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**Diversified Farming in the Palouse Region  
Of Northern Idaho**

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### Summary

1. Diversification in the Idaho Palouse wheat and pea area has been confined largely to livestock enterprises consisting mostly of beef cattle and swine.
2. Farms with 20 percent or more of their acreage in non-crop pasture land have generally kept livestock.
3. During the war year 1942 a group of farmers averaging large acreage of peas and grain but with few livestock made the highest average farm family labor income. The next group in order were farms slightly more than half as large in crop acreage but keeping rather large numbers of livestock as supplementary enterprises. Small grain and fallow farms made much less than either of the above groups and even where livestock was kept on these farms earnings were less. The same relationship was found to be true under assumed prewar or normal prices and expenses, except that under these assumptions livestock had somewhat greater comparative advantage in the farm plan.
4. It is competitively possible for farmers to diversify with livestock and make a comparable living to those on large grain and pea farms and to do this on about half the crop acres found in the straight grain and pea farms.
5. Success on a diversified farm will call for a large part of the leisure time, found possible on grain and pea farms, to be used productively.
6. Diversified farming has resulted in more complete ownership of farms and higher net returns per acre.
7. Farmers who plan to diversify can pay enough for the land to compete successfully with grain farmers in acquiring a farm unit.

# Diversified Farming in the Palouse Region Of Northern Idaho

V. B. FIELDER and P. A. EKE

## Introduction

THE Palouse region of northern Idaho has been characterized for decades as a cash-grain type of farming area. The large scale, highly mechanized production of small grain, largely wheat and in recent years, peas, has been a highly exploitative kind of agriculture. Straight grain-crop farming with all of the tillable land in cash crops or fallow has resulted in severe loss of soil by sheet erosion, while widespread burning of crop residues prevents the incorporation of organic matter in the soil. This method of farming has resulted in a very noticeable decline in crop yields on these soils which are comparatively new to modern agriculture and which were almost unexcelled in natural fertility.

Some farm operators early recognized that some portions of their operating units were not suited to grain crops. Such areas in many instances were utilized by the addition of a livestock enterprise to the farm program. In recent years sweet clover has been introduced with a high degree of success. While this crop is now used largely for green manure many operators have used it successfully as a pasture crop. The utilization of this crop as pasture has resulted in an increased number of cattle in this cash-grain farming region. The need for a more conservational system of farming than now practiced was largely responsible for this study of the possibilities of diversified farming in the Palouse region of northern Idaho.

## Purpose of the Study

The reasons for undertaking this study of farm diversification were: (1) to discover, if possible, the conditions under which diversified farming is relatively as profitable as the prevailing type of farming; (2) to study the possibilities of production of livestock products and special crops needed as a result of the war; (3) diversified farming has been suggested as a means of supporting more families on the land; (4) diversified farming would provide a basis for soil conservation; and (5) diversified farming would tend to decrease the hazards of production (i.e. compared with production of grain only). In view of these objectives, farm survey records were taken by personal interview in the fall and winter of 1942; 85 farm operators being contacted.<sup>1</sup> The survey records cover the farm business for year November 1, 1941 to November 1, 1942.

## Area Studied

The farms selected for study were located in the prairie areas of Idaho, Lewis, Nez Perce and Latah counties.<sup>2</sup> Farms located adjacent to canyons, where large acreages of rough broken land would naturally be a part of the operating unit, were excluded from the study. Since an effort was made to get a cross-section of the agricultural organization of the prairie farms,

<sup>1</sup>Sixty-six records were used in the analysis.

<sup>2</sup>For a detailed description of the area studied, see *Farming Systems For Eastern Washington and Northern Idaho*, Bulletin No. 173. Idaho Agricultural Experiment Station.

those operators whose major holdings were on the prairie but who rented or owned some canyon land were included in the survey.<sup>3</sup> Farmers who had diversified their operations were contacted to get a record of their actual experiences and attitude toward this type of farming compared with straight cash-grain farming. Farmers deriving their income almost exclusively from cash-grain crops were consulted to get a record of their experiences and attitude toward diversifying their operations.

### Classification of Farms Studied

Many farms had a considerable acreage of non-tillable land but the major proportion had very little. The large proportion of non-tillable land was more common on the farms in Idaho and Lewis counties than in Latah county. The farms surveyed were first divided into two groups, those with less than 20 percent of their operating unit on non-tillable pasture and those with more than 20 percent of their operating unit in non-tillable pasture. This latter group, which is designated as group V, included those operators whose major agricultural operations are on the prairie but who also own or rent canyon pasture. This group of operators, it was believed, would naturally turn to livestock to utilize this non-tillable land (or perhaps some acquired pasture land in order to have a cattle enterprise.)

The former group, those with less than 20 percent of their operating unit in non-tillable land, was subdivided into four groups—I, farms whose major source of income was from peas and small grain; II, farms whose major source of income was from small grain only—their cropping system had practically no peas; III, farms deriving the major source of their income from peas, small grain and livestock; and IV, farms deriving the major source of their income from small grain and livestock—practically no peas in the cropping systems.<sup>1</sup> The division on the basis of acreage of peas was believed advisable because of the abnormal situation

Table 1—Land use on farms studied (Average of all farms in each group).

Items	Farm groups				
	Group I	Group II	Group III	Group IV	Group V
	Peas & Small grain	Small grain	Sm. grain, peas and livestock	Small grain & livestock	Over 20% pasture
No. of farms	14	10	9	19	14
Average size of farm—acres	899	905	535	635	983
Percent of farm tillable and of tillable land in.	94	88	89	85	60.6
Wheat	26.00	25.0	23.5	26.7	28.2
Barley	7.30	19.2	5.0	13.8	11.6
Oats (harvested for grain)	2.60	.6	4.0	2.2	0.8
Peas	30.80	1.0	27.9	1.3	14.3
Other crops	0.94	8.4	0.8	4.1	4.3
Alfalfa	1.20	0.6	4.6	2.2	1.8
Sweet clover	13.57	13.1	17.2	10.9	8.6
Non-legume hay or pasture	.59	3.6	6.9	3.5	5.4
Mixed (hay and pasture)	.71		4.9	1.3	1.3
Straight fallow	16.29	28.5	5.2	34.0	23.7
Total	100.00	100.0	100.00	100.0	100.0

<sup>1</sup>The farms included in this study, for the most part, are no doubt above average and represent the more successful operators.

The method of classification used by the United States Bureau of the Census—source of 40 percent or more of the farm income—would classify practically all of the farms included in this analysis as cash-grain types of farms. In this study, the farms were classified on the basis of receipts and net increases as follows:

Groups I and II include farms whose operators received 70 percent or more of their total gross income from crops and 20 percent or less from all livestock; Groups III and IV—20 percent or more from the total gross income from all productive livestock; in general, not over 55 percent from grain crops.

prevailing regarding this crop. As a result of the war, the Government through its pricing system, has made the production of peas extremely profitable.

The percentage of cropland in the various groups of farms and also the use of the crop land are shown in Table I. Group I farms with 94 percent of their area in crops or fallow had the highest proportion of tillable land. Group V was the lowest with only 60 percent tillable land. The remaining groups varied from 85 to 88 percent. The amount of straight fallow varied inversely with the acreage of peas and thus reduced acreages of income-producing land.

### Presentation of Income and Expenses

The analysis of the farm business for 1942 on the survey farms, based on actual costs and returns, are presented in Section I of this report. Since the farm business in 1942 was greatly affected by the war, it has been considered desirable to present in Section II an analysis of these data based upon the price structure prevailing in the few years prior to the entry of the United States into the war.<sup>1</sup> No adjustment has been attempted in regard to the acreages of crops and livestock numbers, although there has been a great shift to increases in acreage of peas and some increases in cattle, hogs, and chickens as a result of the war-time agricultural program.

## Section I

### Analysis of 1942 Farm Business on Basis of Actual Costs and Returns

Since an effort was made to get a cross-section of the agriculture of the Palouse region of northern Idaho, the sample farms exhibited wide variations in many respects, not only between the different groups but within each of the groups. Farms in Group V averaging 983 acres each were the largest. Those in Group I and II are fairly comparable with Group V as

Table 2—Numbers of farms in specified size groups.

Size—acres	Groups of farms				
	I	II	III	IV	V
240 and less .....			2	3	1
241—480 .....	4	1	3	5	7
481—720 .....	3	1	1	6	2
721—960 .....	2	5	2	2	2
961—1200 .....	2	2	1		1
1201—1440 .....				3	1
1441—and over .....	3 <sup>1</sup>	1 <sup>2</sup>	5	4	5

<sup>1</sup> Smallest 283—Largest 2120 acres.

<sup>2</sup> Smallest 480—Largest 1520 acres.

<sup>3</sup> Smallest 188—Largest 1010 acres.

<sup>4</sup> Smallest 152—Largest 1414 acres.

<sup>5</sup> Smallest 233—Largest 1297 acres.

<sup>1</sup>Adjustments were made to bring farm values in line with average prices for the 1935-1940 period. Livestock, feed, seed, and grain prices were adjusted in accordance with *Index Numbers of Idaho Farm Prices*—(Mimeo-Leaflet No. 34, University of Idaho). Values of land and improvements were not changed. (Farmers were asked to place conservative values on these items at the time of the survey.) Insurance rates on buildings and machinery were not changed. Other values were reduced as follows: Repairs to improvements and new investments in improvements, 25 percent; new machinery purchases and used machinery disposed of, 10 percent; Rotenone, and chlorates purchased during the year, 50 percent; cleaning and treating of seed, 33 1/3 percent; operators labor, family labor and hired labor, 50 percent.

they average only about 10 percent smaller. Farms in Groups III and IV averaging around 500 to 600 acres were the smallest. The range in size of farms within each of the groups is shown in the preceding table: (*Table 2.*)

Part-owners were a predominant class in all groups. For the 66 farms included in these groups, only 13 were operated by full-owners, 10 by tenants and 43 by part-owners. The sample farms selected for study appear to be fairly representative for part-owners. County planning committee reports for a large part of the Camas prairie (in Idaho county) state that the number of operators who rent land in addition to that which they own ranges from 60 to 80 percent of all operators. From these data it appears that part owners operate the largest farms from the standpoint of acreage. The following table gives data relative to tenure of operator and size of farms for different groups of farms. (*Table 3.*)

**Table 3—Tenure, average acreage owned and acreage rented by groups.**

Tenure	Groups of Farms														
	I		II		III		IV		V						
	No.	Acre owned	Acre rented	No.	Acre owned	Acre rented	No.	Acre owned	Acre rented	No.	Acre owned	Acre rented			
Full owners . . . . .	1	1440		1	1520		4	424		2	270		5	894	
Part owners . . . . .	10	450	493	9	421	416	4	540	160	12	410	380	8	709	459
Tenants . . . . .	3		558				1			5			407	1	816

### Capital Investments<sup>1</sup>

The total investment for the operating units showed a wide variation between the different groups of farms. The variations are accounted for largely by differences in the average size of farms and to a lesser extent by differences in the average investments in machinery and in productive<sup>2</sup> livestock. The data indicates the variation from group to group in average size of farm, in investment per acre in land, in machinery, in productive livestock, and in total investment per acre (*Table 4.*)

**Table 4—Average size of farm and investment by groups.**

Group	Investment per acre				Productive livestock	Total investment per acre
	Ave. size of farm (acres)	Land	Machinery			
I	898	\$74	\$8		\$1	\$91
II	905	67	8		1	86
III	535	74	10		8	106
IV	635	63	8		5	86
V	983	48	7		6	71

For all groups, the largest total capital investment for one operating unit was \$159,673 and the smallest was \$15,815. The former was a farm of 2120 acres in Group I (small grain and peas), while the latter was a farm of 152 acres in Group IV (small grain, livestock). The following table gives more data relative to the distribution of total investment for the different groups of farms (*Table 5.*)

<sup>1</sup>Several farms in Idaho county suffered severe crop losses in 1942 as a result of hail and other adverse weather conditions. Nine such farms are included in this study—six are in Group IV and three in Group V. Since the survey records cover but one year and the operators so affected state, in general, that their livestock operations had not been curtailed as a result of the weather, the 1942 business on these farms was adjusted to a normal condition from the standpoint of crops.

<sup>2</sup>Work stock included.

Table 5—Numbers of farms with specified total investment.

Item	Groups of Farms				
	I	II	III	IV	V
25,000 or less .....			1	3	
25,001-50,000 .....	4	2	4	7	4
50,001-75,000 .....	3	3	2	6	6
75,001-100,000 .....	4	3	1	1	
100,001-125,000 .....		1	1	1	4
125,001-or over .....	3	1		1	

Land accounted for 80 percent or more of the total investment on most farms except those containing a large proportion of non-tillable pasture (Group V). On this latter group, investment in land averaged 68 percent of the total investment.

The average amount invested in farm improvements and in machinery per operating unit showed a high degree of uniformity for the different groups except in the case of Group V. In this group the increased investment in farm building per farm reflected the additional facilities required for livestock since nearly all of these farms had a comparatively large investment in livestock.

On most farms in the Palouse region the change-over to mechanized farming has been complete and horses for work stock have almost ceased to be an item of investment. Of the 85 operators contacted on this study, only one was still using horses for most of the field work.

The total investment in productive livestock per farm averaged largest in Group V farms, those with 20 percent or more of their area in non-tillable pasture land. Investment in productive livestock per acre was largest, however, on the farms in Group III. Group III is distorted since it contains one of the largest livestock operators contacted on the entire survey. The omission of this farm gives a total investment in productive livestock per acre in Group III which is almost exactly the same as for Groups IV and V. While the total investment in productive livestock per farm is exceedingly small for the cash-grain farms of both Groups I and II, some operators in these groups have a fair sized livestock side-line. Many of the straight cash-grain farms are almost entirely devoid of livestock of any kind.

Average investment per farm in feed, grain, and seed showed little variation between the different groups. These averages for Groups I and II, the straight cash-grain farms, are distorted by the large inventories of three operators (approximately \$11,000 to \$14,000). In general the cash-grain farms had small inventories of feed, grain, and seed at the beginning of the year. Inventories of feed and grain for the operators with livestock enterprises reflected the grain and hay requirements of their livestock.

### Receipts and Net Increases

Total receipts and net increases averaged largest for the straight cash-grain farms having a substantial acreage of peas (Group I). The average for the farms in Groups III and V were much higher than the averages for these in Groups II and IV. All of the farms in Group III and many in Group V had considerable acreages of peas. The exceedingly high profit in peas as a result of above average yields and war prices is reflected in

these data. The farms in Group II and IV had the lowest average receipts and net increases. These farms had practically no acreage of peas. The data for these farms show the present comparatively unfavorable earning capacity of straight wheat and barley farming under wartime conditions in 1942 and also the comparative disadvantage of livestock compared with peas.

Receipts and net increases from classes of productive livestock were a negligible amount for the farms in Group I and II averaging less than two dollars per acre of land in the farms. The averages for farms in Groups III, IV, and V are fairly uniform, being around seven dollars per acre of all land in the farms (omitting the one very large livestock farm from Group III). The division of receipts and net increases for the various livestock enterprises and for feed, seed, and grain for the different groups of farms is shown in the following table (Table 6).

**Table 6—Comparison of specified receipts and net increases of farms by groups. Receipts and net increases<sup>1</sup>**

Group	Cattle		Dairy Sales		Hogs		Poultry & eggs		Grain, peas & seed	
	am't	%	am't	%	am't	%	am't	%	am't	%
I	\$ 356	1.5	\$ 82	0.3	\$ 930	3.9	\$ 76	0.3	\$20,202	85.3
II	419	2.8	118	0.8	529	3.5	99	0.7	11,827	79.3
III	2792	15.9	265	1.5	2039	11.6	214	1.2	10,628	60.7
IV	1149	9.6	350	2.9	2495	20.6	204	1.7	6,129	51.2
V	2505	15.6	276	1.6	3556	20.5	174	1.0	8,932	51.5

These data indicate the reaction of farmers to the favorable position of hogs, compared with other livestock enterprises, which had developed as a result of the wartime food program. While some farmers did not have any hogs in 1942 and in other instances the hog enterprise was subordinate to beef cattle or dairy cattle, the averages for all farms in each group show the importance of the hogs compared with other classes of livestock (Table 5). The flexibility of the hog enterprises and the comparatively low investment required enables farmers to take advantage quickly of highly favorable feed ratios.

Table 7 gives detailed data relative to the distribution of farms within the five groups on basis of the major source of income for the operators. A major consideration of this study is to explore the extent to which the farm operators of the Palouse region in northern Idaho can engage in livestock enterprises under conditions similar to the period 1935-1940 which is thought to be more nearly representative of long-time trends than was 1942.

### Expenses and Net Decreases

The principal expenses and net decreases for all farms were for machinery and hired labor. Average expenses and net decreases were nearly the same amount for all groups. (Table 7).

**Table 7—Comparison of specified expenses and net decreases of farms by groups.**

Groups	Expenses and net decreases									
	Farm improvements		Machinery		Livestock expense		Hired labor		Misc.	
	am't	%	am't	%	am't	%	am't	%	am't	%
I	\$437	7.8	\$2519	45.0	\$14	0.2	\$1642	29.3	\$998	17.8
II	433	11.0	1900	48.3	20	0.5	877	22.3	699	22.3
III	485	11.1	1746	40.0	46	1.1	1426	32.7	658	15.5
IV	429	12.5	1965	54.3	25	0.7	517	15.0	542	15.8
V	575	11.4	2279	45.4	36	0.7	1442	28.7	664	13.2

<sup>1</sup>Only 6 of the 85 operators contacted in the study had sheep. This enterprise is of such minor importance even on the farms having sheep that this item has been omitted from the table.



### Farm Earnings

The farms in Groups I and III, those with substantial acreages of peas in the cropping system, yielded the highest incomes. The results could hardly have been otherwise with the larger percentages of the farm in crops permitted by peas and with the high price received for peas in 1942. The rate earned on investment by the two groups of farms averaged a little over 20 percent (for the entire farm as an operating unit). The farm family labor income averaged around \$11,000. The labor income for the farms in the other groups varied from an average of \$5,804 in Group IV to an average of \$8,226 for Group V. The labor income for farms in this latter group would have been more nearly equal to the other two groups except for unfavorable weather conditions in 1942 in Idaho county. Average labor income expressed as per acre earnings show the profitableness of adding peas and hogs to the combination of 1942 (*Table 8*).

**Table 8—Comparison of earnings of farms by groups.**

Group	Farm family labor income			Labor income as percent of operator's investment
	Average per farm	Average per acre farm	Average per acre tillable	
I.....	\$11,830	\$13.17	\$14.00	26.2
II.....	7,281	8.04	9.15	14.3
III.....	10,274	19.20	21.58	20.8
IV.....	5,804	9.14	10.74	18.9
V.....	8,226	8.37	13.80	15.7

The data in Table 8, because of being based on averages does not give a picture of individual variations of farms within each of the groups. Some farms in each of the groups had a labor income per acre as low as five and six dollars. The bulk of the farms had labor incomes per acre of from \$5.00 to \$13.00 per acre. Six farms of the 66 farms had labor income of over \$24.00 per acre. Expressed in total labor incomes per farm the range was from \$4,742 to \$26,163 for Group I, which averaged the highest to \$1,202 to \$16,811 for Group IV which averaged the lowest.

### Section II<sup>1</sup>

#### Analysis of Farm Business Adjusted to Normal Prewar Costs and Expenses. Receipts and Net Increases

The receipts, expenses and earnings were decidedly abnormal for the year 1942, because of high wartime prices and costs.<sup>1</sup> (See Table 6 in Section I.) To give a view of what these five groups of farms might be expected to earn in normal times, normal prewar prices and costs were substituted for the 1942 figures in each farm record. Table 9 gives receipts from sales of various products at prewar prices. Table 6 should now be compared to this table to observe the contrast.

Receipts from grain, peas, and seed at normal prices are scarcely one-half of that for 1942. The same relationship holds for hogs. Receipts from poultry, dairy sales and other cattle show smaller proportionate decreases. Judging from normal conditions the absolute rise in these receipts is not as important as the difference in the proportion of the receipts from each source. In 1942 peas and grain showed greater increases than livestock both absolutely and proportionately. This is a wartime situation being carried over into 1943 and 1944.

<sup>1</sup>Wheat sold for over \$1.00 per bushel and dry peas for from \$4.60 to \$5.00 per hundredweight.

For example, receipts from feed, seed, and grain ranged by groups from 51.3 percent to 85.3 percent of total farm receipts in 1942 compared to 45.3 percent to 78.5 percent under normal prices and costs. Hogs also amounted to a larger percentage under 1942 conditions, but dairy products, poultry and eggs, were a less percentage for all groups. Beef cattle receipts varied between groups or classes of farms. Therefore, under normal price and cost conditions it could be expected that livestock could occupy a more favorable position in bringing in receipts than 1942. Farmers confirmed this by saying that livestock helped a great deal when peas and grain were relatively low in price as during the depression and just prior to the war (1941). In only Groups III, IV, and V were livestock significant in amount and in these three groups hogs and beef cattle made up bulk of the receipts from livestock. Dairy and poultry were of minor importance. This could be expected on commercial grain farms where grain and by-products forages are available in large amounts. Sheep seem to be very limited in the area for a number of reasons. Farmers report as follows: Fencing, detailed care required, dog and coyote damage are some important difficulties. However, the feed, particularly the pasture situation fits sheep better than it does cattle. Shed room is required for both cattle and sheep in the winter and all hay must also be under cover during this season.

**Table 9—Comparison of specified receipts and net increases of farms by groups. Receipts and net increases<sup>1</sup>**

Group	Cattle		Dairy sales		Hogs		Poultry & eggs		Grain, peas, seed	
	am't	%	am't	%	am't	%	am't	%	am't	%
I	\$ 207	1.7	\$ 55	.4	\$ 465	3.7	\$ 55	.4	\$9776	78.5
II	251	2.5	84	.8	265	2.7	84	.8	7409	74.6
III	1675	18.6	178	2.0	908	10.0	178	2.0	4656	51.7
IV	688	9.3	235	3.2	1269	17.1	157	2.1	3518	47.5
V	1622	16.8	185	1.9	1771	18.3	169	1.7	4386	45.3

### Expenses and Net Decreases

Expenses were lower under assumed normal conditions but relatively not as much lower as were receipts. (See Table 10 and Table 7). The most important change in expense was a rather large percentage increase in machinery expenses and an increase in hired labor expenses for 1942 over normal conditions. This again shows that livestock which uses relatively more labor than do crops, would have a greater comparative advantage under normal price and cost conditions than during war conditions. Where, however, wartime conditions compel the hiring of "year around" hired labor, a situation arises which may make livestock fit into the farm system as a means of carrying this overhead expense.

**Table 10—Comparison of specified expenses and net decreases of farms by groups. Expenses and net decreases**

Group	Farm improvements		Machinery		Livestock expenses		Hired labor		Miscel.		Total	
	am't	%	am't	%	am't	%	am't	%	am't	%	am't	%
I	\$ 407	8.7	\$2453	52.3	\$18	0.4	\$812	17.3	\$998	21.3	\$4688	100
II	411	11.5	2011	56.1	21	0.6	439	12.3	699	19.5	3581	100
III	391	11.3	1649	47.7	49	1.4	713	20.6	658	19.0	3460	100
IV	390	12.4	1797	57.3	107	3.4	301	9.6	542	17.3	3137	100
V	544	12.9	2232	53.0	50	1.2	719	17.1	663	15.7	4210	100

<sup>1</sup>Miscellaneous and total omitted in this table.

### Farm Family Labor Income

In Table 11 farm family labor income under assumed prewar normal prices and costs is shown for each group of farms as an example of price relationships which might be expected after the war when more normal demand and supply relations again prevail. It is thought that this allows a fair comparison between cash, grain, and diversified farms. When data in Table 9 are compared with data in Table 6 the influence of wartime on farm family labor income becomes apparent. The 1942 family labor income was more than three times that of prewar normal returns in all groups except in Group II, and nearly so in this group. (In Group II small grains are grown almost exclusively). Where farm family labor income is averaged per acre (Table 11, 1942 price), Group III, where peas, grain and livestock are all grown, shows by far the highest average. The next in order is Group I where peas and small grains predominate. The same relationship holds in Table 11 where normal prices and costs were used. Group III averaged 476 crop acres as compared to 844 acres for Group I, but the average family labor income varies only from \$3194 to \$3856 respectively. Now if \$1500 was used for living expenses by both groups, Group III would have \$1694 and Group I \$2356 to use for other than living expenses, possibly for principal payments on land indebtedness. Group III could more quickly pay for the land used from this sum. Some credence is lent to this view since operators in Group III owned most of the land (476 acres) which they farmed, while in Group I operators rented about half of theirs (844 acres).

It is apparent that Group III had a more stable farm system which probably offset the advantage of approximately 30 percent larger expendable income after living costs were paid, in Group I. The fifth and seventh columns on Table 11 show that Group I returned the largest family labor income as a percent of the *operator's* investment but that Group III showed the largest income as a percent of the *total* investment which includes landlord's investment and mortgage indebtedness.

Table 11—Comparison of farms by groups under perwar normal prices and costs.

Group	Average per farm	Farm family labor income <sup>1</sup>		Labor income as percent of operator's investment	Labor income as percent of total investment
		Average per acre farm	tillable		
I Peas & small grain.....	\$3,856	\$4.29	\$4.56	*(43,867) 8.8 <sup>2</sup>	(\$80,206) 4.8
II Small grain...	3,194	3.53	4.01	(49,293) 6.5	(75,906) 4.2
III Peas, small grain, livestock	3,044	5.69	6.39	(46,668) 6.5	(54,191) 5.6
IV Small grain & livestock....	1,925	3.03	3.56	(28,850) 6.7	(52,820) 3.6
V 20% range....	2,526	2.57	4.23	(42,185) 5.1	(66,296) 3.8

<sup>1</sup>Average acreage by group were as follows: <sup>2</sup>Operator's investment. <sup>3</sup>Total investment.

	I	II	III	IV	V
Farm acreage .....	898	905	535	635	983
Tillable acreage .....	844	796	476	540	596

Thus is revealed the reason why many operators with *limited capital* prefer to raise cash-grain and to rent part of their land rather than operate less acreage but own all of it. This being true, diversification is at present of minor importance in the area. Diversification can, however, be chosen by more operators and thus permit very nearly two farms of almost equal

family labor income to exist on the acreage now occupied by one farm on a cash-grain basis as shown in Group I. The work on Group I farms with grain and peas is less confining than on Group III farms and this adds another incentive for renting more land and excluding livestock.

Diversification can gain rapidly if and when more farmers, so minded, offer to pay more rent or buy the land at prices which are higher than cash-grain farmers are willing to pay. Apparently this can be done during normal times, if a little lower but adequate<sup>1</sup> farm family income is accepted, although wartime prices of peas and grain give a temporary but very great advantage to cash-grain farming on large acreages.

If the other three groups of farms are judged on the same basis (Table II) grain (no peas) and a few head of livestock on an average of 540 crop acres in Group IV shows the poorest use of land and capital. The next poorest is Group V where over 20 percent of the land was range pasture. Group II large grain farms returned somewhat higher family labor income than Groups III, IV, and V, but in this group it can be seen from Group I that peas would have increased income. Groups II and I probably averaged too large an acreage to make livestock feasible, because remaining labor and supervision would be insufficient.

<sup>1</sup>These farm family incomes in the Idaho Palouse would be almost double those realized as an average on irrigated farms in Idaho during the prewar period.

