97		21.97	37.89		37.89

TABLE 24. LANDLORD'S OWNERSHIP PERCENTAGE SHARE OF IRRIGATION EQUIPMENT, KANSAS, 1994.

		State			Western			South Centra	1
Equipment	All Systems	Center Pivot	Flood	All Systems	Center Pivot	Flood	All Systems	Center Pivot	Flood
Well	91.03	90.53	91.57	92.11	91.38	92.86	92.31	90.32	95.24
Center Pivot	47.66	47.66		59.38	59.38		36.67	36.67	
Power Unit	44.41	39.74	48.80	38.64	41.46	36.17	51.92	38.71	71.43
Pump/Gearhead	78.37	68.82	88.82	84.91	81.48	88.46	69.23	58.06	85.71
Gated Pipe	38.68		38.68	21.01		21.01	66.67		66.67
Buried Pipe	79.53	73.61	85.06	89.18	86.67	91.35	57.50	47.83	70.59

NONIRRIGATED NORTHWEST KANSAS

		% of Crop Received (or % Costs Paid) by Landlord					
Crop	# of Farms	0.00	25.00	33.33	40.00	50.00	Other
Wheat Landlord%	69	0.0	2.9	92.8	2.9	0.0	1.4
Fertilizer Fertilizer Application		29.5 93.3	1.6 0.0	67.2 6.7	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$	1.6 0.0
Herbicide Herbicide Application		57.6 74.3	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	42.4 25.7	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	0.0 0.0	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$
Insecticide Insecticide Application		71.4 71.4	0.0 0.0	28.6 28.6	0.0 0.0	0.0 0.0	0.0 0.0
<u>Grain Sorghum</u> Landlord %	16	0.0	0.0	87.5	12.5	0.0	0.0
Fertilizer Fertilizer Application		23.5 88.2	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	76.5 11.8	0.0 0.0	0.0 0.0	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$
Herbicide Herbicide Application		53.3 66.7	6.7 0.0	40.0 33.3	0.0 0.0	0.0 0.0	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$
Insecticide Insecticide Application		33.3 33.3	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	66.7 66.7	$\begin{array}{c} 0.0\\ 0.0\end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$

APPENDIX TABLE 1. DISTRIBUTION OF CROP-SHARE LEASES ACCORDING TO CROP SHARE RECEIVED AND SELECTED INPUT COSTS PAID BY LANDLORD, KANSAS, 1994.

NONIRRIGATED SOUTHWEST KANSAS

	1994.						
		% of	Crop Rece	ived (or %	Costs Paid) by Landle	ord
Crop	# of Farms	0.0	25.0	33.3	40.0	50.0	Other
<u>Wheat</u> Landlord%	73	0.0	1.4	95.9	1.4	1.4	0.0
Fertilizer Fertilizer Application		26.6 76.6	$\begin{array}{c} 0.0\\ 0.0\end{array}$	70.3 20.3	1.6 1.6	1.6 1.6	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$
Herbicide Herbicide Application		56.5 64.4	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	39.1 31.1	2.2 2.2	2.2 2.2	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$
Insecticide Insecticide Application		51.9 59.3	0.0 0.0	44.4 37.0	3.7 <u>3.7</u>	0.0 0.0	0.0 0.0
Grain Sorghum Landlord %	27	0.0	0.0	100.0	0.0	0.0	0.0
Fertilizer Fertilizer Application		26.1 73.9	$\begin{array}{c} 0.0\\ 0.0\end{array}$	73.9 26.1	$\begin{array}{c} 0.0\\ 0.0\end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Herbicide Herbicide Application		57.1 61.9	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	42.9 38.1	$\begin{array}{c} 0.0\\ 0.0\end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Insecticide Insecticide Application		54.5 63.6	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	45.5 36.4	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$

APPENDIX TABLE 2 DISTRIBUTION OF CROP-SHARE LEASES ACCORDING TO CROP SHARE RECEIVED AND SELECTED INPUT COSTS PAID BY LANDLORD, KANSAS, 1994

NONIRRIGATED NORTH CENTRAL KANSAS

1	994.						, ,
		% of	Crop Recei	ived (or %	Costs Paid) by Landle	ord
Crop	# of Farms	0.0	25.0	33.3	40.0	50.0	Other
<u>Wheat</u> Landlord%	162	0.0	0.0	79.0	18.5	2.5	0.0
Fertilizer Fertilizer Application		17.5 63.5	0.0 1.6	64.0 25.4	16.4 8.5	2.1 1.1	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Herbicide Herbicide Application		40.2 63.3	1.2 1.2	44.4 24.9	13.0 10.1	1.2 0.6	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Insecticide Insecticide Application		30.4 69.6	0.0 0.0	56.5 26.1	8.7 0.0	4.3 4.3	0.0 0.0
<u>Grain Sorghum</u> Landlord %	137	0.0	0.0	79.6	19.0	1.5	0.0
Fertilizer Fertilizer Application		17.9 65.2	0.0 0.6	64.7 23.9	16.0 9.7	1.3 0.6	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Herbicide Herbicide Application		42.8 64.5	$\begin{array}{c} 0.0\\ 0.0\end{array}$	42.8 24.3	13.2 10.5	1.3 0.7	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Insecticide Insecticide Application		37.3 80.8	0.0 0.0	45.1 15.4	15.7 1.9	2.0 1.9	0.0 0.0
Soybeans Landlord%	63	0.0	0.0	61.9	30.2	7.9	0.0
Fertilizer Fertilizer Application		47.8 70.1	$\begin{array}{c} 0.0\\ 0.0\end{array}$	34.3 14.9	14.9 9.0	3.0 6.0	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Herbicide Herbicide Application		32.3 52.3	1.5 1.5	32.3 20.0	26.2 20.0	7.7 6.2	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Insecticide Insecticide Application		22.2 62.5	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	55.6 25.0	11.1 0.0	11.1 12.5	$\begin{array}{c} 0.0\\ 0.0\end{array}$

APPENDIX TABLE 3. DISTRIBUTION OF CROP-SHARE LEASES ACCORDING TO CROP SHARE RECEIVED AND SELECTED INPUT COSTS PAID BY LANDLORD, KANSAS, 1994.

NONIRRIGATED SOUTH CENTRAL KANSAS

APPENDIX TABLE 4. DISTRIBUTION OF CROP-SHARE LEASES ACCORDING TO CROP SHARE RECEIVED AND SELECTED INPUT COSTS PAID BY LANDLORD, KANSAS, 1994.

		% of Crop Received (or % Costs Paid) by Landlord					
Crop	# of Farms	0.0	25.0	33.3	40.0	50.0	Other
<u>Wheat</u> Landlord%	138	0.0	0.0	90.6	9.4	0.0	0.0
Fertilizer Fertilizer Application		5.0 47.5	$\begin{array}{c} 0.0\\ 0.0\end{array}$	86.5 47.5	8.5 5.0	$\begin{array}{c} 0.0\\ 0.0\end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Herbicide Herbicide Application		30.3 55.5	$\begin{array}{c} 0.0\\ 0.0\end{array}$	62.2 39.5	6.7 5.0	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	$\begin{array}{c} 0.8 \\ 0.0 \end{array}$
Insecticide Insecticide Application		30.4 45.7	$\begin{array}{c} 0.0\\ 0.0\end{array}$	63.0 47.8	6.5 6.5	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$
<u>Grain Sorghum</u> Landlord %	96	0.0	0.0	88.5	11.5	0.0	0.0
Fertilizer Fertilizer Application		4.3 45.7	$\begin{array}{c} 0.0\\ 0.0\end{array}$	85.1 47.9	10.6 6.4	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Herbicide Herbicide Application		33.0 54.3	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	58.5 39.4	8.5 6.4	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Insecticide Insecticide Application		40.0 58.0	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	52.0 34.0	8.0 8.0	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Soybeans Landlord%	30	0.0	0.0	83.3	16.7	0.0	0.0
Fertilizer Fertilizer Application		0.0 22.2	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	77.8 66.7	22.2 11.1	$\begin{array}{c} 0.0\\ 0.0\end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Herbicide Herbicide Application		27.6 37.9	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	62.1 51.7	10.3 10.3	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Insecticide Insecticide Application		100.0 100.0	$\begin{array}{c} 0.0\\ 0.0\end{array}$	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$	$\begin{array}{c} 0.0\\ 0.0\end{array}$	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$
<u>Alfalfa</u> Landlord %	19	0.0	5.3	73.7	5.3	15.7	0.0
Fertilizer Fertilizer Application		21.4 64.3	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	64.3 28.6	$\begin{array}{c} 0.0\\ 0.0\end{array}$	14.3 7.1	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Herbicide Herbicide Application		15.4 53.8	$\begin{array}{c} 0.0\\ 0.0\end{array}$	69.2 38.5	$\begin{array}{c} 0,0\\ 0.0\end{array}$	15.4 7.7	$\begin{array}{c} 0.0\\ 0.0\end{array}$
Insecticide Insecticide Application		23.1 53.8	$\begin{array}{c} 0.0\\ 0.0\end{array}$	61.5 30.8	$\begin{array}{c} 0.0\\ 0.0\end{array}$	15.4 15.4	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$

NONIRRIGATED NORTHEAST KANSAS

% of Crop Received (or % Costs Paid) by Landlord **# of Farms** 0.0 Other Crop 25.0 33.3 40.0 50.0 Wheat Landlord% 54 0.0 33.3 14.8 48.1 1.9 1.9 Fertilizer 13.3 43.3 0.0 18.3 1.7 23.3 Fertilizer Application 71.7 1.7 8.3 16.7 0.0 1.7 Herbicide 22.0 2.4 26.8 14.6 34.1 0.0 Herbicide Application 70.7 2.4 12.2 2.4 12.2 0.0 Insecticide 0.0 38.1 14.3 14.3 0.0 33.3 71.4 14.3 0.0 Insecticide Application 0.0 14.3 0.0 Corn Landlord % 74 0.0 1.4 16.2 10.8 68.9 2.7 Fertilizer 15.8 0.0 9.2 10.5 64.5 0.0 Fertilizer Application 65.8 5.3 1.3 1.3 26.3 0.0 Herbicide 16.2 1.4 8.1 10.8 63.5 0.0 Herbicide Application 67.6 0.0 5.4 1.4 25.7 0.0 Insecticide 17.6 0.0 9.8 13.7 58.8 0.0 3.9 Insecticide Application 72.5 0.0 2.0 21.6 0.0 Grain Sorghum 45 Landlord% 0.0 0.0 31.1 13.3 53.3 2.2 Fertilizer 26.5 0.0 14.3 12.2 46.9 0.0 Fertilizer Application 77.6 6.1 12.2 0.0 4.1 0.0 0.0 12.2 12.2 46.9 Herbicide 28.6 0.0 Herbicide Application 77.6 0.0 4.1 6.1 12.2 0.0 27.6 0.0 17.2 17.2 37.9 Insecticide 0.0 69.0 0.0 6.9 10.3 13.8 Insecticide Application 0.0 <u>Soybe</u>ans Landlord% 99 0.0 1.0 30.3 13.1 55.6 0.0 Fertilizer 21.8 0.0 20.0 18.2 40.0 0.0 Fertilizer Application 65.5 0.0 5.5 10.9 18.2 0.0 Herbicide 19.2 2.0 13.1 13.1 52.5 0.0 Herbicide Application 70.4 1.0 4.1 7.1 17.3 0.0 Insecticide 26.7 0.0 15.6 26.7 31.1 0.0 Insecticide Application 0.0 4.4 60.0 15.6 20.0 0.0

APPENDIX TABLE 5. DISTRIBUTION OF CROP-SHARE LEASES ACCORDING TO CROP SHARE RECEIVED AND SELECTED INPUT COSTS PAID BY LANDLORD, KANSAS, 1994.

NONIRRIGATED SOUTHEAST KANSAS

% of Crop Received (or % Costs Paid) by Landlord **# of Farms** 0.0 Crop 25.0 33.3 40.0 50.0 Other Wheat Landlord% 151 0.0 0.0 88.1 7.3 3.3 1.3 Fertilizer 3.3 0.0 71.3 6.7 0.7 18.0 Fertilizer Application 77.3 0.0 16.7 2.0 4.0 0.0 Herbicide 41.5 0.0 44.6 9.2 3.1 1.5 Herbicide Application 80.0 0.0 12.3 4.6 3.1 0.0 Insecticide 40.0 30.0 0.0 10.0 20.0 0.0 Insecticide Application 70.0 0.0 10.0 0.0 20.0 0.0 Corn Landlord % 63 0.0 0.0 87.3 9.5 0.0 3.2 Fertilizer 1.5 0.0 75.4 7.7 15.4 0.0 Fertilizer Application 69.2 0.0 23.1 3.1 4.6 0.0 Herbicide 41.3 0.0 47.6 6.3 3.2 1.6 Herbicide Application 77.8 14.3 0.0 1.6 3.2 3.2 Insecticide 35.0 0.0 10.0 5.0 0.0 50.0 Insecticide Application 85.0 0.0 0.0 10.0 5.0 0.0 Grain Sorghum Landlord% 146 0.0 0.0 89.7 8.9 0.7 0.7 Fertilizer 75.5 1.4 0.0 7.0 15.4 0.7 Fertilizer Application 74.8 0.0 20.3 2.1 2.8 0.0 Herbicide 46.8 0.0 47.5 4.3 0.7 0.7 Herbicide Application 79.4 0.0 17.7 2.1 0.7 0.0 Insecticide 51.4 0.0 43.2 2.7 2.7 0.0 Insecticide Application 86.5 2.7 0.0 10.8 0.0 0.0 Soybeans Landlord% 172 0.0 0.0 90.7 4.7 3.5 1.2 Fertilizer 12.0 0.0 76.0 0.0 12.0 0.0 Fertilizer Application 78.8 0.0 19.2 0.0 1.9 0.0 Herbicide 40.5 0.0 52.8 2.5 3.7 0.6 Herbicide Application 78.5 0.0 17.2 1.2 3.1 0.0 Insecticide 38.5 0.0 61.5 0.0 0.0 0.0 Insecticide Application 76.9 0.0 23.1 0.0 0.0 0.0

APPENDIX TABLE 6. DISTRIBUTION OF CROP-SHARE LEASES ACCORDING TO CROP SHARE RECEIVED AND SELECTED INPUT COSTS PAID BY LANDLORD, KANSAS, 1994.

NONIRRIGATED STATE

		% of Crop Received (or % Costs Paid) by Landlord					
Сгор	# of Farms	0.0	25.0	33.3	40.0	50.0	Other
Wheat Landlord%	56	0.0	19.6	55.4	5.4	8.9	10.7
Fertilizer Fertilizer Application		20.0 54.0	$10.0\\8.0$	52.0 26.0	6.0 4.0	8.0 6.0	4.0 2.0
Herbicide Herbicide Application		36.6 46.3	4.9 7.3	39.0 31.7	7.3 4.9	9.8 7.3	2.4 2.4
Insecticide Insecticide Application		34.8 34.8	4.3 8.7	30.4 30.4	13.0 8.7	13.0 13.0	4.3 <u>4.3</u>
Corn Landlord %	104	0.0	16.3	48.1	14.4	14.4	6.7
Fertilizer Fertilizer Application		17.8 56.4	8.9 5.0	43.6 20.8	12.9 6.9	12.9 9.9	4.0 1.0
Herbicide Herbicide Application		36.5 59.4	5.2 3.1	29.2 18.8	12.5 6.3	13.5 11.5	3.1 1.0
Insecticide Insecticide Application		37.2 58.1	4.7 3.5	30.2 18.6	9.3 4.7	14.0 12.8	4.7 2.3
<u>Grain Sorghum</u> Landlord%	25	0.0	8.0	56.0	28.0	8.0	0.0
Fertilizer Fertilizer Application		14.3 57.1	4.8 4.8	42.9 19.0	33.3 14.3	4.8 4.8	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$
Herbicide Herbicide Application		40.0 50.0	5.0 5.0	25.0 25.0	25.0 15.0	5.0 5.0	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$
Insecticide Insecticide Application		44.4 44.4	$\begin{array}{c} 0.0\\ 0.0\end{array}$	22.2 22.2	22.2 22.2	11.1 11.1	$\begin{array}{c} 0.0\\ 0.0\end{array}$
<u>Soybeans</u> Landlord%	32	0.0	6.3	43.8	21.9	18.8	9.4
Fertilizer Fertilizer Application		10.0 40.0	6.7 3.3	30.0 23.3	20.0 10.0	20.0 16.7	13.3 6.7
Herbicide Herbicide Application		21.9 40.6	6.3 3.1	28.1 18.8	15.6 12.5	18.8 18.8	9.4 6.3
Insecticide Insecticide Application		23.5 47.1	$\begin{array}{c} 0.0 \\ 0.0 \end{array}$	29.4 11.8	17.6 11.8	23.5 23.5	5.9 5.9

APPENDIX TABLE 7. DISTRIBUTION OF CROP-SHARE LEASES ACCORDING TO CROP SHARE RECEIVED AND SELECTED INPUT COSTS PAID BY LANDLORD, KANSAS, 1994.

IRRIGATED ALL SYSTEMS NORTHWEST KANSAS

APPENDIX TABLE 8. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP. 1994.

Landlord's Share and Costs	All Crops	Corn	Wheat	Sunflowers
No. of Leases*	53	27	15	5
% of Crop to Landlord	28.73	29.68	28.09	26.67
% Paid by Landlord				
Fertilizer	17.21	18.00	17.31	11.11
Lime	0.00	0.00	0.00	0.00
Fertilizer Application	7.43	9.67	2.56	11.11
Herbicide	10.04	9.72	7.41	11.11
Herbicide Application	7.26	7.64	3.70	11.11
Insecticide	7.78	8.70	0.00	16.67
Insecticide Application	4.72	6.16	0.00	0.00
Seed	3.90	4.67	4.76	0.00
Harvesting	3.19	2.00	7.14	0.00
Grain Hauling	2.13	3.00	1.79	0.00
Drying	20.00	17.86	22.92	25.00
Gas-Fuel-Oil	0.00	0.00	0.00	0.00
Irrigation Fuel	6.21	6.80	6.40	0.00
Repairs	0.00	0.00	0.00	0.00
Conservation	7.69	6.67	6.67	33.33
Land Leveling	60.00	60.00	50.00	100.00
Ditching	0.00	0.00	0.00	0.00
Maintenance:				
Pump/Gearhead	74.34	67.86	75.00	100.00
Power Unit	28.95	25.40	27.78	44.44
Pivot	26.19	19.23	50.00	0.00
Pipe	25.64	20.51	33.33	0.00
Ownership:				
Well	92.68	91.30	91.67	100.00
Pump/Gearhead	90.00	86.36	91.67	100.00
Power Unit	45.71	42.11	50.00	66.67
Gated Pipe	20.29	15.15	28.57	0.00
Pivot	67.19	60.83	83.33	0.00
Buried Pipe	91.25	88.64	91.67	100.00

*Lease questionnaires received for soybeans and alfalfa were less than five.

IRRIGATED CENTER PIVOT SYSTEM NORTHWEST KANSAS

APPENDIX TABLE 9. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	All Crops	Corn	Wheat
No. of Leases*	31	17	8
% of Crop to Landlord	28.71	30.10	28.54
% Paid by Landlord			
Fertilizer	16.98	17.71	15.63
Lime	0.00	0.00	0.00
Fertilizer Application	5.25	8.85	0.00
Herbicide	10.71	11.11	8.33
Herbicide Application	7.14	7.78	8.33
Insecticide	9.80	11.11	0.00
Insecticide Application	8.33	9.44	0.00
Seed	6.79	7.29	8.33
Harvesting	1.85	3.13	0.00
Grain Hauling	3.70	4.69	3,13
Drying	19.44	16.67	29.17
Gas-Fuel-Oil	0.00	0.00	0.00
Irrigation Fuel	8.51	8.79	11.21
Repairs	0.00	0.00	0.00
Conservation	0.00	0.00	0.00
Land Leveling	85.71	75.00	100.00
Maintenance:			
Pump/Gearhead	72.62	63.46	83.33
Power Unit	14.29	15.38	16.67
Pivot	14.71	13.64	25.00
Ownership:			
Well	95.83	93.33	100.00
Pump/Gearhead	91.30	85.71	100.00
Power Unit	30.00	33.33	40.00
Pivot	67.26	62.50	80.00
Buried Pipe	95.83	93.33	100.00

*Lease questionnaires received for grain sorghum, soybeans, alfalfa, and sunflowers were less than five.

IRRIGATED FLOOD SYSTEM NORTHWEST KANSAS

APPENDIX TABLE 10.

CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP. 1994.

Landlord's Share and Costs	All Crops	Corn	Wheat
No. of Leases*	22	10	7
% of Crop to Landlord	28.76	28.97	27.57
% Paid by Landlord			
Fertilizer	17.54	18.52	20.00
Lime	0.00	0.00	0.00
Fertilizer Application	10.53	11.11	6.67
Herbicide	9.26	7.41	6.67
Herbicide Application	7.41	7.41	0.00
Insecticide	5.13	4.17	0.00
Insecticide Application	0.00	0.00	0.00
Seed	0.00	0.00	0.00
Harvesting	5.00	0.00	16.67
Grain Hauling	0.00	0.00	0.00
Drying	20.83	20.00	16.67
Gas-Fuel-Oil	0.00	0.00	0.00
Irrigation Fuel	3.33	3.70	0.00
Repairs	0.00	0.00	0.00
Conservation	14.29	16.67	11.11
Land Leveling	0.00	0,00	0.00
Ditching	0.00	0.00	0.00
Maintenance:			
Pump/Gearhead	76.47	75.00	66.67
Power Unit	47.06	41.67	38.89
Pipe	22.92	9.52	33.33
Ownership:			
Well	88.24	87.50	83.33
Pump/Gearhead	88.24	87.50	83.33
Power Unit	66.67	57.14	60.00
Gated Pipe	22.92	9.52	33.33
Buried Pipe	84.38	78.57	83.33

*Lease questionnaires received for grain sorghum, soybeans, alfalfa, and sunflowers were less than five.

IRRIGATED ALL SYSTEMS SOUTHWEST KANSAS

APPENDIX TABLE 11. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	All Crops	Corn	Wheat	Grain Sorghum	Soybeans
No. of Leases*	82	34	30	9	5
% of Crop to Landlord	33.75	33.55	33.94	33.15	34.67
% Paid by Landlord					
Fertilizer	28.84	29.97	29.05	24.09	35.00
Lime	16.67	0.00	16.67	0.00	0.00
Fertilizer Application	17.04	17.50	17.74	11.97	35.00
Herbicide	25.25	27.19	24.49	16.50	34.67
Herbicide Application	18.67	17.67	20.51	16.50	28.00
Insecticide	27.85	29.96	26.55	17.78	35.56
Insecticide Application	23.95	22.99	28.33	17.78	24.44
Seed	5.87	7.91	3.21	0.00	13.33
Harvesting	1.85	2.94	1.79	0.00	0.00
Grain Hauling	0.62	1.47	0.00	0.00	0.00
Drying	20.59	25.46	19.44	11.11	0.00
Gas-Fuel-Oil	2.47	1.96	2.38	3.03	6.67
Irrigation Fuel	19.37	21.88	17.50	20.83	16.67
Repairs	3.65	2.45	4.17	4.55	10.00
Conservation	41.67	66.67	16.67	16.67	0.00
Land Leveling	69.61	72.92	60.00	66.67	0.00
Ditching	26.67	44.44	0.00	0.00	0.00
Maintenance:					
Pump/Gearhead	78.13	81.48	79.17	66.67	100.00
Power Unit	29.31	33.33	27.27	27.78	25.00
Pivot	26.67	30.00	31.82	0.00	0.00
Pipe	26.92	26.47	20.00	40.00	50.00
Ownership:					
Well	91.78	93.75	92.00	90.00	100.00
Pump/Gearhead	81.82	82.76	82.61	77.78	100.00
Power Unit	33.96	39.13	30.00	28.57	50.00
Gated Pipe	17.65	10.26	9.52	46.67	50.00
Pivot	42.86	42.86	44.44	33.33	100.00
Buried Pipe	87.72	88.00	90.48	85.71	100.00

*Lease questionnaires received for alfalfa and sunflowers were less than five.

IRRIGATED CENTER PIVOT SYSTEM SOUTHWEST KANSAS

APPENDIX TABLE 12 CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	All Crops	Corn	Wheat
No. of Leases*	37	18	12
% of Crop to Landlord	35.24	35.49	36.39
% Paid by Landlord			
Fertilizer Lime Fertilizer Application Herbicide Herbicide Application Insecticide	28.90 0.00 19.74 29.02 18.83 30.71	31.98 0.00 20.65 31.98 18.43 31.98	29.72 0.00 22.78 29.39 21.82 33.10
Insecticide Application	25.17	23.06	33.10
Seed Harvesting Grain Hauling Drying Gas-Fuel-Oil Irrigation Fuel Repairs Conservation Land Leveling	$\begin{array}{r} 8.77\\ 3.85\\ 1.28\\ 24.44\\ 2.56\\ 22.72\\ 1.90\\ 100.00\\ 87.50\end{array}$	$ \begin{array}{r} 11.23 \\ 5.56 \\ 2.78 \\ 25.83 \\ 1.85 \\ 26.35 \\ 1.85 \\ 100.00 \\ 83.33 \\ \end{array} $	$7.50 \\ 4.17 \\ 0.00 \\ 27.08 \\ 2.78 \\ 24.17 \\ 4.17 \\ 0.00 \\ 100.00$
Maintenance: Pump/Gearhead Power Unit Pivot	65.52 44.00 34.78	78.57 54.17 40.91	70.00 50.00 43.75
Ownership: Well Pump/Gearhad Power Unit Pivot Buried Pipe	88.24 74.19 52.38 52.17 76.10	94.44 81.25 63.64 54.55 83.22	90.00 77.78 57.14 57.14 85.71

*Lease questionnaires for grain sorghum, soybeans, alfalfa, and sunflowers were less than five.

IRRIGATED FLOOD SYSTEM SOUTHWEST KANSAS

APPENDIX TABLE 13. CROP-SHARE LEASES ACCORDING TO AVERAGE CROP SHARE RECEIVED AND INPUT COSTS PAID BY LANDLORD BY CROP, 1994.

Landlord's Share and Costs	All Crops	Corn	Wheat	Grain Sorghum
No. of Leases*	45	16	18	7
% of Crop to Landlord	32.52	31.35	32.31	34.29
% Paid by landlord				
Fertilizer	28.78	27.71	28.54	29.52
Lime	33.33	0.00	33.33	0.00
Fertilizer Application	14.47	13.96	13.96	10.48
Herbicide	21.01	20.00	20.00	17.78
Herbicide Application	18.48	16.53	19.31	17.78
Insecticide	24.53	26.67	20.00	21.33
Insecticide Application	22.53	22.88	23.57	21.33
Seed	3.17	4.17	0.00	0.00
Harvesting	0.00	0.00	0.00	0.00
Grain Hauling	0.00	0.00	0.00	0.00
Drying	17.54	25.00	13.33	13.33
Gas-Fuel-Oil	2.38	2.08	2.08	4.76
Irrigation Fuel	16.67	16.67	12.50	27.78
Repairs	5.26	3.13	4.17	7.14
Conservation	33.33	55.56	16.67	16.67
Land Leveling	64.10	66.67	50.00	66.67
Ditching	33.33	66.67	0.00	0.00
Maintenance:				
Pump/Gearhead	88.57	84.62	85.71	100.00
Power Unit	18.18	12.50	11.54	41.67
Pipe	21.43	18.18	9.09	50.00
Ownership:				
Well	94.87	92.86	93.33	100.00
Pump/Gearhead	88.57	84.62	85.71	100.00
Power Unit	21.88	16.67	15.38	40.00
Gated Pipe	20.00	12.12	11.11	46.67
Buried Pipe	94.44	92.31	92.86	100.00

*Lease questionnaires received for soybeans, alfalfa, and sunflowers were less than five.

KSU KANSAS STATE UNIVERSITY

SRP 757

Agricultural Experiment Station, Kansas State University, Manhattan 66506-4008

March

1996

Kansas State University is committed to a policy of nondiscrimination on the basis of race, sex, national origin, disability; religion, age, sexual orientation, or other nonmerit reasons, in admissions, educational programs or activities, and employment (including employment of disabled veterans and veterans of the Vietnam Era), all as required by applicable laws and regulations. Responsibility for coordination of compliance efforts and receipt of inquiries, including those concerning Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act, has been delegated to Jane D. Rowlett, Ph.D., Director of Unclassified Affairs and University Compliance, 111 Anderson Hall, Kansas State University, Manhattan, KS 66506-0124 (913-532-4392).