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# **1969 Farm Business Summary**

## **By Type of Farming for Northern Minnesota**

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1969 FARM BUSINESS SUMMARY  
BY TYPE OF FARMING FOR NORTHERN MINNESOTA

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INTRODUCTION

This report summarizes 1969 farm business records by type of farming for 218 northern Minnesota farmers. Farm records were supplied by area vocational-technical schools at Duluth and Thief River Falls. Practically all of the farms are located in the areas east of the Red River Valley.

The purpose of this publication is to present rather specific information concerning costs and returns from actual farming operations by types of farming for use by farmers and individuals working with farmers. Information of this nature assists in determining the most profitable types of farming and provides information for farm planning.

Sufficient records were obtained from three types of farming for this report (table 1). Farms were classified according to the proportion of cash income received from the various livestock enterprises and from the sale of crops.

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\* Agricultural Economics and Agricultural Education, respectively.

The authors are indebted to Janet B. Otis for her assistance in the preparation of this report.

The following classifications were used in this report:

1. Specialized farms - 80 percent or more of the cash income was from one enterprise or source.
2. Two enterprise farms - 80 percent of the income was from two enterprises, with a minimum of 20 percent from the smallest of the two.

Specialized dairy farms are further divided into three categories based on the average number of dairy cows maintained.

Table 1. Number of Farms by Type

Type	Number
Cash crops	48
Dairy, under 25 cows	50
Dairy, 25-34 cows	49
Dairy, 35 cows and over	27
Dairy and cash crops	<u>44</u>
Total	218

#### CAPITAL MANAGED AND EARNINGS

The average value of capital used per farm for the various types of farming is shown in table 2. These data represent values as reported by farmers in their farm business records and deviate somewhat from current market values for assets with a long useful life, such as real estate. Real estate improvements are valued at cost and depreciated on the basis of estimated life. These book values tend to be below present market values because of changes in the price level. Also, land is valued at cost and has not been corrected for the price inflation which occurred after many of the farms were purchased. Capital managed includes the values of any assets furnished by landlords.

Table 2. Summary of Inventories by Type of Farming, 1969

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35 cows & over	Dairy, cash crops
1. Number of cases	48	50	49	27	44
2. Acres in farm	1045	303	350	441	545
Average capital managed as of January 1, 1969					
3. Dairy cows	\$ 9	\$ 4466	\$ 7058	\$11134	\$ 6491
4. Other dairy cattle	-	2208	3992	5854	3770
5. Beef cattle	3302	71	111	537	253
6. Hogs	142	59	49	55	167
7. Sheep	207	80	54	-	37
8. Other livestock	-	35	13	-	2
9. Total livestock	\$ 3660	\$ 6919	\$11277	\$17580	\$10720
10. Crops, seed, feed	\$16604	\$ 2338	\$ 3725	\$ 7318	\$ 6442
11. Auto & truck (fm. sh.)	\$ 3043	\$ 923	\$ 1014	\$ 1244	\$ 1293
12. Tractors & crop machinery	17747	3792	5732	11020	8594
13. Livestock equipment	218	755	1773	5063	1493
14. Total equipment	\$21008	\$ 5470	\$ 8519	\$17327	\$11380
15. Land	\$75922	\$12370	\$16570	\$25432	\$38597
16. Buildings, fencing*	11808	4353	8009	12676	8302
17. Total capital	\$129002	\$31450	\$48100	\$80333	\$75441
Average capital managed as of December 31, 1969					
18. Total capital	\$139634	\$34046	\$51776	\$90439	\$79816

\* Not including farm dwelling.

Capital managed per farm varied according to the size of farm in terms of acres and the amount of livestock maintained. Average values of real estate (land and farm buildings) ranged from \$55 per acre on the small dairy farms to \$86 per acre on the large dairy and the dairy and cash crop farms.

Earnings are presented on a cash basis in table 3. In order to make all farms comparable, receipts and expenses of landlords are included. "Labor Earnings" is the amount that would be left as a salary to the farm operator if he paid hired man's wages for the labor of other members of the family and six percent interest on capital used.

Table 3. Summary of Earnings - Cash Statement, by Type of Farming, 1969

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35 cows & over	Dairy, cash crops
<b>RECEIPTS</b>					
1. Dairy cattle	\$ 8	\$ 2317	\$ 3696	\$ 5531	\$ 3706
2. Dairy products	5	8414	14490	27160	12655
3. Beef cattle	2826	127	56	1107	399
4. Hogs	375	160	166	15	313
5. Sheep	229	72	67	2	73
6. Other livestock	2	35	48	-	12
7. Crops	29554	751	1219	1590	8561
8. Other capital assets sold	1287	92	183	252	911
9. Work off the farm	910	140	185	305	231
10. Miscellaneous farm income	2209	401	509	757	595
11. Total sales	<u>\$37405</u>	<u>\$12509</u>	<u>\$20619</u>	<u>\$36719</u>	<u>\$27456</u>
12. Increase in capital	10632	2596	3676	10106	4375
13. Family living from farm	107	335	486	597	471
14. Total received	<u>\$48144</u>	<u>\$15440</u>	<u>\$24781</u>	<u>\$47422</u>	<u>\$32302</u>
<b>EXPENSES</b>					
15. Dairy cattle bought	\$ 52	\$ 622	\$ 678	\$ 1071	\$ 564
16. Beef cattle bought	760	3	-	443	-
17. Hogs bought	60	24	47	5	10
18. Sheep bought	64	4	8	-	2
19. Other livestock bought	-	6	15	-	10
20. Misc. livestock expense	63	394	825	1660	707
21. Feed bought	289	1672	2582	4527	1331
22. Fertilizer bought	4120	345	621	1116	1416
23. Other crop expense	4238	338	425	910	1345
24. Custom work hired	847	703	1101	1753	1029
25. Gas, oil, grease bought	2135	713	911	1267	1367
26. Rep. auto, truck, tractor and crop machinery	2484	740	996	1509	1597
27. Repair of real estate	345	142	303	284	326
28. Repair of livestock equip.	25	117	181	314	304
29. Wages of hired labor	1361	208	417	990	853
30. Electric expense	185	233	345	527	337
31. Real estate taxes	1688	233	467	727	728
32. General farm expense	818	223	397	603	468
33. Total cash expense	<u>\$19534</u>	<u>\$ 6720</u>	<u>\$10319</u>	<u>\$17706</u>	<u>\$12394</u>
34. New power and machinery	7030	1482	2773	5935	3971
35. New livestock equipment	38	239	466	1413	660
36. New buildings & real estate	6519	1208	1661	5786	3106
37. Total purchases	<u>\$33121</u>	<u>\$ 9649</u>	<u>\$15219</u>	<u>\$30840</u>	<u>\$20131</u>
38. Decrease in farm capital	-	-	-	-	-
39. Interest at 6 percent	8059	1964	2996	5122	4657
40. Unpaid family labor	385	535	871	1792	414
41. Board for hired labor	32	11	18	97	140
42. Total expenses	<u>\$41597</u>	<u>\$12159</u>	<u>\$19104</u>	<u>\$37851</u>	<u>\$25342</u>
43. Labor earnings	\$ 6547	\$ 3281	\$ 5677	\$ 9571	\$ 6960
44. Net cash income (line 11 - line 37)	\$ 4284	\$ 2860	\$ 5400	\$ 5879	\$ 7325

Increases in farm capital are reported as a receipt and decreases in farm capital are reported as an expense in table 3. Increases or decreases are the differences in the average farm capital between January 1, 1969 and December 31, 1969, as shown in table 2. This summarizes in one figure the net effect of the following changes:

1. Products produced but not sold during the year, so they are on the end of the year inventory.
2. Products that were produced during the previous year or years (on hand at the beginning of year) and sold this year.
3. Products bought but not fully used up during the year, such as fertilizer, depreciable assets, etc.
4. Products sold that were previously purchased, such as feeder pigs and feeder cattle.
5. Depreciation on capital items.
6. Casualty losses.

The information in table 4 summarizes the changes in inventories by type of farming. Capital generally increased since (1) many farmers are in the process of adding to the size of business and (2) this is an inflationary period. Any replacement of a machine or building is at a higher cost than the one replaced.

Table 4. Source of Inventory Changes, January 1 - December 31, 1969

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35 cows & over	Dairy, cash crops
Net increase in farm capital	\$10632	\$ 2596	\$ 3676	\$10106	\$ 4375
Changes in inventories of:					
Livestock	\$-213	\$ 971	\$1119	\$3354	\$ 627
Crops	2641	78	53	-733	196
Auto and truck	- 16	16	299	546	271
Tractors & crop machinery	2946	421	966	1565	1054
Livestock equipment	- 40	97	179	584	409
Land	3074	418	432	980	894
Buildings	2240	595	628	3810	924

About 50 percent of each dollar of sales is required to pay cash operating expenses (table 5). A relatively large proportion of the purchases per \$100 of total sales on specialized crop farms was for crop expenses, including fertilizers. Purchased feeds were an important item on the dairy farms. Capital expenditures showed more variation and ranged from about 24 percent of each dollar of sales on the small and medium sized dairy farms to about 36 percent on specialized crop and large dairy farms. The amount remaining above all purchases, 12 percent in the case of crop farms and 27 percent in the case of medium sized dairy and dairy and cash crop farms, is left for family living expenses, interest on money borrowed, debt retirement and other savings.

Table 5. Purchases per \$100 of Total Sales, by Type of Farming, 1969\*

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35 cows & over	Dairy, cash crops
1. Dairy cattle bought	\$ .14	\$ 4.97	\$ 3.29	\$ 2.92	\$ 2.05
2. Beef cattle bought	2.03	.02	-	1.21	-
3. Hogs bought	.16	.19	.23	.01	.04
4. Sheep bought	.17	.03	.04	-	.01
5. Other livestock bought	-	.05	.07	-	.04
6. Misc. livestock expense	.17	3.15	4.00	4.52	2.58
7. Feed bought	.77	13.37	12.52	12.32	4.85
8. Fertilizer bought	11.02	2.76	3.01	3.04	5.15
9. Other crop expenses	11.33	2.70	2.06	2.48	4.90
10. Custom work hired	2.26	5.62	5.34	4.77	3.75
11. Gas, oil, grease bought	5.71	5.70	4.42	3.45	4.98
12. Rep. auto, truck, tractor and crop machinery	6.64	5.92	4.83	4.11	5.81
13. Repair real estate	.92	1.14	1.47	.77	1.19
14. Repair livestock equipment	.07	.94	.88	.86	1.11
15. Wages of hired labor	3.64	1.66	2.02	2.70	3.11
16. Electric expense	.49	1.86	1.67	1.44	1.23
17. Real estate taxes	4.51	1.86	2.26	1.98	2.65
18. General farm expense	2.19	1.78	1.93	1.64	1.70
19. Total operating purchases	\$52.22	\$53.72	\$50.04	\$48.22	\$45.15
20. New power and machinery	18.80	11.85	13.45	16.16	14.46
21. New livestock equipment	.10	1.91	2.26	3.85	2.40
22. New buildings & real est.	17.43	9.66	8.06	15.76	11.31
23. Total purchases	\$88.55	\$77.14	\$73.81	\$83.99	\$73.32

\* Total purchases and sales are shown in table 3.



The data in table 6 report earnings on an enterprise basis. On the enterprise basis, the value of livestock and livestock products produced includes the difference between sales and purchases of livestock, sale of products, value of livestock and products used in the home, changes in inventories, and an accounting of transfers between enterprises. The resulting figure represents value of livestock and livestock products added by the enterprise (table 7). Costs of operating each service enterprise (autos and trucks,

Table 6. Summary of Earnings - Enterprise Statement, by Type of Farming, 1969

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35 cows & over	Dairy, cash crops
<b>RECEIPTS AND NET INCREASES</b>					
1. Milk cows	\$ 1	\$ 8935	\$15021	\$28030	\$13216
2. Other dairy cattle	5	2661	4232	8095	4156
3. Beef breeding herd	1563	-	26	134	46
4. Feeder cattle	468	86	69	339	154
5. Hogs	209	193	178	12	329
6. Sheep - farm flock	142	69	69	2	70
7. Other livestock	10	44	50	-	10
8. Total productive livestock	\$ 2398	\$11988	\$19645	\$36612	\$17981
9. Feed fed	1170	5366	8536	14561	7612
10. Return over feed	\$ 1228	\$ 6622	\$11109	\$22051	\$10369
11. Crops, seed, feed	24722	3623	5918	8512	11966
12. Income from work off farm	329	75	112	121	78
13. Miscellaneous farm income	2209	569	607	752	676
14. Total receipts	\$28488	\$10889	\$17746	\$31436	\$23089
<b>EXPENSES AND NET DECREASES</b>					
15. Truck and auto	\$ 1691	\$ 1065	\$ 1390	\$ 2345	\$ 1731
16. Electric expense	185	233	345	528	337
17. Tractors & crop machinery	5899	1862	2681	5304	4429
18. Livestock equipment	90	256	476	1144	556
19. Buildings, fencing	1319	505	975	1260	1013
20. Miscel. livestock expense	63	394	825	1660	707
21. Labor*	1973	873	1517	3172	1503
22. Real estate taxes	1688	233	467	727	728
23. General farm expense	974	223	397	603	468
24. Interest at 6 percent	8059	1964	2996	5122	4657
25. Total expense	\$21941	\$ 7608	\$12069	\$21865	\$16129
26. Labor earnings	\$ 6547	\$ 3281	\$ 5677	\$ 9571	\$ 6960

\* Includes wages paid and value of board to hired labor, unpaid family labor and a part of the payment for custom work hired.

tractors and crop machinery, etc.) are calculated in a similar manner (table 8). Credit is given to crops for feed raised on the farm and consumed by livestock. Thus, while earnings statements on an enterprise basis do not show purchases and sales, such a statement more truly shows the value produced for the productive enterprises and the expenses for each of the service enterprises.

Crops are a major source of income on all farms when credit is given to crops for feed raised on the farm and consumed by livestock (table 9). The proportion of farm income from livestock, crops, and miscellaneous sources is based on receipts and net increases, as shown in table 6. Return over feed is the amount of income added by livestock and the return to crops represents the value of crops produced during the year.

Table 7. Illustration of Calculation of Receipts and Net Increases from Dairy Cattle on a Selected Farm

Item	Dairy cows	Other dairy cattle
1. End of year inventory	\$ 6060	\$ 3000
2. Sales	1677	3667
3. Transfers out	-	1650
4. Butchered for home use	-	230
5. Total of items (1) through (4)	<u>\$ 7737</u>	<u>\$ 8547</u>
6. Purchases	\$ -	\$ 150
7. Transfers in	1650	-
8. Beginning of year inventory	6180	3050
9. Total of items (6) through (8)	<u>\$ 7830</u>	<u>\$ 3200</u>
10. Net increase in value of stock (5) - (9)	\$ - 93	\$ 5347
11. Dairy products sold	\$21938	\$ -
12. Dairy products used in home	103	-
13. Dairy products fed to livestock	-	-
14. Total value of products produced	<u>\$22041</u>	<u>-</u>
15. Net increase in value produced (10 + (14))	\$21948	\$ 5347

Table 8. Illustration of Calculation of Expenses and Net Decreases of Tractors and Crop Machinery on a Selected Farm

Item	Total
Beginning of the year inventory	\$18432
Purchases of machinery	1975
Repairs	814
Gas, oil, etc.	693
Custom work hired	1540 <sup>a</sup>
Total	\$23454
End of the year inventory	\$17494
Sales (including gas tax refunds)	109
Work off the farm	856 <sup>b</sup>
Total	\$18459
Expenses and net decreases of tractors and crop machinery	\$ 4995

a. Estimated portion of custom work hired that represents payment for power and machinery.

b. Estimated portion of income from work off the farm that represents income from tractors and crop machinery.

Table 9. Proportion of Farm Income from Livestock, Crops, and Miscellaneous Sources, by Type of Farming, 1969

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35 cows & over	Dairy, cash crops
1. Livestock (return over feed)	4.3	60.8	62.6	70.1	44.9
2. Crops (net increases)	86.8	33.3	33.3	27.1	51.8
3. Miscellaneous	8.9	5.9	4.1	2.8	3.3
Total	100.0	100.0	100.0	100.0	100.0

#### LAND USE AND CROP YIELDS

Specialized dairy farms have a larger proportion of land in pasture, hay, and silage crops and a smaller proportion of tillable land than crop farms (table 10). Small grains (oats, barley, wheat, flax, and rye) are the predominant crops on cash crop farms.

Table 10. Distribution of Acres in Farm, by Type of Farming, 1969

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35 cows & over	Dairy, cash crops
1. Rye	37.1	-	.2	-	19.3
2. Wheat	68.8	3.4	6.0	6.0	27.6
3. Oats for silage	-	.7	.6	2.1	.3
4. Oats for grain	304.0	43.1	56.3	50.2	99.4
5. Barley	98.3	1.1	1.9	1.7	30.2
6. Flax	39.7	1.2	2.6	3.8	24.7
7. Other small grain	<u>19.1</u>	<u>-</u>	<u>-</u>	<u>.2</u>	<u>3.3</u>
8. Total small grain	567.0	49.5	67.6	64.0	204.8
9. Sugar beets	-	-	-	-	-
10. Corn grain	26.4	3.2	5.0	18.5	6.9
11. Soybeans	9.3	-	1.1	2.1	12.8
12. Potatoes	-	-	-	-	-
13. Corn silage	.8	11.9	21.7	42.9	23.3
14. Other cultivated crops	<u>41.5</u>	<u>.2</u>	<u>.1</u>	<u>-</u>	<u>6.5</u>
15. Total cultivated crops	78.0	15.3	27.9	63.5	49.5
16. Alfalfa hay	22.0	41.1	66.8	110.3	55.6
17. Other legume hay	3.1	17.2	11.0	7.3	14.1
18. Other tame hay	-	3.4	1.1	-	-
19. Annual hay	.5	.1	.9	1.5	4.3
20. Legume seed	17.7	.6	.6	-	1.5
21. Grass seed	<u>14.2</u>	<u>2.1</u>	<u>1.2</u>	<u>4.3</u>	<u>6.2</u>
22. Total tillable land in hay	57.5	64.5	81.6	123.4	81.7
23. Alfalfa pasture	.2	.4	.5	6.7	4.6
24. Other tillable pasture	<u>25.3</u>	<u>24.6</u>	<u>21.1</u>	<u>10.5</u>	<u>21.7</u>
25. Total till. land in pasture	25.5	25.0	21.6	17.2	26.3
26. Feed grain program	204.2	23.2	25.1	20.1	52.1
27. Tillable land not cropped	<u>14.5</u>	<u>5.9</u>	<u>6.5</u>	<u>1.8</u>	<u>6.2</u>
28. Total tillable land	946.7	183.4	230.3	290.0	420.6
29. Wild hay	2.6	3.5	3.3	1.9	3.1
30. Non-tillable pasture	25.4	50.0	54.5	67.1	50.6
31. Timber not pastured	22.2	31.7	29.2	32.6	20.6
32. Waste and roads	38.6	28.1	24.7	40.7	40.8
33. Farmstead	<u>9.7</u>	<u>6.1</u>	<u>8.4</u>	<u>8.4</u>	<u>9.4</u>
34. Total acres in farm	1045.2	302.8	350.4	440.7	545.1
35. Percent land tillable	90.6	60.5	65.7	66.2	77.2

Average crop yields are shown in table 11. Variations in average yields were large. In general, dairy farms had lower yields than the other groups.

Table 11. Crop Yields per Acre, by Type of Farming, 1969

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35 cows & over	Dairy, cash crops
1. Wheat, bu.	30.0	23.6	35.3	24.4	31.6
2. Oats for silage, tons	-	*	*	*	*
3. Oats for grain, bu.	74.1	45.5	47.4	49.8	62.9
4. Rye, bu.	48.5	-	*	-	52.8
5. Barley, bu.	48.8	*	42.7	*	54.9
6. Flax, bu.	**	**	**	**	**
7. Corn grain, bu.	57.6	39.4	56.5	54.3	60.1
8. Potatoes	-	*	-	-	-
9. Soybeans, bu.	15.5	-	*	*	19.7
10. Corn silage, tons	*	7.7	8.1	7.2	9.0
11. Alfalfa hay, tons	2.2	2.1	2.1	2.2	2.7
12. Other legume hay, tons	*	1.5	1.3	1.5	1.9

\* Less than 5 cases.

\*\* Yield per acre not available.

#### RETURN FROM DAIRY CATTLE

Costs and returns from dairy cattle are shown in tables 12, 13, and 14 for the specialized dairy farms and the dairy and cash crop farms. Gross return per cow was \$581 on the large dairy farms (35 cows and over) compared to \$473 for the small dairy farms. Of this \$108 difference in gross return per cow, about \$62 is due to the higher price of 57 cents per 100 pounds of milk received by the operators of the large dairy farms. The larger herds also had about 1000 pounds more milk per cow and only a \$21 increase in feed costs. Home grown feeds have been charged at current market prices during the year. Purchased feeds were charged at cost.

Table 12. Factors of Costs and Returns from Dairy Cows, by Type of Farming, 1969

Item	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35 cows & over	Dairy, cash crops
Number of cows	20	30	48	28
Pounds of milk per cow	10833	10938	11844	10570
Percent butterfat in milk	3.5	3.6	3.6	3.5
Pounds butterfat per cow	380	390	426	370
Price received per pound of BF	\$1.23	\$1.29	\$1.35	\$1.30
Price received per cwt. of milk	4.31	4.60	4.88	4.55
Value of produce per cow:				
Dairy product sales	\$446.85	\$486.24	\$563.48	\$460.00
Dairy produce used in home	6.70	6.04	5.22	5.77
Milk fed to livestock	13.25	9.83	7.60	11.89
Net increase in value of cows*	<u>5.85</u>	<u>1.95</u>	<u>4.54</u>	<u>1.85</u>
Total value produced	\$472.65	\$504.06	\$580.84	\$479.51
Feeds per cow, lbs.:				
Corn	555	1024	1742	814
Small grain & complete dairy ration	3259	3239	2539	2896
Protein, salt, mineral	827	599	570	555
Total concentrates	4641	4862	4851	4265
Total hay	8096	6792	6866	7116
Silage	9363	10338	14289	11867
Feed cost per cow:				
Concentrates	\$108.50	\$113.36	\$118.60	\$ 90.78
Roughages	82.65	85.44	96.06	85.05
Pasture	<u>8.72</u>	<u>7.24</u>	<u>6.76</u>	<u>7.18</u>
Total feed cost	\$199.87	\$206.04	\$221.42	\$183.01
Return above feed cost per cow	\$272.78	\$298.02	\$359.42	\$296.50
Return for \$100 of feed	\$236	\$245	\$262	\$262
Feed cost per pound of BF	\$ .52	\$ .53	\$ .52	\$ .50
Feed cost per cwt. milk produced	1.85	1.88	1.87	1.73

\* See table 7 for method of calculation of net increase in value.

Table 13. Feed Costs and Returns from Other Dairy Cattle, by Type of Farming, 1969

Item	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35 cows & over	Dairy, cash crops
Number of head	26	38	61	38
Net increase in value per head	\$110.19	\$111.74	\$134.13	\$112.74
Feed per head, lbs.:				
Concentrates	668	693	716	887
Hay	2892	2861	2791	2811
Silage	2689	3135	3865	4487
Whole milk	218	197	143	279
Total feed cost per head	\$57.61	\$60.01	\$59.91	\$62.85
Return above feed cost per head	\$52.58	\$51.73	\$74.22	\$49.89
Returns for \$100 of feed	\$191	\$186	\$224	\$179

Table 14. Feed Costs and Returns from All Dairy Cattle, by Type of Farming, 1969

Item	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35 cows & over	Dairy, cash crops
Value of produce per cow:				
Dairy products	\$466.80	\$502.11	\$576.31	\$477.65
Net increase in value	<u>146.50</u>	<u>143.96</u>	<u>172.46</u>	<u>152.14</u>
Total value produced	\$613.30	\$646.07	\$748.77	\$629.79
Feed per cow, lbs.:				
Concentrates	5509	5664	5697	5481
Hay	11501	10378	10345	10843
Silage	12725	13700	19100	17273
Total feed cost per cow	\$273.20	\$280.33	\$292.74	\$263.57
Returns above feed cost per cow	\$340.10	\$365.74	\$456.03	\$366.22
Returns for \$100 of feed	\$224	\$230	\$256	\$239
Miscellaneous expenses per cow	\$21.05	\$27.55	\$34.05	\$25.62

The return for \$100 of feed ranged from \$236 to \$262. Feed is the largest single item of cost for all classes of livestock and, in the case of dairy cattle, makes up about 50 percent of the total cost. Thus, a return of about \$200 for each \$100 of feed is necessary in order to break even, with average buildings, equipment, and labor. The same kind of analysis can be applied to the feed cost per pound of butterfat and per 100 pounds of milk produced--in order to cover all costs, the average producer will need to secure a price which is twice the cost of feed per unit of product produced in order to cover all costs, including modest amounts for labor.

#### CONCLUSION

A summary of earnings, resources available, size of business and other factors is presented in table 15. Small dairy farms had the lowest earnings. Small dairy farms did not have income large enough to pay the operator for his labor and pay for the use of capital. Only \$5245 is available to pay labor and capital for their contributions to the business. Large scale dairy farms, on the other hand, yielded a return large enough to provide \$6000 to pay for labor performed by the operator and yield 10.2 percent return on capital managed.

It is important to bear in mind that the records included in this report are for only one calendar year. Similar data for a different year would show variations in the figures presented. Variations between years, in the main, are caused by differences in climatic conditions and general price levels--factors which the farmer cannot control. Furthermore, price levels do not rise or fall in unison. Some prices may rise while others are falling, or some may change faster than others. For these reasons, the relative earning levels of the various types of farms may change from year to year. While large specialized dairy farms reported the highest labor earnings in 1969, the factors mentioned above may elevate cash crop farms to the top earnings position



in another year. These data should be studied in the light of current trends, production cycles and similar information.

Table 15. Earnings, Resources Utilized, Size of Business, and Expenses, by Type of Farming, 1969

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35 cows & over	Dairy, cash crops
<b>Earnings</b>					
1. Labor earnings	\$6547	\$3281	\$5677	\$9571	\$6960
2. Net cash income	4284	2860	5400	5879	7325
3. Rate earned on capital managed*	6.4	0	5.4	10.2	7.2
<b>Resources used</b>					
4. Acres per farm	1045	303	350	441	545
5. Acres tillable	947	183	230	290	421
6. Capital managed	\$134318	\$32748	\$49938	\$85386	\$77628
7. Number of workers	1.4	1.2	1.4	1.7	1.4
8. Capital managed per worker	\$95941	\$27290	\$35670	\$50227	\$55449
<b>Size of business</b>					
9. Total farm sales	\$37405	\$12509	\$20619	\$36719	\$27456
10. Total work units	361	239	359	565	403
<b>Expenses</b>					
11. Total operating expense	\$19534	\$6720	\$10319	\$17706	\$12394
12. Purchase of capital items	13587	2929	4900	13134	7737
13. Power, mach., equip., & bldg. expense per WU	\$25.44	\$16.41	\$16.34	\$18.73	\$20.01
14. Tractor & mach. expense per crop acre	8.37	14.02	14.86	20.98	13.06

\* \$6000 was deducted as a wage for the operator.