

METHODS OF RENTING LAND

IN

WESTERN KENTUCKY

By Wesley B. Sundquist and John H. Bondurant

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# METHODS OF RENTING LAND IN WESTERN KENTUCKY

by

Wesley B. Sunquist and John H. Bondurant

## SUMMARY

Recent changes in agricultural technology, farm prices, and land values, together with increased industrial development in western Kentucky, have created (some) new land-rental problems in the area. Some of the generally accepted customary rental agreements have become unsatisfactory. The decreased number of available tenants and farm laborers and the increased opportunity for off-farm employment have resulted in a better bargaining position for land renters relative to that of land owners. An especially significant change has been the increase in acreage rented on a field basis.

Three types of rental agreements predominate in the Tennessee Valley counties. These are (1) livestock-share, (2) crop-share, and (3) field renting. The most common livestock-share agreement is a 50-50 division of costs and income. The usual crop-share and field renting agreements consist of a landlord  $\frac{1}{3}$  - tenant  $\frac{2}{3}$  division of costs and income, except that on some of the more fertile land a 50-50 division of costs and income is customary.

This study indicates that a fair division of costs and income returns is more likely to be realized where the tenant and landlord estimate the costs that each one plans to contribute, as a basis for deciding upon division of the proceeds from the rental unit. The use of rental periods ranging from three to five years is considered a very important step toward increasing net returns to both landlords and tenants. Suggestions are included which provide a basis for compensating the tenant for improvement values which he furnishes, and which may have a residual value at the termination of his lease.

## OBJECTIVES

The objectives of this study were to describe and analyze land rental conditions and problems in the Tennessee Valley counties of Western Kentucky, and to determine methods by which changes in rental agreements can aid in improving net incomes for both tenants and land owners.

The Area Studied

The area in western Kentucky included in this study consists of Calloway, Graves, Livingston, Lyon, McCracken, Marshall, and Trigg counties. Adjacent to the Tennessee River, they are commonly referred to as the Tennessee Valley counties.

Table 1.  
Land Tenure of Classified Farm Operators, 1949  
Economic Area I, Kentucky

Type of tenure	Number of farm operators	Percent of total operators	Total a/ acreage operated	Percent of total a/ acreage operated
Full owners - - - - -	5,946	58.6	619,497	56.54
Part-owner - - - - -	2,136	21.0	274,992	25.10
Livestock - share tenants - -	356	3.5	57,215	5.22
Crop - share tenants - - - -	736	7.2	69,750	6.36
Croppers - - - - -	660	6.5	31,945	2.92
Cash tenants - - - - -	85	0.8	8,165	.75
Share - cash tenants - - - -	35	0.3	4,525	.41
Farm managers - - - - -	35	0.3	12,416	1.13
Other and unspecified - - -	166	1.6	17,161	1.57
Total - - - - -	10,155	100	1,095,666	100

Land Tenure in the Area

The 10,155 b/ commercial farmers in Economic Area I, c/ classified according to type of tenure, had in 1949 the tenure classification listed in Table 1. Four tenure groups, part-owners, livestock-share, crop-share, and cropper tenants, were the principal groups of land renters. Combined, they rented 267,699 acres of land, which was about 90 percent of the total acreage rented by all farm operators. Table 2 shows the relative farm size and gross income of the principal tenure groups.

Table 2.  
Average Farm Size and Gross Farm-Income By Type of Tenure d/

Tenure status	Acres owned	Acres rented	Value of land and buildings	Gross farm income e/
Part-owners	82.8	50.3	\$10,854	\$3,410
Livestock-share	----	161.8	10,455	4,171
Crop-share	----	96.1	6,203	2,270
Croppers	----	48.4	4,851	2,055

a/ Total acreages are for commercial farms only.

b/ U. S. Census of Agriculture, 1950, Vol. 1, Part 19. U. S. Govt. Printing Office, 1952.

c/ Economics Area I includes all the counties west of the Tennessee River and does not include the Tennessee Valley counties of Trigg, Lyon and Livingston.

d/ U. S. Census of Agriculture, loc. cit.

e/ Gross income is from sale of farm products only.

Livestock-share tenants rented the largest farms and realized the largest gross income. Part-owners ranked second in both farm-size and gross farm income. Crop-share tenants operated about twice as large an acreage as croppers, but their income returns were only slightly larger; however, a larger proportion of the acreage rented by croppers was used in crop production. As compared to the rental groups, the owner operators had an average of 104 acres valued at \$7,020, and an average gross farm income of \$2,601.

Part-owners rented 107,404 acres, about 40 percent of the total acreage they operated, which constituted a large portion of the land rented on a field-rental basis. Because of the prominence of livestock-share, crop-share, and field renting, primary emphasis has been given to these three types of rental agreements in this report.

#### Recent Developments Affecting Land Renting

Over a period of the last decade or more, numerous developments have occurred to influence land renting in the area. Changes in agricultural technology increased resource requirements for farm operators. Especially significant in this respect were trends toward mechanization and fertilizer use. Increases in land values have resulted in changes in the importance of the landlord's contributions in rental operations. The value of farm labor has increased, due to much higher wages paid in off-farm employment. These changes tended to cause customary or traditional rental agreements to become outmoded and unsatisfactory.

In addition to price and technology changes, industrial development in the area has had an effect on land renting. County extension agents in the Tennessee Valley counties estimated in 1953 that from 25 to 65 percent of the farm owners in their respective counties had off-farm employment of some type. Many of them have continued to live in their farm residences, but have rented out the acreage ordinarily used for the production of row crops and small grain on a field-by-field basis. The increased opportunity for off-farm employment, due in part to increased industrial activity, has resulted in a decrease in the number of available tenants and farm laborers. The effect has been a bettering of the bargaining position of persons renting land relative to that of landowners. Tenants, realizing the opportunity for alternative employment, are in a position to secure better rental terms than they were several years ago.

#### Procedure

During the summer of 1953, landlords, part-owners, and tenants in the Tennessee Valley counties were interviewed in an attempt to determine current rental practices and problems. Farm rental studies made in other areas were utilized when the information provided was applicable to western Kentucky conditions. Data were utilized from the 1950 Census of Agriculture to indicate the prevalence of the various types of renting and the average farm size and income of the various tenure groups. An attempt has been made in this study to analyze the rental problems which presented major obstacles to negotiation of satisfactory rental agreements in the area.

#### Objectives of a Rental Agreement

Two objectives are considered of primary importance when a tenant and landlord negotiate a rental agreement, whether it be a livestock-share, crop-share, field renting, or any other type of rental agreement.

First, the rental agreement should permit and facilitate organization of the tenants' and landlords' resources in a manner which will maximize production

returns from the rental unit. Limitations to production and operating efficiency frequently occur due to the length of the rental period, the amount of available resources, and differences of opinion between the tenant and landlord regarding production practices. However, joint planning of farm enterprises, cropping practices, fertilization, etc., prior to deciding on final rental arrangements, will help overcome these difficulties.

Second, a rental agreement should provide for a fair distribution of income to the tenant and landlord. A fair or equitable rental agreement is usually realized when the division of income is in about the same proportion as the sharing of costs, or contributions, by both parties. For example, if a landlord furnishes only the land, and the interest on his real estate investment, plus real estate taxes, amounts to about one-fourth of total production costs, he would receive one fourth of the income as a rental payment. If the landlord is to receive a rental payment based on his share of total contributions, it is necessary to estimate the value of the contributions to be furnished by both parties. Such an estimate is likely to be more accurate if a budget is made of the costs of the contributions to be made by each party.

#### Types of Rental Agreements and Suggestions for Improvement

The three prevailing types of renting in the area are crop-share, livestock-share, and field renting. In recent years field renting has been increasing, especially among part-owners. Livestock-share agreements also have been increasing, but crop-share agreements have continued to include the largest number of tenants. Other types of rental agreements are relatively few in number for the area.

In this section an attempt is made to analyze prevailing conditions and to suggest methods and procedure for improving each of the three principal types of rental agreements in accordance with objectives previously stated.

#### Livestock-Share Agreements

Several factors indicate that livestock-share rental agreements usually afford the best long-term alternative of any rental arrangements for farms in the area, which are not suitable for intensive row-crop farming. Livestock-share rental units produced an average gross income of \$4,171 in 1949 <sup>a/</sup>, exceeding the gross income of crop-share rental units by about 84 percent. Livestock-share tenants utilized land and buildings worth \$10,455, a value exceeding that of crop-share tenants by about 69 percent. Farm management studies made in the area in 1951 <sup>b/</sup> showed that no appreciable decrease occurred in returns to forage-livestock investments as large as \$12,000 to \$15,000 as compared to smaller investments. This indicates that livestock-share rental units are not likely to become inefficient by expansion to the limits possible with the resources available to most tenants and landlords.

<sup>a/</sup> United States Census of Agriculture, 1950. Volume 1, Part 19.  
(U. S. Government Printing Office, 1952).

<sup>b/</sup> Glenn L. Johnson, Progress Reports 1, 2, 4, 9, and 13. Ky. Agri. Expt. Sta. 1952.

A detailed study of rental units in a neighboring area of western Tennessee in 1947 a/ showed landlords of livestock-share rental units receiving a return of 11.4 percent on an average total investment in land and buildings of \$11,600. Landlords of crop-share rental units received a return of 8.2 percent on an average investment of \$7,098 in land and buildings. The average size of rental units in the Tennessee study was 77.3 acres for crop-share units and 131.5 acres for livestock-share units.

Although investment returns vary with the prices received for livestock and livestock products, indications are that over a period of several years livestock-share rentals afford better income returns and facilitate better farming practices than do alternative rental agreements.

#### Division of Costs and Returns

A 50-50 livestock-share rental agreement is most common in the area and usually has more merit than alternative divisions of costs and returns. Mutual ownership, by the tenant and landlord of a large portion of the production resources, tends to make an equitable rental agreement more easily realized.

The usual 50-50 livestock-share rental agreement includes the landlord furnishing the land and buildings and bearing the costs of the real estate connected expenses, including taxes, building repairs, and major farm improvements. In addition, the landlord usually owns half of the livestock and machinery. The tenant usually furnishes his labor and owns half of the livestock and machinery. Expenses such as fertilizer, feed, custom work hired, and other farm operating expenses are equally shared. Sharing of minor expenses may be adjusted to comply with individual circumstances.

A budget including the major cost items is presented here for the purpose of illustrating the budgeting procedure. Although the budgeted costs are not for an actual farm unit, they closely approximate the proportional cost-sharing for an actual livestock-share rental unit in the area studied:

#### Value and Ownership of Resources

<u>Inventory items</u>	<u>Tenant</u>	<u>Landlord</u>	<u>Total</u>
Real estate (150 acres) - - - -	\$-----	\$15,000	\$15,000
Machinery and equipment - - -	1,200	1,200	2,400
Livestock:			
Hogs - - - - -	225	225	450
Dairy cattle - - - - -	1,900	1,900	3,800
Beef cattle - - - - -	650	650	1,300
Chickens - - - - -	40	---	40
Work animals - - - - -	75	75	150
Total investment - - - - -	\$4,090	\$19,050	\$23,140

a/ Howard J. Bonser, Some Factors in Farm Organization and Returns to Tenants and Landlords by Type of Leasing Arrangements - West Tennessee, 1947, Bul. 217. Univ. Tenn. Agri. Expt. Sta. June, 1950.

Table 3  
Budget of Costs and Contribution for a 50-50  
Livestock-Share Rental Agreement

Item	Tenant	Landlord	Total
Interest on investment @ 5 percent - - - - -	\$ 204.50	\$ 952.50	\$ 1,157.00
Depreciation on buildings and fences - - - - -	---	175.00	175.00
Maintenance of buildings and fences - - - - -	---	125.00	125.00
Taxes on real estate - - - - -	---	110.00	110.00
Insurance - - - - -	6.00	25.00	31.00
Tenants labor* - - - - -	1,500.00	---	1,500.00
Hired labor - - - - -	75.00	75.00	150.00
Depreciation on machinery and equipment - - - - -	120.00	120.00	240.00
Custom work hired - - - - -	80.00	80.00	160.00
Seed purchased - - - - -	75.00	75.00	150.00
Feed purchased - - - - -	85.00	85.00	170.00
Fertilizer purchased - - - - -	115.00	115.00	230.00
Ground limestone purchased - - - - -	---	90.00	90.00
Operating expenses: gas, oil, supplies, etc. - - - - -	240.00	240.00	480.00
Veterinary services and supplies - - - - -	15.00	15.00	30.00
Breeding fees - - - - -	30.00	30.00	60.00
Total costs	\$2,545.50	\$2,312.50	\$4,858.00
Percent of total costs	52.4	47.6	100.0

If either the landlord or the tenant furnishes all or a major part of the management, his contribution of this service should be budgeted as a cost. The sharing of minor contribution items should be discussed and settled by mutual agreement of the tenant and landlord. It is suggested that any adjustments needed to improve the fairness of the rental agreement be made in the contributions furnished by either party, and that a complete 50-50 division of returns be retained when possible. It is generally not advisable, however, to make any adjustments in the strategic input items, such as fertilizer or concentrated feeds purchased. Adjustments in these important items are likely to result in controversies over the rates of fertilization, feeding, or other variable input items.

One livestock-share tenant, whose main livestock enterprise was dairying, recommended a division of income receipts every two weeks when payment was made for milk sales. Inaccuracies and controversies in dividing income returns are minimized by a frequent settlement, preferably when the more important sales are made.

#### Compensation for Unused Improvement Values

Improvements are necessary to increase the productivity of a large number of farms in the area studied. Many farm improvements leave an unused value which the tenant is justified in being compensated for at the termination of the rental agreement. Some of the farm improvement costs which are likely to be incurred, and a suggested period for their depreciation are as follows:

- Construction of terraces, 5 years
- Construction of stock ponds, 5 years
- Construction of drainage systems, 5 years
- Construction or remodeling of buildings, 10 years or more
- Minor building repairs (\$250 or less), 3 to 5 years
- Renovation of pasture land, 3 to 5 years

\* In addition, the tenant is usually afforded rent free housing and the privilege of having a garden and other home produced food supplies.

Pro-rating of improvement costs is simplified if a flat-rate depreciation schedule is followed. For example, if an improvement cost is to be distributed over a 5-year period, 20 percent of the original cost should be depreciated annually.

Fertilizer and limestone costs may be depreciated at their approximate rates of depletion which are estimated in tables 4-6.

Table 4.  
Percent of Fertilizer Values Remaining at End of Rotation and Suggested Percentage Rates for Compensating Tenants

	Fertilizer applied	P <sub>2</sub> O <sub>5</sub> supplied	P <sub>2</sub> O <sub>5</sub> remaining after rotation b/	Suggested value after rotation
	Lb	Lb	%	%
Phosphate fertilizers applied per acre during rotation a/				
Calcium metaphosphate (62%) -	100	62	29	20
	200	124	65	50
	300	186	76	60
Triple superphosphate (43%) - -	200	86	49	35
	300	129	66	50
	500	215	80	60
Fused rock phosphate (28%) - -	200	56	21	10
	300	84	48	35
	500	140	69	50
Superphosphate (20%) - - - -	300	60	27	20
	400	80	45	30
	500	100	56	40
Rock phosphate (32%) - - - -	900	288	85	80
	1500	480	91	85

Table 5.  
Percent of Fertilizer Values Remaining at End of First Year and Suggested Value at End of Each of Three Years

	Fertilizer applied	P <sub>2</sub> O <sub>5</sub> supplied	P <sub>2</sub> O <sub>5</sub> remaining after 1st year c/	Suggested value at end of crop year		
				1st	2nd	3rd
	Lb	Lb	%	%	%	%
Phosphate fertilizers on corn, tobacco, or wheat d/						
Calcium metaphosphate (62%) -	100	62	70	50	25	0
	200	124	85	60	40	20
Triple superphosphate (43%) -	100	43	57	40	20	0
	200	86	78	55	30	10
Fused rock phosphate (28%) -	100	28	34	25	0	0
	200	56	67	50	25	0
Superphosphate (20%) - - - -	100	20	8	0	0	0
	200	40	54	40	20	0
	300	60	69	50	25	0

a/ Three-year rotation includes corn, wheat, and lespedeza hay. About 44 lb of P<sub>2</sub>O<sub>5</sub> per acre are used by the crops in rotation, assuming crop yields of 50 bu of corn, 20 bu of wheat and 3,000 lb of hay.

b/ No fertilizer loss was attributed to erosion. P<sub>2</sub>O<sub>5</sub> in all straight phosphate fertilizers was assumed equally available with the exception of rock phosphate, which becomes available over a longer period.

c/ op cit

d/ Per-crop yields were assumed to be about 50 bu of corn, 1,400 lbs of tobacco or 25 bu

Table 6.  
Suggested Percent of Value Remaining  
at End of Each Crop Year

	1st	2nd	3rd	4th	5th
Fixed fertilizers on any crop <sup>a/</sup> - - - - -	50	25	0	0	0
Ground limestone on any crop - - - - -					
Applied in fall - - - - -	100	80	60	40	20
Applied in spring - - - - -	80	60	40	20	0

Compensation for unused improvements is obviously reduced and frequently made unnecessary with long-term rental agreements.

#### Length of Tenure

Several advantages are provided by a livestock-share rental agreement in excess of one year. It is unlikely that expenditures made for major improvement practices, such as renovating pastures, establishing improved forage stands, building stock ponds, and improving dairy herds will be fully compensated for in a period of less than three years. Furthermore, termination of the rental agreement necessitates the tenants securing other living quarters and the landlords securing a new tenant. A division, and perhaps liquidation, of machinery and livestock investments will likely prove costly for both parties. Also, termination of the rental agreement is likely to result in disruption of the land improvement and crop rotation programs in the process of development.

A rental agreement of from three to five years duration should be adequate for tenants to undertake improvement practices in anticipation of receiving the income benefits of such practices. Landlords, likewise, are more likely to invest in farm improvement practices if they are relatively certain that these practices will be carried out. For a long-term lease, provisions may be made for termination of the rental agreement if notice is provided, preferably 12 months prior to actual termination. This provision should not invalidate the benefits derived from a long-term lease, but should rather serve as a means by which unsatisfactory rental agreements may be dissolved. In such cases, compensation for unused improvement values previously indicated could be used advantageously.

#### Provisions of the Lease

Oral leases in Kentucky are not legally valid for a period in excess of one year. <sup>b/</sup> Furthermore, the complexity of livestock-share rental agreements makes a written lease desirable. Rental provisions are likely to receive a more thorough discussion and analysis if these provisions are incorporated in a written lease than if the agreement is oral.

The rental lease should include the following provisions in addition to other items considered pertinent by both parties: <sup>c/</sup>

- (1) Date for commencement of the lease
- (2) Legal description of the property
- (3) Production practices to be employed

<sup>a/</sup> Commercial fertilizer applications were assumed to supply at least 36 lb P<sub>2</sub>O<sub>5</sub> and 24 lb of K<sub>2</sub>O an acre. No remaining value was suggested for nitrogen.

<sup>b/</sup> A discussion of legal aspects of farm rental agreements is provided in Ky. Agri. Expt. Sta. Bul. 418. "Legal Aspects of Farm Tenancy in Kentucky."

<sup>c/</sup> A farm lease form which is applicable to livestock-share rental agreements is U. S. D. A. Form Agri. 1 (Revised 1949) Standard Farm Lease which is available at a county extension agent's office or at the Department of Agricultural Economics, University of Kentucky. An annual supplement for this lease form, Agri. 3 (Revised 1949), is also available.

- (4) The contributions of each party
- (5) Division of income receipts
- (6) Compensation to the tenant for unused improvement values
- (7) Period covered by the lease
- (8) Adjustments in the lease with consent of both parties
- (9) Termination of the lease
- (10) Signature of both parties

#### Crop-Share Agreements

The average gross income realized from crop-share rental units in Economic Area I was \$2,270 in 1949.<sup>a/</sup> The average size of farms rented was 95 acres, of which about 61 acres were cropped. About 70 percent of the gross income was realized from the sale of crops and the remaining 30 percent from the sale of livestock and livestock products. Assuming the usual landlord-1/3, tenant-2/3 division of crop returns, the average gross income would have been \$1,740 for the tenant and \$530 for the landlord. With such a gross income, the tenant usually had to pay for machinery, livestock, and operating expenses in addition to paying living expenses for his family. From a gross income of about \$530, the landlord had to pay real estate taxes, building maintenance costs, and a portion of fertilizer and seed costs before receiving a return on an average investment in land and buildings of \$6,200.

It is evident that a primary problem faced by tenants and landlords on crop-share rental units is that of securing larger resource contributions and utilizing them in a manner capable of increasing farm income. Field renting of additional cropland is one means by which income can be increased. It appears, however, that in many cases income can also be increased by expanding resource use on the present acreage. Estimates <sup>b/</sup> made for the production of crops on Grenada silt loam, one of the extensive and productive upland soils of the Tennessee Valley counties, show the effects of increased resource inputs including management. These estimates indicate that crop yields may be about doubled by proper choice and rotation of crops; use of commercial fertilizer, lime, manure, and crop residues; and proper tillage and water management. It is unlikely that any division of income and costs will prove satisfactory to both tenant and landlord unless there are adequate total income returns to divide.

#### Division of Costs and Returns

The usual rental payment furnished the landlord for crop-share rental units in the area studied is one-third of the income received from the sale of crops. With this type of rental agreement, the landlord usually furnishes the real estate expenses, including taxes, insurance, maintenance, and improvement of buildings. In addition, costs of rather long-term land improvements, such as constructing drainage systems and supplying ground limestone are usually furnished by the landlord. The landlord usually furnishes 1/3 of the cost of fertilizer and seed and, in most cases, 1/3 of the cost of custom work hired. In some cases, however, the tenant pays the full cost of corn picking. The tenant, in turn, furnishes all of the cost of labor, machinery, gas, oil, etc., and 2/3 of the costs of seed, fertilizer, and custom work hired.

<sup>a/</sup> U. S. Census of Agriculture 1950. op. cit.

<sup>b/</sup> Soil Survey of Graves County, Kentucky, U. S. Govt. Printing Office, 1950, pp. 109-115.

Although the landlord-1/3, tenant-2/3 crop-share division is widely accepted, individual tenants and landlords can determine the applicability of this rental agreement to their rental unit by budgeting their individual total costs and contributions. If the budgeted contributions do not approximate the 1/3, 2/3 proportion, then minor adjustments may be made in contributions and a complete 1/3, 2/3 division of crop sales be retained.

If the landlord's value of land and buildings for each acre of tillable land exceeds \$100 per acre, but is less than \$150 per acre, the 1/3 and 2/3 division of crop returns is likely to be the most appropriate. <sup>a/</sup> This does not mean, however, that adjustments on the contribution side of the agreement will not be necessary to obtain a fair and equitable rental agreement. If the land and buildings are worth substantially less than \$100 per acre, a landlord 1/4, tenant 3/4 division of crop returns may afford a better alternative than the 1/3, 2/3 division.

Still other income divisions, such as a landlord 2/5, tenant 3/5 sharing of crop returns, may be utilized if the landlord owns a portion of the machinery and equipment, or if he furnishes a portion of operating expenses. No two rental units are identical and, consequently, adjustments in the customary rental agreement are often necessary. In most cases, the tenant is justified in obtaining rent-free pasture for a few head of cattle if, in turn, he applies the manure on share-rented tobacco or cornland.

It is not expected that any division of income returns, decided upon prior to the actual incurring of production costs, will be entirely equitable. This is especially true during periods of changing prices and production techniques; however, budgeting anticipated costs will aid in the determination of a fairly equitable rental agreement.

An illustration of the budgeting procedure that can be used as a basis for determining the division of costs and returns for crop-share rental units is included in Table 7. This budget represents a farm unit for which the landlord's investment in land and buildings is \$11,000, and the tenant's investment consists of \$2,000 worth of machinery and equipment and \$150 in work animals

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a/ This is based on variable costs of producing corn, excluding fertilizer, ranging from \$18 to \$22 per acre and similar costs of wheat production, ranging from \$12 to \$16 per acre.

Table 7.  
Budget of Costs For A Landlord 1/3, Tenant 2/3  
Crop-Share Rental Agreement

Item	Tenant	Farm Input Costs	
		Landlord	Total
Interest on real estate (\$11,000) @ 5 percent - - - - -	\$-----	\$ 550.00	\$ 550.00
Taxes on real estate - - - - -	-----	110.00	110.00
Depreciation on buildings and fences - - -	-----	90.00	90.00
Insurance - - - - -	10.00	30.00	40.00
Building and fence maintenance - - - - -	-----	75.00	75.00
Interest on investment in machinery and work stock (\$2,150) @ 5 percent - - - - -	107.50	-----	107.50
Depreciation on machinery and equipment -	200.00	-----	200.00
Tenant's labor - - - - -	1,200.00	-----	1,200.00
Hired Labor - - - - -	80.00	-----	80.00
Custom work hired: cornpicking, combining and baling - - - - -	60.00	30.00	90.00
Trucking * - - - - -	24.00	-----	24.00
Fertilizer purchased - - - - -	120.00	60.00	180.00
Limestone purchased - - - - -	-----	40.00	40.00
Seed purchased - - - - -	110.00	55.00	165.00
Operating expenses: gas, oil, supplies, repairs, etc. - - - - -	210.00	-----	210.00
Total costs - - - - -	\$2,121.50	\$1,040.00	\$3,161.50
Percent of total costs - - - - -	67.1	32.9	100.0

#### Farm Improvements

A discussion of the unused improvement values likely to exist at the termination of the lease and suggested rates for their depreciation were included in the previous section dealing with livestock-share rental agreements. These suggestions are equally applicable to crop-share rentals. Especially important is a provision for compensation to the tenant for residual fertilizer values. Failure to provide this compensation is likely to result in an unsatisfactory lease, as well as retarding the use of fertilizer in the most profitable amounts.

The landlord has a substantial investment in land, and in order to maintain the producing capacity of this investment, it is usually profitable for him to contribute the cost of grass and legume seed, particularly if the tenant has only a short-term rental agreement. In return for the landlord's furnishing the seed, the tenant should be willing to sow a large enough acreage in grasses and legumes to maintain the soil fertility. If the tenant is allowed to keep a limited number of livestock, he is more likely to consent to having a portion of the farm in forage and pasture, and may provide the landlord with a market for his share of the hay crop. Also, investments made by the landlord in providing adequate buildings and maintenance of these buildings are likely to be repaid by better farming practices on the part of the tenant.

\* The landlord may pay a part of trucking costs if crops, such as popcorn, are transported to distant markets.

Prior to entering into a crop-share rental agreement, the tenant and landlord should discuss the soil conservation and fertility improvement practices that are needed, and decide upon those which they plan to carry out. If a long-term plan of farm development is discussed prior to the commencement of the lease, the division of costs and returns can be adjusted to make such a plan of farm development profitable to both parties.

#### Length of Tenure

A corn rotation which includes one year of small grain, one year of row crops, and two or more years of forage should, in most cases, maintain the productivity of the land. This rotation may include two years of row crops on some of the more durable soils. A rental agreement of a duration equal to the period of the crop rotation should allow the tenant to make expenditures for fertilization and establishment of forage stands in anticipation of increased crop returns over a 3- or 4-year period. If the tenant is to enter a rental agreement for a relatively long-term period, the operating unit should be large enough to allow an annual acreage of cash crops, which will yield income returns substantially greater than average 1949 income of \$2,270. An operating unit of adequate size and a long-term rental period go hand in hand in providing for a successful crop-share rental agreement.

Provisions for termination of the lease may be included in the rental agreement with notice of termination given by either party, preferably 6 or 8 months in advance of actual termination. Other suggested provisions of the lease are the same as those for livestock-share leases listed on page 8. a/

#### Field Renting

Field renting, in recent years, has become an increasingly important type of land renting in the Tennessee Valley counties. Most of the land rented on a field rental basis is operated by part-owners who rent some land in addition to the acreage they own in order to more fully utilize their labor and machinery and/or to provide adequate feed supplies for their livestock enterprises. Since the income received from field renting operations is not usually the sole source of income for the tenant, the acreage rented does not need to be a full-sized operating unit in order to provide profitable returns to the operator.

The two primary problems encountered by tenants and landlords in field renting seem to be (1) obtaining an equitable division of costs and returns, and (2) utilizing the available resources to maximize production on the rented acreage. Most of the land rented is used for the production of small grain, tobacco, and row crops; however, pasture and hay land are also rented on a field-rental basis. Some landlords have experienced difficulty in securing tenants for their tobacco acreage and have been willing to rent out corn land or other cropland only if the tenant will also tend their tobacco acreage.

Since field renting does not include tenant occupancy of landlord owned buildings, and does not involve joint ownership of machinery or livestock, a detailed rental agreement is not necessary. Provisions should be made, however, to promote good farming practices on the rented acreage.

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a/ U. S. D. A. Form Agri. 1, suggested for livestock-share leases, is equally applicable to crop-share leases. Irrelevant portions of the lease may be omitted or crossed out.

### Division of Costs and Returns

The most common rental agreement for field renting is a landlord  $1/3$ , tenant  $2/3$  division of crop returns. With this division of crop returns the landlord and tenant share the costs of fertilizer in the same proportion as they share crop returns. If custom work is hired for hay baling or combining, the landlord usually pays one-third of such costs. The cost of cornpicking may be shared, but oftentimes this cost is borne entirely by the tenant. Seed costs are usually shared on a  $1/3$ ,  $2/3$ -basis, but in some cases the tenant pays all of the seed costs. If grasses or legumes are sown with the small grain in the fall or the following spring, the landlord usually furnishes the full cost of the seed. If, however, the tenant is to share in the following hay crop, the cost of grass and legume seed may be shared.

In some of the more fertile bottomland areas, corn and popcorn land is rented on a 50-50 share basis. In these cases, the landlord usually furnishes all of the seed and fertilizer and half of the cost of custom work hired. In a few instances of the 50-50 share on the better bottomlands, fertilizer costs are also equally divided. Another variation from the usual  $1/3$ ,  $2/3$  rental occurs for part of the land rented for the production of small grain. In these cases, a landlord- $1/4$ , tenant- $3/4$  division of crop returns is utilized, with the landlord contributing only the land and, in a few instances,  $1/4$  of the fertilizer.

A common rental agreement for renting tobacco land is for the landlord to furnish  $1/3$  of the fertilizer, all of the barn space and other housing facilities, and to receive  $1/3$  of the crop returns. Some landlords receive only  $1/4$  of the returns from tobacco sales, in which case the tenant usually furnishes all of the fertilizer although the landlord may pay  $1/4$  of the fertilizer costs.

### Budgeting Costs:

Most field renting occurs on a rather small scale, acreagewise, and machinery and equipment is usually used on additional acreage; therefore, interest on the machinery investment, as well as depreciation and repairs, cannot, in most cases, be charged entirely to the field-renting operation. The practical upper limit to machinery costs, that of hiring custom work, cannot logically be charged as such a value includes a profit to the owner of the machinery. A suggested method for determining machinery costs is to adjust the custom rate downward to remove profits for machinery use. A rate <sup>a/</sup> which may be used for charging machinery costs is \$1.00 per acre less for combining than is commonly paid custom operators with similar deductions for other machines. Tractor use and minor machinery items can be given an hourly charge, which is usually more accurate than alternative methods of determining machinery costs, some of which have no established custom rate. When there is an established custom rate for minor machinery costs, 75 per cent of the custom rate may be charged for these items in the budget.

As has been previously suggested for other types of renting, adjustments needed to improve the fairness of the rental agreement may be made in the contributions furnished by either party. It is suggested that fertilizer costs be shared in the same proportion as crop returns, but adjustments may be made in the sharing of seed costs or custom work hired.

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<sup>a/</sup> This rate was suggested for use in Michigan and seems equally applicable in the Tennessee Valley counties. E. B. Hill, Farm and Field Rental Agreements, Extension Folder No. F-156, Mich. State Col. Ext. Serv. April, 1951.

The tenant's and landlord's contributions may be budgeted on a per-acre basis, or in total for the whole rental unit. If the rental acreage is used exclusively for one crop, budgeting costs on a per-acre basis is usually the simplest method. The following per-acre budget of costs illustrates the budgeting procedure which can be used as an aid in determining the rental payment for field renting. Although the illustration presented here refers to land rented for producing corn, the same procedure may be used for small grain, tobacco, hay, etc. The value of the land was assumed to be \$135 per acre.

Table 8.  
Budget For Costs of Producing Corn Per Acre

Cost Items	Cost Per Acre		
	Tenant	Landlord	Total
Interest on real estate (\$135) @ 5 percent - - -	\$-----	\$ 6.75	\$ 6.75
Real estate taxes - - - - -	-----	1.25	1.25
Seed corn - - - - -	1.00	.50	1.50
Fertilizer (400 lbs) - - - - -	8.00	4.00	12.00
Labor: 6 hrs. @ 60¢ per hour - - - - -	3.60	-----	3.60
Tractor and equipment:			
6 hrs. @ \$2.00 per hour - - - - -	12.00	-----	12.00
Corn picking costs, custom * - - - - -	4.00	2.00	6.00
Total costs - - - - -	\$28.60	\$14.50	\$43.10
Percent of total costs - - - - -	66.4	33.6	100.00

#### Providing For Land Improvement Practices

Most of the rental agreements for field renting are for a period of only one year. The prevalence of short-term rentals results in difficulties in the attainment of land improvement and conservation practices such as providing cover crops, necessary fertilizer applications, and proper crop rotations.

Tenants were generally unwilling to sow cover crops on land which they rented for a period of only one year. Some landlords have been able to get cover crops sown by hiring this work done on a custom basis. This was done in most cases by the tenant who rented the land the current year, or by the tenant for the following year. Custom rates charged were not excessive and this expenditure by the landlord seemed a profitable one. In cases where the landlord is willing to rent out his land for a period of three or four years, he may be able to get the tenant to do the work of seeding cover crops as a portion of the tenant's contributions if the tenant is convinced that he will likely be repaid in increased returns. When the tenant sows cover crops, the seed is usually furnished by the landlord.

Some tenants are willing to provide heavy fertilizer applications only if they can rent the land another year and receive a portion of this residual fertilizer value in increased hay or other crop yields the following year. An alternative means of providing compensation to the tenant for residual fertilizer values is by a cash payment at the termination of the lease. In this case, Table 4, may aid in determination of the rate of compensation to the tenant.

\* Corn picking costs are sometimes paid entirely by the tenant.

One tenant interviewed had rented certain land tracts of low fertility for a 5-year period. At the commencement of the rental period the tenant limed and heavily fertilized the land. Over the 5-year period, a crop rotation, including 2 years of forage, 2 years of row crops, and a single year of small grain, was utilized. The landlord furnished only the land and real estate expenses, and received 1/4 of the crop returns. Landlords renting out land on a year-to-year basis may have to furnish most of the grass and legume seed necessary to successfully establish a desirable crop rotation on their land.

#### Renting Land for Pasture:

Some tenants have rented land to be used as pasture for a period of two years. In these cases the tenant provided all of the costs for fertilizer and seed and had the use of the pasture rent-free for the two year period. The only return occurring to the landlord was the increase in soil fertility. In one case where the acreage was not fenced, the landlord furnished the fence posts and the tenant furnished the wire and labor for fencing. At the completion of the rental period, the tenant had the option of removing and retaining the wire.

If the land requires extensive clearing or renovation prior to the establishment of improved pasture, other rental arrangements may be worked out. A study of pasture renovation costs and changes in land values after renovation, was made in southern Indiana for the period of 1949 and 1950.<sup>a/</sup> This study indicates that the landlord is usually fully compensated for cash expenditures necessary for renovating land by the resulting increase in the value of the land. If the tenant aids in renovation by furnishing the labor or a portion of cash expenses, he may be afforded rent free use of the pasture on the following per acre basis:

<u>Tenant's Contribution in Renovation</u>	<u>Period of Rent-free Pasture Use <sup>b/</sup></u>
\$10 or less	1 year
\$10 to \$20	2 years
\$20 to \$30	3 years
\$30 to \$40	4 years

It is unlikely that the tenant will undertake the project of renovating land for pasture unless he is able to pasture the land for a period of at least two years.

#### Provisions of the Rental Contract:

Misunderstandings and violations of the rental agreement are minimized by a written rental contract. Provisions which are desirable in a rental contract for field renting are:

- (1) Date for commencement of the rental agreement
- (2) Legal description of the land
- (3) Approximate acreage to be used for various crops
- (4) The production practices to be employed (included should be at least minimum and maximum rates of fertilization)

<sup>a/</sup> W. D. Stalder, L. S. Robertson, and G. L. Richardson, Pasture Improvement Cost in Southern Indiana. Purdue Univ. Agri. Exp. Sta. July, 1952

<sup>b/</sup> These values are based on an estimated carrying capacity of 1 1/2 acres of improved pasture per animal unit for a period of 7 months and discounted for acceptance of production risks by the tenant. If the carrying capacity of the land is less than this, the period of rent-free pasture use would be proportionately longer.

- (5) Contributions of each party
- (6) Division of income returns or amount of cash rent
- (7) Stipulations as to the date and delivery of the rental payment
- (8) Compensation for unused improvement values (included should be rate and method of compensation)
- (9) Period covered by the rental contract
- (10) Termination of the rental agreement
- (11) Signature of both parties

Any other rental provisions mutually desired by the tenant and landlord should also be included in the rental agreement.

#### Opportunities for Land Renting and Land ownership

In 1949, part-owners in Economic Area I rented 107,404 acres of land, practically all of which was field rented. Some full tenants also field-rented land in addition to that which they operated on a livestock-share or crop-share rental basis. A large portion of the field-rented land was owned by persons engaged in off-the-farm employment on a temporary basis. As these land-owners gain security in their off-the-farm employment or lose this employment, they may dispose of their land or go back to full-time farming. In either event, the field-rented acreage would decrease. On the other hand, some landowners who become more secure in their off-the-farm employment may be willing to rent out their land on a long-term field-rental basis.

Farm operators in Economic Area I are older, on the average, than is true for the state as a whole. A substantial deficit of about 50 percent exists in the number of farm operators under 25 years of age in this area, as compared to the state average. This percentage deficit is compensated for in an increased percentage of operators over 45 years of age. Thus, a large number of farm operators are approaching the age of retirement. As these older operators relinquish active operation of the farm, an opportunity may well exist for an expansion in acreage for other farm operators on either a rental or ownership basis.