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STARTING FARMING
OWNERSHIP VS. RENTING

University of Minnesota
Institute of Agriculture

Report No. 220
Department of Agricultural Economics
University Farm
St. Paul 1, Minnesota
December, 1954

900/1/55

Starting Farming - Ownership Vs. Renting

by T. R. Nodland and D. S. Moore

Introduction

The beginning farmer with a moderate amount of savings is often perplexed with the problem of whether it would be best to start farming as an owner or as a tenant. A number of arguments may run through his mind for and against taking either course.

These arguments may run somewhat as follows: "If I buy a farm, I will have to go deeply in debt, and even then I will have only enough savings to make a down payment on a small, low-priced farm. In case of bad weather, disease losses, sickness or falling prices, I could lose all the savings which I put into it. On the other hand, if I purchased, I could work out my own cropping program without landlord interference, I could operate the farm as I wished, and all the income and benefits of improved operations would go to me. If I did not purchase but rented instead, I probably would be able to get hold of a larger and more productive farm unit, but I would have to divide the income with the landlord. Besides, I might not be able to use the cropping program which I would like, and I would never know from one year to the next when I might have to move."

If the beginning farmer definitely decides to rent rather than to buy a farm, he may still have to decide the tenure arrangement under which he should start. Would he do best on a large, well stocked farm under a 50-50 livestock and crop share lease? Or would he be better off with a cash or a cash and crop share lease on a farm not so well stocked and equipped?

Answers to these questions depend partially upon the amount of savings which the beginner has accumulated. Even so, there is a large area of uncertainty, in which the best course of action may not be clearly obvious. One means of shedding light on these problems is to find out how other beginners have been starting and how they have been faring under different types of tenure arrangements. A knowledge of the experiences of other beginning farmers starting as tenants or as owners should be useful to the beginners who are trying to decide upon their own best course of action.

The purpose of this report is (1) to provide some information relative to the minimum amount of capital needed to start farming in southern Minnesota under various tenure arrangements, (2) to show the earnings and financial progress made by beginning farmers and (3) to show the effect of type of tenure arrangement on the various management factors affecting earnings.

Source of Data

This report is based upon 562 records of veterans who took on-the-farm training in southern Minnesota during the years 1947-51. Of the 562 records, 357 were in southeastern Minnesota and 205 were in southwestern Minnesota. The records for southeastern Minnesota have been grouped into 4 tenure classes -- owner-operators, cash tenants, cash and crop share tenants, and livestock and crop share tenants. In southwestern Minnesota, only two tenure classes are shown -- owner-operators and cash and crop share tenants. The number of beginners operating under other tenure arrangements than the above was considered too few to show significant results, and consequently they are not included.

In most instances, the records cover either the first, second or third year of farming (table 1). A few of the operators had been farming for as long as five years, but these accounted for less than 10 per cent of the total. On the average, owner-operators had been farming slightly longer than tenants.

Table 1. Distribution of Veterans by Type of Tenure and Number of Years as a Farm Operator, 1947-51

Tenure group	Number	Years farmed (per cent)				Total	Average years farmed
		1	2-3	4-5	6 and over		
<u>Southeast Minnesota</u>							
Owner-operator	113	12	60	27	1	100	2.9
Tenants:							
Cash and crop share	44	19	61	20	0	100	2.6
Livestock and crop share	119	18	62	19	1	100	2.6
Cash	81	18	65	14	3	100	2.7
<u>Southwest Minnesota</u>							
Owner-operator	54	3	68	27	2	100	3.0
Cash and crop share	151	15	63	20	2	100	2.7

Beginners on Smaller Than Average Farms

Beginners were generally on farms smaller than the average in their area (table 2). Livestock and crop share tenants were the only exception, the farms operated by this group being about average in size. The farms operated by owners tended to be the smallest of any of the tenure groups, the average acreage for owners being 20 per cent below the average size of farm in southeastern Minnesota and 31 per cent below the average in southwestern Minnesota.

Farms operated by beginning owners were not only smaller in acreage but they also were lower in value per acre than were the farms operated by beginning tenants. In southeastern Minnesota, the average value per acre of farms operated by beginning owners was about 11 per cent less than that of farms operated by cash tenants, 16 per cent less than that of the farms operated by livestock and crop share tenants, and 20 per cent less than that of farms operated by cash and crop share tenants. In southwestern Minnesota, the average value per acre of owner-operated farms was 9 per cent less than that of farms operated by cash and crop share tenants.

Table 2. Average Acreage and Average Values of All Farms in Southeastern and Southwestern Minnesota in 1950 and of Farms Operated by Beginning Farmers, 1947-51

	Southeastern Minnesota			Southwestern Minnesota		
	Average acreage per farm	Average value of land & buildings Per farm	Per acre	Average acreage per farm	Average value of land & buildings Per farm	Per acre
All farms, 1950 Census, ^{1/}	171	\$17,710	\$103.56	277	\$20,861	\$75.31
<u>Beginning farmers, 1947-51</u>						
Owner-operators	137	11,471	83.72	190	12,373	65.12
Cash and crop share tenants	160	16,799	104.99	234	16,802	71.80
Cash tenants	144	13,572	94.24	-	-	-
Livestock and crop share tenants	177	17,619	99.53	-	-	-

^{1/} The data from the 1950 U. S. Census were derived by weighting county averages by the number of beginning farmers in each county.

These data indicate that beginning owner-operators were on farms which were both smaller and less productive than the farms operated by beginning tenants. This is indicated further by a comparison of average values per farm, which is also shown in table 2, together with the real estate value of all farms in the area as given in the 1950 census. Since the values given in the 1950 census are as of April 1, 1950 while the values for beginning farmers are averages for the five year period 1947-51, the data are not strictly comparable. Land values in the area trended upward during much of the period and consequently one might expect the 1950 census to reflect a somewhat higher level of land values than would be reflected in the five year 1947-51 average. Nevertheless, the data do provide a rough means of comparing the average real estate values of farms operated by beginners with the real estate values of all farms in the area. As is shown in table 2, the average real estate values of farm units operated both by livestock and crop share tenants and by cash and crop share tenants in southeastern Minnesota were almost equal to the average value of all farms in the area. Cash tenants, on the other hand, operated farms which tended to be somewhat below average in value per acre, while owner-operators were on farms which were considerably below average. In both southeastern and southwestern Minnesota, the average value of real estate units operated by beginning owner-operators was only about three-fifths as much as the average for all farms in the area.

The average total investments in the farm business, including the capital furnished by the landlord are shown in table 3. The largest capital investments were on farms operated by livestock and crop share tenants. Under this tenure arrangement, the landlord normally furnishes a portion of the working capital in addition to all of the real estate capital. Thus a beginner under a livestock and crop share lease usually is able to employ a greater amount of capital than under other tenure arrangements, but he must also give the land-

lord a larger share of the farm income in return for use of the landlord's capital. Under cash and cash and crop share arrangements, the landlord furnishes only the real estate whereas the tenant furnishes all or most of the working capital.

Table 3. Average Farm Inventories by Tenure Groups in Southeastern and Southwestern Minnesota, January 1, 1947-51

	Southeastern Minn.				Southwestern Minn.	
	Owner operators	Cash	Tenants Cash and crop share	Livestock and crop share	Owner operators	Cash and crop share tenants
Total productive livestock	\$2,489	\$2,898	\$2,380	\$4,520	\$2,755	\$1,894
Crops, seed and feed	1,790	1,867	1,380	2,698	2,323	1,547
Power, machinery and equipment	2,781	3,221	3,661	3,333	3,363	3,275
Total working cap.	7,060	7,986	7,421	10,551	8,441	6,716
Real estate capital	11,471	13,572	16,799	17,619	12,372	16,802
Total farm capital	18,531	21,558	24,220	28,170	20,813	23,518

Owner operators had use of the smallest amount of capital of any of the beginners. The smaller amount of total capital used by owners resulted mostly from a smaller real estate investment, since the amount of working capital on owner-operated farms averaged only a little below that of farms operated by any of the other tenure groups excepting livestock and crop share tenants. Real estate investments on the other hand, were substantially smaller on owner-operated farms, because beginners starting as owners did not have the resources to purchase as large or as productive farms as tenants could obtain by renting.

Owners Have a Greater Amount of Savings Invested

Beginners who start as owner-operators obtain their capital from two sources. The basic source comes from the amount which they have accumulated in savings, either from past earnings or from gifts and inheritance. This may be supplemented by borrowing from relatives, from other individuals, or from some institutional lender such as a commercial bank, Production Credit Association, Farmers Home Administration or the Federal Land Bank. Tenants have a third means of obtaining the use of capital, namely renting it from a landlord. By renting, tenants usually are able to start with smaller savings than are ordinarily necessary in order to start farming as an owner.

Differences in the amount of savings used by beginning owner-operators as compared with other tenure groups are shown in table 4. Owner-operators on the average had about three times as much of their own savings invested in the farm business as livestock and crop share tenants, roughly twice as much as cash and crop share tenants, and about $1\frac{1}{2}$ times as much as cash tenants. In southeastern Minnesota the average amount of savings invested by the operator ranged, by tenure groups, from \$3,295 for livestock and crop share tenants to \$9,385 for owner-operators.

Table 4. Sources of Capital Used by Beginning Farmers in Southeastern and Southwestern Minnesota, 1947-51

Source of Capital	Southeastern Minn.			Southwestern Minn.		
	Owner-operators	Cash	Tenants Cash and Livestock crop share and crop share	Owner-operators	Cash and crop share tenants	
Savings of operator	\$9,385	\$6,122	\$5,062	\$3,295	\$9,835	\$4,377
Borrowed	9,146	1,578	2,213	2,600	10,978	2,226
Rented from landlord	-	13,858	16,945	22,275	-	16,915
Total capital	18,531	21,558	24,220	28,170	20,813	23,518

Not only did owner-operators invest a much larger volume of savings, but they also were using a much larger volume of borrowed capital. Half of the farm capital used by owner-operators was borrowed as compared to an average of about 10 per cent for renters. Of the 167 young men starting as owner-operators, all but two had some outstanding indebtedness. Moreover, most of them had a rather heavy debt load, with 91 per cent carrying a real estate mortgage and about four-fifths having both real estate and chattel mortgage debts. Beginners who started as tenants generally were not as deeply in debt. Approximately 1 tenant in 5 had no outstanding indebtedness at all as of the beginning of the year for which records were kept. Where tenants were using borrowed money, the indebtedness was usually smaller in relation to their assets than it was for owners.

Financial Position

Further information on the financial position of beginning farmers is shown in table 5. Owner-operators generally had a considerably larger net worth than any of the other tenure groups, the average for owners being close to \$12,000 in both southeastern and southwestern Minnesota. This was from $1\frac{1}{2}$ to 2 times as large as the average net worth for any of the other tenure groups. Livestock and crop share tenants in general had the smallest net worth, averaging less than \$6,000, or approximately one-half the average net worth of owners.

Table 5. Financial Position of Beginning Farmers in Southeastern and Southwestern Minnesota, January 1, 1947-51

	Southeastern Minn.			Southwestern Minn.		
	Owner- oper- ators	Cash	Tenants Cash and crop share	Livestock and crop share	Owner- oper- ators	Cash and crop share tenants
<u>Assets</u>						
Total farm capital	\$18531	\$7700	\$7275	\$5895	\$20813	\$6730
Other assets	2337	2024	2424	2561	2411	1847
Total assets	20868	9724	9699	8456	23224	8577
<u>Liabilities</u>						
FLB loans	131	-	-	-	744	-
Other mort. on land operated	6492	-	-	-	7748	-
Mort. on other real estate	-	18	70	258	-	51
PCA loans	48	8	0	92	46	24
Crop loans (sealed grain)	62	10	27	10	184	144
Other chattel mortgage	676	816	1073	730	1182	1145
Notes	1312	567	804	1281	854	603
Accounts payable	425	159	239	229	220	259
Total liabilities	9146	1578	2213	2600	10978	2226
<u>Net Worth</u>	11722	8146	7486	5856	12246	6351

For beginning owners, real estate mortgages made up about three-fourths of the outstanding debts, with chattel mortgages making up most of the remainder (table 5). Information available indicated that individuals were the primary source of credit. Unsecured notes and accounts payable made up a sizeable proportion of the debts of non-owners, accounting for about two-thirds of the liabilities of livestock and crop share tenants and for about one-third of the liabilities of the other two tenure groups.

Size of Savings Related to Tenure Arrangements

The relation between the net worth of beginning farmers and their tenure arrangements is brought forth a little more sharply in table 6. Relatively few beginners with a net worth of less than \$5,000 were trying to start as owners. Most of them felt that they would be better off to rent a larger farm than to use a large portion of their limited capital to purchase a small, unproductive farm. Moreover, relatively few of the beginners with a net worth of over \$10,000 were operating under a livestock and crop share lease. With resources that large, most of them felt it was to their advantage to furnish all the working capital themselves and enter into a rental arrangement whereby they received a larger share of the income from the farm.

Table 6. Relation of Net Worth to Tenure Arrangement
for Beginning Farmers, 1947-51

Type of tenure	Per cent of farmers with a net worth of			Per cent of all beginning farmers
	0 - \$5,000	\$5,001 - 10,000	over \$10,000	
	<u>Southeastern Minnesota</u>			
<u>Owners</u>	13	24	60	31
<u>Tenants</u>				
Cash	29	21	19	23
Cash and crop share	9	16	10	12
Livestock and crop share	49	39	11	34
Total, all farmers	100	100	100	100
	<u>Southwestern Minnesota</u>			
<u>Owners</u>	5	29	82	26
Cash and crop share tenants	95	71	18	74
Total, all farmers	100	100	100	100

Where beginners with very limited savings did start as owners, one might expect that outlays for the purchase of real estate would leave a smaller amount of capital available for investment in productive livestock and machinery. That is, they might have smaller non-real estate investments than tenants who started with equally small resources. This tendency was not at all pronounced (see table 7). In fact, where owners and tenants both had savings of less than \$5,000, owners had about as much working capital relative to tenants as they did where both groups had a net worth of over \$10,000.

Table 7. Relation of Operator's Net Worth to the Amount of
Operator's Investment in Working Capital, 1947-51

Amount of operator's net worth	Amount of investment					
	<u>Southeastern Minn.</u>			<u>Southwestern Minn.</u>		
	Owner- operators	Tenants		Owner- operators	Cash and crop share tenants	
		Cash	Cash and crop share	Livestock and crop share		
0 - \$5,000	\$4,856	\$4,370	\$5,020	\$5,037	-	\$4,987
\$5,001 - 10,000	5,377	6,630	6,693	6,097	\$6,497	6,513
Over 10,000	8,601	12,426	9,712	8,775	11,280	11,671
Avg. all farmers	7,060	7,699	7,244	5,884	8,441	6,552

Owner-Operators Have Smaller Equities Than Tenants

If beginning owners with relatively small net worths were able to purchase a farm and still have almost as large an investment in working capital as tenants who had about the same net worth, they must have gone deeply in debt. Table 8 indicates that this was the case. It shows the relationship of average total assets to average total liabilities for each of the tenure groups.

Table 8. Ratio of Total Assets to Total Liabilities According to Size of Net Worth and Tenure Group, January 1, 1947-51

Amount of net worth:	Ratio of total assets to total liabilities					
	Southeastern Minn.			Southwestern Minn.		
	Owner-operators	Tenants		Owner-operators	Cash and crop share tenants	
	Cash	Cash and crop share	Livestock and crop share			
0 - \$5,000	1.4:1	3.2:1	1.8:1	1.9:1	-	2.1:1
\$5,001 - 10,000	1.8:1	6.7:1	4.3:1	4.2:1	1.8:1	4.9:1
Over 10,000	<u>2.9:1</u>	<u>13.8:1</u>	<u>14.5:1</u>	<u>9.4:1</u>	<u>2.4:1</u>	<u>5.8:1</u>
Average	2.3:1	6.2:1	4.4:1	3.3:1	2.1:1	3.9:1

If the ratio of a farmer's assets to his liabilities is 2:1, for example, it means that his assets are twice as large as his liabilities. This 2:1 ratio frequently is considered to be the minimum ratio for sound financing. A smaller ratio means that the farmer is operating on an equity which can be erased quickly in case of severe price declines or weather or disease losses.

As is indicated in table 8, the majority of owners with a net worth of \$10,000 or less were operating on a small equity. They owned less than one-half of the capital they were using. Owners who had a net worth of over \$10,000, on the other hand, were in a more secure position. The average assets of this group were well over twice as large as their average liabilities.

The net worth of beginning tenants was considerably larger in relation to assets than was the case for beginning owners. Many tenants who had a small net worth (less than \$5,000) also were operating on a rather small equity, although generally it was considerably larger than for the owners who had about the same financial resources. Those tenants who had a net worth of over \$5,000 possessed assets which, on the average, were more than 4 times their liabilities. Table 8 indicates, therefore, that tenants generally were less vulnerable to price and weather hazards than were beginning owners.

Farm Earnings and Financial Progress

The previous discussion has shown that young farmers starting as owners operated smaller farms than young farmers starting as tenants and that they were carrying heavier debt loads. On the other hand they received the entire income from their farm, while tenants shared the farm income with the landlords.

Tables 9 and 10 give some clue as to how the earnings of owner-operators and tenants compare. Owners who had a net worth of less than \$10,000 generally had considerably smaller labor earnings than tenants with a net worth of less than \$10,000. The same was true where both owners and tenants had a net worth of over \$10,000, although in general the disparity was not quite as great. Livestock and crop share tenants had the largest average labor earnings of any group of the beginners with a net worth of under \$10,000, but for the beginners who had a net worth of over \$10,000 this group had the lowest average labor earnings. For a beginner with only a small amount of savings, a livestock and crop share lease is one of the best methods to get started. For young farmers with a considerable amount of savings, however, some other type of tenure arrangement ordinarily will return a higher income and enable them to make greater financial progress.

Table 9. Relation of Amount of Beginner's Net Worth to Labor Earnings, 1947-51 ^{1/}

Amount of net worth	Labor earnings					
	Southeastern Minn.			Southwestern Minn.		
	Owner-operators	Tenants		Owner-operators	Cash and crop share tenants	
	Cash	Cash and crop share	Livestock and crop share			
0 - \$5,000	\$1,024	\$1,351	\$1,716	\$1,984	-	\$1,594
\$5,001 - 10,000	1,191	1,667	1,860	1,976	\$1,287	1,950
Over 10,000	<u>1,718</u>	<u>2,901</u>	<u>2,315</u>	<u>1,642</u>	<u>1,570</u>	<u>2,115</u>
Avg. all farmers	1,371	1,739	1,876	1,874	1,456	1,782

^{1/} Labor earnings is the return to the operator's labor and management. It is computed by deducting from the net farm earnings a charge for the use of total farm capital and for family labor other than that of the operator.

Table 10. Relation of Amount of Beginner's Net Worth to Average Annual Increase in Net Worth

Amount of net worth	Average annual increase in net worth					
	Southeastern Minn.			Southwestern Minn.		
	Owner-operators	Tenants		Owner-operators	Cash and crop share tenants	
	Cash	Cash and crop share	Livestock and crop share			
0 - \$5,000	\$1,621	\$1,543	\$1,806	\$1,835	-	\$1,606
\$5,001 - 10,000	1,602	1,532	2,095	1,369	\$1,213	1,759
Over 10,000	<u>2,279</u>	<u>1,583</u>	<u>2,561</u>	<u>1,588</u>	<u>2,523</u>	<u>1,726</u>
Avg. all farmers	1,767	1,627	2,162	1,471	1,898	1,656

A somewhat different picture is given if comparisons of tenure groups are made according to the average annual change in net worth (see table 10). This is an indication of the farmer's financial progress. Here, beginning owners showed up much more favorably. Although generally they had considerably smaller earnings than tenants, they still managed to show about the same financial progress. Even where owners had a net worth of less than \$5,000, their average annual increase in net worth was almost as large as that of tenants with the same amount of savings. Evidently they spent less for family living and had more of their current income available to invest in the farm business. In many instances a beginning farmer who starts as an owner, particularly if he has heavy debts, is apt to work harder and to hold down his living expense to a greater degree than a beginner who starts as a tenant.

There appeared to be little relationship between the amount of net worth and whether or not the farmer made financial progress. The proportion failing to make any financial progress during the years for which records were kept was actually a little higher for those farmers who had a net worth of over \$10,000. Farmers with a comparatively large equity are not under the same financial pressure and consequently tend to spend greater amounts for family living.

These data indicate that a farmer with a relatively small amount of savings can get started farming and can show financial progress provided he is

willing to keep his living expenses to a minimum and to plow his farm earnings back into the farm business. It should be pointed out, however, that the data cover a relatively favorable period for farming, which is indicated by the following indexes of prices received by farmers in the U. S.: 1947, 257; 1948, 266; 1949, 233; 1950, 239; and 1951, 282 (1935 - 39 = 100). Some decline occurred during 1949 but this decline was rather moderate and was from a high level. During this period, the ratio of prices received to prices paid ranged from 100 to 115.

A beginner starting with a small equity in his business has only a thin cushion to fall back upon in case of losses. During the first few years he is apt to be more exposed to the hazards of weather, disease, and unfavorable price relationships. This is particularly true of owners who purchase small farms and assume a heavy debt burden.

Relation of Tenure to Organization and Management Efficiency

Past studies have shown that there are wide variations in earnings among farmers even in areas of relatively uniform natural fertility, and that there are certain factors which consistently account for these variations. ^{1/} The size of farm business is one of the most important of these factors. Normally the operator of a larger farm business has an advantage over the operator of a smaller farm because he has use of a greater amount of capital and because the large size permits a more efficient use of this capital. Differences in farm organization are also an important factor contributing to variations in earnings. Farms which are so organized as to have the largest proportion of land in high return crops such as corn and alfalfa usually have the larger earnings. A high livestock intensity is also an indication of a good farm organization. The rate of production is another important reason for variations in farm earnings. Usually farms which rank high in crop yields, pounds of butterfat produced per cow, or number of eggs laid per hen also rank high in earnings. A third major reason for differences in earnings arises from differences in efficiency. The most efficient producer is the one who obtains the largest volume of output in relation to input. Efficiency is indicated by such factors as return above feed costs, a large number of work units per worker, and low power machinery and building expense per work unit.

What is the relation between the tenure arrangements of beginning farmers and the above measures of size, organization, rates of production and efficiency? Does the fact that owners tended to be on smaller and less productive farms and have less capital to use affect the organization, rate of production and the efficiency of farm operation? In the following sections, owner and tenant-operated farms are compared with respect to some of the management factors which have a bearing upon farmer's earnings.

Size of Business - Acres per Farm - The number of acres per farm is a commonly used measure of the size of farm business. In areas where farms are uniform in type and in the quality and utilization of land, the number of acres is a fairly accurate measure of size, but in areas where the quality of land is not uniform or where livestock are important in the farm organization, it is not altogether satisfactory.

^{1/} For a more complete discussion of factors affecting farm earnings see Pond, George A., "Why Farm Earnings Vary", Minnesota Agricultural Experiment Station Bulletin 386.

Two things are shown in table 11, the average number of acres per farm, by tenure class, and the average net worth of the operator. In the first place, the farmers with the smallest net worth tended to be on the smallest farms. This was true for each of the tenure classifications, although it was considerably less marked for livestock and crop share tenants. In the second place, owners tended to be on farms with the smallest number of acres, while livestock and crop share tenants tended to be on the larger farms. However, the differences between cash tenants, owners, and cash and crop share tenants were not pronounced.

Table 11. Average Size of Farm by Tenure Group and Amount of Net Worth of Operator, 1947-51

Net worth of	Southeastern Minn.			Southwestern Minn.		
	Owner-operators	Tenants			Owner-operators	Cash and crop share tenants
		Cash	Cash and crop share	Livestock and crop share		
(acres)						
0 - \$5,000	125	124	116	160	-	225
\$5,001 - 10,000	132	121	165	183	182	226
Over 10,000	<u>142</u>	<u>172</u>	<u>174</u>	<u>166</u>	<u>194</u>	<u>260</u>
All farms	137	144	160	177	190	234

Size of Business - Number of Work Units per Farm - The number of productive work units is usually considered a better measure of size of farm business than number of acres. There was a consistent relationship between size of farm business and amount of net worth. The beginners with the largest net worth had the largest number of work units (see table 12). This was true of each tenure group, although the relationship between the operator's net worth and size of business was less pronounced for livestock and crop share tenants than for the other groups.

Farms operated by livestock and crop share tenants were considerably larger than those operated under any other tenure arrangement. Moreover, the differences in size were greatest among the beginners in the low net worth group. For example where the beginners had a net worth of less than \$5,000, the farms operated under a livestock and crop share lease had about twice as large a business as those operated under any of the other types of leases, but where the beginners had a net worth of over \$10,000 they were only about $1\frac{1}{2}$ times as large. It thus appears that, with respect to size of business, the livestock and crop share lease had the greatest advantages where the beginners had the smallest net worth.

Table 12. Average Number of Productive Work Units per Farm, by Tenure Groups and Amount of Net Worth, 1947-51

Net worth of operator	Southeastern Minn.			Southwestern Minn.	
	Owner-operators	Tenants		Owner-operators	Cash and crop share tenants
		Cash	Cash and crop share	Livestock and crop share	
		<u>Productive man work units</u>			
0 - \$5,000	209	199	223	419	261
\$5,001 - 10,000	258	268	265	429	293
Over 10,000	319	323	322	468	369
All farms	282	283	270	432	286

Farm Organization - Productive Animal Units Per 100 Acres - The number of productive animal units per 100 acres is a measure of intensity of livestock production. A large number of productive animal units per 100 acres is usually associated with a large sized business, higher crop yields and a more economic utilization of resources. Livestock and crop share renters had a considerably larger number of productive animal units per 100 acres than any of the other tenure groups (see table 13), but livestock normally play a larger role in this type of tenure arrangement. Both owner-operators and cash tenants showed a definite tendency for livestock intensity to increase as the size of net worth increased.

Table 13. Number of Productive Animal Units per 100 Acres by Tenure Groups and Size of Net Worth, 1947-51

Net worth of operator	Southeastern Minn.			Southwestern Minn.	
	Owner-operators	Tenants		Owner-operators	Cash and crop share tenants
		Cash	Cash and crop share	Livestock and crop share	
		<u>Productive animal units per 100 acres</u>			
0 - \$5,000	13.7	14.1	13.2	23.7	7.0
\$5,001 - 10,000	17.3	22.4	11.8	21.9	9.3
Over 10,000	20.1	20.4	14.0	23.2	10.6
All farms	18.0	18.3	12.7	23.2	8.5

Rate of Production - Index of Crop Yields - An index of crop yields is a measure of the yield level of all crops on a given farm. For example, an index of 100 indicates yields just equal to the average of all farmers in the group. An index of 105 would indicate yields 5 per cent above the average, while an index of 90 would indicate yields 10 per cent below average. Farms operated by owners and cash tenants had somewhat lower yields than those operated by the other two tenure groups (see table 14). The difference between the tenure groups was greatest where the net worth was lowest. The lower yields for owners and cash tenants was probably associated with the fact that these two groups tended to be on less productive farms (see table 2).

Table 14. Index of Crop Yields, by Tenure Group and Amount of Net Worth, 1947-51

Net worth of operator	Southeastern Minn.				Southwestern Minn.	
	Owner-operators	Tenants			Owner-operators	Cash and crop share tenants
		Cash	Cash and crop share	Livestock and crop share		
	<u>Index of crop yields</u>					
0 - \$5,000	92	92	100	108	-	94
\$5,001 - 10,000	89	95	103	105	86	100
Over 10,000	99	100	104	112	97	98
All farms	93	96	103	106	91	97

Efficiency in Production - Labor Efficiency - Labor efficiency is indicated by a relatively large number of work units per worker. Beginners operating under a livestock and crop share lease had a considerably higher labor efficiency than those operating under any other tenure arrangement (see table 15). This was probably associated with the fact that the beginners under livestock and crop share leases were operating the larger farms, since usually the larger farms have a marked advantage in labor efficiency. As the size of net worth increased, the differences in labor efficiency between livestock and crop share tenants and the other groups tended to narrow.

Table 15. Number of Work Units per Worker by Tenure Group and Amount of Net Worth 1947-51

Net worth of operator	Southeastern Minn.				Southwestern Minn.	
	Owner-operators	Tenants			Owner-operators	Cash and crop share tenants
		Cash	Cash and crop share	Livestock and crop share		
0 - \$5,000	172	161	166	294	-	202
\$5,001 - 10,000	205	199	209	279	206	227
Over 10,000	216	268	246	291	229	259
All farms	209	209	211	291	215	218

Efficiency in Production - Power, Machinery and Building Expense per Work Unit - If a farmer has relatively low power, machinery and building expenses per work unit, it means that he has been relatively efficient and economical in the use of these items. Usually low expenses per work unit are associated with high earnings. Farms operated under livestock and crop share leases tended to be more economical in the use of power, machinery and buildings than those operated under any other tenure arrangement (see table 16). This greater economy is probably associated with the larger size of farms operated under livestock and crop share leases. On the other hand, there appeared to be no clear cut relationship between the size of beginning net worth and economy in use of power, machinery and buildings. Evidently factors other than the amount of the operator's savings were more important in determining economy in the use of these items.

Table 16. Power, Machinery, and Building Expense per Work Unit,
by Tenure Group and Amount of Net Worth, 1947-51

Net worth of	Southeastern Minn.				Southwestern Minn.	
	Owner- operators	Tenants			Owner- operators	Cash and crop share tenants
		Cash	Cash and crop share	Livestock and crop share		
	<u>Power, machinery and building expense per work unit</u>					
0 - \$5,000	\$7.30	\$7.31	\$6.74	\$5.05	-	\$6.92
\$5,001 - 10,000	6.33	6.65	7.13	5.54	\$7.08	7.10
Over 10,000	7.00	5.87	8.44	5.77	8.02	7.64
All farms	6.85	6.70	7.32	5.09	7.41	7.09

Summary and Conclusions

This report is based upon 562 records of beginning farmers in southern Minnesota who took on-the-farm training during the years 1947-51. It gives a comparison of the amount and sources of capital used, the earnings and financial progress, and efficiency of farm operations under the most common types of tenure in southern Minnesota.

What significance does this information have for the beginning farmer? What interpretations can be drawn which may be of value to other young men who are planning to start farming? The following paragraphs give a summary of some of the more significant facts and conclusions developed from a study of these records.

1. Beginners generally tended to be on farms which were smaller than the average for their community. Not only were the farms smaller, but they also tended to have a lower value per acre than the average. The farms operated by livestock and crop share tenants were an exception, these farms being about as large and having almost as high a value per acre as the average of all farms in the area.
2. The farms of beginning owner-operators were both smaller and poorer than the farms operated by beginning tenants. Beginners who started as owner-operators ordinarily did not have the financial resources to obtain as large or as productive farms as the tenants obtained by renting.
3. The most common tenure arrangements used by beginning tenants were livestock and crop share leases in southeastern Minnesota and cash and crop share leases in southwestern Minnesota. Livestock and crop share tenants tended to be on the largest farms of any of the beginners. Under a livestock and crop share lease, a beginner with relatively small savings usually is able to operate a better farm and a larger business since the landlord furnishes part of the working capital. However, he has to divide the larger income of the larger and better farm with the landlord.
4. The amount of savings invested in the farm business ranged from an average of about \$3,300 for livestock and crop share tenants to an average of about \$9,500 for owner-operators. Owner-operators had roughly three times as much savings invested in the farm business as

livestock and crop share tenants, twice as much as cash and crop share tenants, and about $1\frac{1}{2}$ times as much as cash tenants. Relatively few beginners with savings of less than \$5,000 were trying to start as owners, and relatively few of them with savings of over \$10,000 were operating under a livestock and crop share lease.

5. Beginners starting as owner-operators were using considerably larger amounts of borrowed capital than were beginners starting as tenants. Moreover, many of the owners were operating on a very small equity, particularly those with small savings. On an average, owners with a net worth of less than \$10,000 had liabilities which amounted to well over one-half of total assets, making them especially vulnerable to weather and disease hazards and to falling prices. Tenants generally were not nearly as deeply in debt.
6. The earnings of owners averaged considerably smaller than the earnings of tenants, although the differences were not nearly as marked where both tenants and owners had a net worth of over \$10,000. Livestock and crop share tenants had the largest average earnings of any tenure group for the beginners with a net worth of under \$10,000, but for beginners who had a net worth of over \$10,000, this group had the lowest average earnings.
7. The reason the owner-operators had lower earnings than tenants was due largely to the fact that they were on smaller and poorer farms. Tenants by renting were able to employ the use of a greater amount of capital than owners were using. Livestock and crop share tenants had use of the largest amount of capital of any of the beginners and they were operating larger and better farms. Because of this, they had higher crop yields, their farms had higher livestock intensity, their labor efficiency was greater, and they had lower power, machinery and building expenses per work unit. These advantages became less as the size of the beginner's net worth increased.
8. Over 90 per cent of the beginners showed financial progress during the period for which records were kept. There appeared to be little relationship between the size of net worth and whether or not the beginner made financial progress. Despite the fact that owners had considerably smaller earnings than tenants, they showed about the same financial progress, measured in terms of average annual change in net worth. This was evidently made possible by spending less for family living.
9. The experience of these beginners indicate that a young man can make a successful start in farming with only a few thousand dollars of his own, but unless he has substantial savings and has had considerable experience, he would probably be better off to start as a renter. Greater returns can be obtained by investing limited funds in livestock, feed and machinery, for a large, productive, rented farm than by investing in a small, unproductive unit as an owner. With savings of less than \$5,000, most beginners had higher earnings and showed greater financial progress under a livestock and crop share lease than under any other tenure arrangement.

10. With somewhat larger savings (\$8,000 to \$12,000) and under favorable circumstances, beginners can show about as much financial progress starting as an owner as they can by starting as a tenant. To do this however, they must make some temporary sacrifice in the form of accepting a lower standard of living - at least in the earlier years. They are under greater pressures because of heavier debt loads and greater risks, which forces frugality and hard work. Also the pride of ownership may give them greater incentives for hard work than might be the case if they were starting as tenants. It should be kept in mind, however, that usually they are operating under the handicap of smaller and poorer farms than the average beginning farmer.

11. The managerial ability of the operator is the greatest single factor in modern farming. It is more important than the amount of savings a beginning farmer has accumulated for a start in farming. A young man who has farm experience, knows modern farming techniques, who is honest and frugal and has a desire to be a farmer is quite likely to succeed even though his financial resources are limited.