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## A Farm Organization and Management Study in Western Millard County, Utah

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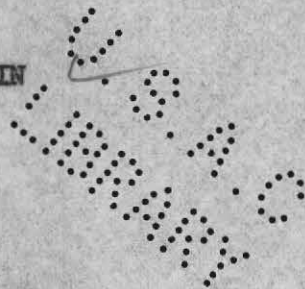
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A FARM ORGANIZATION AND MANAGEMENT STUDY IN  
WESTERN MILLARD COUNTY, UTAH



A THESIS

PRESENTED TO THE

DEPARTMENT OF AGRICULTURAL ECONOMICS AND MARKETING

OF THE UTAH STATE AGRICULTURAL COLLEGE

in

PARTIAL FULFILLMENT OF REQUIREMENTS FOR

THE DEGREE

of

MASTER OF SCIENCE

by

GEORGE THOMAS BLANCH

Logan, Utah

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A FARM ORGANIZATION AND MANAGEMENT STUDY IN WESTERN  
MILLARD COUNTY, UTAH.

Introduction

Due to the cumulative effect of certain economic factors, the farmers of western Millard County, known as the Delta area, are in unfavorable economic conditions. Many of the farms are heavily mortgaged, taxes and interest in many cases are in arrears for several years, and in general, lack of prosperity is quite evident. The majority of the farm land in this area is within one of four drainage districts. These districts are known as drainage districts No. 1, No. 2, No. 3, and No. 4. The cost and maintenance of these drainage systems is generally thought to be one of the contributing causes of the unfavorable financial situation in this area.

The Delta area was first settled by white men about 1860, but it was not until after 1901 when the state provided for the operation of the Federal Cary Act that the larger part of the present cultivated area was settled. As a result of the Cary Act, new irrigation projects were constructed, and colonization plans were put into effect. Settlers were brought in from many places, quite a number being from the Middlewest. These settlers procured the land from the state at a very low cost. Private development companies constructed the irrigation systems and sold the water to the settlers.

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Acknowledgement of assistance is gratefully given Professor W. P. Thomas, under whose supervision this work has been done; to Edith Hayball, Inez Tingey, Beth Van Fleet, and Ruth Stewart for assistance in tabulating and compiling the data, to Professor W. U. Fuhrman for suggestions concerning the organization and presentation of the material, and to the farmers of western Millard County, who gave the information concerning their farm businesses.

As a result of the increased volume of irrigation water used in the area and the lack of natural drainage, the land in parts of the area became water logged and alkaline. To overcome this condition the drainage districts were organized under the state drainage district law and drainage systems installed. This work was done at the inflated prices incident to the war. Also the drainage systems were made to include much waste land that has never been cultivated. The final result being that the cost to the land actually cultivated was very exorbitant when compared with the deflated post war price level.

To further add to the burden of the farmers of the area, disputes arose concerning their water rights. Much expensive litigation has ensued with a reduction in water available for use in the area. This coupled with overestimating the original amount of water that was available has resulted in bringing into cultivation much more land than can now be adequately irrigated. Probably not more than fifty per cent of the present acreage under cultivation can be adequately irrigated with the water that has been available the past few years.

Until about 1925 alfalfa seed was the principal source of income of the farmers in western Millard County. At the time the drainage systems were installed they were receiving very good returns from this crop. The high returns and the ease of production tended to inflate land values and in general added to the boom period. But for some reason, as yet unknown, the yield of alfalfa seed has declined since 1925, until it is now only a small part of what it formerly was. The high maintenance cost of the drainage districts, the failure of the alfalfa seed crops, and the decline in farm prices are the principal causes contributing to the present unfavorable economic conditions there.

For the past two years the Agricultural Experiment Station of the Utah State Agricultural College has been doing research work in western Millard County on the farming problems. One of the projects that has received considerable attention has been: "A study of the factors influencing the financial conditions of certain Utah Irrigation and Drainage Projects", also known as State Experiment Station Project 90. This project has been divided into four sub-projects, each in charge of a department of the Experiment Station. The department of Irrigation and Drainage is studying the engineering and engineering economic aspects. The Soils department is studying the soil productivity factors. The contributing sociological factors are being studied by the department of Sociology, while the department of Agricultural Economics is studying the economic aspects. When completed the results of all these studies will be assembled and published.

The Agricultural Economics department is studying the influence of four different factors upon the financial condition in western Millard County. They are: 1. The farmers' indebtedness and available credit. 2. Crop and livestock production. 3. Marketing factors. 4. Factors beyond the control of the farmer. This treatise is based upon data collected for the study being made by the Agricultural Economics department and is limited to an analysis of farm organization and management.

#### Purpose of Study

The purpose of this study is to determine, if possible, whether or not under present conditions the farmers in west Millard County can pay the high taxes, indebtedness, and other farm expenses in addition to supporting their families. In order to do this a farm organization and

management analysis of the farms in that area has been made.

#### Source of Data

Part of the work done by the Agricultural Economics department consisted of securing records of 100 farm businesses for the year 1929, and a like number of records for 1930. Of the 1929 records secured, 40 have been used in this study. These records were secured by the writer. The writer was in charge of the field work for the Experiment Station in securing the 1930 records,<sup>1/</sup> and has used 92 of them in this study. The records were secured by a personal visit to the farmers, on specially prepared schedules. In the selection of the farms from which records were secured, a random method of sampling was used.

For the purposes of analysis, and for this presentation, the data for 1929 and 1930, together with the weighted averages of the two are used primarily. This is supplemented with the data for 1930 divided into five groups, on the basis of the farm location with respect to the drainage districts.

#### Capital Invested

The average<sup>2/</sup> total investment for the two years was \$7,556 ± \$397<sup>3/</sup> (Table 1). For 1929 it was \$8,522 and in 1930, \$7,136. The greater part of the difference in investment is in land. Because of the high overhead costs incident to the drainage systems, and the low incomes the past few years, land values are very unstable and the farmers had great difficulty in ascribing value to land. However, the tendency toward lower land values

1/ J. C. Rollins and Alvin Carpenter assisted in securing the 1930 records for the State Experiment Station.

2/ Without exception, whenever the average of 1929-1930 is used, the average is weighted.

3/ This is the standard error of the mean. The standard error is used throughout.

in 1930 was quite evident.

**TABLE 1. CAPITAL INVESTED, INDEBTEDNESS AND NET WORTH:  
AVERAGE PER FARM IN WEST MILLARD COUNTY, UTAH, 1929-1930.**

	132 Farms 1929-30:		40 Farms 1929 :		92 Farms 1930	
	Value	Percentage	Value	Percentage	Value	Percentage
	of total		of total		of total	
	Dols.		Dols.		Dols.	
<b>Investment in:</b>						
Land	4025	53.3	4983	58.5	3608	50.6
Buildings	1436	19.0	1375	16.1	1463	20.5
Equipment	472	6.2	506	5.9	457	6.4
Livestock	1372	18.2	1466	17.2	1332	18.6
Feed & Supplies	251	3.3	192	2.3	276	3.9
<b>Total Investment</b>	<b>7556</b>	<b>100.0</b>	<b>8522</b>	<b>100.0</b>	<b>7136</b>	<b>100.0</b>
<b>Indebtedness:</b>						
Mortgages	2363	71.8	2506	79.2	2301	68.8
Notes	262	8.0	264	8.3	261	7.8
Back Taxes <sup>1/</sup>	667	20.2	396	12.5	784	23.4
<b>Total Indebtedness</b>	<b>3292</b>	<b>100.0</b>	<b>3166</b>	<b>100.0</b>	<b>3347</b>	<b>100.0</b>
<b>Net Worth</b>	<b>4264</b>	<b>56.4</b>	<b>5356</b>	<b>62.8</b>	<b>3789</b>	<b>53.1</b>

<sup>1/</sup> Includes interest and penalties on unpaid taxes up to current year.

**DISTRIBUTION OF THE TOTAL FARM INVESTMENT**

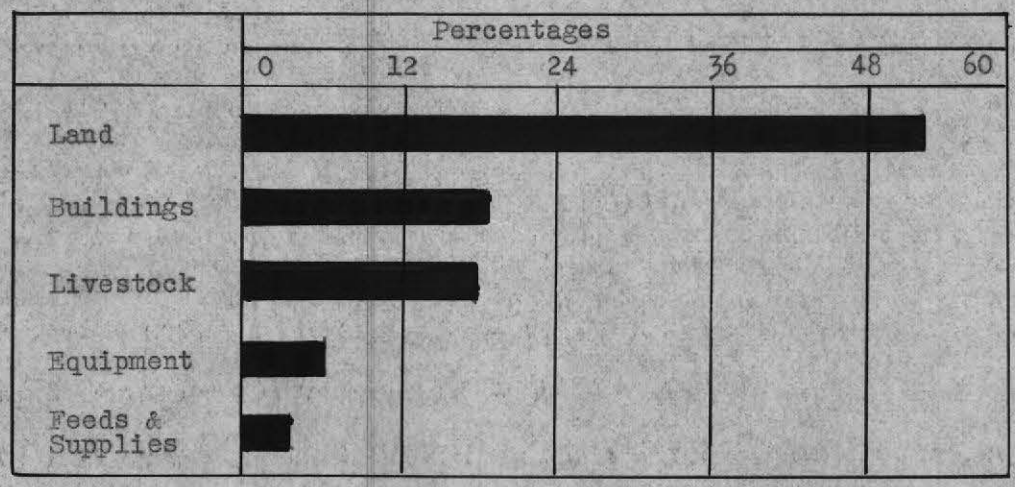


Figure 1. More than 53 % of the total investment was in land, with 19 % in buildings and 18 % in livestock. Western Millard County, Utah, average 1929-1930.

Indebtedness and Net Worth

The average indebtedness per farm for the two years was \$3,292 ±\$253.



Of this 71.8 % were mortgages and 20.2 % were back taxes.<sup>4/</sup> The 1929 records show an average indebtedness of \$3,166 of which 79.2 % were mortgages and 12.5 % back taxes. The average indebtedness for 1930 was \$3,347 of which 68.8 % were mortgages and 23.4 % back taxes.

#### DISTRIBUTION OF FARM INDEBTEDNESS

	Percentages				
	0	20	40	60	80
Mortgages					
Back Taxes					
Notes					

Figure 2. Of the total indebtedness nearly 70 % was in the form of mortgages, while 20 % was back taxes. Western Millard County, Utah, average 1929-1930.

The data shows an average net worth of \$4,264 or 56.4 % of the total investment for the two years. The net worth for 1929 was \$5,356 or 62.8 % of the total investment, whereas the 1930 net worth was \$3,789 or 53.1 % of the total investment. (Table 1).

These data for the two year period are significant in showing a decided decline in investment in land, and a material increase in unpaid taxes, resulting in a reduction in net worth or operator's equity.

In table 2 is shown the 1930 data on investment, indebtedness, and net worth, arranged in groups with respect to location relative to the drainage districts.<sup>5/</sup> The total investment for the various groups are fairly

<sup>4/</sup> Throughout this discussion, back taxes includes penalty and interest on unpaid taxes.

<sup>5/</sup> Of the group of farms outside the drainage districts, part were outside the boundaries, and part were within the boundaries but were excluded from the districts.

uniform, the greatest variation being in drainage district No. 2, which had an investment of \$6,024 as compared with an average of all groups of \$7,136 and of \$7,829 for district No. 4, which was the highest. District No. 2 was below the average for every factor but was particularly low in investment in land. There was more variation in the indebtedness and net worth than in investment. For indebtedness, district No. 2 was again low and district No. 4 was the highest in the group. The range being from \$2278 for district No. 2

TABLE 2. CAPITAL INVESTED, INDEBTEDNESS AND NET WORTH BY DISTRICTS: AVERAGE PER FARM IN WESTERN MILLARD COUNTY, UTAH, 1930.

No. of Records	All Farms: Not in: Dr. Dist.: Dr. Dist.: Dr. Dist.: Dr. Dist.					
	: Drain :	No. 1 :	No. 2 :	No. 3 :	No. 4	
	92	17	10	22	33	10
	Dollars	Dols.	Dols.	Dols.	Dols.	Dols.
<u>Total Investment in:</u>						
Land	3608	3845	3033	2889	3825	4650
Buildings	1463	1822	1952	1273	1357	1127
Equipment	457	393	727	373	452	507
Livestock	1332	1170	1570	1272	1391	1300
Feed & Supplies	276	240	313	217	332	245
<b>Total Investment</b>	<b>7136</b>	<b>7470</b>	<b>7585</b>	<b>6024</b>	<b>7357</b>	<b>7829</b>
<u>Indebtedness</u>						
Mortgages	2301	2607	1340	1509	2621	3427
Notes	261	496	321	216	141	300
Back Taxes	784	96	660	553	1202	1209
Int. on Back Taxes						
<b>Total Indebtedness</b>	<b>3347</b>	<b>3199</b>	<b>2321</b>	<b>2278</b>	<b>3964</b>	<b>4936</b>
<b>Net Worth (Operator's Equity)</b>	<b>3789</b>	<b>4271</b>	<b>5264</b>	<b>3746</b>	<b>3393</b>	<b>2893</b>

to \$4936 for district No. 4. Those not in the drainage district had a relatively much higher indebtedness in the form of mortgages and much lower in the form of back taxes. The range in net worth was from \$5264 in district No. 1 to \$2893 in district No. 4. The average was \$3789.

Acreage and Utilization of land

The farms studied in 1929 had an average total of 104.9 acres, of which 69.5 or 66.2 % were actually cultivated. The farms studied in 1930 had a total of 101.1 acres, of which 70 acres were actually cultivated in 1930. This equalled 69.2 % of the total acreage. The total average acreage for the two years was 102.3. Of this 69.8 + 3.5 acres or 68.2 % was cultivated. (table 3)

Of the average total cultivated acreage in 1929-1930, 63.9 acres were planted in alfalfa. In 1929, 38.5 acres or 55.4 % of the total alfalfa

TABLE 3. UTILIZATION OF LAND: ACRES AND PERCENTAGES ON FARMS IN WEST MILLARD COUNTY, UTAH, 1929 AND 1930.

	132 farms 1929-1930 :		40 Farms in 1929:		92 Farms in 1930	
	Acres	Percentage of Total	Acres	Percentage of Total :	Acres	Percentage of Total
Cultivated Land	69.8	68.2	69.5	66.2	70.0	69.2
Non-cultivated Land	32.5	31.8	35.4	33.8	31.1	30.8
Total Land	102.3	100.0	104.9	100.0	101.1	100.0
<u>Cultivated Land</u>						
Alfalfa-Total	63.9	91.6	65.1	93.7	63.4	90.6
Alf.-Cut for Seed	28.3	40.5	38.5	55.4	23.8	34.0
Grain	5.3	7.6	3.9	5.6	5.9	8.4
Potatoes	.1	.1	.1	.1	.1	.1
Other Cultivated	.5	.7	.4	.6	.6	.9

acreage was left for the production of seed. In 1930, only 34.0 % or 25.8 acres were utilized for this purpose. The decrease in the total alfalfa acreage in 1930 was largely utilized in the production of grain. The grain acreage in 1929 was 3.9 acres, 5.6 % of the total cultivated acreage, while in 1930 it was 5.9 acres or 8.4 % of the total. The average of the two years shows only 5.9 acres or 8.4 % of the total acreage in grain, potatoes, and other cultivated crops, alfalfa being by far the most important crop.

UTILIZATION OF CULTIVATED LAND

	Percentages					
	0	20	40	60	80	100
Total Alfalfa	Cut for Seed					
Grain						
Other Cultivated						
Potatoes						

Figure 3. In Western Millard County, Utah, 91.6 % of the total cultivated acreage was planted to alfalfa. 1929-1930.

In Table 4 is presented the acres and utilization of land by districts for 1930. The farms are largest in district 3, with an average total of 116.6 acres. Those farms outside of the drainage districts were smallest with a total of 83.3 acres. The range in total cultivated acreage was from 84.5 acres in district No. 3 to 58.1 acres for farms not in a drainage district. Of the cultivated land the percentage planted to alfalfa ranged from 96 % for farms outside the drainage districts to 88.9 % for farms in district No. 3. Relative to the total cultivated land, more grain was planted

TABLE 4. ACREAGE AND UTILIZATION OF LAND BY DISTRICTS: ON FARMS IN WEST MILLARD COUNTY, UTAH, 1930.

	All farms: Not in: Dr. Dist.: Dr. Dist.: Dr. Dist.: Dr. Dist.					
	: Drain	: No. 1	: No. 2	: No. 3	: No. 4	
No. of Records	92	17	10	22	33	10
	Acre	Acre	Acre	Acre	Acre	Acre
Cultivated Land	70.0	58.1	65.6	60.4	84.5	67.5
Non-cultivated Land	31.1	25.2	26.3	39.1	32.1	25.5
Total Land	101.1	83.3	91.9	99.5	116.6	93.0
<u>Cultivated Land</u>						
Alfalfa - Total	63.4	55.8	59.5	54.6	75.1	61.1
Alfalfa-Cut for Seed	23.8	19.8	44.7	18.3	27.7	9.1
Grain	5.9	2.2	4.9	5.1	7.9	6.0
Potatoes	.1	-	-	-	.1	.3
Other Cultivated	.6	.1	1.2	.7	1.4	.1

more grain was planted in district 3 with 9.3 % of the cultivated acres and the least in the group of farms not in the drain with 3.8 % . The range of acres used for alfalfa seed production was from 44.7 acres, 68.1 % of total cultivated acres in district 3, to 9.1 acres, 13.5 % of total cultivated acres in district 4.

Per Acre Yields of Various Crops

The yields per acre of all crops in west Millard County are very low.<sup>6/</sup> In table 5 are presented the yields of various crops for 1929 and 1930 and the average of the two years. The yield of hay was higher in 1930 than in 1929. The average yield in 1929 for all alfalfa acres was .76 tons, in

TABLE 5. YIELD PER ACRE OF VARIOUS CROPS: AVERAGE  
ON FARMS IN WEST MILLARD COUNTY, UTAH, 1929-1930.

	132 Farms 1929-30	40 Farms 1929	92 Farms 1930
Alfalfa Hay (total acreage)	.99 tons	.76	1.09
Alfalfa (hay only)	1.81 tons	.97	1.95
Alfalfa (acreage was left for seed) (on farms where some)	.81 tons	.74	.84
Percentage of acreage cut for seed	55.0	75.2	48.6
Alfalfa Seed (Uncleaned)	36.8 lbs.	35.88	37.53
Alfalfa Chaff	.54 tons	.56	.53
Wheat	18.0 Bu.	16.89	18.23
Barley	29.2 Bu.	21.40	31.59
Oats	29.9 Bu.	40.00	28.54
Potatoes	135.2 Bu.	147.69	130.45
Beets	8.2 tons	6.00	8.23

1930 it was 1.09 tons. On the farms where no part of the alfalfa acreage was left for seed production<sup>7/</sup> the 1929 yield was .97 ton as compared with

<sup>6/</sup> Compare with Utah Crop Report - Annual Summary 1930. USDA, B. A. E., Division of Crop & Livestock Estimates.

<sup>7/</sup> The usual practice is to harvest the first cutting for hay and then leave the second cutting to mature for seed.

1.95 tons in 1930. The yields of hay on farms where some part of the total alfalfa acreage was left for seed production was .74 tons in 1929 and .84 tons in 1930. However in 1929, 75.2 % of the acreage on these farms was left for seed, while in 1930 only 48.6 % of the acreage on these farms was so used. Apparently in 1930 the farms best adapted for the production of hay did not attempt to produce seed while those farms on which yields of hay were low did leave their acreage for seed. The yield of seed did not vary greatly from the average of the two years which was 36.8 lbs. Likewise the yield of chaff was uniform, the two year average being .54 tons. For grain the yield changed some from 1929 to 1930, especially oats and barley, but the acreage represented is very small. Also potatoes are grown to a very limited extent and only in certain sections.

In table 6 are the yields per acre for 1930 by groups. The yields of hay for the total alfalfa acreage range from .73 tons in district 2 to

TABLE 6. PER ACRE YIELD OF VARIOUS CROPS BY DISTRICTS:  
ON FARMS IN WEST MILLARD COUNTY, UTAH, 1930.

No. of Farms	All Farms Not in Dr. Dist. Dr. Dist. Dr. Dist. Dr. Dist.					
	92	Drain 17	No. 1 10	No. 2 22	No. 3 33	No. 4 10
Alfalfa Hay - Where no Seed was cut Tons	1.95	2.00	2.75	1.56	1.84	1.26
Alfalfa (Total) Tons	1.09	1.36	.97	.73	1.09	1.51
Alfalfa Seed Pounds	37.53	31.53	51.76	33.92	33.40	47.36
Alfalfa Chaff Tons	.53	.53	.75	.40	.44	.82
Wheat Bushel	18.23	18.06	16.06	24.38	18.12	8.11
Barley Bushel	31.59	20.00	33.67	34.05	27.75	-
Oats Bushel	28.54	-	-	37.20	41.70	-
Potatoes Bushel	130.46	150.00	-	175.00	121.95	123.48
Beets Tons	8.23	-	6.0 (Mangels)	-	8.23	-

1.51 tons in district 4. The yields on farms where no seed was produced range from 2.75 tons in district 1 to 1.26 tons in district 4.<sup>8/</sup> The yield of seed varied from 51.76 lbs. in district 1 to 31.53 lbs. for the group not in the district.

With average yields as given in table 5 - average for 1930 - and average prices as reported by the farmers of west Millard county for 1930, the per acre income from various crops would be as given in table 7.

TABLE 7. AVERAGE VALUE PER ACRE OF CROPS GROWN IN WEST MILLARD COUNTY, UTAH, 1930. AVERAGE YIELDS AND AVERAGE PRICES AS PRICES AS REPORTED BY 92 FARMERS.

Commodity		Avg. Yields : per Acre	Avg. Price : per Unit	Total Acre
				Income
			Dollars	Dollars
Alfalfa Hay	Tons	1.09	6.50	7.08
Alfalfa Seed	Pounds	37.53	.12	4.50
Wheat	Bushel	18.23	.67	12.21
Barley	Bushel	31.59	.65	20.53
Oats	Bushel	28.54	.41	11.70
Potatoes	Bushel	130.45	.70	91.32
Beets	Tons	8.23	7.00	57.61

With yields and prices as of 1930 over 90 % of the total cultivated acres would produce an income of about \$10.00 per acre if the crop were sold direct. The income from potatoes and beets would be considerably more but the acreage grown is so small as to be an almost negligible factor. With such yields there must be a very low per unit cost of production if the farms pay actual expenses.

<sup>8/</sup> In district 1 there was only one farm not producing seed. In district 4 there were 7 such farms.

Crop Income

Approximately 19 % of the total farm income is derived from the sale of crops. In 1929 this amounted to \$365, while in 1930 it was \$225 though the percentage of total income remained about the same. The decrease is wholly attributable to the difference in income from alfalfa seed. There was a smaller amount sold and also a lower price. Income from grain and other crops increased, which increase was due to greater amounts sold as the price declined. For the two years 84 % of the total crop income was from hay and alfalfa seed.

TABLE 8. CROP INCOME: AVERAGE AMOUNT PER FARM AND PER CENT OF TOTAL FARM INCOME IN WESTERN MILLARD COUNTY, UTAH, 1929 AND 1930.

Crop Income	132 Farms 1929-30		40 Farms in 1929		92 Farms 1930	
	Dollars	Percentage of Total	Dollars	Percentage of Total	Dollars	Percentage of Total
Alfalfa (hay)	74	5.2	74	3.9	73	6.1
Alfalfa Seed	152	10.7	261	13.9	104	8.6
Chaff	8	.6	15	.8	5	.4
Grain	20	1.4	8	.4	26	2.1
Other Crops	14	1.0	7	.4	17	1.4
<b>Total Crop Income</b>	<b>268</b>	<b>18.9</b>	<b>365</b>	<b>19.4</b>	<b>225</b>	<b>18.6</b>

The crop incomes from the various drainage districts are shown in table 9. The range is from \$113 for farms outside the drainage district to \$356 for farms in district 1. In district 1, over 76 % of the crop income was from alfalfa seed, while the farms in district 4 with a total crop income of \$313 received an equal percentage of its crop income from hay. Districts 2 and 3 have the larger number of sources of crop income.

Numbers of Livestock<sup>2/</sup>

Dairy cows and sheep are the most important kinds of livestock in

<sup>2/</sup> The numbers given are the average of the opening and closing inventories.



west Millard County. Hogs and chickens seem to be increasing in importance. The average numbers of dairy cows increased slightly in 1930 over 1929. The average number per farm on those farms keeping them was 5.2 in 1929 and 5.7 in 1930. There was an increase in number of young dairy cattle from 2.4 in

TABLE 9. CROP INCOME: AVERAGE PER FARM BY DISTRICTS  
IN WESTERN MILLARD COUNTY, UTAH, 1930.

No. of Farms	All Farms	Not in Drain	Dr. Dist. No. 1	Dr. Dist. No. 2	Dr. Dit. No. 3	Dist. No. 4
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
	92	17	10	22	33	10
<b>Income from:</b>						
Hay (Alfalfa)	73	36	58	31	75	240
Seed (Alfalfa)	104	73	272	71	108	53
Chaff	5	3	8	4	2	13
Grain	26	1	18	51	31	1
Potatoes	3	-	-	4	4	6
Other Crops	14	-	-	1	39	-
<b>Total Crop Income</b>	<b>225</b>	<b>113</b>	<b>356</b>	<b>162</b>	<b>259</b>	<b>313</b>

1929 with 70 % of the farms keeping to 3.6 per farm in 1930 with 80.4 % of the farms keeping. This may indicate an increase in numbers of milking cows a year or two hence.

TABLE 10. LIVESTOCK NUMBERS: AVERAGE PER FARM ON THOSE  
FARMS KEEPING, AND PERCENTAGE OF TOTAL FARMS KEEPING,  
WESTERN MILLARD COUNTY, UTAH, 1929-1930.

	Average 1929-30		: 1929		: 1930	
	Avg. No. per Farm	Percentage of Total Farms Keeping	:Avg. No. per Farm	Percentage of Farms Keeping	:Avg. No. per Farm	Percentage of Farms Keeping
Dairy Cows	5.5	95.5	5.2	95.0	5.7	95.7
Young Dairy Cattle	3.3	77.3	2.4	70.0	3.6	80.4
Sheep	156.7	37.1	274.2	22.5	130.2	43.5
Beef Cattle	41.1	4.5	26.8	7.5	55.4	3.3
Hogs	2.8	59.1	2.9	42.5	2.8	66.3
Horses	3.6	98.5	3.4	100.0	3.8	97.8
Chickens	59.8	86.4	44.2	80.0	65.9	92.4
Turkeys	7.3	9.1	-	-	7.3	16.3

It is felt that the data presents a picture that is in a measure misleading in regards to sheep. The 1929 data shows an average of 274.2 sheep per farm of those having sheep, and 22.5 % of the farms keeping sheep. In 1929, sheep prices were high and several of the farmers whose records were included in the 1929 averages purchased feeder sheep in the fall, fed them through the winter and disposed of ewes and lambs in the spring. This practice was not so prevalent in 1930, and it is felt that the 1930 figures give a more accurate picture of farm flocks.

Beef cattle show an increase but this is due to chance in the samples obtained. Only 3.3 % or three farms in 1930 had beef cattle. Likewise only three farms kept beef in the 1929 sample.

Hogs and chickens though kept in small numbers are being kept by a greater number of farmers. They are being used to provide a greater portion of the family living from the farm. The chickens also supplement the farm income. In 1929, hogs were kept by 42.5 % of the farmers, in 1930 66.3 % of the farms had them. Chickens increased in both numbers per farm and per cent of farms keeping. In 1929 the average was 44.2 chickens with 80 % of the farms keeping and in 1930 the average number was 65.9 chickens and 92.4 % of the farms keeping.

Horses are kept only in sufficient numbers to perform the farm work. Turkeys were kept by a few farms in 1930, though in small numbers and the number at the close of the year was not so large as the number at the opening of the year.

In order to make a comparison of total livestock easier, the various kinds of livestock have been changed to animal unit equivalents.<sup>10/</sup> These are presented in table 11. On this basis there was practically no change in the

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<sup>10/</sup> The changes to animal unit equivalents were made on the basis of the standard as given in Dr. Warren's "Farm Management".

productive <sup>11/</sup> livestock from 1929 to 1930. There was an increase in total animal units of .83 of an animal unit. This increase occurred in the non-productive units, i.e., in horses and young dairy cattle.

TABLE 11. ANIMAL UNITS: AVERAGE NUMBER PER FARM ON FARMS IN WESTERN MILLARD COUNTY, UTAH, 1929 AND 1930.

	132 Farms in 1929-30		40 Farms in 1929		92 Farms 1930	
	Average of all Livestock	Avg. of Productive Livestock	Average of all Livestock	Avg. of Productive Livestock	Avg. of all L.S. Produc.	Avg. of Productive L. B.
Number of Animal Units	21.42	16.55	20.84	16.58	21.67	16.53

The distribution of livestock through the various districts in 1930 (Table 12) shows that the dairy cows are quite uniformly distributed with the exception of district 4 where there was an average of 8.3 cows on the farms keeping as compared with an average of 5.7 for all farms and 4.7 for district 2 which was the lowest of the groups. The larger number in district 4 may be because of its proximity to Delta where there is a market for a limited amount of whole milk. Young dairy cattle are distributed

TABLE 12. LIVESTOCK: AVERAGE NUMBER PER FARM ON FARMS KEEPING IN WEST MILLARD COUNTY, UTAH, 1930.

	All Farms: Not in: Dr. Dist.: Dr. Dist.: Dr. Dist.: Dr. Dist.					
	: Drain :	No. 1	: No. 2	: No. 3	: No. 4	:
Dairy Cows	5.7	6.2	5.5	4.7	5.4	8.3
Young Dairy Cattle	3.6	3.8	2.2	3.0	3.9	5.2
Sheep	130.2	145.2	233.5	136.6	117.8	71.2
Beef Cattle	55.4	-	-	49.2	67.5	-
Hogs	2.8	1.8	3.3	1.8	3.5	2.6
Horses	3.8	3.8	4.3	3.0	4.2	3.4
Chickens	65.9	41.6	81.5	46.7	96.8	32.8
Turkeys	7.3	11.8	3.5	2.5	5.6	4.5

11/productive livestock is the total livestock minus horses and young cattle.

almost in direct proportion to the number of dairy cows with the exception of district 2 in which there were only 2.2 young cattle to 5.5 dairy cows. Young cattle increased during the year in every district.

Sheep numbers range from 71.2 per farm, where sheep were kept, in district 4 to 233.5 per farm in district 1. Beef cattle are quite unimportant so far as numbers of farms are concerned. Hogs were kept in small numbers throughout, as were also chickens with the largest numbers in district 1, and the fewest in district 4. Horses ranged from 3.0 head per farm in district 2 to 4.3 head in district 1.

TABLE 13. ANIMAL UNITS: TOTAL LIVESTOCK AND TOTAL PRODUCTIVE LIVESTOCK. AVERAGE NUMBER PER FARM BY DISTRICTS IN WESTERN MILLARD COUNTY, UTAH, 1930.

No. of Farms	Not in Drain:	Dist. No. 1:	Dist. No. 2:	Dist. No. 3:	Dist. No. 4
	No. of Ani- mal Units	:No. of Ani- mal Units	:No. of Ani- mal Units	:No. of Ani- mal Units	:No. of Ani- mal Units
	17	: 10	: 22	: 33	: 10
Total Livestock	18.71	20.91	22.01	23.87	19.47
Total Productive Livestock	13.49	16.26	17.85	18.15	13.70

In table 13 is given the number of animal units for the different groups in 1930. Total animal units vary from 23.87 in district 3 to 18.71 units for the farms not in the drainage district. Productive animal units vary from 18.15 units in district 3 to 13.49 units for the group outside the drainage district. District 4 has the fewest productive units relative to the total number of animal units with 70 % productive units. District 2 has the most with 81 % of the total units productive.

#### Livestock Income

The majority of the farm income was derived from livestock. The total livestock income in 1929 was \$1464 which was 78.1 % of the total farm

receipts. In the following year the total income from livestock was \$937 which was 77.3 % of the total income . In each of the two years livestock furnished about the same porportion of the total income, but the absolute amount was much less in 1930. The smaller income was due mostly to the decreased prices of livestock and livestock products.

TABLE 14. LIVESTOCK INCOME: AVERAGE VALUE PER FARM AND PERCENTAGE OF TOTAL FARM INCOME IN WESTERN MILLARD COUNTY, UTAH, 1929 AND 1930.

	132 Farms 1929 <sup>1930</sup> :		40 Farms in 1929:		92 Farms 1930	
	Dollars	Percentage of Total : Income	Dollars	Percentage of Total : Income	Dollars	Percentage of Total Income
<u>Livestock Income</u>						
Dairy Products	316	22.4	346	18.5	303	25.0
Eggs	61	4.3	37	2.0	72	5.9
WoWool	140	9.9	186	9.9	120	9.9
Other	1	.1	-	-	1	.1
Livestock Sales	578	40.9	895	47.7	441	36.4
<b>Total Livestock Income</b>	<b>1096</b>	<b>77.6</b>	<b>1464</b>	<b>78.1</b>	<b>937</b>	<b>77.3</b>

The largest single item of income is from the sale of livestock. In 1929 this amounted to \$895 which was 47.7 % of the total farm income. In 1930 the livestock sales were 36.4 % of the total farm income or \$441. The next most important source of livestock income was dairy products which became of relatively greater importance in 1930 with 25.0 % of the total farm income. This amounted to \$303. In 1929 there was received from this source \$346 which amounted to only 18.5 % of the total farm income. Eggs became of relatively greater importance in 1930, while wool furnished the same percentage of total farm income each year, though the amount was larger in 1929.

The total livestock income for the various districts in 1930 ranged from \$706 for the group not in the drainage district to \$1121 for the

TABLE 15. LIVESTOCK INCOME: AVERAGE PER FARM BY DISTRICTS IN WESTERN MILLARD COUNTY, UTAH, 1930.

No. of Farms	All Farms Not in Dr. Dist.					
	Drain	No. 1	No. 2	No. 3	No. 4	
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
	92	17	10	22	33	10
<b>Livestock Income</b>						
Dairy Products	303	283	170	230	292	666
Poultry Products	72	34	79	31	128	27
Wool	120	106	153	122	138	45
Livestock Sales	441	282	490	473	560	199
Other Incoms (L.S.)	1	1	-	-	3	5
<b>Total Livestock Income</b>	<b>937</b>	<b>706</b>	<b>892</b>	<b>856</b>	<b>1121</b>	<b>942</b>

farms in district 3. Livestock sales and poultry products sales were both highest in district 3. Dairy products were by far the most important single source of livestock income for the farmers in district 4. It was \$666. District 1 had the lowest income from this source with \$170. Poultry products ranged from \$27 in district 4 to \$128 in district 3, while wool supplied an income of \$153 in district 1 and only \$45 in district 4.

Total Farm Income

TABLE 16. TOTAL FARM INCOME BY SOURCES: AMOUNT, AND PERCENTAGES OF TOTAL FARM INCOME, WESTERN MILLARD COUNTY, UTAH 1929-1930.

	132 Farms 1929-30:		40 Farms in 1929:		92 Farms 1930	
	Amount	Percentage	Amount	Percentage	Amount	Percentage
	Dollars	of Total	Dollars	of Total	Dollars	of Total
Total Crop Income	268	18.9	365	19.4	225	18.6
Total L. S. Income	1096	77.6	1464	78.1	937	77.5
<b>Total Crop &amp; L.S. Inc.</b>	<b>1364</b>	<b>96.5</b>	<b>1829</b>	<b>97.5</b>	<b>1162</b>	<b>95.9</b>
Misc. Farm Receipts	49	3.5	47	2.5	50	4.1
Total Cash Farm Receipts	1413	100.0	1876	100.0	1212	100.0
Increased Capital	-	-	-	-	-	-
Total Farm Income	1413	100.0	1876	100.0	1212	100.0
Income Other Than Farm	245		373		189	

For the two years crops provided 18.9 % of the total farm income, though all crops, except alfalfa seed, are grown primarily for consumption on the farms. From livestock was derived 77.6 % of the total farm income. The balance of 3.5 % was from miscellaneous<sup>12/</sup> sources. The average total farm income was \$1413 ± 96. In 1929 it was \$1876 and in 1930 it was \$1212. There was no increase in farm capital either year. The total farm income averaged \$20 per cultivated acre when combined with the animal units in

SOURCES OF TOTAL FARM INCOME

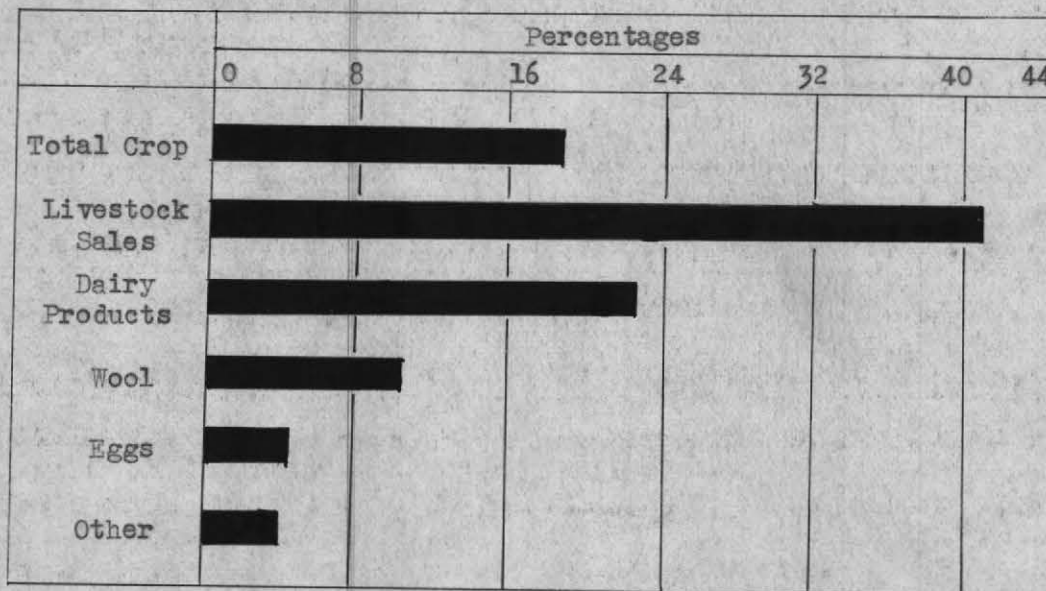


Figure 4. More than 40 % of the farm income was from the sale of livestock. Sale of dairy products was next in importance and then crops. Western Millard County, Utah, average 1929-1930.

the productive process. The average animal unit per acre was .31.

The sources of the total farm income for 1930 is shown in table 17. The range is from \$1468 in district 3 to \$847 for those farms not in the drainage districts.

The incomes from the farms in western Millard County are very low. The total is low as is also the per acre income.

<sup>12/</sup> Includes labor away from farm with farm equipment, receipts for livestock pastured, land or water rented, etc.

TABLE 17. TOTAL FARM INCOME BY SOURCES: AVERAGE  
AMOUNT PER FARM BY DISTRICTS. WESTERN  
MILLARD COUNTY, UTAH, 1930.

No. of Farms	All Farms: Not in: Dr. Dist.: Dr. Dist.: Dr. Dist.: Dr. Dist.					
	92	: Drain :	No. 1 :	No. 2 :	No. 3 :	No. 4
	Dollars	Dols.	Dols.	Dols.	Dols.	Dols.
Total Crop and Livestock Income	1162	819	1248	1018	1360	1255
Miscellaneous Farm Receipts	50	28	77	14	88	14
Total Cash Income	1212	847	1325	1032	1468	1269
Increased Capital	-	-	-	-	-	-
Total Farm Income	1212	847	1325	1032	1468	1269

#### Cash Farm Expenses

In comparison with the low incomes, the expenses of west Millard County farms are extremely high.

TABLE 18. FARM CASH OPERATING EXPENSE: AVERAGE AMOUNT  
AND PERCENTAGES OF THE TOTAL. WESTERN MILLARD COUNTY  
UTAH, 1929-1930.

	132 Farms 1929-30:		40 Farms in 1929:		92 Farms in 1930	
	Amount	Percentage	Amount	Percentage	Amount	Percentage
	Dollars	of Total :	Dollars	of Total :	Dollars	of Total
Hired Labor	146	12.1	193	14.7	125	10.7
Feed	110	9.1	120	9.2	106	9.1
Seed & Supplies	21	1.7	20	1.5	21	1.8
Interest <sup>1/</sup>	168	13.9	175	13.4	165	14.2
Taxes	490	40.5	470	35.9	499	42.8
Rent	48	4.0	74	5.6	38	3.3
Insurance & Farm Fees	17	1.4	12	.9	19	1.6
Auto Expense <sup>2/</sup>	155	12.8	181	13.8	144	12.3
Cash Repairs <sup>3/</sup>	26	2.1	29	2.2	25	2.1
Miscellaneous	29	2.4	36	2.8	25	2.1
Total Cash Operating & Expense	1210	100.0	1310	100.0	1167	100.0

<sup>1/</sup> On mortgages and notes only. Interest and penalty on unpaid taxes was not included.

<sup>2/</sup> Auto expense chargeable to farm only

<sup>3/</sup> Includes cost of shearing sheep.



The cash operating expense for 1929 was \$1310. In 1930 it was \$1167. Particularly in 1930 it was very evident that the farmers were attempting to keep operating expenses to the very minimum. They were forced by the very nature of conditions to do so. Instead of hired labor, farmers cooperated together and helped each other wherever possible. Cash Repairs to buildings and equipment were made only when the farmer could not make them himself, and could not get along without them.

Taxes were by far the largest single item of expense, constituting \$470, or 20 % of total, in 1929, and \$499, or 26.5 % of total in 1930. Drainage taxes make up almost 55 % of the total taxes.

TABLE 19. TAXES: AVERAGE AMOUNT PER FARM OF EACH KIND AND PERCENTAGE EACH IS OF THE TOTAL. WESTERN MILLARD COUNTY, UTAH, 1929-1930.

	132 Farms in 1929-30		40 Farms in 1929		92 Farms in 1930	
	Amount	Percentage of Total	Amount	Percentage of Total	Amount	Percentage of Total
	Dollars		Dollars		Dollars	
State & County	128	26.12	127	27.02	128	25.65
Drainage	269	54.90	258	54.89	274	54.91
Water	93	18.98	85	18.09	97	19.44
<b>Total Taxes</b>	<b>490</b>	<b>100.0</b>	<b>470</b>	<b>100.0</b>	<b>499</b>	<b>100.0</b>

Taxes and interest make up over 50 % of the total cash expense. Interest costs were \$175 in 1929 and \$165<sup>13/</sup> in 1930. Auto expense decreased from \$181 in 1929 to \$144 in 1930. Hired labor<sup>14/</sup> decreased from \$193 in 1929 to \$125 in 1930. Purchased feeds amounted to \$120 in 1929 and \$106 in 1930. Rent paid for land and water, mostly water, amounted in 1929 to an average

<sup>13/</sup> Interest and penalty on unpaid taxes is not included as an expense.

<sup>14/</sup> A considerable part of hired labor was for herding sheep during the summer.

of \$74 and to \$38 in 1930. The remainder of the cash expense items, seeds and supplies, insurance, farm feeds, cash repairs, and miscellaneous, amounted to \$93 for the average of 1929 and 1930, which is less than 8 % of the total. In 1929 for every dollar received from the farm, seventy cents was paid out for cash expenses. In 1930 for every dollar received, ninety-six cents was absorbed in cash expenses.

Livestock purchases were much less in 1930 than they were in 1929. In 1929 the average amount paid out for livestock was \$465 which was 19.8 % of total cash expenses. In 1930 it was only \$60 or 3.2 % of total cash expenses.<sup>15/</sup>

TABLE 20. TOTAL CASH EXPENSE: AVERAGE AMOUNT PER FARM AND PERCENTAGE OF TOTAL EXPENSE. WESTERN MILLARD COUNTY, UTAH 1929-1930.

	132 Farms in 1929-30		40 Farms in 1929		92 Farms 1930	
	Amount Dollars	Percentages of Total	Amount Dollars	Percentages of Total	Amount Dollars	Percent. of Total
Total Cash Op. Exp.	1210	59.8	13100	55.6	1167	62.0
Livestock Purchased	183	9.0	465	19.8	60	3.2
<b>Total Cash Expense</b>	<b>1393</b>	<b>68.8</b>	<b>1775</b>	<b>75.4</b>	<b>1227</b>	<b>65.2</b>

The total cash expense in 1929 was \$1775 as compared to a total farm income of \$1876. This means that for every dollar received from the farm, 95 cents is paid out in expense. In 1930 for every dollar received \$1.01 was required to produce it. The income was \$1212, expenses \$1227.

The range of total cash expense in the five groups is from \$838 for the group outside the drainage system to \$1402 for district 1. The variation is greatest in the drainage tax. It varies from \$12 for the farms outside the drain<sup>16/</sup> to \$387 for district 4. Of the drainage districts,

<sup>15/</sup> See page 13 on explanation of sheep numbers.

<sup>16/</sup> Where a farmer had land in more than one district his farm was placed in the group where most of the land was located.

TABLE 21. TOTAL FARM EXPENSE: AVERAGE AMOUNT PER FARM  
AND PERCENTAGES OF TOTAL. WESTERN MILLARD COUNTY, UTAH, 1930-1930.

No. of Farms	All Farms: Not in: Dr. Dist.: Dr. Dist.: Dr. Dist.: Dr. Dist.					
	: Drain :	No. 1 :	No. 2 :	No. 3 :	No. 4	
	Dollars	Dols.	Dols.	Dols.	Dols.	Dols.
	92	: 17 :	10	: 22 :	33	: 10
Hired Labor - Man	98	57	91	115	102	129
Machine	27	15	24	26	40	15
Int. on Mort. & Notes	165	165	127	115	179	262
Taxes-State & County	128	120	147	117	133	132
Water	97	83	90	106	100	95
Drainage	274	12	348	239	375	387
Rent-Land	7	-	60	-	1	-
Water	31	31	13	36	40	5
Auto Expense	144	128	215	115	159	111
Cash Repairs	25	20	33	21	30	19
Farm Fees	16	62 <sup>1/2</sup>	3	4	7	2
Insurance	3	3	5	2	4	3
Farm Supplies-Feed	106	60	173	111	118	62
Seed	7	3	11	7	10	4
Other	14	7	22	11	19	11
Shearing Sheep	10	10	11	13	8	5
Misc. Expense	15	14	9	13	20	15
<b>Total Op. Expense</b>	<b>1167</b>	<b>793</b>	<b>1382</b>	<b>1051</b>	<b>1345</b>	<b>1257</b>
Livestock Purchased	60	45	20	115	52	33
<b>Total Cash Expense</b>	<b>1227</b>	<b>838</b>	<b>1402</b>	<b>1166</b>	<b>1397</b>	<b>1290</b>
<b>Non-cash Expense</b>						
Decreased Inventory (Net)	314	233	400	288	357	280
Depreciation	106	107	148	93	102	109
Unpaid Family Labor	235	162	352	182	285	187
<b>Total Non-cash Exp.</b>	<b>655</b>	<b>502</b>	<b>900</b>	<b>563</b>	<b>744</b>	<b>576</b>
<b>Total Farm Expense</b>	<b>1882</b>	<b>1340</b>	<b>2302</b>	<b>1729</b>	<b>2141</b>	<b>1866</b>
Int. on Equity @ 5%	205	242	264	196	176	194

<sup>1/</sup> This group included a case where sheep were run on the reserve.

number 2 was lowest with a tax of \$239.

#### Non-cash Expense

Though the total cash expense on the average is almost equal to the farm income it is not the only farm expense. In 1929 it was 75.4 %.

TABLE 22. NON-CASH EXPENSE: AVERAGE AMOUNT PER FARM,  
AND PERCENTAGES OF TOTAL FARM EXPENSE.  
WESTERN MILLARD COUNTY, UTAH, 1929-1930.

	132 Farms 1929-30:		40 Farms in 1929:		92 Farms in 1930	
	Amount	Percentage	Amount	Percentage	Amount	Percentage
	of Total :		of Total :		of Total	
	Dols.		Dols.		Dols.	
<u>Non-cash Expense</u>						
Decreased inventory	286	14.1	220	9.3	314	16.7
Depreciation on Bldgs., Equipment & Auto <sup>1/</sup>	108	5.3	113	4.8	106	5.6
Unpaid Family Labor	238	11.8	247	10.5	235	12.5
<b>Total Non-cash Expense</b>	<b>632</b>	<b>31.2</b>	<b>580</b>	<b>24.6</b>	<b>655</b>	<b>34.8</b>
<b>Total Farm Expense</b>	<b>2025</b>	<b>100.0</b>	<b>2355</b>	<b>100.0</b>	<b>1882</b>	<b>100.0</b>
Interest on Net Worth <sup>2/</sup>	227		279		205	

<sup>1/</sup> Depreciation on buildings at 3 %; on equipment at 10 % and on auto at 20 %.

<sup>2/</sup> This is more than 5 % on net worth as shown in table 1 because some farms had a minus net worth which was deducted in arriving at the net worth as shown there. In arriving at this figure no deduction was made.

of the total farm expense. In 1930, cash expenses were only 65.2 % of the total farm expense.

In 1929 inventories decreased on an average of \$220 per farm. In 1930 they decreased \$314, or 16.7 % of the total farm expense. In 1930 this decrease was largely due to price changes, and not to a physical decrease of inventories. The next most important item was unpaid family labor, which in 1929 was valued at \$247 and in 1930 at \$235. Depreciation on buildings, equipment and that part of the auto chargeable to the farm, made up the remainder.

In 1930 the non-cash expense in the five divisions varied from \$502 for the farms not in the drainage districts, to \$900 for district 1.

#### Financial Summary of Farm Business

The total farm expense for 1929 was \$2355 and for 1930 it was

DISTRIBUTION OF TOTAL FARM EXPENSE

	Percentages				
	0	12	24	36	48
Cash Op. Expense	Taxes		Int.		
Livestock Purchased					
Non-cash Expense					

Figure 5. Taxes and interest made up almost a third of the total farm expense, and were over half of the total cash operating expense. Western Millard County, Utah, average 1929-30.

TABLE 23. FINANCIAL SUMMARY OF THE FARM BUSINESS:  
AVERAGE AMOUNT PER FARM AND PERCENTAGES OF TOTAL.  
WESTERN MILLARD COUNTY, UTAH, 1929-1930.

	132 Farms 1929-1930		40 Farms in 1929		92 Farms in 1930	
	Amount	Percentage of Total	Amount	Percentage of Total	Amount	Percentage of Total
	Dollars		Dollars		Dollars	
<b>Capital Invested</b>						
Land	4025	53.3	4983	58.5	3608	50.6
Buildings	1436	19.0	1375	16.1	1463	20.5
Mach. & Equipment	473	6.2	506	5.9	457	6.4
Livestock	1372	18.2	1466	17.2	1332	18.6
Feeds & Supplies	251	3.3	192	2.3	276	3.9
<b>Total Investment</b>	<b>7556</b>	<b>100.0</b>	<b>8522</b>	<b>100.0</b>	<b>7136</b>	<b>100.0</b>
Indebtedness	3292	43.6	3166	37.2	3347	46.9
Net Worth	4264	56.4	5356	62.8	3789	53.1
<b>Farm Cash Income</b>						
Total Crop Income	268	18.9	365	19.5	225	18.6
Total of L.S. Income	1096	77.6	1464	78.0	937	77.3
Misc. Farm Receipts	49	3.5	47	2.5	50	4.1
<b>Total Cash Income</b>	<b>1413</b>	<b>100.0</b>	<b>1876</b>	<b>100.0</b>	<b>1212</b>	<b>100.0</b>
Increased Capital	-	-	-	-	-	-
<b>Total Farm Income</b>	<b>1413</b>	<b>100.0</b>	<b>1876</b>	<b>100.0</b>	<b>1212</b>	<b>100.0</b>
Total Cash Op. Expense	1210	59.8	1310	55.6	1167	62.0
Livestock Purchased	183	9.0	465	19.8	60	3.2
<b>Total Cash Expense</b>	<b>1393</b>	<b>68.8</b>	<b>1775</b>	<b>75.4</b>	<b>1227</b>	<b>65.2</b>
Decreased Capital	286	14.1	220	9.3	314	16.7
Depreciation on Bldgs. & Equipment	108	5.3	113	4.8	106	5.6
Unpaid Family Labor	238	11.8	247	10.5	235	12.5
<b>Total Farm Expense</b>	<b>2025</b>	<b>100.0</b>	<b>2355</b>	<b>100.0</b>	<b>1882</b>	<b>100.0</b>
<b>Income from Capital &amp; Operator's Labor</b>	- 612		- 479		- 670	
Int. on Equity @ 5%	227		278		205	
Labor & Mgt. Wage	- 839		- 757		- 875	

\$1882. In 1929 the total expense was 126 % of the total farm income, and in 1930 the total expense was 155 % of the total farm income.

Total farm income minus total farm expense equals income for the use of operator's capital, and the operator's labor. In 1929 this was a minus \$479, and in 1930 a minus \$670. When interest on the operator's equity is deducted at five per cent, the result is minus \$757 in 1929 for the

TABLE 24. FINANCIAL SUMMARY OF THE FARM BUSINESS:  
AVERAGE AMOUNTS PER FARM, WESTERN MILLARD C  
COUNTY, UTAH, 1930

No. of Farms	All Farms: Not in: Dr. Dist.: Dr. Dist.: Dr. Dist.: Dr. Dist.					
	: Drain :	No. 1 :	No. 2 :	No. 3 :	No. 4 :	
	92	17	10	22	33	10
	Dols.	Dols.	Dols.	Dols.	Dols.	Dols.
<b>Capital Invested</b>						
Land	3608	3845	3033	2889	3825	4650
Buildings	1463	1822	1952	1273	1357	1127
Mach. & Equipment	457	393	717	373	452	507
Livestock	1332	1170	1570	1272	1391	1300
Feeds & supplies	276	240	313	217	332	245
<b>Total Investment</b>	<b>7136</b>	<b>7470</b>	<b>7585</b>	<b>6024</b>	<b>7357</b>	<b>7829</b>
<b>Indebtedness</b>	<b>3347</b>	<b>3199</b>	<b>2321</b>	<b>2278</b>	<b>3964</b>	<b>4936</b>
<b>Net Worth</b>	<b>3789</b>	<b>4271</b>	<b>5264</b>	<b>3746</b>	<b>3393</b>	<b>2893</b>
<b>Farm Cash Income</b>						
Crop Income	225	113	356	162	259	313
Livestock Income	937	706	892	856	1121	942
Misc. Farm Receipts	50	28	77	14	88	14
<b>Total Cash Income</b>	<b>1212</b>	<b>847</b>	<b>1325</b>	<b>1032</b>	<b>1468</b>	<b>1269</b>
<b>Increased Capital</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Farm Income</b>	<b>1212</b>	<b>847</b>	<b>1325</b>	<b>1032</b>	<b>1468</b>	<b>1269</b>
<b>Total Cash Op. Expense</b>	<b>1167</b>	<b>793</b>	<b>1382</b>	<b>1051</b>	<b>1345</b>	<b>1257</b>
Livestock Purchased	60	45	20	115	52	33
<b>Total Cash Expense</b>	<b>1227</b>	<b>838</b>	<b>1402</b>	<b>1166</b>	<b>1397</b>	<b>1290</b>
<b>Decreased Inventory</b>	<b>314</b>	<b>233</b>	<b>400</b>	<b>288</b>	<b>357</b>	<b>280</b>
Depr. on Bldgs. & Equip.	106	107	148	93	102	109
Unpaid Family Labor	235	162	352	182	285	187
<b>Total Farm Expense</b>	<b>1882</b>	<b>1340</b>	<b>2302</b>	<b>1729</b>	<b>2141</b>	<b>1866</b>
<b>Total Income Less</b>						
Total Expense	- 670	- 493	- 977	- 697	- 673	- 597
Int. on Equity @ 5%	205	242	264	196	176	194
<b>Labor &amp; Mgt. Wage</b>	<b>- 875</b>	<b>- 735</b>	<b>1241</b>	<b>- 893</b>	<b>- 849</b>	<b>- 791</b>

operator's labor and managerial wage. In 1930 this was minus \$875. It is quite evident that a condition where such returns exists can not long continue as it is. Some extensive changes or reorganizations must occur. As it is the operator's capital is being gradually absorbed by expenses. Capital investment must also be relied upon to furnish in part the family living.

That the condition is not confined to any one section but is general throughout the area is shown in table 23. The range of labor and management wage is from minus \$735 for farms not in the drainage district to minus \$1241 for farms in district 1. What variation there is in the size and type of farming between the farms of the different groups, seems to have had but little effect upon the profitableness of the farm business.

Summary of Total Family Income

TABLE 25. SUMMARY OF TOTAL FAMILY INCOME: AMOUNT FROM ALL SOURCES, AND VALUE OF FARM PRODUCE USED IN FAMILY LIVING: AVERAGE PER FARM. WESTERN MILLARD COUNTY, UTAH, 1929-1930.

	132 Farms in 1929-30.: Dollars	40 Farms in 1929: Dollars	92 Farms in 1930 Dollars
Labor & Mgt. Wage	- 839	- 757	- 875
Unpaid Family Labor	238	247	235
Interest on Equity	227	278	205
Income Other than Farm	245	373	189
<b>Total Family Income</b>	<b>- 129</b>	<b>141</b>	<b>- 246</b>
Value of Farm Products Used by Family	232	227	235
<b>Grand Total Income</b>	<b>103</b>	<b>368</b>	<b>- 11</b>

Lest the impression be given that the situation is worse than it really is, a resummary of the total family income is given (table 24). Unpaid family labor that was subtracted as an expense is a part of the family income, as is also interest on equity. These two items amount to \$525 in 1929, and to \$439 in 1930. Then in addition, there was in most cases some

some income other than from the farm, such as for labor, away from the farm, and other sources not on the farm. Adding these items to the labor and management wage gives a family income for 1929 of \$141 and for 1930 of minus \$246.

In addition to the money income the family received a considerable part of their living from the farm. This item is growing in importance as a part of the farm income. (Compare "Percentage of farms using" in 1929 with the same column for 1930, table 26). In 1929 the average total value

TABLE 26. PRODUCTS FURNISHED BY THE FARM FOR FAMILY USE: AVERAGE VALUE PER FARM AND PERCENTAGE OF TOTAL FARMS USING. WESTERN MILLARD COUNTY, UTAH, 1929-1930.

	132 Farms in 1929-30		40 Farms in 1929		92 Farms in 1930	
	Avg. Val.	Percentage	Avg. Val.	Percent.	Avg. Val.	Percent
	for all Farms	of Farms Using	for all Farms	of Farms Using	for all Farms	of Farms Using
	Dollars		Dollars		Dollars	
Garden	27.60	63.6	17.80	60.8	31.90	65.2
Potatoes	3.90	19.7	6.00	15.0	3.00	21.7
Fruit	.60	4.5	.60	2.5	.50	5.4
Dairy Products	108.80	96.2	127.60	95.0	100.60	96.7
Eggs	34.00	85.6	35.40	77.5	33.40	89.1
Poultry	9.20	74.2	9.60	65.0	9.00	78.3
Hogs	16.90	53.0	16.80	42.5	17.00	57.6
Sheep	3.90	18.2	3.70	10.0	4.00	21.7
Beef	3.40	11.4	5.40	5.8	2.50	14.1
Flour	2.90	8.3	2.80	7.5	2.90	8.7
Fuel	21.20	42.4	1.30	2.5	29.90*	59.8
<b>Total</b>	<b>232.40</b>		<b>227.00</b>		<b>234.70</b>	

\*Data comparable to this was not obtained for the year 1929. It is assumed that the value would be about the same.

for farm produce used by the family was \$227, in 1930 it was \$235. The unit price of most commodities was considerably lower in 1930 than in 1929 so that a comparison of value only is not a wholly adequate measure. In every case the percentage of families using the various items of produce



increased in 1930 over 1929. Dairy products was by far the most important item. In order followed eggs, gardens, and hogs. The average value of the other items was low and was used by relatively few families. The dependence upon irrigation for the growing of gardens, and the nature of the irrigation system makes the growing of family gardens difficult and in many cases impractical. Fuel though not produced on the farm is obtained at no expense except the labor of hauling it from the mountains. Fruit is produced in very small quantities in the Delta area.

When the value of the farm produce used by the family is added to the total family money income it makes a grand total income for 1929 of \$368, and for 1930 of minus \$11, or an average of \$103 for the two years.

TABLE 27. SUMMARY OF TOTAL FAMILY INCOME: AMOUNT FROM ALL SOURCES AND VALUE OF FARM PRODUCE USED IN FAMILY LIVING. AVERAGE PER FARM. WESTERN MILLARD COUNTY, UTAH, 1930.

No. of Farms	All Farms: Not in: Dr. Dist.: Dr. Dist.: Dr. Dist.: Dr. Dist.					
	: Drain :	No. 1 :	No. 2 :	No. 3 :	No. 4	
	92	17	10	22	33	10
	Dols.	Dols.	Dols.	Dols.	Dols.	Dols.
Labor & Mgt. Wage	- 875	- 735	-1241	- 893	- 849	- 791
Unpaid Family Labor	235	162	353	183	285	187
Int. on Equity	205	242	264	196	176	194
Income Other than Farm	189	129	351	146	204	173
<b>Total Family Income</b>	<b>- 246</b>	<b>- 202</b>	<b>- 273</b>	<b>- 368</b>	<b>- 184</b>	<b>- 237</b>
<b>Value of Produce Used by Family</b>	<b>235</b>	<b>216</b>	<b>356</b>	<b>197</b>	<b>227</b>	<b>254</b>
<b>Grand Total Income</b>	<b>- 11</b>	<b>+ 14</b>	<b>+ 83</b>	<b>- 171</b>	<b>+ 43</b>	<b>+ 17</b>

The total family money income in 1930 ranged from minus \$184 in district 3 to minus \$368 in district 2. The average value of farm produce used by the family was largest in district 1 with an average of \$356, the smallest value was in district 2 with an average of \$197. The grand total

income ranged from a plus \$83 in district 1 to a minus \$171 in district 2.

### Summary of Statistical Analysis of Farm Factors

In table 28 is given a summary of the statistical analysis of a number of important factors in the farm business. In general each gives evidence of the presence in the sample of some large farms. This is evident in the total investment and is carried through indebtedness, net worth, total income, total expense, net farm income, and labor and management wage. It is also evident in acreage, and total animal units. Only in the case of

TABLE 28. SUMMARY OF STATISTICAL ANALYSIS OF FACTORS  
OF THE FARM BUSINESS. WESTERN MILLARD COUNTY, UTAH,  
AVERAGE 1929-1930.

	Mean:	Standard:	Standard:	Stand. Error:	Coefficient:	Median
	:Error of:	:Deviation:	:of Standard:	:of	: of	:
	: Mean	: of Mean	: Deviation	: Variability:		
	Dols.	Dols.	Dols.	Dols.	Per cent	Dols.
Total Investment	7556	397	4540	280	60.1	6320
Total Indebtedness	3292	253	2900	189	88.1	2286
Total Farm Income	1413	96	1095	68	77.5	928
Total Farm Expense	2025	121	1381	85	68.2	1471
Net Farm Income	- 612	78	888	55	145.0	- 479
Labor & Mgt. Wage	- 839	82	940	58	112.0	- 656
Yield per acre of Alfalfa Hay	.99 tons	.07	.83 tons	.052 tons	83.8	.82 tons
Yield per acre of Alfalfa Seed	36.8 lbs.	2.4	27.5 lbs.	2.1 lbs.	74.7	43.33 lbs.
Acres Cultivated (Acres)	69.8	3.5	39.6	2.4	56.7	60.00
Total Animal Units	21.42	1.3	14.59	.90	68.1	12.66

of yields per acre of alfalfa seed, is the median larger than the mean. Apparently the farms with a small acreage of seed had a higher yield than did the farms with a large acreage.

### Summary and Conclusions.

An analysis of the records of 132 farm businesses for 1929-1930 shows that the average investment per farm in west Millard County is \$7556; that the average indebtedness per farm is \$3292, and that the average net

worth is \$4264.

The average farm contains 102.3 acres, of which 69.8 acres is cultivated. Of the cultivated area 91.6 % or 63.9 acres was planted to alfalfa, of which, 28.3 acres was utilized for seed production. Grain accounted for 5.3 acres. The per acre yield of all crops was very low. The yield of hay, where only hay was cut, was 1.81 tons per acre, and on farms where some seed was grown the yield per acre was .81 tons. The yield of seed was 36.8 pounds of unclean seed per acre. Wheat yielded 18.0 bushel and oats and barley 29.9 and 29.2 bushel per acre respectively.

Dairy cows and sheep are the most important kinds of livestock in the area, with hogs and chickens increasing in importance. 95.5 % of the farms kept dairy cows. The average number per farm on those farms keeping was 5.5 head. Only 37.1 % kept sheep and they kept an average of 156.7 head.

The average total farm income was \$1415, of which 77.6 % was from livestock, 18.9 % from crops and 3.5 % from miscellaneous sources. This income is extremely low.

The farm expense was very high when compared to the income. The expense per farm was \$2025, 59.8% were cash operating expenses, 9 % livestock purchased, and the balance non-cash items. Of the cash operating expense, 54.4 % was made up of taxes and interest.

The total farm income lacked by \$612 to equal the expenses. Subtracting from this the interest on investment leaves a labor and management wage of minus \$839 for the operator.

The total family income from all sources including the produce furnished by the farm for family use, valued at \$232, was \$103.

Many farmers have lost part and some have lost all of their original investment in their farms in west Millard County. The past two years their equity has been gradually dwindling away. Part of the loss has been due to

a decline in values and part has gone into current expenses, and for family living.

From the facts obtained from a study of the records of 132 farms  
the  
businesses in 1929-1930 in west Millard County/ conclusion is reached that  
with yields and prices as of 1929-30 the farmers cannot possibly pay the high  
taxes, indebtedness, and other farm expenses in addition to supporting  
their families.