

UNIVERSITY OF MISSOURI      COLLEGE OF AGRICULTURE  
AGRICULTURAL EXPERIMENT STATION  
BULLETIN 315

# The Farm Tenant and His Renting Problem

O. R. JOHNSON

COLUMBIA, MISSOURI

JULY, 1932

### ACKNOWLEDGMENT

The following report is in part an extract from Missouri Station Bulletin 167 (now out of print) and in part a presentation of more recently developed facts, figures, and principles that will serve as useful guides in leasing of land. Much of these data are a result of cost accounts accumulated over many years and by various members of the staff of the Department of Agricultural Economics. Professor B. H. Frame has had active supervision of these records during the past decade. The survey data presented are a joint project of the departments of Agricultural Economics and Agricultural Engineering. The Atchison study under the field direction of Mr. E. E. McLean is a joint project of the United States Bureau of Agricultural Economics, the Missouri Agricultural Extension Service, and the Department of Agricultural Economics of the Missouri College of Agriculture. Finally, many farmers and real estate firms cooperated in furnishing the original rent data from which the tables and charts are developed.

# The Farm Tenant and His Renting Problem

O. R. JOHNSON

Several years ago the Department of Agricultural Economics made a rather detailed study of the tenant as a farmer and of some of his problems in connection with renting land. This material has seemed to be helpful to both landlords and tenants in connection with their renting problem. Because of the close relationship between the problem of renting and the business cycle we have considered it worth while to extract some of the more important tables from this earlier study, make certain additions of new material, and present these together with some revised suggestions in connection with the drawing of leases. The demand for this information seems to be constant and increasing in volume. Therefore, the following report is submitted.

There seems to be no abatement in the demand by certain farmers that someone furnish them the land on which to conduct their farming operations. Thus we have a class of farmers commonly spoken of as tenants. Renting land is a normal step by which many of our young farmers become farm operators and eventually land owners. Normally it is not difficult for a young man to save sufficient capital to equip himself for farming. It is not so simple for him to acquire the farm. Consequently, he must depend on someone's furnishing him the farm for a certain consideration, just as any one engaged in business may expect to secure the loan of capital or the rent of a building in which to conduct business. Under ordinary circumstances this is a normal and most desirable procedure for both the beginning farmer and the landowner who happens to wish either to devote his own time to some other activity or to retire from the active operation of his land. This also happens to be a mechanism whereby a landowner may assign to one of his children the privilege and task of operating the land in which that heir may own only a small interest. Thus, the interest of the other heirs may be fully safeguarded. Under ordinary circumstances it may be expected that an heir placed in charge of the farm may eventually be able to purchase the interest of other heirs and thus retain the original farm unit as a going concern. Ordinarily conditions do not change sufficiently in one generation to justify the subdivision of a farm unit that has been found by long experience to be the most efficient working unit. Many instances can be cited where such subdivision has only led to a more or less permanent sentence to a relatively mediocre subsistence level or to eventual disappointment and consequent desertion of farming as a mode of living.

There is another side to the tenant problem which has always been with us in a very minor form but which has recently assumed a major significance. That is the renting problem in connection with repossessed farms. Generally, an investor lending money on farm land does not lend with the idea of becoming the owner and supervisor of such property. This market for his loan fund he has considered as offering the best possibilities for utilizing that loan fund. If economic conditions arise which make it necessary for him to possess the land held as security for the loan in order to protect that loan, he then becomes the unwilling proprietor of a farm. As proprietor he must see that the land is operated in order that his investment may not be entirely dissipated. Consequently, his usual course is to rent the land until such time as he can find a satisfactory market for the property. At the present time there is a very large increase in the number of farms found in this situation. Lending agencies have varied experiences in the selling of such repossessed lands and there are times when such lands may be operated by the lending agency for longer or shorter periods, while the market for such land is in process of stabilizing. Thus, today this phase of the renting problem is an abnormally important part of the renting problem.

### PREVALENCE OF TENANT FARMING

The prevalence of tenant operators on Missouri farm lands as indicated in the 1930 Census is shown in Figure 1. This shows the relative density of land in farms being operated by tenants. The part of the State having fewest tenants is represented by Cole, Osage, Iron, St. Genevieve, Jefferson, Gasconade, and Franklin Counties. The percentage tenants in these counties varies from 16 to 22. Fifty-two of the counties of the State have from one-fourth to one-third of the farms operated by tenants. A considerable number of the most fertile counties have from one-third to one-half of the farms operated by tenants. Then there are six of the cotton counties which have 60 per cent or more of the farms operated by tenants. New Madrid County has 91 farms out of every 100 listed as a tenant farm. It is a common experience that as cash crops become an important part of the farming system, we find tenancy very greatly increasing; and wherever livestock and pasture are the basis of the farm business, tenants have a very small part in the agricultural system. Thus we find the heavy tenant counties those emphasizing cotton, corn and wheat, and the counties with fewest tenants those which are primarily grazing and livestock counties. For the State as a whole in 1930, out of 255,940 farmers 89,076 were tenants. An additional 37,329 rented some land in addition to what they owned. Only 1546 farms in the State were operated by hired managers. As a further item of interest,

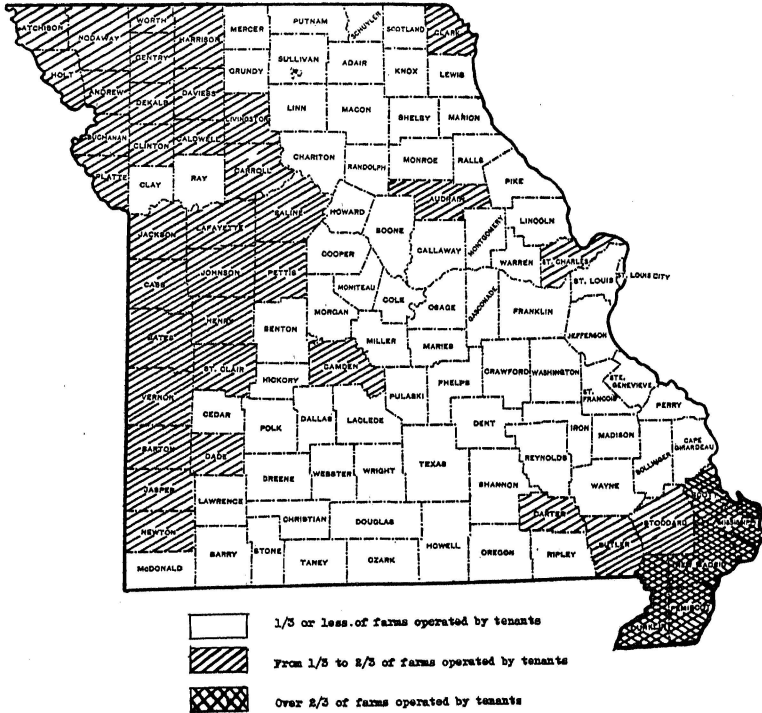


Fig. 1.—Prevalence of Tenant Farming in Missouri. Taken from U. S. Census, 1930.

only 18,962 tenant farmers were so-called cash tenants. The remaining tenants paid only a part of the rent charge in cash. The remainder of the rent charge involved a share by the owner in the crop and in many cases in the livestock enterprise.

When we come to a consideration of the growth and decline in percentage of tenancy, the Census gives the following information. In 1920 the percentage of the farms operated by tenants was 28.8, while in 1930 it had increased to 34.8. There was considerable range in the amount of change in different parts of the State, some counties actually showing a decrease. The largest decreases were noted in St. Louis and Jefferson counties. St. Louis county had a tenancy index of 74 compared to 100 in 1920, Figure 2. In other words, their tenants had decreased about one-fourth. Jefferson county had an index of 83. Tenancy decreased in this county by 17 per cent. Buchanan county had a decrease of 12 per cent. A large number of counties remained fairly stationary. These counties would include Franklin, Cole; St. Charles, Lincoln, St. Genevieve, Iron, Jackson.

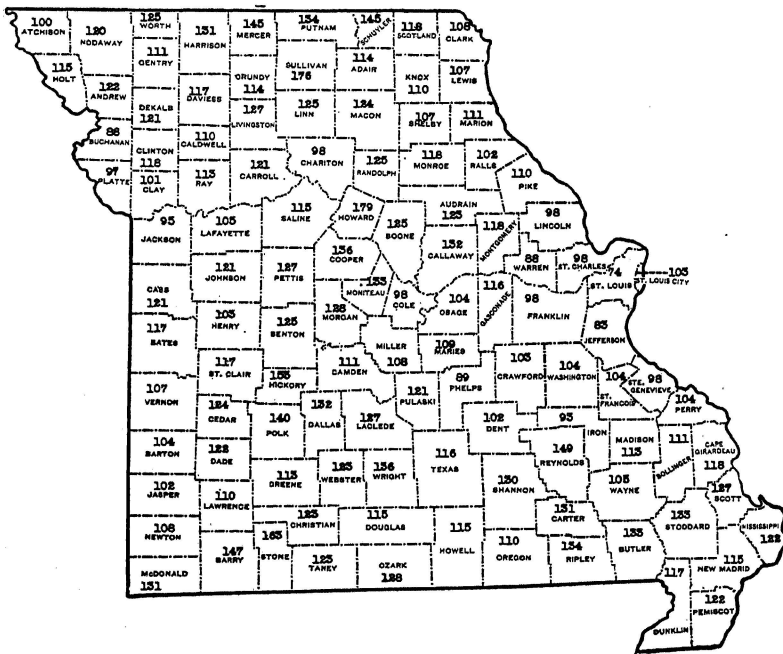


Fig. 2.—Change in Prevalence of Tenant Farming in Missouri from 1920 to 1930. Taken from U. S. Census. Indicated by Percentages, Using 1920 as 100%.

Clay, Platte, Chariton, Atchison, Henry, Jasper and Ralls. The largest percentage increase occurred in the following counties: Schuyler, Sullivan, Hickory, Barry, Stone, Reynolds, and Howard. Sullivan and Howard counties came pretty close to doubling the percentage of tenants. Stone county had an increase in percentage of tenants of 63 and Reynolds county 49. The counties with the heaviest percentage of tenants did not increase their tenancy so rapidly in that ten year period. New Madrid county with the heaviest percentage of tenancy had an increase of 15 per cent in the ten year period, Pemiscot and Mississippi increased 22 per cent, Scott 27 per cent, Stoddard 33 per cent, and Dunklin 17 per cent. In a great majority of the counties of the State the percentage change in tenancy was less than 25.

There is reported in the Census some further information on the trend from a standpoint of land operated and investment. Table 1 gives the number of acres farmed per farm operator and the number of crop acres harvested as shown by the Census for 1930, 1925, and 1920. Table 2 shows the amount of capital represented by land and buildings, and implements and machinery on owner and tenant farms for 1930.

TABLE 1.—SIZE OF FARM AND CROP ACRES BY TENURE AS TAKEN FROM THE UNITED STATES CENSUS

	Acres Farmed per Operator			Crops Harvested per Farm	
	1930	1925	1920	1930	1925
Owners.....	124	125	129	43	46
Part Owners.....	171	154	155	73	74
Managers.....	332	330	295	102	107
Total Tenants.....	124	112	125	54	55
Cash Tenants.....	103	101	111	39	45
Other Tenants.....	129	115	128	57	57

TABLE 2.—CAPITAL INVESTMENT IN LAND AND IMPROVEMENTS AND IN MACHINERY BY TENURE AS GIVEN IN THE UNITED STATES CENSUS FOR 1930

	Value of Land and Buildings Per Farm	Value of Implements and Machinery Per Farm
Owners.....	6,600	360
Part Owners.....	8,720	510
Managers.....	26,480	924
Total Tenants.....	6,570	315
Cash Tenants.....	6,620	326
Other Tenants.....	6,575	312

The farm tenant is farming about the same amount of land in one unit as is the straight farm owner. He is growing more acres of crops on this land. The value of land and buildings operated by the tenant is practically the same as for the owner. The only material difference seems to be in the tendency of the tenant to grow more crops and to be a little less well equipped with implements and machinery. This inclination is not marked, but is probably significant. Then so far as Census information will indicate the chief distinction between owner and tenant when we take Missouri as a unit lies in the tenant's not owning the land he operates.

Table 3 is taken directly from Missouri Agricultural Experiment Station Bulletin 167, and gives a comparison of tenants and owners made in that study.

TABLE 3.—TENANTS AS FARMERS AND CITIZENS

	272 Owners \$12,555.00	179 Tenants \$1,547.00
Capital.....		
Acres farmed.....	135.9	133.5
Farm income.....	\$942.00	\$578.00
Corn, yield per acre, bu.....	38.3	32.9
Total animal units*.....	20.5	15.0
Receipts from crops, per cent.....	26.2	51.2
Crops sold, returned in feed bought, %.....	49.0	18.7
Children completing district school, %.....	32.7	12.7
Church contributions, per farm.....	\$11.62	\$4.47

\*An animal unit is one work horse or its equivalent in other live stock, based on the amount of feed consumed in one year.

Tables 4, 5, and 6 compare owners' and tenants' investment and earnings as shown by three recent studies. The complete report on these studies has not yet been issued. Table 4 gives information for a study made in Nodaway county for the farm year 1928. Table 5 shows a similar study for Linn county for 1929, and Table 6 an Atchison county study covering the 1931 farm year. Nodaway and Atchison counties are very comparable except that 1928 was a very prosperous farm year and 1931 was decidedly the reverse. Linn county is not quite comparable to the other two regions. It is more nearly a

TABLE 4.—INVESTMENT AND EARNINGS OF SOME NODAWAY COUNTY OWNERS AND TENANTS IN 1928

Factor	Owners	Tenants
Number of Farms.....	35	13
Acres Operated.....	193	168
Capital:		
Real Estate.....	\$25,632	-----
Livestock.....	\$3,666	\$1,681
Equipment.....	\$761	\$599
Feed and Supplies.....	\$1,318	\$440
Total Capital.....	\$31,377	\$2,719
Crop Receipts.....	\$312	\$458
Livestock Receipts.....	\$5,436	\$2,561
Miscellaneous Receipts.....	\$141	\$93
Increased Inventory.....	\$1,115	\$856
Total Receipts.....	\$7,004	\$3,968
Cash Expenses.....	\$4,088	\$2,362
Decreased Inventory.....	\$98	\$64
Total Expenses.....	\$4,186	\$2,426
Farm Income.....	\$2,818	\$1,542
Net Interest on Investment.....	\$941	\$104
Labor Income.....	\$1,876	\$1,439
Value of Unpaid Family Labor.....	\$99	\$279
Value of Farm Contributions Toward Living.....	\$677	\$687
Total Family Income for Labor and Management.....	\$2,652	\$2,405

livestock and grazing area than are the preceding two. Nodaway and Atchison county farms are corn and livestock feeding sections. Most of the livestock income in these two counties will be from hogs and fat cattle, while in Linn county most of the income will be from dairy and poultry products. Each of these studies while made primarily for another purpose, does give some useful comparisons between owner and tenant farms. In Nodaway county the tenant had less than half the owner's investment in livestock. His total capital was \$2,719. The owner's investment was \$31,377 of which \$25,632 were in real estate. The tenant received a little more income from crops, about half as much from livestock, and only a little more than one-half



TABLE 5.—INVESTMENT AND EARNINGS OF SOME LINN COUNTY OWNERS AND TENANTS IN 1929

Factor	Owners	Tenants
Number of Farms.....	51	19
Acres Operated.....	206	265
Capital:		
Real Estate.....	\$13,834	-----
Livestock.....	2,450	\$2,422
Equipment.....	581	524
Feeds and Supplies.....	368	266
Total Capital.....	\$17,233	\$3,213
Crop Receipts.....	\$152	\$115
Livestock Receipts.....	\$2,854	\$2,297
Miscellaneous Receipts.....	\$36	\$12
Increased Inventory.....	\$253	\$161
Total Receipts.....	\$3,295	\$2,584
Cash Expenses.....	\$1,883	\$1,793
Decreased Inventory.....	\$238	\$226
Total Expenses.....	\$2,121	\$2,019
Farm Income.....	\$1,174	\$565
Net Interest on Investment.....	\$519	\$139
Labor Income.....	\$655	\$426
Value of Unpaid Family Labor.....	65	\$116
Value of Farm Contributions Toward Living.....	\$458	\$400
Total Family Income for Labor and Management.....	\$1,178	\$942

TABLE 6.—INVESTMENT AND EARNINGS OF SOME ATCHISON COUNTY OWNERS AND TENANTS IN 1931

Factor	Owners	Tenants
Number of Farms.....	53	39
Acres Operated.....	240	226
Capital:		
Real Estate.....	\$27,389	-----
Livestock.....	3,015	\$1,535
Equipment.....	1,410	1,090
Feeds and Supplies.....	1,659	817
Total Capital.....	\$33,473	\$3,442
Crop Receipts.....	\$364	\$275
Livestock Receipts.....	\$3,710	\$1,453
Miscellaneous Receipts.....	60	75
Increased Inventory.....	19	101
Total Receipts.....	\$4,154	\$1,905
Cash Expenses.....	\$2,876	\$1,428
Decreased Inventory.....	\$2,659	\$883
Total Expenses.....	\$5,534	\$2,311
Farm Income.....	-\$1,381	-\$406
Net Interest on Investment.....	\$1,144	\$116
Labor Income.....	-\$2,525	-\$522
Value of Unpaid Family Labor.....	\$78	\$56
Farm Contributions Toward Living*.....	\$311	\$290
Total Family Income for Labor and Management.....	-\$2,136	-\$176

\*The Atchison figures give the farm no credit for house rent; this item is included in the other two studies.

as much total receipts. The tenant's expenses were only three-fifths that of the owner. His farm income was \$1,542 or a little more than half the owner's. However, when we allow for interest on his investment, his income for labor and management not including the value of products used in home was \$1,439 compared to the owner's \$1,876. The farm contributed \$677 toward the owner's living, while it contributed \$687 toward the tenant's living. Thus the tenant without investment in the land was enabled to earn a wage that compares fairly well with that of the landowner. In Linn county the following year and for a different set of circumstances the tenant's showing compared with the owner's was substantially the same as in Nodaway. Earnings were less, it is true, but the business year was less favorable and the farming systems less highly commercialized. The family income for labor and management was almost exactly half that for the Nodaway area the year before. One outstanding item in the Linn county section is that both livestock and equipment were as plentiful on tenant farms as on owner farms. Also the tenant farms sold as large a percentage of livestock as did the owner farms. In fact the only material difference between tenant and owner farming systems in Linn county was the question of real estate investment, and after all, this does not affect the farming system where good leasing principles can be practiced.

In Atchison county in 1931 we find the following situation. First, the tenant had only about half as much livestock as did the owner. He had 70 per cent as much equipment and half as much in feeds and supplies. His total capital investment was one-tenth that of the farm owner. He sold a little less crops, less than half as much livestock, and had total receipts of practically one-half that of the owner. His cash operating expenses were practically half those of the owner. The most important item for the farm year 1931 was decrease in inventory. This struck the farm owner with particular severity. His losses from inventory decreases were three times those of the tenant because of his greater livestock and supplies investment. When this decrease in inventory was allowed for, it gave both owner and tenant a minus farm income. The owner's loss was more than three times as much as the tenant's, and when we allow interest on investment in both instances, the owner's labor income or his earnings for labor and management were—\$2,525, while the tenant's wages were—\$522. Thus the owner's failure to make wages was five times as large as the tenant's. This always occurs when prices are falling rapidly. The more business one does the more unfortunate he is, and this particularly applies to farming, where business turnover is slow and readjustments difficult to make.

It should be noted in these tables that there is not a great difference in the size of farm operated by tenant and owner in the Nodaway

and Atchison section. In Linn county the tenant actually operates considerably more land than does the owner. It seems that when given opportunity a tenant can follow the same farming system practiced by the owner. This involves us in a consideration of the rent problem.

METHODS OF RENTING LAND

There are four common methods of renting land in practice in this State. If given in order of their numerical importance, cash and crop-share renting would come first. The one second in importance would be straight crop-sharing renting. The third would be cash renting, and the fourth, crop and livestock share renting. There are certain circumstances under which some one of these systems will generally fit better than any of the others, and there are specific reasons why certain land owners prefer a particular system.

There is a problem involved in the relationship between quality of land and method of renting which is worthy of considerable attention. In Missouri, cash rent is ordinarily confined to lands involved in the less productive farm enterprises, while share rent is the custom with the more productive lands. An approximate picture of this problem is given in Table 7. The reason for the custom seems to lie in

TABLE 7.—RENT PAID FOR LANDS CLASSIFIED BY VALUE AND WITH DIFFERENT RENT SYSTEMS, IN DOLLARS PER ACRE AND PER CENT OF MARKET VALUE

Land Value	Rate per Acre Share Renting		Rate per Acre Share-Cash		Rate per Acre Cash		Average Rate per Acre	
	\$	%	\$	%	\$	%	\$	%
Under \$40 ---	4.67	17.0	3.37	10.7	1.35	5.1	3.33	11.6
\$40 to \$59 ---	5.38	10.7	3.97	8.2	1.94	4.0	3.67	7.5
\$60 to \$79 ---	6.03	9.0	4.48	6.6	3.97	5.6	4.79	7.0*
\$80 to \$99 ---	5.16	6.1	4.69	5.3	3.33	3.8	4.31	4.9
\$100 to \$119 ---	7.12	6.7	6.70	6.4	4.53	4.4	5.51	5.2
\$120 to \$139 ---	9.27	7.3	6.00	4.8	4.32	3.6	5.91	4.8
\$140 to \$159 ---	11.26	7.7	8.35	5.6	4.56	3.0	7.87	5.3
\$160 to \$179 ---	9.81	5.9	8.09	4.7	4.63	2.7	7.75	4.6
\$180 to \$199 ---	---	---	9.62	5.3	---	---	9.62	5.3
\$200 and over ---	9.45	4.7	9.87	4.8	4.13	2.0	7.91	3.9
Average -----	\$6.39	8.1%	\$4.90	6.5%	\$3.50	4.2%	\$4.83	6.2%

the range which actually exists in land productivity as compared with the customary range which exists in rent rates. For instance, an owner charging one-half the crop on 50-bushel corn land receives 25 bushels for rent. If he has 25-bushel corn land, he is likely to receive as rent one-third the corn crop, or 8 bushels rent. The quality of his land has decreased two-thirds. If such lands were rented for cash it is extremely unlikely that the 50-bushel land would rent for three times as much cash rent as would the 25-bushel land. Thus the owner renting on a share basis is either charging too much for the poorer land or not enough for the good land, or we might also say the tenant

is paying too much for the poor land or not enough for the good land. However, as the actual size of the payment increases, the risk item seems to increase more rapidly. Thus custom has established its own regulation, so that where cash rents are involved, a considerable allowance is made for the risk item on the better lands. This allowance has generally been so large that a tenant can seldom rent the best lands on a cash basis, the owner preferring to carry his share of the risk and accept his share of reward or penalty, as the case may be.

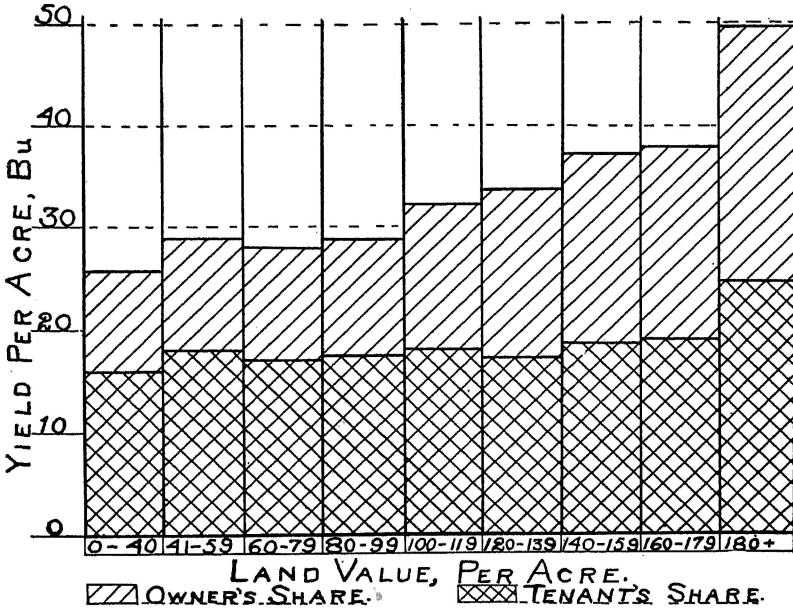


Fig. 3.—The division of the Average Corn Crop on All Share Rented Farms, Between Owner and Tenant, Grouping the Farms by Land Value.

Another important principle involved is shown in Table 8 and Figure 3. These data are taken from actual records of rents, and so well illustrate the principle that they are here repeated. The only assumption made in this table is that money value of land and yielding ability go hand in hand. This is probably a safe assumption when a considerable number of farms are involved, as was the case in this study. It should be noted that the tenant's share of the crop aside from the two extreme cases is a relatively constant quantity. The variation is no doubt due to the sample. The tendency is clear. The tenant's increase should be only sufficient to cover the added cost of handling the larger crop. Most of his costs will be fairly constant. His harvesting, storage, and marketing costs will involve the only

TABLE 8.—RELATION BETWEEN LAND VALUES, YIELDS, AND RENT PAID IN BUSHEL FOR ALL SHARE RENTED CORN LAND

Land Value	Yield per acre	Average bushels given for rent	Tenant's return in bushels
Under \$40-----	25.8	10.0	15.8
\$40 to \$59-----	28.9	10.9	18.0
\$60 to \$79-----	28.0	11.1	16.9
\$80 to \$99-----	28.7	11.3	17.4
\$100 to \$119-----	32.3	14.2	18.1
\$120 to \$139-----	33.5	16.4	17.1
\$140 to \$159-----	37.1	18.4	18.7
\$160 to \$179-----	37.7	18.8	18.9
\$180 and over-----	49.5	24.7	24.8

increases. On the other hand, the owner's cost is a constantly increasing one, consequently his share of the crop should conform to this increasing cost.

Table 9 shows the correlation between customary rent and yielding ability of lands involved. This should be considered in connection with Table 8, which is the actual tabulation of rent paid. There were not enough instances of corn land renting at less than two-fifths to enable Table 8 to show this effect.

TABLE 9.—YIELDS OF CORN LAND RENTING AT DIFFERENT RATES

Rate	Per cent valued at less than \$80	Average yield per acre
One-third-----	90.4	27.8 bu.
Two-fifths-----	73.3	30.9 bu.
One-half-----	36.0	35.1 bu.

**Crop-Share Renting.**—When land is practically all tillable and very fertile, we will usually find owners and tenants preferring a straight crop-share rent. Pasture land under these circumstances not being significant, that item can at once be dismissed and our thought can be turned to the renting of crop land. Good crop land is very popular among tenants who do not have much capital. Such tenants are usually looking for farm enterprises that pay high wages for the time involved and enterprises that are not particularly confining for the entire year. Tenants who will pay highest for such land usually have little property which would give an owner reason for thinking that such a tenant could be depended on to pay cash rent. Under such conditions the owner wishes to retain considerable supervisory authority. He also recognizes that he is carrying considerable risk, because the tenant is not possessed of property which would be adequate security for rent. Consequently, he charges crop-share rent. Thus, he carries considerable risk and reserves considerable supervision.

Rents under these circumstances are generally high from the tenant's standpoint, and under such circumstances it is to his interest to rent the very best land he can secure.

**Cash, Crop-Share Lease.**—The next natural step is for a tenant to accumulate a little livestock other than his work stock and his milk cows. Consequently, he soon becomes interested in renting a farm with some pasture land and facilities for taking care of his livestock. Thus more improvements are involved and the owner, in order to justify furnishing these improvements and the pasture land, must exact a cash rent for a part of his land. His crop land will still be rented for a share. Thus arises the more common cash, crop-share lease. Owners under these circumstances must have tenants that are more nearly accountable because some cash rent is involved. With the introduction of livestock into the farming system, the land will usually be better cared for; consequently the owner can afford to take some of his rent in a less severe handling of the land. Therefore, such farms usually rent for a little less total rent than in the first case mentioned. As to quality of lands involved in this case, some of the lands will be as good as the first grade lands mentioned above, but to these lands will be attached some permanent pastures not generally found in the first-class. Then in this class also comes a large acreage of lands not quite so productive as the first-grade group.

**Cash Renting.**—In the third class of renting systems, namely cash rent, we find tenants who have accumulated sufficient capital in money, livestock, and equipment that they can afford to rent a good live stock farm and relieve the owner of much of the risk involved by offering him cash rent for his land. The owner is thus enabled to quote a lower rent rate and be assured of his return and further be assured that the tenant will follow a careful farming system. Risk is an expensive thing to carry when you must pay someone to carry it for you. It is a profitable thing to carry when it is the farm operator carrying it himself. So that a good farm operator with ample livestock and equipment can well afford to rent for cash when business conditions are fairly stable. The owner of the farm involved is also advantaged by such a system where a good tenant is the second party. If business conditions are not stable, then this system of renting is very dangerous. Farming is such a long-time enterprise and so poorly adapted to prompt readjustment that cash rent arrangements may become very unfair or their conditions impossible to meet before either owner or tenant can do anything about it. Thus at the present time cash rent is very unpopular, because farm prices have been falling rapidly, land values have been lagging behind prices, and taxes and insurance rates have not been falling at all. Thus the owner's idea of a fair cash rent is much higher than the tenant can possibly meet

when rent-paying time comes, with the result that cash renting is in decided disfavor.

There is developing a method of handling this problem of changing price level and its effect on cash rents. The procedure is about as follows: The two parties agree on a rental rate per acre consistent with the present price level. They then agree to make certain adjustments in this rate if the price level changes materially between the time the contract is drawn and the time the rent is due. Small changes in price level are not considered of sufficient significance to justify a recomputation of the rent rate. One might conclude that a change either upward or downward amounting to as much as 8 or 10 per cent would justify a recalculation of the rate to be paid. The method of arriving at an adjustment is illustrated in Table 10. In the first place, the

TABLE 10.—ILLUSTRATION OF CASH RENT ADJUSTMENT MADE BECAUSE OF CHANGE IN FARM PRICE LEVEL BETWEEN TIME RENT CONTRACT IS DRAWN AND TIME RENT MUST BE PAID

Enterprise	Probable Production According to Contract Agreement Estimated Income	Farm Price for Each Product 2 or 3 Months' Average		Percentage Change + = Increase - = Decrease	Resulting Effect on Income
		At Time Contract is Drawn	At Time Rent is Due		
Hogs.....	\$1,000	\$4.00	\$3.00	-25%	\$750
Beef.....	400	5.00	4.00	-20	320
Butterfat.....	400	.24	.20	-17	332
Eggs.....	200	.15	.10	-30	133
Total	\$2,000				1535

$$\text{Per cent decrease} = \frac{465}{2,000} = 23.2\%$$

Note: So far as the farm is concerned, price changes amounting to  $\frac{465}{2,000}$  or 23.2% have made it more difficult for the tenant to pay rent. So the same disadvantage should be passed on to the landlord. Thus, if the agreed rate at the time the contract was signed was \$4.00 per acre, then this rate should be decreased by the same percentage that prices fell or 23.2%, which would make the rent rate \$3.07 per acre. If this were a 160 acre farm, the rent would be decreased by \$149; or of the \$465 decrease the tenant would pass to the owner in decreased rent \$149, leaving a balance of \$316 for the net decrease to the tenant. Conditions might arise where this method would need some modification to allow for change in cost of operation for the tenant, but such change is seldom so marked within one calendar year as to justify this operation

contract usually limits the farming activities to certain rather specific sources of income. In order to make corrections these sources of income must be known and their approximate amount of income under present price conditions estimated. Present prices are understood to be representative of a two or three months period at the time these estimates are made. The next step is to learn what prices for these same products are at the time the rent payment is due. These prices must also represent a two or three months period nearest the rent paying date. Then the percentage change in price for each enterprise is applied to the estimated size of the income from that enterprise. Thus the effect of this price change on the income from the enterprises can be computed. This percentage change can then be applied to the

original agreement so that the rent rate is corrected for the influence of change in price level on the tenant's sales. In the illustration used, there was a decrease of 23 per cent in the estimated income under the two circumstances. This means that the tenant would find it more difficult to pay the base rate. Thus while he was suffering a decrease of income of \$465, this same percentage decrease was applied to the owner by reducing the rent rate 23 per cent. This made a total reduction in rent of \$149. So the net effect is that the tenant would take \$316 of the loss and the owner \$149. In actual practice these changes are usually not applied to the nearest dollar. The change based on the figures in the illustration would more likely be a reduction in rent of 75 cents per acre. Increase would be handled in the same way.

The principle behind this suggestion is that with a changing price level and with the time element such an important factor in farm rent contracts, it is almost impossible for owner and tenant to protect themselves against changes in prices over which they individually have no control and which may easily render it impossible for the tenant to meet a pledge made several months earlier and an owner to be fairly dealt with under such changing circumstances. Experience has taught us that the business cycle is of such nature that rises and falls in the price level are often so abrupt as to make desirable some mechanism by which time contracts can be made to protect the contracting parties. Most of this protection is needed when a price level is falling, but it is occasionally quite desirable when the price level is rising.

Measuring the exact position of the price level at any particular point of time is only an approximation depending on the relative importance of the various commodities entering into the composition of that price level. Consequently, correcting for change in the price level because of movement of the business cycle is usually applied only in round numbers. For this reason it is quite probable that changes of less than 8 or 10 per cent in price level would not be adjusted for, and, as in the illustration, a decrease of 23 per cent would most likely be considered as a decrease of 20 per cent and the correction would be one of 75 cents per acre. In spite of the approximations which are applied in making corrections, the general method avoids such circumstances as confronted some farmers in 1920 when their cash rent pledge to the landowner amounted to more than the total market value of the crop produced. Such a method would most likely stabilize incomes for owners, and in the long run prove of distinct advantage.

**Crop and Livestock Share Renting.**—The fourth system of renting mentioned is properly designated as crop and livestock share renting. This system is becoming more and more popular. This can probably be best understood by a careful description of the circumstances under which such a system is usually used. The most



constructive systems of farming in the diversified sections of Missouri are usually based on the assumption that most of the crops grown on the farm should be fed to livestock and returns received through livestock and livestock product sales rather than through crop sales. A second factor involved is that tenants are usually short on capital and are therefore unable to engage in livestock farming. If they had ample capital, they would usually be in the owner or part-owner class. Therefore, owners of good farms, where pasture and feed crops properly occupy a major part of the acreage, are generally pleased to find a tenant who is a dependable hand with livestock and who is interested in securing a farm where livestock production can be made a large part of the farming activity.

In this share farming the first step will usually be for the owner to furnish the farm with its improvements and with a full equipment of livestock and machinery. He will pay all operating expenses except labor and management. His tenant will provide all necessary labor and management. This system assumes that practically all feed used is grown on the farm. If feeds are purchased, the tenant will furnish one-third of such purchased feeds. Owner and tenant then share in the earnings of the farm in the proportion two-thirds to the owner and one-third to the tenant. Under such circumstances the tenant is required to have very little capital indeed. His chief requirements are a thoroughly dependable character, some considerable training and experience in livestock handling and practical farm management, and a willingness to advise with the owner and give his very best to a system of farming where none of the capital investment is his, but where his interest is solely in one-third of the product. In judging income under these circumstances, the herds and flocks are maintained in numbers from the increase, and the tenant's share comes from what is left after the beginning stock is maintained. If stocker or feeder cattle are involved, then the increase from the time the agreement becomes effective is considered as income when the division is made between owner and tenant. This necessitates a careful inventory at the beginning of the contract between the two parties and inventory items should be in terms of number and quality so far as basic or foundation stock is concerned and in market values only where stock soon to be marketed is involved. This would involve everything but the breeding stock in the case of hogs, cattle, and sheep.

The plan which follows this one under the crop and livestock share lease is the one where the tenant owns a half interest in all productive livestock on the farm and owns entirely the work stock and machinery. This is the most common situation under the crop and livestock share lease. In this case the owner furnishes the land with its improvements, pays taxes and insurance on improvements, and

furnishes necessary materials for repairing improvements. The tenant performs the labor of repairing improvements. The tenant furnishes all labor, all work stock and machinery, and takes care of the repair of his machinery. The two parties furnish equal parts of the investment in all livestock other than work stock and in all feeds necessary to maintain and operate the farm plant. Operating expenses are shared equally except for the cost of maintaining machinery and employing labor, which is the tenant's obligation, and the expenses for repair of improvements, taxes, and insurance on improvements, which is the owner's obligation. The work stock is fed from the undivided crop. This means the owner furnishes one-half the work stock feed. If tractors or trucks are a part of the power used on the farm, the operator will pay one-half and the owner one-half the cost of fuel and oil for operating the tractor. Under this system of renting, receipts from sale of cash crops are shared jointly by owner and tenant just as the sale of a livestock product. Feeds purchased are charged equally to the two parties. Such a system of renting gives the tenant almost the same interest in the farm plant as though he were the owner, and does a great deal to settle him in the community and give him the stability of the owner of a farm. Many cases are known where such a system has been followed for years on a given farm. The system also provides the owner with a much greater feeling of stability and security. He has confidence that his farm will be better cared for both as regards maintaining improvements and maintaining soil fertility. He knows his livestock will be well cared for because his tenant has a half interest in this livestock, and it is difficult to mistreat one-half without hurting the other. Such a system of renting reduces the migratory tendencies in tenant communities to a negligible point.

There is room for some variation in this system of renting beyond that already mentioned. This principle has been developed in some tables already presented, but should here be specifically restated. This principle is perhaps best divided into two statements. (1) Share in the product of a farm business or enterprise by either party to a rent agreement should be in proportion to the contribution which each party makes toward the business or enterprise. (2) Because lands vary in productivity in any community and because the owner's contribution to the enterprise increases as the quality of his land improves and the tenant's share of the contribution decreases as the quality of land improves, it is therefore fair that adjustment be made for this fact by either decreasing the owner's share of other expenses or increasing his share of the product as the land improves in quality compared to average land of the community, and his share in the expense should be increased or his share of the product decreased, as his land falls in quality below the average of the community.

This is probably the reason why there has been considerable variation developed in crop and livestock share renting. Instances are known where the owner furnishes one-half the machinery. In other cases he furnishes one-half the work stock. In some cases he furnishes one-half the machinery and work stock. In other cases he may furnish all the machinery. They are all apparently an attempt by the community to make fair allowances for variation in productivity of the plant.

It would obviously be impossible to express for various kinds of land the rent rates which would be applicable over a long period of time, because rates change with price levels and price levels are certainly variable. Most common divisions for certain crops can be given. These will be given in brief summary form without much discussion. In the following the rent rate is understood to mean the share of the crop received by the landlord. Corn land most often rents for one-half the crop. The next most popular rate is two-fifths. Occasionally corn land is rented for three-fifths the crop. For wheat land the most common rent rate is one-third, and the tenant furnishes the seed and pays the threshing bill. The next most common rate is one-half, where the owner furnishes one-half the seed, pays one-half the threshing bill and furnishes fertilizer and any grass seed used. Wheat land is also rented for two-fifths. Most oat land is rented for one-third. The next most popular rate is one-half. Approximately 80 per cent of the oats crop will be in the first group. Practically all hay land is rented for one-half the crop. It would be clearly impossible to give a share rent rate on pasture land, as pasture is usually rented for cash. We have observed in our many investigations that the cash rent on pasture land usually amounts to between 5 and 6 per cent gross on the current market value of the land.

### PRECAUTIONS IN DRAWING LEASES

Farm leases should always be written and witnessed by two interested parties. Both tenant and landlord should be furnished with a copy. Wherever terms cannot be specifically determined beforehand, the lease should provide that written agreement on this particular point must be had before undertaking the project, whatever it may be. Where specific conditions make variations from customary considerations desirable, these variations should be specifically set forth. The two parties should be particularly careful to have complete understanding in regard to contemplated farm improvements. Tenants will have difficulty securing reimbursement for any outlays for farm improvements. Therefore, they should have specific agreements on these points. People are sometimes prejudiced against printed

forms of contract, but these printed forms are generally carefully prepared so far as the broad general considerations are involved. All forms should allow for modifications and special considerations as these will always be needed. Some printed contract forms are worked out in a most excellent way. The particular points which should be covered by a lease are briefly reviewed here.

The various points in the lease are: date; parties to agreement; object of agreement; description of land; length of time lease shall run; reservations; rent to be paid and manner of payment; articles of agreement, both printed and written; permission to sublet; provision for termination; signatures of parties; acknowledgment before notary; and recorder's blank. Most of these points will be passed over hurriedly because they are common to all leases and only those where agricultural principles are concerned will be discussed at length.

**Time of Lease.**—The first point in which a principle is involved is the length of time a lease shall run. Leases are usually made for one year. Ninety-three per cent of those studied in this investigation were one-year leases;  $5\frac{1}{2}$  per cent were for three years and  $1\frac{1}{2}$  per cent for five years. Some of the reasons for the one-year lease are: the uncertainty on the part of the owner, of the tenant's ability and honesty, and a possibility of selling the land before the expiration of the lease. The first point is a matter of the tenant's character and his ability as a farmer, the second is a matter of speculation and concerns only the owner. There is no doubt but that leases for a period of time longer than one year would do a good deal to improve the agriculture of a community. The principal reason for tenants being grain farmers is that they are so uncertain of being on a farm for more than a year that it does not pay them to begin stocking a farm. One of the profits of the livestock farmer is in maintaining or improving soil fertility. The law does not allow a tenant any benefit from this other than the increased crop yields for succeeding years. If he is uncertain of being able to remain on the farm for a number of years, because of having his rent contract terminated, he does not have much incentive to handle livestock. Also, the livestock business as an investment is a long-time proposition. Stock he acquired for one farm might be decidedly out of place on another farm, so he cannot take chances. If he had any certainty of remaining on that farm for a period of years, he would take more interest in farm improvement, roads, schools, churches, and community welfare of all kinds than if he must consider himself a transient. The very nature of the business causes him to strive to get as much as possible out of the farm for the time the lease runs, consequently there is little permanency to his system of farming. It requires a year of hard experience for him to get acquainted with a farm.

On the other hand the landlord may be uncertain as to the tenant's ability to handle the farm when the lease is made. If he were to make the lease for more than a year he might thus be saddled with a poor tenant for a considerable period. Also, he might lose a good opportunity to get a good tenant. Certainly the landlord would need protection in a long-time lease. The contract might specify that it could be terminated at the end of a year or on notice given 60 days in advance. If this were the case, both tenant and owner should be allowed credit for any expenses for special improvements made on the farm while operating under that contract. The tenant should be reimbursed for any incomplete crop work, etc. If both were fully protected in this way, long-term leases would be more common. Leasing the land for one year with the understanding that the same agreement is to be renewed if both parties are satisfied at the close of the year is much better than a straight year lease. This form is the one under which practically all tenants have been operating where they have been on the same farm for a number of years. It has worked pretty satisfactorily except that it does not have the permanence of a contract covering a period of years.

**Reservations.**—There are certain reservations which an owner should make regarding his property. He should reserve the right to inspect his farm or any part thereof and the privilege of making any repairs or improvements he considers necessary on the farm. These reservations certainly should be stated clearly in the contract. The tenant should reserve his garden, truck patch, orchard, and any feed lots that both parties agree should be exempt from rent charges. The owner should reserve any portion of the foregoing items or rooms in buildings or sheds for the keeping of stock or storing of goods which he may wish to leave on the farm. Any other reservation desired by either party should be in writing under the heading "reservations."

**The Rent to Be Paid.**—The rent of a farm has been defined as "the price paid for its annual use either in the form of money or products." The amount of rent to be paid is determined, of course, by several factors such as productivity of the soil, size of farm, amount of tillable ground, improvements, nearness to market, social conditions of the neighborhood, type of farming to be followed, personality of the landlord and tenant, and many other items. It is to the interest of both landlord and tenant that the tenant be able to pay his rent. This is dependent very largely on productiveness of the soil and on the farm being large enough for an economic unit. Improvements are important to a tenant who wishes to keep livestock. Nearness to market usually determines the character of the products which a tenant can sell. A tenant with a family can usually afford to pay a little higher rent for the privilege of living in a community where social conditions

are desirable. The agreeableness of both landlord and tenant are certainly important factors in determining the rate the landlord can ask and the tenant can pay.

**Manner of Paying Cash Rent.**—The manner in which rent shall be paid is determined, of course, by the system of renting. With cash rent, the amount of rent is paid at different times depending on the wishes of the owner and the circumstances of the tenant. The following variations are common:

1. The full amount of stipulated rent is paid in cash on signing the lease.
2. The full amount of stipulated rent as evidenced by a promissory note given at the time the lease is made, and due on or before the following January 1 with interest at 6 per cent annually after maturity.
3. (River bottom.) The tenant gives promissory notes, one for one-half the rent without interest, to be paid under all circumstances; the other for one-half the rent, being non-negotiable in the event of an overflow which would destroy the crops on the ground. In the event of no overflow, the non-negotiable note becomes payable. In case of overflow where only a portion of the crops are destroyed then a proportionate deduction is made in the second note.
4. The tenant agrees to pay the stipulated rent at certain times, usually at the time of marketing some of the important cash crops or livestock as, for instance, one-half the rent when wheat is sold, and the remaining half January 1 of the year following.
5. The owner agrees to allow the tenant daily wages up to a certain amount for labor expended in improving the farm, such improvements to be mutually agreed upon by owner and tenant. This item agrees to some extent with the provision the English have made in their renting of land.

**Share Rent.**—There are a great many variations in the manner of paying rent when a share of the crop is given. There is no doubt but that a great deal of investigation could be profitably done to determine what is reasonable in the renting of land on shares as a great deal of unreasonableness has been found on the part of both owners and tenants. Some of the ways of settling share rent are as follows: Owner's share to be paid in cash upon disposal of product by tenant; owner's share delivered at crib, bin, or elevator at owner's option; owner's share of hay baled or unbaled, as per agreement, delivered to shed on farm or market at owner's option; owner's share of fruit delivered to market or at car, landlord paying one-half crating expenses, tenant to have all crops for two years on new land just put into cultivation by tenant. This last item approaches some of the ideas which should be embodied in a rent agreement. Many miscellaneous items such as furnishing sacks for grain at threshing machine, and disposal of straw from small grain are handled in terms of rent.

**Crop and Stock Share Lease.**—The lease should show in detail the contribution of each party to the project, the manner of sharing

expense, and the method of determining income or earnings. If the owner must assist the tenant in financing his share of the project, then the amount of such assistance should be stated, the rate of interest charged and the manner of repayment. There should also be stated the conditions under which purchases and sales of live stock are to be made, whether this is on mutual agreement of owner and tenant or whether one party has discretionary power.

**Articles of Agreement.**—The most important part of a rent agreement from an agricultural standpoint is found under the articles of agreement. There are two or three items usually printed under articles of agreement, namely, cultivation in accordance with the principles of good husbandry; protecting fruit trees, and all improvements, and preventing the removal of any portions of improvements or equipment belonging to the owner; assigning of lease to a third party only with the written consent of the landlord; maintenance and repair of buildings and fences in the condition in which they were at the beginning of the lease except for ordinary wear and tear, loss by fire, storm, or unavoidable accident; and peaceable turning over of the property to the owner at the termination of the lease.

The written conditions are of primary interest and should cover all points about which most disputes arise, so that great pains should be taken to have them clear, concise, and complete. The following conditions are the ones most commonly found written:

1. *Repairs.* The owner to purchase necessary materials for repairs, the tenant to haul materials to farm and perform the necessary labor to keep premises in repair.

2. *Weeds.* All weeds on the premises along fences and public highways to be cut in certain months. Also prevention of seeding of noxious weeds such as cockleburrs, thistle, burdock, jimson, etc.

3. *Sod Land.* Landlord furnishes seed and tenant does work of seeding grass and hay crops. No grass land to be broken without consent of owner.

4. *Manure.* The disposal of manure, when it shall be hauled, to what crops it shall be applied, purchases and reimbursing of either party for expenses for manure or fertilizers purchased. Also, reimbursing tenant for fertilizer or manure used just before the termination of the lease and for labor of hauling manure accumulated on premises before signing of lease.

5. *Water Supply.* Labor for the repair and maintenance of water supply equipment to be performed by the tenant at all times, the owner to furnish the necessary pumps, windmills, etc., and repairs for same.

6. *Fuel.* Where there is timber on the farm the tenant to be allowed the use of down or dead timber for firewood. He is not to use other timber without owner's consent.

7. *Road Tax.* Where the tenant is given firewood, he usually agrees to work out the owner's road tax for him.

8. *Pasturing Fields.* Provision to avoid the pasturing of land, either stalk fields, wheat or rye fields, meadow or pasture lands, when ground is so muddy that damage to crops or the condition of the soil would result; keeping hogs "rung" to prevent rooting up grass; preventing excessive pasturing of pasture land in dry weather or just before winter. Winter killing of grass due to carelessness on the part of the tenant requires the tenant to reseed the pasture at his own expense. Usually a stipulation is made as to what fields shall be pastured.

9. *Straw.* How straw is to be disposed of. It is usually required that it be fed or used for livestock on the premises and the resulting manure returned to the fields.

10. *Stalk Fields.* Stalk fields to be pastured by the livestock of the farm and not to be sold without the consent of the owner.

11. *Prevention of Washing.* Preventing furrows being plowed so as to form ditches and providing for the filling of all ditches in such a manner as to hold back the washing of the ground.

12. *Tile Drains.* Maintenance of all tile drain outlets and silt basins by the tenant, the landlord furnishing any material needed for these repairs.

13. *Fences.* Fences not to be moved except as agreed upon.

14. *Improvements.* All permanent improvements determined on by the owner to be made at his expense. Tenant will usually agree to haul materials, except in case of large improvements such as the building of house or barn. And for small improvements he will usually do the work, unless skilled labor is required. He will usually agree to board labor so employed at a specified rate per day. Improvements made by tenant: Tenant should be allowed to remove temporary fences or other improvements put on the farm during his occupation for his own use and by his own labor.

15. *Trimming Orchards, etc.* The pruning and keeping in good condition of orchards and the trimming of hedges that had been trimmed the preceding year.

16. *Default in Payment of Rent.* Nothing in the lease to be considered as waiving the landlord's lien for rent, the tenant agreeing that if default be made in payment when rent is due the landlord or his representatives are entitled to peaceable possession of the premises.

17. *Sale of Property.* Practically all leases are made subject to sale of the farm and such sale immediately terminates the lease, the tenant being allowed reasonable pay for all crops and labor that he is not allowed by the terms of the sale to retain and complete.

18. *Occupancy of Premises.* It is sometimes agreed that the tenant shall keep someone living in a house on the farm at all times



during the period of the lease. This is primarily because of insurance and insurance rates.

19. *Renewal.* Agreement that in case the lease works satisfactorily, it shall be renewed on the same terms for the following year or for a period of years.

20. *Termination of Lease.* Either party given the right to terminate the lease at the end of a farming year by giving the other party written notice at least sixty days before the expiration of the time agreed upon.

If the articles of agreement are complete there remain only the signatures of both parties, acknowledgment before a notary public, with the sub-let permission blank filled out if desired, and the lease is completed.

### MUTUAL GOOD WILL IMPORTANT

Mutual good-will is the all-important factor after everything is done that can be done to draw up a reasonable lease. Both parties must know that the terms are fair and each must feel that the other will meet him half way should any uncertainty arise in regard to the terms of the lease. Since no lease can be written that will cover all emergencies, the necessity for mutual belief and confidence is obvious.

A large amount of correspondence has been necessary in connection with assisting owners or prospective tenants in arriving at a fair division of costs or income in connection with leasing ground or dividing these items on a particular enterprise. This department has found our cost account results very helpful in this connection. We, therefore, present the following tables for the reason that these may be helpful to individuals in settling their own problems. These tables show from our cost accounts for various farm enterprises the percentage of total cost made up of the various cost items listed. For instance, in the case of corn, Table 11, man labor for growing corn

TABLE 11.—ORIGIN OF COSTS SUMMARY, FARM CROPS  
(In per cent of total cost)

Cost Item	Corn		Wheat		Oats Grain		Alfalfa		Mixed Hay	Soy-bean Hay	Soy-bean Seed	Oats, Sheaf
	1910-1927	1925-1929	1910-1927	1925-1929	1910-1927	1925-1929	1910-1927	1925-1929	1910-1927	1910-1927	1910-1927	1910-1927
Man Labor.....	21.7	21.2	15.0	12.8	14.6	14.8	17.9	20.5	12.0	19.6	17.4	14.1
Horse and Tractor Labor.....	23.6	22.7	17.0	15.5	16.5	17.4	15.4	14.4	8.6	25.3	20.3	17.7
Seed.....	1.8	1.6	10.9	8.9	9.9	11.8	3.7	15.4*	7.5	10.8	6.9	11.6
Fertilizer.....	3.2	2.6	5.7	4.2	2.9	0.9	7.3	2.5	5.7	---	---	1.4
Equipment.....	8.4	6.9	6.1	3.5	5.8	4.8	4.8	7.0	3.1	8.2	7.3	6.1
Twine.....	---	---	2.2	1.4	2.4	2.2	---	---	---	---	0.7	3.0
Thrashing.....	---	---	7.3	8.2	7.4	10.7	---	---	---	---	16.6	---
Overhead and Miscellaneous.....	10.5	4.8	7.2	3.1	4.8	2.0	20.8	4.4	11.1	4.0	3.7	3.4
Land Charge.....	30.8	40.2	28.6	42.4	35.7	35.4	30.1	35.8	52.0	32.1	27.1	42.7

\*Includes seeding.

constituted 21.7 per cent of the total cost, horse labor 23.6 per cent, use of land 30.8 per cent. If we follow our principle that income should be divided in the same proportion that expense is divided and one man furnishes just the land, he should receive 30.8 per cent of the income from the crop, or if he furnishes just the man labor, he should receive 21.7 per cent.

These figures are an accumulation from the cost accounting records kept by this department since 1910 and represent farms located in more than 20 counties of the State. They are probably a pretty fair average from a percentage standpoint. Thus we could interpret the corn data as follows: The average yield of corn on farms keeping records would be approximately 30 bushels per acre. Thus if a landlord furnished 30 bushel corn land, his expense would be the land charge plus a small part of the overhead item or approximately one-third the crop.

Looking at Table 12 which gives similar data for the more common classes of livestock we would find in the case of hogs, if a man furnished only the feed for the brood sows and their litters, he should receive approximately 80 per cent of the income. If he furnished only the feed for work stock, he would be furnishing approximately 72 per cent of the cost. If he furnished only the feed for farm milk cows, he would be furnishing 55 per cent of the cost, and for beef steers fed in dry lot he would be furnishing 84 per cent of the cost.

TABLE 12.—ORIGIN OF COSTS SUMMARY, LIVE STOCK ENTERPRISES  
(In per cent of total cost)

Cost Item	Work Stock		Dairy Cows		Farm Milk Cows		Beef Steers	Hogs			Sheep		Poultry Farm Flock		Poultry Com. Flock
	1912-1927	1929-1930	1917	1929-1930	1912-1915	1929-1930	1928	1912-1923	1929-1930	1914-1926	1929	1912-1922	1929	1929-1930	
Man Labor --	11	11	18	22	30	23	4	6	6	14	7	28	16	15	
Horse Labor --	1	1	6	2	1	1	2	1	1	1	1	1	1		
Feed-----	72	72	51	59	55	59	84	82	79	54	72	56	59	56	
Equip. and Bldg. Charge	7	11	5	3	3	5	2	1	4	5	4	4	10	12	
Taxes and Int.	7	5	11	7	7	7	7	3	3	9	8	4	3	4	
Incidentals---	1		4	4	4	2	1	5	3	7	1		6	8	
Miscellaneous	1		5	3		3		2	4	10	7	7	5	5	

In connection with Table 12, the distinction between milk cows and dairy cows is about as follows: Milk cows are more nearly those kept under farm conditions where the cows freshen in the spring and yield most of their milk on grass. Then they are dried up in late fall or early winter and roughed through until freshening time again. The dairy cow data are taken from the more strictly dairy farms in Jackson, Buchanan, St. Louis, and Jefferson counties where the cows

are fed for milk production and freshen in the fall or late summer. They give their heaviest production during the winter months.

The data on hogs apply only to farms that raise all the pigs fattened out and the cost is figured on a per sow basis. The data for sheep are similarly computed. These data have been computed over a long period of time except in those instances noted in the table and are observed to change very little in the percentage column with the addition of subsequent years. It is felt that these tables should be quite helpful in enabling prospective tenants and their landlords in arriving at a reasonable agreement from the standpoint of division of costs and income.

Finally, this precaution should always be followed, namely, keep a rather careful record of the year's operations. You will thus be enabled to make comparisons of your costs for each party and the subsequent income. Consequently, for the next year modifications can be made to keep costs and income more nearly in proper ratio, and it is even possible for the parties to agree to make a final settlement based on these books. Such a settlement might entail some considerable variation from the original terms of the lease; but usually no great change will be required.

**LEASE FORMS**

On these pages are given typical lease forms covering the methods of leasing land mentioned in this bulletin. They may serve as guides in drawing up leases.

**CASH-RENT FARM LEASE**

This Indenture, made on the ..... day of ....., 19..... by and between ..... of ..... party of the First Part, and ..... of the county of ..... in the state of ....., party of the Second Part:

WITNESSETH, That the said party of the First Part, in consideration of the rents and covenants herein specified, does hereby let and lease to the said party of the Second Part, the following described property:

.....  
 Section ....., Township ....., Range ..... in ..... County, Missouri, with appurtenances thereunto (except as hereinafter mentioned as reserved for the use and benefit of the said party of the first part), for a term of ..... commencing the ..... day of ..... 19..... and ending the ..... day of ..... 19.....

And the said party of the first part makes the following reservations to-wit: Reserving the right to enter upon said premises and every part thereof in person or by agent at any and all times for the purposes of inspection or repairs: .....

(Additional reservations may be written here)

Said second party does hereby hire said premises for the term aforesaid, and agrees with the said party of the first part, his heirs and assigns, in con-

sideration therefor, that he will and does hereby bind and obligate himself, his heirs and assigns, as follows, to-wit:

**CULTIVATION:** To cultivate in good and proper manner all of the tillable land on said premises and to allow no waste of fencing or timber.

**WEEDS:** To mow all weeds along the fence rows and public highways adjoining premises at lease once per year, to be done during the month of August, to prevent from going to seed all obnoxious weeds such as thistles, cockleburrs, jimson, etc.

**PASTURE:** Not to pasture stalk fields nor wheat fields when the condition of the ground is muddy, to keep all pigs "rung" before running them upon any permanent pasture; not to overload said pastures to such an extent that it is detrimental to same, and in case of killing out any permanent pasture, said party of the second part is to reseed at his own expense.

**IMPROVEMENTS:** To keep in good repair all fences and buildings upon said premises, or which may be placed thereon during the term of this lease, at his own expense, providing all the materials for such repairs be furnished by the said party of the first part, natural wear and tear or damage by the elements excepted; to take good care of the growing trees thereon, and protect them from live stock; to protect said premises from fire by plowing and burning when necessary; not to remove, nor allow anyone else to enter upon and remove from said premises during the term of this lease, any part or portion of the fences, buildings, fruit or other trees, shrubbery, machinery, or any improvements of any kind or nature whatever, which were upon the premises at the beginning of this lease, or which may be placed thereon during said term by said party of the first part, or his authorized agent: and in case of such waste or removal of such improvements, to give at once on demand of said party of the first part full and peaceable possession of said premises, and to pay said first party the full value of all improvements thus taken from or damaged upon said premises, excepting that at the termination of this lease, said party of the second part has the right to remove any and all temporary improvements placed upon said premises by and for his own use and at his own time and expense.

**SOIL FERTILITY:** To haul out and scatter on the thin places of the farm, all manure accumulating on the premises around the barns, sheds, and stack bottoms, during the time of this lease; to plow in all small ditches in the spring of the year to prevent washes.

**SUB-LETTING:** Not to underlet said premises nor any part thereof, nor assign this lease, without the written consent of the said party of the first part had and obtained thereto.

**DEFAULT IN RENT PAYMENTS:** To surrender said premises peacefully before the expiration of this lease, on demand of party of the first part, should default be made in payment of any rent when due, a lien on the crops to be retained by said first party as security for the fulfillment of this contract, and such crops not to be removed from the land until the rents are paid, according to the terms hereof, and to pay to the said party of the first part all reasonable damages sustained by any such default.

**TERMINATION OF LEASE:** To yield and deliver up said premises, at the expiration of this lease, in like condition as when received, together with all improvements that may be added thereto, during said lease, by said party of the first part, or his authorized agent, reasonable use and wear thereof or damage by the elements excepted.

-----  
(Additional agreements may be inserted here)  
-----

**PAYMENT OF RENT:** Said second party hereby agrees to pay to the party of the first part, or his authorized agent, the following rental fees, in amount and manner to-wit:

**By:** Labor on the farm in improving, to be mutually agreed upon, party of the second part receiving pay for his labor at the rate of ..... per

day, for such time as he may work, counting ten hours as a day's labor, to the extent of ..... dollars.

By: Cash in amount and manner as follows: .....

By: Promissory Notes of even date herewith as follows: .....

..... to be paid at the ..... Bank of ....., Mo. ....

IN WITNESS WHEREOF, the said parties have hereunto, and to a duplicate copy hereof, set their hands and seals, this the ..... day of ..... 19.....

.....(SEAL)
.....(SEAL)
.....(SEAL)
.....(SEAL)

SHARE-RENT FARM LEASE

This Indenture, made this ..... day of ..... 19..... by and between ..... of the ..... of ..... and state of ..... party of the First Part, and ..... of the ..... of ..... and State of ..... party of the Second Part:

WITNESSETH, That the said party of the First Part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the Second Part, his executors, administrators and assigns, demised and leased to the said party of the Second Part all those premises, situate, lying and being in the ..... of State of ....., known and described as follows, to-wit:

Above described premises being commonly known as ..... Farm.

To HAVE AND TO HOLD the said above described premises, with all the privileges and appurtenances belonging to the same, (except such as hereinafter mentioned as reserved for the use and benefit of the said party of the First Part), unto the said party of the Second Part, his Executors, Administrators and Assigns, for a term of ..... commencing on the ..... day of ..... 19....., and ending on the ..... day of ..... 19.....

And the said party of the First Part makes the following reservation, to-wit: Reserving the right to enter upon said premises and every part thereof in person or by agent for the purpose of inspection or making such repairs and improvements as he may choose; a reasonable amount of space or room in barns, sheds, and cribs for the storing of his share of the products and crops received as rent; other rooms or space on said premises as follows: .....

(Additional agreements may be written here)

And the said party of the Second Part, in consideration of the leasing of the premises aforesaid by the said party of the First Part, to the said

party of the Second Part, does covenant and agree with the said party of the First Part, his heirs, executors, administrators, and assigns, to pay the said party of the First Part, as rent for the said premises, in amount and manner, as follows, to-wit: ..... of all the corn raised on the premises, delivered to the elevator or car at ....., or to cribs on farm, at owner's option. .... of all wheat, and ..... of all the oats raised on the premises, delivered to elevator, mill, or car at ....., or to bins on farm, at option of party of the First Part, party of the First Part to furnish sacks for same at thrasher.

..... of all the hay delivered to market at ..... or to stack or sheds on premises at the option of the said party of the First Part.

Other rents as follows to-wit: .....  
 .....  
 .....

And it is further agreed by said party of the Second Part:

**CULTIVATION:** To cultivate in good and proper manner all of the tillable land on said premises; not to plow nor break up any sod land on said premises without the written consent of said party of the First Part.

**WEEDS:** To mow all weeds along the fence rows and public highways adjoining premises at least once per year, to be done during the month of August; to prevent from going to seed all obnoxious weeds, such as thistles, cockle-burs, jimson, etc.

**PASTURE:** Not to pasture stalk fields nor wheat fields when the condition of the ground is muddy; to keep all pigs "rung" before running them upon any permanent pasture; not to overload said pastures to such an extent that it is detrimental to same, and in case of killing out any permanent pasture, said party of the Second Part is to reseed at his own expense.

**IMPROVEMENTS:** To keep in good repair all fences and buildings upon said premises, or which may be placed thereon during the term of this lease, at his own expense, providing all materials for such repairs be furnished by the said party of the First Part, natural wear and tear or damage by the elements excepted; to take good care of the growing trees thereon, to trim orchard and any fruit trees upon the place in proper season, and protect them from live stock; to protect said premises from fire by plowing and burning when necessary; not to remove, nor allow any one else to enter upon and remove from said premises during the term of this lease, any part or portion of the fences, buildings, fruit or other trees, shrubbery, machinery, or any improvements of any kind or nature whatever, which were upon the premises at the beginning of this lease, or which may be placed thereon during said term by said party of the First Part, or his authorized agent, and in case of such removal to give at once on demand of said party of the First Part full and peaceable possession of said premises, and to pay said party of the First Part full value of all improvements thus taken from or damaged upon said premises, excepting that at the termination of this lease, said party of the Second Part has the right to remove any and all temporary improvements placed upon said premises by and for his own use and at his own time and expense.

**SOIL FERTILITY:** To haul out and scatter on the thin places of the farm, all manure accumulating on the premises around the barn, sheds, and stack bottoms, during the time of this lease; to plow in all small ditches in the spring of the year to prevent washes.

**SUB-LETTING:** Not to underlet said premises nor any part thereof, nor assign this lease, without the written consent of said party of the First Part had and obtained thereto.

**DEFAULT IN RENT PAYMENTS:** To surrender peacefully said premises before the expiration of this lease, on demand of said party of the First Part, should default be made in payment of any rent when due, a lien on the crops to be retained by said First Party as security for the fulfillment of this contract.

such crops not to be removed from the land until the rents are paid, according to the terms hereof, and to pay the said party of the First Part all reasonable damages sustained by any such default.

TERMINATION OF LEASE: To yield and deliver up said premises, at the expiration of this lease, in like condition as when received, together with all improvements that may be added thereto, during said lease, by said party of the First Part or his authorized agent, reasonable use and wear thereof or damage by the elements excepted.

.....  
.....  
.....  
(Additional agreements may be inserted here)  
.....  
.....  
.....

IN WITNESS WHEREOF, The said parties have hereunto, and to a duplicate copy hereof, set their hands the day and year first above written.

.....(SEAL)  
.....(SEAL)  
.....(SEAL)  
.....(SEAL)

**CROP-LIVESTOCK SHARE FARM LEASE**

THIS CONTRACT: Made this ..... day of ..... 19.... by and between ..... of the ..... of ..... and State of ..... party of the First Part, and ..... of the ..... of ....., and State of ..... party of the Second Part:

Witnesseth, That the said party of the First Part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the Second Part, his executors, administrators, and assigns, has demised and leased to the said party of the Second Part, all those premises, situate, lying, and being in the ..... of ..... State of ..... known and described as follows, to-wit:

.....  
.....  
THE ABOVE described premises being commonly known as the ..... Farm.

To HAVE AND TO HOLD the said above described premises, with all the privileges and appurtenances belonging to same, (except such as hereinafter mentioned as reserved for the use and benefit of the said party of the First Part), unto the said party of the Second Part, his executors, administrators, and assigns, for a term of ..... commencing on the ..... day of ..... 19...., and ending on the ..... day of .....19....

And the said party of the First Part makes the following reservation, to-wit: Reserving the right to enter upon said premises and every part thereof, in person or by agent at any and all times for the purpose of inspection or repair; to have the right to specify what sod land, if any, upon said premises is to be broken for the growing of tillable crops; and further reserves Rooms, Building Space, or Portion of the premises as follows: .....

.....  
.....  
(Any additional reservations may be inserted here)  
.....  
.....

And the said parties of the First Part and of the Second Part, in consideration of the leasing of the premises aforesaid by the said party of the First Part to the said party of the Second Part, do hereby covenant and agree to the terms and conditions hereinafter specified, to-wit:

**TYPE OF FARMING:** First, it is mutually agreed by all parties hereto, that the entire farm shall be devoted to Grain and Stock farming, and that the principal occupation shall be the raising of .....

**LAND:** The party of the First Part agrees to furnish all the above farm, in its present condition, together with all the appurtenances thereto belonging and further agrees to furnish all necessary wire and posts for fencing, and all necessary lumber and material of every kind for permanent improvements whenever agreed upon by all parties.

**WORK STOCK AND EQUIPMENT:** The said party of the Second Part agrees to furnish\* ..... work stock, harness, implements, and tools necessary to run the farm in a good and proper manner, and to pay\* ..... necessary repair bills on said harness, implements, etc.

**LABOR:** The said party of the Second Part agrees to devote all his personal attention and time to the management of the farm, crops, and live stock and is to hire and furnish all extra labor necessary for the proper management of the farm.

**DUTIES OF THE SECOND PARTY:** The said party of the Second Part agrees:

**WEEDS:** To mow all weeds along the fence rows and public highways adjoining premises at least once per year, to be done during the month of August; to prevent from going to seed all obnoxious weeds such as thistles, cockleburrs, jimson, etc.

**PASTURE:** Not to pasture stalk fields nor wheat fields when the condition of the ground is muddy; to keep all pigs "rung" before running them upon any permanent pasture; not to overload said pastures to such an extent that it is detrimental to same, and in case of killing out any permanent pasture, said party of the Second Part is to reseed at his own expense.

**IMPROVEMENTS:** To keep in good repair all fences and buildings upon said premises, or which may be placed thereon during the term of this lease, at his own expense, providing all the materials, for such repairs be furnished by the said party of the First Part, (said party of the second part to do the hauling of such materials), natural wear and tear or damage by the elements excepted; to take good care of the growing trees thereon, to trim orchard and any fruit trees upon the place in proper season, and protect them from live stock; to protect said premises from fire by plowing and burning when necessary; not to remove, nor allow anyone else to enter upon and remove from said premises during the term of this lease, any part or portion of the fences, buildings, fruit or other trees, shrubbery, machinery, or any improvements of any kind or nature whatsoever, which were upon the premises at the beginning of this lease, or which may be placed thereon during said term by said party of the First Part, or his authorized agent, and in case of such removal to give at once on demand of said party of the First Part full and peaceable possession of said premises, and to pay said party of the First Part the full value of all improvements thus taken from or damaged upon said premises, excepting that at the termination of this lease, said party of the Second Part has the right to remove any and all temporary im-

---

\*The portion of work stock and equipment furnished by the second party depends on the quality of the land rented. On land considerably above average the second party should furnish all work stock and equipment. On about average land this should be divided equally between first and second parties. On land much below average the first party should furnish all work stock and equipment.



provements placed upon said premises by and for his own use and at his own time and expense.

**SOIL FERTILITY:** To haul out and scatter on the thin places of the farm, all manure accumulating on the premises around the barns, sheds, and stack bottoms, during the time of this lease; to plow in all small ditches in the spring of the year to prevent washes.

**PRODUCTS USED IN HOME:** The said party of the Second Part is to have the privilege of using all the poultry, eggs, butter, and milk he may want for his own table use, and is to be allowed to reserve enough hogs for his meat for whatever time he may be on the farm. Should he leave the farm for any cause whatever before the rental year expires, he shall divide any meat he has on hand equally with the said party of the First Part.

**GARDEN:** The said party of the Second Part has the right to not exceeding two (2) acres for a garden spot.

**LIVE STOCK:** The party of the First Part agrees to purchase a one-half interest in all the cattle, hogs, sheep, and poultry which are brought upon the farm by said party of the Second Part at the beginning of this lease. Should parties of the First and Second Parts not agree as to the value of such property, they shall settle same by each selecting a man to inventory same, and if these two should not agree, then these two are to select a third, and the decision of the majority of the three shall be final.

It is mutually agreed by the parties hereto that in the purchase of live stock during the term of this lease, such expense shall be divided equally, but if the said party of the Second Part so desires, the said party of the First Part agrees to furnish all the money for such purchase, party of the Second Part agreeing to pay interest at the current rate, on one-half the money so advanced.

**MACHINE BILLS:** The party of the First Part agrees to pay one-half of the machine bills for the filling of silos or the threshing of small grains grown on the farm, but party of the Second Part to furnish board for all labor for same.

**FEED:** It is mutually agreed by the parties hereto that the work stock and other stock are to be fed out of the undivided grain and hay raised on the farm, and if it is necessary to purchase feed or pasture at any time, such expense shall be divided equally, while said party of the Second Part is to do all hauling of same.

**SEED:** It is mutually agreed by the parties hereto that the expense of grain for seeding shall be equally divided, except for grass seed which is to be furnished by said party of the First Part.

**DIVISION OF RECEIPTS:** It is mutually agreed that all money from the sale of crops, stock, and products is to be divided equally at the time of sale and each party is to share equally in all the increase and profits or loss from whatever stock handled on the farm.

**TERMINATION OF LEASE:** It is agreed and understood that this contract is to extend from year to year or so long as the share arrangement is agreeable to each of the parties concerned, but if at any time either party or both should become dissatisfied with the management of the farm and the live stock so owned, by giving a sixty (60) days notice in writing, the interests therein shall be separated by said dissatisfied party offering at a fixed price his half of the said stock, hay, and grain to the other party, and if they cannot agree upon such price and sale, then they are to agree upon some just division, and in case no decision is reached, then they are to make a public sale and sell the same and divide the proceeds equally.

It is mutually agreed and understood that in case of the death of either party concerned, this contract is thereby terminated, and the interests shall be divided by the executors, administrators, or assigns of the deceased and the said party of the other part, as provided for in case of voluntary termination.

**SALE OF PROPERTY:** The said party of the First Part reserves the right to terminate this contract in case of sale of the premises, or for other unfore-

seen causes, at which time sixty (60) days written notice will be given, and also a reasonable time for the disposition and termination of the interests of the parties hereto, but at no time shall such time extend beyond the first day of March following the notice of such dissolution of this agreement, at which time the party of the Second Part is to give immediate and peaceable possession of the premises and appurtenances belonging thereto, but the said party of the Second Part is to be allowed a reasonable pay for the labor and his share of the crops that he is not allowed to re.ain and complete by the terms of sale.

.....  
.....  
.....  
(Additional agreements may be written here)  
.....  
.....

IN WITNESS WHEREOF, We have hereunto, and to a duplicate copy hereof, set our hands and seals the day and year first above written.

.....(SEAL)  
.....(SEAL)  
.....(SEAL)  
.....(SEAL)

# Agricultural Experiment Station

EXECUTIVE BOARD OF CURATORS.—MERCER ARNOLD, Joplin; F. M. McDAVID,  
Springfield; H. J. BLANTON, Paris

ADVISORY COUNCIL.—THE MISSOURI STATE BOARD OF AGRICULTURE

STATION STAFF, JULY, 1932

WALTER WILLIAMS, LL. D., President

F. B. MUMFORD, M. S., D. Agr., Director      S. B. SHIRKY, A. M., Asst. to Director  
MISS ELLA PAHMEIER, Secretary

## AGRICULTURAL CHEMISTRY

A. G. HOGAN, Ph.D.  
L. D. HAIGH, Ph.D.  
W. S. RITCHIE, Ph.D.  
E. W. COWAN, A.M.  
A. R. HALL, B.S. in Agr.  
ROBERT BOUCHER, JR., A.M.  
LUTHER R. RICHARDSON, A.M.  
U. S. ASHWORTH, A.B.

## AGRICULTURAL ECONOMICS

O. R. JOHNSON, A.M.  
BEN H. FRAME, A.M.  
F. L. THOMSEN, Ph.D.  
C. H. HAMMAR, Ph.D.

## AGRICULTURAL ENGINEERING

J. C. WOOLEY, M.S.  
MACK M. JONES, M.S.  
R. R. PARKS, A.M.  
D. D. SMITH, A.M.

## ANIMAL HUSBANDRY

E. A. TROWBRIDGE, B.S. in Agr.  
L. A. WEAVER, B.S. in Agr.  
A. G. HOGAN, Ph.D.  
F. B. MUMFORD, M.S., D. Agr.  
D. W. CHITTENDEN, A.M.  
F. F. MCKENZIE, Ph.D.\*  
J. E. COMFORT, A.M.  
H. C. MOFFETT, A.M.  
RAYMOND S. GLASSCOCK, A.M.  
RALPH W. PHILLIPS, A.M.  
JACK C. MILLER, A.M.  
L. E. CASIDA, A.M.

## BOTANY AND PHYSIOLOGY

W. J. ROBBINS, Ph.D.  
C. M. TUCKER, Ph.D.

## DAIRY HUSBANDRY

A. C. RAGSDALE, M.S.  
WM. H. E. REID, A.M.  
SAMUEL BRODY, Ph.D.  
C. W. TURNER, Ph.D.  
WARREN GIFFORD, A.M.  
E. R. GARRISON, A.M.  
H. A. HERMAN, A.M.  
A. H. FRANK, A.M.  
C. L. FLESHMAN, A.M.  
M. N. HALES, B.S.  
WARREN C. HALL, A.M.  
W. C. PAINTER, A.M.

## ENTOMOLOGY

LEONARD HASEMAN, Ph.D.  
T. E. BIRKETT, A.M.  
PAUL H. JOHNSON, M.S.

## FIELD CROPS

W. C. ETHERIDGE, Ph.D.  
C. A. HELM, A.M.\*  
L. J. STADLER, Ph.D.\*  
R. T. KIRKPATRICK, A.M.

W. R. TASCHER, Ph.D.  
B. M. KING, A.M.\*  
E. MARION BROWN, A.M.\*  
MISS CLARA FUHR, M.S.\*

## HOME ECONOMICS

MABEL CAMPBELL, A.M.  
JESSIE ALICE CLINE, A.M.  
ADELLA EPPEL GINTER, M.S.  
SYLVIA COVER, A.M.  
HELEN BERESFORD, B.S.  
BERTHA BISBEY, Ph.D.  
JESSIE V. COLES, Ph.D.  
MINERVA V. GRACE, M.S.  
FRANCES SEEDS, M.S.  
BERTHA K. WHIPPLE, M.S.

## HORTICULTURE

T. J. TALBERT, A.M.  
A. E. MURNEEK, Ph.D.  
H. G. SWARTWOUT, A.M.  
J. T. QUINN, A.M.†  
Geo. CARL VINSON, Ph.D.  
ARTHUR MEYER, A.M.  
W. L. TAYLOR, A.M.

## POULTRY HUSBANDRY

H. L. KEMPSTER, M.S.  
E. M. FUNK, A.M.

## RURAL SOCIOLOGY

E. L. MORGAN, A.M.  
WALTER BURR, A. M.  
HENRY J. BURT, A.M.  
ARTHUR S. EMIG, Ph.D.

## SOILS

M. F. MILLER, M.S.A.  
H. H. KRUSEKOPF, A.M.†  
W. A. ALBRECHT, Ph.D.  
HANS JENNY, Ph.D.  
L. D. BAVER, Ph.D.  
LLOYD TURE, A.M.  
HAROLD F. RHOADES, A.M.  
WILBUR BRYANT, B.S.  
E. E. SMITH, B.S.  
R. L. LOVGVORN, B.S.

## VETERINARY SCIENCE

A. J. DURANT, A.M., D.V.M.  
J. W. CONNAWAY, D.V.M., M.D.  
CECIL ELDER, A.M., D.V.M.  
O. S. CRISLER, D.V.M.  
ANDREW UREN, D.V.M.  
A. M. McCAPES, D.V.M.  
HAROLD C. McDOUGLE, A.M.

## OTHER OFFICERS

R. B. PRICE, B.L., Treasurer  
LESLIE COWAN, B.S., Sec'y of University  
A. A. JEFFREY, A.B., Agricultural Editor  
L. R. GRINSTEAD, B.J., Assistant Editor  
J. F. BARMHAM, Photographer  
JANE FRODSHAM, Librarian

\*In cooperative service with the U. S.  
Department of Agriculture.

†On leave of absence.