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1968 Farm Business Summary

By Type of Farming for Southern Minnesota

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FOREWORD

Providing data based upon actual farm business records is certainly not a new idea. The information gained through farm business analysis has been used effectively for a long time in the study of individual businesses and as guides for farm planning. In 1968, using the information available in these analyses, the authors began the first of a series of publications which report farm business data on type of farm.

The types of farming selected for this report are typical of Minnesota farms. Farmers and others who use the report should be able to identify a type of farming that is most like their own. Users should remember, however, that this report represents only one calendar year. They may find it useful to compare the data in this report to that published in 1968 under a similar title.

Economic Information Report No. R 69-9 is the result of a cooperative effort of the Department of Agricultural Economics and the Department of Agricultural Education. The rapid increase in the number of cooperators in the Vocational Agriculture Farm Management Education Program and the continued full subscription in the Southeastern and Southwestern Minnesota Farm Management Associations will provide data in subsequent years to expand the number and the variety of special classifications.

The authors invite suggestions from the users of this publication for ways in which the type of farming report can be improved. They welcome suggestions for other special sorts of the data which may have value in education and service programs.

We suggest that farmers who have farm business records may find it worthwhile to copy data from their farm to the margins in the various tables in order to make a comparison with averages shown in this publication.

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1968 MINNESOTA FARM BUSINESS SUMMARIES
BY TYPES OF FARMING FOR SOUTHERN MINNESOTA

Truman R. Nodland and Edgar A. Persons*

Introduction

This report summarizes the 1968 farm business records by types of farming for 742 southern Minnesota farmers. Farm records were supplied by the area vocational-technical schools at Mankato, Austin, Winona, and Willmar, and the Southeastern and Southwestern Minnesota Farm Management Associations. The area included in this report can be roughly defined as the region south of a line drawn from Elbow Lake to Hastings, Minnesota. This publication will be useful to farmers, teachers, extension workers, researchers, and others who desire specific information about costs and returns from actual farming operations by types of farm.

Sufficient records were obtained from 11 types of farms to be included in this report (table 1). Farms were classified according to the production of cash income received from various livestock enterprises and from the sale of crops. The following classifications were used:

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

* Agricultural Economics and Agricultural Education, respectively.

Specialized dairy farms are further divided into four categories based on the average number of dairy cows maintained. Fattening hog operations and farms farrowing and marketing swine (complete hog programs) are reported in combination with cash crops. All other types of farms which include hogs are based upon complete hog programs.

Table 1. Number of Farms by Type

Type	Number
Cash	62
Dairy - under 25 cows	25
- 25-34 cows	48
- 35-44 cows	52
- 45 cows and over	50
Hogs, complete program	22
Dairy and hogs (complete program)	80
Dairy and cash crops	101
Hogs (finish) and cash crops	25
Hogs (complete program) and feeder cattle	33
Hogs (complete program) and cash crops	97
Feeder cattle and cash crops	53
Dairy, hogs (complete program), and cash crops	36
Hogs (complete program), feeder cattle, and cash crops	<u>58</u>
Total	742

Because farmers included in this study are, in general, above the average in managerial ability and operate larger and more productive farms, they have returns which are higher than the average. Wide variations in management and practices followed do exist, however. It can be assumed that similar variations occur among all farmers in the area.

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. The values deviate somewhat from current market values for assets with a long useful life, such as real estate. Real estate improvements

are customarily valued at cost and depreciated on the basis of estimated life. In periods of rising prices, book values tend to be below present market values. Land is also 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 value of any assets owned by the operator and those by landlords.

Capital managed per farm varied widely between the types of farming included in this study. Among the factors contributing to the wide variation are the number of acres per farm, value of land, investment in livestock, and the building and equipment associated with each type of farm. Types of farming which can be classified as extensive require large amounts of capital. Where cash crops and cattle feeding are major enterprises, large amounts of capital are used. More intensive farms, such as those with dairy cattle, tend to have smaller investments in farm capital.

Cash receipts and expenses, changes in farm capital managed, and other items are shown 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 wages equivalent to that of a hired man for the labor of other members of the family, and a charge of five percent interest on capital used was included as part of the farm expenses. There is considerable variation in earnings between types of farming. Labor earnings varied from \$4129 for small dairy herds (less than 25 cows) to a high of \$12,492 for farms specializing in hogs, feeder cattle, and cash crops. It is important to bear in mind that the relative profitableness of various enterprises will vary from year to year. There is also a wide variation in earnings within a particular farm type. Thus, one cannot assume that the type of farm which ranked first in profitability in 1968 will be the most profitable in succeeding years. These data should be studied in the light of current trends, production cycles, and similar information.

Table 2. Summary of Inventories by Type of Farming, 1968

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35-44 cows	Dairy 45 cows & over	Hogs (complete program)
1. Number of cases	62	25	48	52	50	22
2. Acres in farm	493	166	214	258	325	216
Average capital managed as of January 1, 1968						
3. Dairy cows	\$ 48	\$ 4312	\$ 6690	\$ 9235	\$12781	\$ -
4. Other dairy cattle	138	2185	3768	5028	6392	-
5. Beef cattle	1572	85	76	606	514	353
6. Hogs	737	170	141	236	269	15172
7. Sheep	89	38	-	52	71	-
8. Poultry	7	12	21	20	15	40
9. Other livestock	<u>-</u>	<u>-</u>	<u>4</u>	<u>31</u>	<u>1</u>	<u>-</u>
10. Total livestock	\$ 2591	\$ 6802	\$10700	\$15208	\$20043	\$15565
11. Crops, seed, feed	\$13897	\$ 3412	\$ 5510	\$ 8281	\$10318	\$12525
12. Auto & truck (fm. sh.)	\$ 2091	\$ 633	\$ 1017	\$ 1245	\$ 1436	\$ 1968
13. Tractors & crop mach.	15427	4018	5949	8390	11373	9722
14. Livestock equipment	<u>542</u>	<u>1068</u>	<u>2102</u>	<u>2772</u>	<u>4790</u>	<u>3581</u>
15. Total equipment	\$18060	\$ 5719	\$ 9068	\$12407	\$17599	\$15271
16. Land	\$104027	\$ 11841	\$ 19235	\$ 26953	\$ 34424	\$ 28750
17. Buildings & fencing*	<u>17688</u>	<u>8033</u>	<u>12602</u>	<u>17463</u>	<u>29694</u>	<u>19108</u>
18. Total capital	\$156263	\$ 35807	\$ 57115	\$ 80312	\$112078	\$ 91219
Average capital managed as of December 31, 1968						
19. Total capital	\$161742	\$ 37821	\$ 60322	\$ 85563	\$117600	\$ 95510

* Not including farm dwelling.

Table 2. Summary of Inventories by Type of Farming, 1968 (continued).

	Dairy and hogs	Dairy and cash crops	Hogs (finish), cash crops	Hogs and feeder cattle	Hogs (C.P.), cash crops	Feeder cattle, cash crops	Dairy, hogs, cash crops	Hogs, feeder cattle, cash crops
1.	80	101	25	33	97	53	36	58
2.	225	337	340	332	336	448	325	438
Average capital managed as of January 1, 1968								
3.	\$ 6467	\$ 7251	\$ 12	\$ 21	\$ 55	\$ 11	\$ 5326	\$ 47
4.	3574	4290	299	-	102	-	3231	18
5.	206	143	564	29466	743	23735	29	19134
6.	4176	264	4312	7253	7179	287	3038	5423
7.	13	31	224	94	98	229	83	134
8.	17	11	58	91	16	66	38	48
9.	-	12	-	-	-	-	-	-
10.	\$14453	\$12002	\$ 5469	\$36925	\$ 8193	\$24328	\$11745	\$24804
11.	\$ 8818	\$10359	\$14614	\$14983	\$14398	\$17517	\$10737	\$17739
12.	\$ 1379	\$ 1446	\$ 2058	\$ 1889	\$ 1861	\$ 1820	\$ 1248	\$ 2167
13.	8533	10782	11837	10606	11645	14454	8695	14402
14.	<u>2931</u>	<u>1999</u>	<u>1035</u>	<u>2077</u>	<u>1753</u>	<u>1595</u>	<u>2710</u>	<u>1920</u>
15.	\$12843	\$14227	\$14930	\$14572	\$15259	\$17869	\$12653	\$18489
16.	\$26770	\$52186	\$63246	\$61471	\$69762	\$91589	\$47875	\$78884
17.	<u>18907</u>	<u>18397</u>	<u>20157</u>	<u>21500</u>	<u>18787</u>	<u>20814</u>	<u>15869</u>	<u>23040</u>
18.	\$ 81791	\$107171	\$118416	\$149451	\$126399	\$172117	\$ 98878	\$162956
Average capital managed as of December 31, 1968								
19.	\$ 86030	\$109504	\$121488	\$157611	\$131138	\$177358	\$103803	\$166193

Table 3. Summary of Earnings - Cash Statement, by Type of Farming, 1968

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35-44 cows	Dairy, 45 cows & over	Hogs (complete program)
RECEIPTS						
1. Dairy cattle	\$ 213	\$ 2119	\$ 3135	\$ 4099	\$ 5916	\$ -
2. Dairy products	14	8747	14651	20614	30127	-
3. Beef cattle	1532	151	304	689	612	353
4. Hogs	1843	249	419	569	710	38794
5. Sheep	113	61	-	83	94	-
6. Other livestock	54	60	69	93	31	283
7. Crops - corn	15578	111	408	588	611	1860
8. - other crops	16094	902	1075	1602	1644	2068
9. Other cap. assets sold	751	124	225	286	434	298
10. Work off the farm	2051	456	249	348	379	226
11. Misc. farm income	<u>1436</u>	<u>498</u>	<u>333</u>	<u>543</u>	<u>707</u>	<u>408</u>
12. Total sales	\$39679	\$13478	\$20868	\$29514	\$41265	\$44290
13. Increase in capital	5479	2014	3207	5251	5522	4291
14. Family living from farm	<u>75</u>	<u>301</u>	<u>366</u>	<u>468</u>	<u>468</u>	<u>131</u>
15. Total received	\$45233	\$15793	\$24441	\$35233	\$47255	\$48712
EXPENSES						
16. Dairy cattle bought	\$ 21	\$ 523	\$ 600	\$ 654	\$ 1720	\$ -
17. Beef cattle bought	973	-	-	32	78	884
18. Hogs bought	468	32	112	45	239	1331
19. Other livestock bought	114	5	3	47	10	42
20. Misc. livestock expense	78	484	801	1299	1665	1371
21. Feed bought	872	1476	1901	2855	4427	14336
22. Fertilizer bought	4096	522	920	1251	1938	2565
23. Other crop expense	3954	531	784	1095	1509	2050
24. Custom work hired	837	639	1034	1477	1802	1016
25. Gas, oil, grease bought	1549	650	856	991	1337	1009
26. Rep. power & crop mach.	2052	808	928	1122	1582	1086
27. Repair real estate	357	180	245	386	562	404
28. Repair livestock equip.	53	117	153	258	376	346
29. Wages of hired labor	1077	244	389	961	1372	904
30. Electric expense	248	259	324	425	589	517
31. Taxes	2067	440	620	851	1171	846
32. General farm expense	<u>670</u>	<u>310</u>	<u>402</u>	<u>495</u>	<u>701</u>	<u>561</u>
33. Total cash expense	\$19486	\$ 7220	\$10072	\$14244	\$21078	\$29268
34. New power & machinery	4890	1392	2465	3013	4007	2693
35. New livestock equip.	84	307	721	1153	1563	893
36. New real estate	<u>3250</u>	<u>393</u>	<u>1152</u>	<u>3122</u>	<u>2848</u>	<u>2718</u>
37. Total purchases	\$27710	\$ 9312	\$14410	\$21532	\$29496	\$35572
38. Decrease in farm cap.	-	-	-	-	-	-
39. Interest at 5%	7950	1841	2936	4146	5742	4668
40. Unpaid family labor	455	472	751	1022	1512	540
41. Board for hired	<u>37</u>	<u>39</u>	<u>55</u>	<u>133</u>	<u>102</u>	<u>78</u>
42. Total expense	\$36152	\$11664	\$18152	\$26833	\$36852	\$40858
43. Labor earnings	\$ 9081	\$ 4129	\$ 6289	\$ 8400	\$10403	\$ 7854
44. Net cash income (line 12 - line 37)	\$11969	\$ 4166	\$ 6458	\$ 7982	\$11769	\$ 8718

Table 3. Summary of Earnings - Cash Statement, by Type of Farming, 1968 (continued)

	Dairy and hogs	Dairy and cash crops	Hogs (finish), cash crops	Hogs and feeder cattle	Hogs (C.P.), cash crops	Feeder cattle, cash crops	Dairy, hogs, cash crops	Hogs feeder cattle, cash crops
RECEIPTS								
1.	\$ 3892	\$ 3817	\$ 480	\$ -	\$ 184	\$ 11	\$ 3725	\$ 67
2.	14705	15350	-	11	25	1	12598	46
3.	297	266	971	61684	755	48140	111	33797
4.	10895	708	21782	21061	19118	1001	9457	15816
5.	29	26	344	120	116	245	120	108
6.	62	34	239	248	92	203	141	175
7.	701	4326	6208	737	6289	6884	3112	4660
8.	1733	6780	9863	3828	8822	10618	5526	11305
9.	283	397	425	294	329	456	456	424
10.	331	459	532	633	630	1038	338	1029
11.	441	662	906	798	795	915	676	1002
12.	<u>\$33369</u>	<u>\$32825</u>	<u>\$41750</u>	<u>\$89414</u>	<u>\$37155</u>	<u>\$69512</u>	<u>\$36260</u>	<u>\$68429</u>
13.	4239	2333	3072	8160	4739	5241	4925	3237
14.	<u>468</u>	<u>362</u>	<u>124</u>	<u>352</u>	<u>142</u>	<u>272</u>	<u>393</u>	<u>356</u>
15.	<u>\$38076</u>	<u>\$35520</u>	<u>\$44946</u>	<u>\$97926</u>	<u>\$42036</u>	<u>\$75025</u>	<u>\$41578</u>	<u>\$72022</u>
EXPENSES								
16.	\$ 855	\$ 689	\$ -	\$ -	\$ 24	\$ 6	\$ 573	\$ 118
17.	23	78	409	34179	300	26666	57	15418
18.	410	94	8388	1079	826	282	757	333
19.	11	9	30	132	71	65	17	14
20.	1225	950	288	1118	551	501	1073	717
21.	5506	2196	5789	19127	6657	4882	4962	8601
22.	1631	1950	1942	2466	2703	3310	2278	3168
23.	1344	1910	2127	2008	2700	2912	1422	3636
24.	1500	1446	935	1386	887	1344	1561	1217
25.	1058	1215	1173	1431	1228	1555	1219	1595
26.	1250	1384	1341	1456	1343	1856	1240	1976
27.	514	372	244	574	342	362	385	562
28.	240	220	159	438	173	135	278	253
29.	554	957	475	1700	641	919	716	1351
30.	426	404	285	345	334	321	417	358
31.	925	1389	1547	1382	1458	1701	1231	1890
32.	<u>505</u>	<u>467</u>	<u>447</u>	<u>569</u>	<u>547</u>	<u>607</u>	<u>463</u>	<u>665</u>
33.	<u>\$17977</u>	<u>\$15730</u>	<u>\$25579</u>	<u>\$69390</u>	<u>\$20785</u>	<u>\$47424</u>	<u>\$18649</u>	<u>\$41872</u>
34.	3338	3596	3611	4925	3820	5872	2744	4838
35.	546	574	235	823	557	333	417	810
36.	<u>2102</u>	<u>1217</u>	<u>617</u>	<u>3133</u>	<u>1528</u>	<u>1705</u>	<u>2504</u>	<u>2775</u>
37.	<u>\$23963</u>	<u>\$21117</u>	<u>\$30042</u>	<u>\$78271</u>	<u>\$26690</u>	<u>\$55334</u>	<u>\$24314</u>	<u>\$50295</u>
38.	-	-	-	-	-	-	-	-
39.	4195	5417	5998	7677	6438	8737	5067	8229
40.	857	926	245	558	618	689	1112	913
41.	<u>47</u>	<u>87</u>	<u>40</u>	<u>118</u>	<u>34</u>	<u>58</u>	<u>53</u>	<u>93</u>
42.	<u>\$29062</u>	<u>\$27547</u>	<u>\$36325</u>	<u>\$86624</u>	<u>\$33780</u>	<u>\$64818</u>	<u>\$30546</u>	<u>\$59530</u>
43.	\$ 9014	\$ 7973	\$ 8621	\$11302	\$ 8256	\$10207	\$11032	\$12492
44.	\$ 9406	\$11708	\$11708	\$11143	\$10465	\$14178	\$11946	\$18134

Approximately 50 to 75 percent of each dollar of sales is required to pay cash operating costs (Table 4). Another 15 to 30 percent of each dollar of sales is required for capital expenditures. The latter includes the purchase of power, machinery, livestock equipment, and real estate improvements. Thus, 65 to 90 percent of each dollar of receipts is required to pay for farm purchases, leaving the balance for family living expenses, interest on money borrowed, debt retirement, and other savings. Farms with feeder cattle alone or in combination with other livestock spent a large portion of their income on cattle and feed. The portion spent for feed was generally lower on farms where cash crops were an important source of income.

Table 4. Purchases per \$100 of Total Sales, by Type of Farming, 1968*

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35-44 cows	Dairy, 45 cows & over	Hogs (complete program)
1. Dairy cattle bought	\$.05	\$3.88	\$2.88	\$2.22	\$4.17	\$ -
2. Beef cattle bought	2.45	-	-	.11	.19	2.00
3. Hogs bought	1.18	.24	.54	.15	.58	3.01
4. Other lvstk. bought	.29	.03	.01	.16	.02	.09
5. Misc. lvstk. exp.	.20	3.59	3.84	4.40	4.03	3.10
6. Feed bought	2.20	10.96	9.11	9.67	10.73	32.36
7. Fertilizer bought	10.33	3.87	4.41	4.24	4.70	5.79
8. Other crop expenses	9.96	3.94	3.76	3.71	3.66	4.63
9. Custom work hired	2.11	4.74	4.95	5.00	4.37	2.29
10. Gas, oil, grease bot	3.90	4.82	4.10	3.36	3.24	2.28
11. Rep. power & crop machinery	5.17	5.99	4.45	3.80	3.83	2.45
12. Repair real estate	.90	1.34	1.17	1.31	1.36	.91
13. Repair lvstk. equip.	.13	.87	.73	.87	.91	.78
14. Wages of hired labor	2.71	1.81	1.86	3.26	3.32	2.04
15. Electric expense	.63	1.92	1.55	1.44	1.43	1.17
16. Taxes	5.21	3.26	2.97	2.88	2.84	1.91
17. General farm exp.	<u>1.69</u>	<u>2.30</u>	<u>1.93</u>	<u>1.68</u>	<u>1.70</u>	<u>1.27</u>
18. Total cash operat. expenses	\$49.11	\$53.56	\$48.26	\$48.26	\$51.08	\$66.08
19. New power & mach.	12.32	10.33	11.81	10.21	9.71	6.08
20. New lvstk equip.	.21	2.28	3.46	3.91	3.78	2.02
21. New R E improve.	<u>8.19</u>	<u>2.92</u>	<u>5.52</u>	<u>10.58</u>	<u>6.90</u>	<u>6.14</u>
22. Total purchases	\$69.83	\$69.09	\$69.05	\$72.96	\$71.47	\$80.32

* Total purchases and sales are shown in Table 3.

Farmers with dairy either alone or in combination with other enterprises tended to have the largest margins for each dollar of sales. The margins ranged from 35 cents for dairy-cash crop farms to about 25 cents for the larger dairy farms. On the other extreme, hog-beef cattle farms had only 13 cents remaining from each dollar of sales after all farm purchases were deducted. The effects of price relationships are extremely important in the interpretation of this table. For example, 1967 farm records showed the margin on feeder cattle farms to be negative for each dollar of sales. Improved price relationships in 1968 caused feeder cattle farms to compare favorably with all other types in the margin per dollar of sales.

Table 4. Purchases per \$100 of Total Sales, by Type of Farming, 1968 (cont'd)

	Dairy and hogs	Dairy and cash crops	Hogs (finish), cash crops	Hogs and feeder cattle	Hogs (C.P.), cash crops	Feeder cattle, cash crops	Dairy, hogs, cash crops	Hogs feeder cattle, cash crops
1.	\$2.56	\$2.10	\$ -	\$ -	\$.06	\$.01	\$1.58	\$.17
2.	.07	.24	.97	38.22	.81	38.37	.16	22.54
3.	1.23	.29	20.10	1.21	2.22	.41	2.09	.49
4.	.02	.03	.07	.15	.19	.09	-	-
5.	3.67	2.89	.69	1.25	1.48	.72	2.96	1.05
6.	16.51	6.69	13.88	21.38	17.92	7.02	13.69	12.58
7.	4.88	5.94	4.65	2.76	7.27	4.76	6.29	4.63
8.	4.03	5.82	5.09	2.25	7.27	4.19	3.92	5.32
9.	4.50	4.41	2.24	1.55	2.39	1.93	4.32	1.78
10.	3.17	3.70	2.81	1.60	3.31	2.24	3.36	2.33
11.	3.75	4.22	3.21	1.63	3.61	2.67	3.42	2.89
12.	1.54	1.13	.58	.64	.92	.52	1.06	.82
13.	.72	.67	.38	.49	.47	.19	.77	.37
14.	1.66	2.91	1.14	1.90	1.73	1.32	1.97	1.97
15.	1.28	1.23	.68	.39	.90	.46	1.15	.52
16.	2.77	4.23	3.71	1.55	3.92	2.45	3.41	2.76
17.	<u>1.51</u>	<u>1.42</u>	<u>1.07</u>	<u>.64</u>	<u>1.47</u>	<u>.87</u>	<u>1.28</u>	<u>.97</u>
18.	\$53.87	\$47.92	\$61.27	\$77.61	\$55.94	\$68.22	\$51.43	\$61.19
19.	10.00	10.96	8.65	5.51	10.28	8.45	7.57	7.07
20.	1.64	1.74	.56	.92	1.50	.48	1.15	1.18
21.	<u>6.30</u>	<u>3.71</u>	<u>1.48</u>	<u>3.50</u>	<u>4.11</u>	<u>2.45</u>	<u>6.90</u>	<u>4.06</u>
22.	\$71.81	\$64.33	\$71.96	\$87.54	\$71.83	\$79.60	\$67.05	\$73.50

The data in Table 5 report earnings on an accrual basis by enterprise, in contrast with the cash basis as shown in Table 3. Earnings statements on the cash basis stress purchases and sales; inventory adjustments are entered as one item--either an increase or a decrease in farm capital. Likewise, family living from the farm is entered as a single item of income. On the enterprise accrual basis, the value of livestock and livestock products produced includes sales, value used in the home, changes in inventories, and accounts for transfers between enterprises.

Table 5. Summary of Earnings - Enterprise Statement, by Type of Farming, 1968

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35-44 cows	Dairy, 45 cows & over	Hogs (complete program)
RECEIPTS AND NET INCREASES						
1. Milk cows	\$ 31	\$ 8859	\$14552	\$20767	\$29875	\$ -
2. Other dairy cattle	106	2490	3977	5151	7336	-
3. Beef breeding herd	247	-	87	125	6	54
4. Feeder cattle	507	88	44	357	209	274
5. Hogs	990	193	338	521	585	38392
6. Sheep - farm flock	73	39	-	68	88	-
7. Chickens	38	60	52	77	40	263
8. Other livestock	274	-	6	17	4	-
9. Total prod. lvstk.	\$ 2266	\$11729	\$19056	\$27083	\$38143	\$38983
10. Feed fed	1541	5795	9011	12774	18335	23605
11. Return over feed	\$ 725	\$ 5934	\$10045	\$14309	\$19808	\$15378
12. Crops, seed, feed	26927	5324	7525	10407	13104	9182
13. Incm. labor off fm.	998	323	123	150	157	110
14. Misc. farm income	1443	526	333	543	707	408
15. Total receipts	\$30093	\$12107	\$18026	\$25409	\$33776	\$25078
EXPENSES AND NET DECREASES						
16. Truck and auto	\$ 1565	\$ 830	\$ 982	\$ 1201	\$ 1391	\$ 1106
17. Electric expense	248	259	324	425	589	517
18. Tractors & crop mach	4693	1722	2521	3565	4697	3484
19. Livestock equipment	160	286	603	817	1247	931
20. Buildings, fencing	1747	816	979	1564	2563	1894
21. Misc. livestock exp.	78	484	801	1299	1665	1371
22. Labor	1834	990	1569	2646	3607	1846
23. Taxes	2067	440	620	851	1171	846
24. General farm expense	670	310	402	495	701	561
25. Interest at 5%	7950	1841	2936	4146	5742	4668
26. Total expenses	\$21012	\$ 7978	\$11737	\$17009	\$23373	\$17224
27. Labor earnings	\$ 9081	\$ 4129	\$ 6289	\$ 8400	\$10403	\$ 7854

Purchases of livestock are subtracted so the data represents value of livestock and livestock products added by the enterprise. Costs of operating each service enterprise (auto and trucks, tractors and crop machinery, etc.) are calculated in a similar manner. Credit is given to crops for feed raised on the farm and consumed by livestock. Thus, while earnings statements on the enterprise accrual basis do not show purchases and sales, such a statement more truly shows the value produced for the productive enterprises and net expenses for each of the service enterprises.

Table 5. Summary of Earnings - Enterprise Statement, by Type of Farming, 1968

	Dairy and hogs	Dairy and cash crops	Hogs (finish), cash crops	Hogs and feeder cattle	Hogs (C.P.), cash crops	Feeder cattle, cash crops	Dairy, hogs, cash crops	Hogs, feeder cattle, cash crops
RECEIPTS AND NET INCREASES								
1.	\$14973	\$15505	\$ 2	\$ 36	\$ 30	\$ 11	\$12638	\$ 63
2.	4239	4316	181	-	77	8	4111	4
3.	4	25	50	307	51	625	-	209
4.	171	76	353	27959	377	21585	31	16360
5.	10939	581	13047	21111	19732	704	9590	15944
6.	18	30	218	106	93	167	69	106
7.	54	26	228	185	81	192	150	142
8.	<u>1</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>3</u>	<u>-</u>
9.	\$30399	\$20560	\$14079	\$49704	\$20441	\$23292	\$26592	\$32828
10.	<u>15705</u>	<u>9802</u>	<u>10228</u>	<u>32877</u>	<u>12260</u>	<u>16377</u>	<u>13678</u>	<u>20314</u>
11.	\$14694	\$10758	\$ 3851	\$16827	\$ 8181	\$ 6915	\$12914	\$12514
12.	10465	15239	20520	16850	17416	25121	14937	23235
13.	140	269	417	341	281	511	146	445
14.	<u>441</u>	<u>662</u>	<u>906</u>	<u>798</u>	<u>795</u>	<u>915</u>	<u>676</u>	<u>1002</u>
15.	\$25740	\$26928	\$25694	\$34816	\$26673	\$33462	\$28673	\$37196
EXPENSES AND NET DECREASES								
16.	\$ 1217	\$ 1341	\$ 1180	\$ 1330	\$ 1160	\$ 1355	\$ 1136	\$ 1623
17.	426	404	285	345	334	321	417	358
18.	3747	4175	4407	4718	4092	5494	3743	5380
19.	772	604	352	1076	551	475	730	685
20.	1735	1744	1527	2455	1713	1948	1374	2389
21.	1225	950	288	1118	551	501	1073	717
22.	1979	2464	1042	2844	1573	2116	2407	2768
23.	925	1389	1547	1382	1458	1701	1231	1890
24.	505	467	447	569	547	607	463	665
25.	<u>4195</u>	<u>5417</u>	<u>5998</u>	<u>7677</u>	<u>6438</u>	<u>8737</u>	<u>5067</u>	<u>8229</u>
26.	\$16726	\$18955	\$17073	\$23514	\$18417	\$23255	\$17641	\$24704
27.	\$ 9014	\$ 7973	\$ 8621	\$11302	\$ 8256	\$10207	\$11032	\$12492

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 6). In eight of the fourteen types of farms shown in table 5, crops contribute more to income than the return over feed from livestock. On farms with dairy only or with dairy and complete hogs and farms with complete hogs operations, the return from feeding livestock exceeded the net contribution of the cropping program to farm income. The proportion of farm income from livestock, crops, and miscellaneous sources is based on receipts and net increases, as shown in table 5. Return over feed is the amount of income added by livestock after feed costs are deducted and the return to crops represents the value of crops produced during the year.

Table 6. Proportion of Farm Income from Livestock, Crops, and Miscellaneous Sources, by Type of Farming, 1968.

Source of income	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35-44 cows	Dairy, 45 cows & over	Hogs (complete program)	Dairy and hogs
				(percent)			
Livestock	2.4	49.0	55.8	56.3	58.6	61.3	57.0
Crops	89.5	44.0	41.7	41.0	38.8	36.6	40.7
Miscellaneous	8.1	7.0	2.5	2.7	2.6	2.1	2.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source of income	Dairy and cash crops	Hogs (finish), cash crops	Hogs and feeder cattle	Hogs (C.P.), cash crops	Feeder cattle, cash crops	Dairy, hogs, cash crops	Hogs, feeder cattle, cash crops
				(percent)			
Livestock	40.0	15.0	48.3	30.7	20.7	45.0	33.6
Crops	56.6	79.9	48.4	65.3	75.1	52.1	62.5
Miscellaneous	3.4	5.1	3.3	4.0	4.2	2.9	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

As an average, dairy cattle give a higher return for each \$100 of feed consumed than is true for beef cattle. Since labor, building and equipment costs are less for beef cattle than for dairy, a lower return for each \$100 of feed consumed is

needed. For many of the types of farms, the value of feed consumed exceeded the value of crops produced, indicating that the value of feed purchased exceeded crop sales.

Land Use and Crop Yields

Farms on which dairy cattle are the only major livestock enterprise have a relatively large proportion of their land in pasture and hay and less in grain crops (including corn) than other types of farming (table 7). Specialized dairy farms have about 70 percent tillable land; all other types of farms have over 80 percent tillable land. Farms with characteristics of small size and a lower percent of tillable land illustrate the tendency of farms to be organized to enable the operator to maximize the return to the most scarce resource. These farms have dairy cattle which require larger amounts of labor but return more per acre than many other kinds of livestock.

On farms without dairy cattle, 84 percent or more of the tillable land was in feed grains, corn, soybeans or the feed grain program. On dairy farms, 27-30 percent of the tillable land was used for growing alfalfa hay. Except for differences in the amount of land devoted to hay and pasture, there were no major differences in the cropping programs of the different types of farms with livestock enterprises. Cash crop farms reported more acres of special crops, such as sugar beets, canning corn, and canning peas, than did other types of farms.

Crop yields, as reported in table 8, do not appear to be related to the type of farm. For example, yields of alfalfa hay are not significantly different among the types of farms, even though some types are highly dependent upon the crop as a source of feed. There was considerable variation, however, in the reported yields of a number of crops. Corn varied from 104.3 bushels per acre on the hog finishing and cash crop farms to a low of 76.5 bushels on small dairy farms. Feed grain payments per acre were similar among farm types. Although the feed grain diversion payment rate per acre for cash crops farms was exceeded by thirteen types of farms, the yields on corn which makes up half of the cultivated crop land for cash crop farms was far above the average on all farm types.

Table 7. Distribution of Acres in Farm, by Type of Farming, 1968

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35-44 cows	Dairy, 45 cows & over	Hogs (complete program)
1. Canning peas	4.5	.5	-	.6	1.4	-
2. Wheat	8.9	1.8	3.0	1.4	.8	.8
3. Oats for silage	-	.7	.5	2.6	6.6	-
4. Oats for grain	16.0	17.3	20.6	20.2	17.9	11.0
5. Barley	4.5	.7	2.8	3.2	2.4	.4
6. Flax	2.6	-	.2	.5	-	-
7. Other small grain	<u>1.7</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
8. Total small grain	38.2	21.0	27.1	28.5	29.1	12.2
9. Corn grain	168.4	23.9	39.8	49.0	67.2	122.2
10. Soybeans	131.9	4.5	7.4	12.9	11.1	23.8
11. Sweet corn	10.6	-	-	1.9	2.1	1.8
12. Corn silage	.7	9.7	14.1	21.1	30.2	.2
13. Other cult. crops	<u>4.4</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
14. Total cult. crops	316.0	38.1	61.3	84.9	110.6	148.0
15. Alfalfa hay	6.4	31.6	43.7	51.6	70.7	5.2
16. Other hay	-	1.2	1.4	1.1	3.3	1.4
17. Grass & legume seed	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
18. Total till. hay land	6.4	32.8	45.1	52.7	74.0	6.6
19. Alfalfa pasture	.2	5.6	5.7	6.6	6.8	2.6
20. Other till. pasture	<u>.1</u>	<u>1.7</u>	<u>1.5</u>	<u>3.5</u>	<u>3.5</u>	<u>.9</u>
21. Total till. pasture	.3	7.3	7.2	10.1	10.3	3.5
22. Feed grain program	79.2	8.2	7.2	9.3	9.4	10.0
23. Till. land not cropped	<u>.9</u>	<u>-</u>	<u>.8</u>	<u>1.1</u>	<u>.9</u>	<u>1.3</u>
24. Total tillable land	441.0	107.4	148.7	186.6	234.3	181.6
25. Wild hay	2.1	.9	4.8	1.4	.8	2.2
26. Non-tillable pasture	16.6	25.0	22.4	30.9	31.6	7.9
27. Timber not pastured	2.7	18.7	21.1	21.5	37.6	8.8
28. Waste and roads	19.6	7.8	10.9	11.1	12.5	8.0
29. Farmstead	<u>11.3</u>	<u>6.3</u>	<u>6.6</u>	<u>6.5</u>	<u>8.6</u>	<u>7.2</u>
30. Total acres in farm	493.3	166.1	214.5	258.0	325.4	215.7
31. Percent land tillable	89.4	64.7	69.3	72.3	72.0	84.2

Table 7. Distribution of Acres in Farm by Type of Farming, 1968 (continued)

	Dairy and hogs	Dairy and cash crops	Hogs (finish), cash crops	Hogs and feeder cattle	Hogs (C.P.), cash crops	Feeder cattle, cash crops	Dairy, hogs, cash crops	Hogs, feeder cattle, cash crops
1.	.8	2.2	2.0	-	1.1	2.1	.8	2.0
2.	1.0	4.7	2.6	-	1.6	4.1	4.8	1.9
3.	2.3	.9	-	6.1	-	3.0	1.2	2.2
4.	23.8	21.9	12.7	20.5	13.1	17.8	29.1	22.1
5.	1.0	2.9	1.0	.3	.9	4.4	2.1	1.4
6.	.6	1.2	-	1.6	.4	7.9	2.4	.3
7.	.3	-	-	.3	-	-	-	-
8.	<u>29.8</u>	<u>33.8</u>	<u>18.3</u>	<u>28.8</u>	<u>17.1</u>	<u>39.3</u>	<u>40.4</u>	<u>29.9</u>
9.	74.4	83.2	120.1	139.6	138.8	161.2	91.1	161.0
10.	14.6	61.9	109.0	44.3	97.9	91.0	60.3	109.8
11.	.4	3.0	2.2	-	5.3	8.4	1.7	4.9
12.	12.1	11.6	-	25.9	.2	18.5	8.8	11.8
13.	-	-	-	-	.2	.5	-	-
14.	<u>101.5</u>	<u>159.7</u>	<u>231.3</u>	<u>209.8</u>	<u>242.4</u>	<u>279.6</u>	<u>161.9</u>	<u>287.5</u>
15.	37.4	39.8	4.2	29.1	6.6	25.4	39.6	23.0
16.	.4	2.2	.5	1.0	-	1.2	.8	1.8
17.	-	-	-	-	-	-	-	-
18.	<u>37.8</u>	<u>42.0</u>	<u>4.7</u>	<u>30.0</u>	<u>6.6</u>	<u>26.6</u>	<u>40.4</u>	<u>24.8</u>
19.	6.1	5.8	-	3.3	.9	1.9	5.5	1.8
20.	<u>1.7</u>	<u>2.2</u>	<u>-</u>	<u>1.4</u>	<u>.6</u>	<u>1.6</u>	<u>1.8</u>	<u>.5</u>
21.	7.8	8.0	-	4.7	1.5	3.5	7.3	2.3
22.	11.6	37.8	53.5	17.5	36.2	47.8	25.5	45.0
23.	<u>.1</u>	<u>1.1</u>	<u>.2</u>	<u>.1</u>	<u>.9</u>	<u>.1</u>	<u>.4</u>	<u>2.4</u>
24.	188.6	282.4	308.0	290.9	304.7	396.9	275.9	391.9
25.	1.4	1.8	.3	1.9	.7	.5	2.1	1.4
26.	14.2	21.6	4.7	16.9	6.3	18.4	20.7	15.4
27.	4.1	11.2	1.6	2.2	1.0	1.2	4.7	2.2
28.	9.3	10.6	17.7	10.5	13.0	17.9	11.6	15.4
29.	<u>7.6</u>	<u>9.4</u>	<u>7.9</u>	<u>9.8</u>	<u>9.9</u>	<u>12.8</u>	<u>9.9</u>	<u>12.0</u>
30.	225.2	337.0	340.2	332.2	335.6	447.7	324.9	438.3
31.	83.7	83.8	90.5	87.6	91.0	88.7	84.9	89.4

Table 8. Crop Yields per Acre, by Type of Farming, 1968

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35-44 cows	Dairy, 45 cows & over	Hogs (complete program)
1. Canning peas, \$	93.23	*	-	*	*	-
2. Wheat, bu.	41.1	42.0	30.7	35.3	54.8	*
3. Oats for silage, tons	-	*	*	6.6	9.8	*
4. Oats for grain, bu.	64.4	63.6	63.3	67.7	65.1	73.4
5. Barley, bu.	*	*	48.3	46.5	49.3	-
6. Flax, bu.	*	-	*	-	-	-
7. Corn grain, bu.	101.9	76.5	81.0	83.1	83.3	86.3
8. Soybeans, bu.	27.1	22.1	21.5	22.6	26.4	21.8
9. Sweet corn, tons	-	-	-	-	-	-
10. Corn silage, tons	13.1	10.8	14.7	14.0	14.2	*
11. Alfalfa hay, tons	3.0	3.1	3.2	3.4	3.4	2.9
12. Other legume hay, tons	-	*	*	*	*	*
13. Annual hay, tons	-	*	1.7	-	*	*
14. Feed grain program \$	57.27	55.97	57.84	56.54	55.75	57.48

Livestock Enterprises

Differences in livestock efficiency are relatively small. The dairy cow statements for the seven types of farming that include dairying as a major enterprise show returns for \$100 of feed of \$202 to \$216 (table 11). Variations in returns from hogs and from feeder cattle by type of farming also are relatively small. Home grown feeds have been charged to livestock at current market prices during the year. Purchased feeds were charged at cost. The number of head of livestock represents the average number on hand during the year.

Table 8. Crop Yields per Acre, by Type of Farming, 1968 (continued)

	Dairy and hogs	Dairy and cash crops	Hogs (finish), cash crops	Hogs and feeder cattle	Hogs (C.P.), cash crops	Feeder cattle, cash crops	Dairy, hogs, cash crops	Hogs, feeder cattle, cash crops
1.	*	49.53	*	-	*	86.69	*	*
2.	36.9	36.3	*	*	37.3	34.8	39.7	32.2
3.	8.1	3.9	-	6.4	-	7.0	*	7.2
4.	70.8	64.7	68.2	61.1	65.3	71.8	67.7	67.1
5.	53.7	54.7	*	*	*	65.6	*	*
6.	*	*	-	*	*	18.2	*	*
7.	82.4	88.7	104.3	83.1	95.8	92.3	87.0	96.5
8.	26.3	24.1	30.8	23.0	27.3	28.5	23.8	26.1
9.	-	-	-	-	-	-	*	-
10.	15.2	15.7	-	13.6	*	14.7	16.2	14.6
11.	3.4	3.3	3.4	3.0	2.9	3.5	3.4	3.4
12.	*	2.1	-	-	-	*	*	*
13.	*	2.1	-	-	-	*	-	2.4
14.	56.28	58.55	61.40	54.54	61.47	57.34	58.39	59.02

There is little evidence to support the idea that enterprises on highly specialized farms are more efficient than "several enterprise" farms. The return over feed costs were \$298 per cow in the large specialized dairy farms compared to \$278 on dairy-hogs-cash crop farms. The butterfat production per cow on these two farm types was identical.

Miscellaneous costs for the dairy herd for items such as milk house supplies, veterinary fees, medicine, breeding, and custom work amount to about \$25 to \$30 per cow.

Table 9. Factors of Costs and Returns from Dairy Cows, by Type of Farming, 1968

Item	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35-44 cows	Dairy, 45 cows & over	Dairy and hogs	Dairy and cash crops	Dairy, hogs, cash crops
Number of cows	20	30	39	57	30	32	25
Pounds of milk per cow	10032	11225	11565	11503	11231	10946	11855
Pounds butterfat per cow	366	409	428	424	418	391	424
Percent BF in milk	3.7	3.7	3.8	3.7	3.6	3.6	3.6
Value of produce per cow:							
Dairy product sales	\$431.09	\$493.00	\$524.54	\$527.12	\$492.54	\$466.53	\$500.55
Dairy produce used							
in home	5.13	3.94	4.04	2.97	5.60	5.20	4.81
Milk fed to livestock	3.49	3.42	5.32	3.82	5.96	7.36	6.57
Net increase in value of cows	<u>-2.80</u>	<u>-10.98</u>	<u>-5.49</u>	<u>-9.98</u>	<u>.17</u>	<u>-5.68</u>	<u>-9.94</u>
Total value produced	\$436.91	\$489.38	\$528.41	\$523.93	\$504.27	\$473.41	\$501.99
Feeds per cow, lbs.:							
Corn	3026	3545	3732	3991	3959	3949	4140
Small grain	812	995	822	809	671	679	664
Commercial feeds	755	527	618	667	570	486	781
Total concentrates	4593	5067	5172	5467	5200	5114	5585
Total hay	6376	6383	5905	6369	6815	6042	6617
Silage	6162	8797	10750	11739	8501	8812	8338
Feed cost per cow:							
Concentrates	\$101.93	\$114.00	\$119.30	\$118.98	\$116.97	\$113.09	\$119.61
Roughages	87.24	94.03	96.27	104.21	96.16	91.93	97.66
Pasture	<u>10.72</u>	<u>6.96</u>	<u>6.52</u>	<u>3.23</u>	<u>7.38</u>	<u>6.81</u>	<u>6.88</u>
Total feed cost	\$199.89	\$214.99	\$222.09	\$226.42	\$220.51	\$211.83	\$224.15
Return above feed cost per cow	\$237.02	\$274.39	\$306.32	\$297.51	\$283.76	\$261.58	\$277.84
Return for \$100 of feed	\$219	\$228	\$238	\$231	\$229	\$223	\$224
Feed cost per cwt. milk produced	\$1.99	\$1.92	\$1.92	\$1.97	\$1.96	\$1.94	\$1.89
Feed cost per pound of butterfat	.55	.53	.52	.53	.53	.54	.53
Price received per cwt. of milk	\$4.39	\$4.46	\$4.65	\$4.65	\$4.39	\$4.38	\$4.34
Price received per pound of butterfat	1.20	1.22	1.25	1.26	1.20	1.22	1.21

Table 10. Feed Costs and Returns from Other Dairy Cattle, by Type of Farming, 1968

Item	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35-44 cows	Dairy, 45 cows & over	Dairy and hogs	Dairy and cash crops	Dairy, hogs, cash crops
Net increase in value per head	\$107.51	\$113.43	\$106.48	\$114.20	\$125.97	\$120.17	\$123.47
Total feed cost per head	66.77	64.77	66.52	69.18	69.39	72.27	78.58
Return above feed cost per head	40.74	48.66	39.96	45.02	56.58	47.90	44.89
Return for \$100 of feed	\$161	\$175	\$160	\$165	\$182	\$166	\$169
Feed per head, lbs.:							
Concentrates	1083	991	973	1094	1099	1262	1400
Hay	2491	2204	2068	2337	2400	2263	2872
Silage	2642	3308	4219	3068	2875	2944	2704
Whole milk	103	78	92	82	128	152	111
Number of head	24	36	49	65	34	37	34

Table 11. Feed Costs and Returns from All Dairy Cattle, by Type of Farming, 1968

Item	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35-44 cows	Dairy, 45 cows & over	Dairy and hogs	Dairy and cash crops	Dairy, hogs, cash crops
Value of produce per cow:							
Dairy products	\$439.67	\$499.78	\$533.28	\$532.90	\$502.96	\$477.70	\$509.92
Net increase in value	<u>123.59</u>	<u>122.66</u>	<u>125.40</u>	<u>121.03</u>	<u>140.84</u>	<u>135.99</u>	<u>164.85</u>
Total value produced	\$563.26	\$622.44	\$658.68	\$653.93	\$643.80	\$613.69	\$674.77
Total feed cost per cow	\$278.34	\$291.25	\$304.33	\$304.93	\$299.54	\$293.77	\$332.23
Return above feed cost per cow	\$284.92	\$331.19	\$354.35	\$349.00	\$344.26	\$319.92	\$342.54
Return for \$100 of feed	\$202	\$214	\$216	\$214	\$215	\$209	\$203
Feed per cow, lbs.:							
Concentrates	6008	6272	6438	6785	6583	6617	7601
Hay	9366	8969	8409	8974	9407	8675	10419
Silage	9047	13020	15886	15379	11964	12215	12599
Miscellaneous expenses per cow	\$24.13	\$26.95	\$33.48	\$30.43	\$29.94	\$29.98	\$31.83

Table 12. Feed Costs and Returns from Hogs, by Type of Farming, 1968

Item	Hogs, complete program	Dairy and hogs	Hogs (finish), cash crops	Hogs and feeder cattle	Hogs (C.P.), cash crops	Dairy, hogs, cash crops	Hogs, feeder cattle, cash crops
Pounds produced	207034	58060	90898	114185	104211	52609	86882
Per cwt. produced:							
Net increase in value	\$19.25	\$18.79	\$14.49	\$18.46	\$18.88	\$18.62	\$18.66
Feed cost	<u>11.79</u>	<u>11.52</u>	<u>10.42</u>	<u>11.79</u>	<u>11.82</u>	<u>10.53</u>	<u>11.06</u>
Return above feed cost	\$ 7.46	\$ 7.27	\$ 4.07	\$ 6.67	\$ 7.06	\$ 8.09	\$ 7.60
Returns for \$100 of feed	\$163	\$163	\$139	\$157	\$160	\$177	\$169
Price received per cwt.							
	\$19.52	\$18.99	\$19.25	\$18.61	\$19.10	\$18.53	\$18.73
Weight per hog sold	220	233	224	243	233	230	246
Miscellaneous cost per cwt. produced	\$.76	\$.46	\$.28	\$ *	\$.49	\$.47	\$.46
Feed per cwt. hogs produced, lbs.:							
Corn	323	332	332	283	342	288	304
Small grain	15	40	11	28	23	45	27
Commercial feeds	<u>90</u>	<u>69</u>	<u>60</u>	<u>121</u>	<u>79</u>	<u>69</u>	<u>84</u>
Total concentrates	428	441	403	432	444	402	415
Total number of litters raised	124	34		61	62	27	48
Number of pigs born per litter	9.6	9.0		8.9	8.9	9.6	8.5
Number of pigs weaned per litter	7.7	7.3		7.4	7.3	7.6	7.2
Number of feeder pigs bought			499				
Total weight of pigs bought, lbs.			19895				
Price paid per feeder pig			\$16.63				

* Information not available.

Table 13. Feed Costs and Returns from Feeder Cattle, by Type of Farming, 1968

Item	Hogs and feeder cattle	Feeder cattle, cash crops	Hogs, feeder cattle, cash crops
Pounds of beef produced	96792	78349	63320
Net increase in value of feeders	\$31.15	\$27.24	\$25.82
Feed cost per cwt. of beef produced:			
Concentrates	\$15.60	\$14.34	\$12.78
Roughages	4.48	4.98	4.14
Pasture	.32	.20	.29
Total feed cost	<u>\$20.40</u>	<u>\$19.52</u>	<u>\$17.21</u>
Returns above feed cost per cwt. beef produced	\$10.75	\$ 7.72	\$ 8.61
Returns for \$100 of feed	\$151	\$140	\$150
Miscellaneous costs per cwt. beef produced	\$.55	\$.58	\$.52
Feeds per cwt. beef produced, pounds:			
Corn and small grain	669	640	546
Commercial feeds	62	45	56
Total concentrates	731	685	602
Total hay	203	221	233
Silage	663	804	501
Price paid per cwt. for beef bought	\$27.36	\$27.02	\$25.23
Price received for feeder cattle sold	25.99	25.55	25.34
Number of animal units	157	121	99

There was little variation in the factors of production and management efficiency reported for the hog enterprise (table 12). Except for the finishing hog-cash crop type of farm, all swine were from complete farrow to market programs. Returns over feed costs were consistently high, ranging from \$6.67 for hog-feeder cattle farms to \$8.09 for dairy, hog, cash crop farms. Death loss of baby pigs is a problem for all types of farms with losses ranging from 1.3 to 2.0 pigs per litter.

Factors Affecting Choice of Type of Farming

The records included in this report are for only one calendar year. Examination of the 1967 report reveals considerable variation between the two reporting years. These variations, 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 earnings levels of the various types of farms may change from year to year. While cash crop farms ranked third in labor earnings in 1967, the factors just described helped place cash crop farms in a higher earning position in 1968.

A summary of some of the resources available, size of business, and other factors by type of farming is presented in table 14. Farms which have cash crops or feeder cattle as major enterprises generally use large amounts of capital and involve large acreages. These are more extensive enterprises and are best suited where labor is scarce as compared to land and capital. Dairying tends to be located on relatively small farms, where there is non-tillable land and where it is desirable, because of erosion and other factors, to

include a considerable amount of hay and pasture in the rotation. Dairying is an intensive enterprise and is adapted to situations where labor is plentiful in comparison to land. Hogs seem to be adapted to a variety of situations.

A measure of return on capital managed is reported in table 14. The rate of earnings varies from zero percent on small dairy farms to 10.0 percent on dairy-hog-cash crop farms. This measure assumes a charge of \$6000 for the operator's labor. The return to capital managed averaged about 7.5 percent.

Farms with dairy alone or in combination with other enterprises had less capital invested per man than did farms with cash crops or feeder animals as major enterprises. However, the total capital managed per farm was relatively high on large dairy farms.

There was not a wide variation in the amount of labor utilized among the types of farms. Seven farm types used 1.3 - 1.4 years of man labor; six used 1.5 - 1.7 years. Large dairy farms used the most labor with 1.8 man years reported. There is a close correspondence between the amount of work units reported and the labor utilized. When viewed on a per man basis, farms with 1.3 - 1.4 workers had 192 - 215 work units per worker; with 1.5 - 1.7 workers, 249 - 288 work units were reported. The large dairy farms with 1.8 workers reported 334 work units per worker. If one could assume that farmers were all fully employed, the increased work units per worker may be an illustration of economies of size in the efficient use of labor.

Cash crop farms have relatively few work units in total and per worker. The short growing season prevents the accumulation of a large number of work units per worker. Labor is utilized in the off season by employment off the farm. Cash crop farms reported over \$2000 non-farm income compared to about \$500 for other small farms with a similar work unit per worker efficiency.

Table 14. Earnings, Resources Utilized, Size of Business, and Expenses, by Type of Farming, 1968

Item	Cash crops	Dairy, under 25 cows	Dairy, 25-34 cows	Dairy, 35-44 cows	Dairy 45 cows & over	Hogs (complete program)
Earnings						
1. Labor earnings	\$ 9081	\$ 4129	\$ 6289	\$ 8400	\$10403	\$ 7854
2. Net cash income	11969	4166	6458	7982	11769	8718
3. Rate earned on capital managed*	5.7	0	5.5	7.9	8.8	8.4
Resources used						
4. Acres per farm	493	166	214	258	325	216
5. Acres tillable	441	107	149	187	234	182
6. Capital managed	\$159002	\$36814	\$58718	\$82938	\$114839	\$93364
7. Number of workers	1.4	1.3	1.4	1.6	1.8	1.4
8. Capital managed per worker	\$113573	\$28318	\$41941	\$51836	\$63799	\$67622
9. Work units per worker	200	192	241	281	334	251
Size of business						
10. Total farm sales	\$39679	\$13478	\$20868	\$29514	\$41265	\$44290
11. Total work units	270	249	338	449	602	351
Expenses						
12. Total operating expense	\$19486	\$ 7220	\$10072	\$14244	\$21078	\$29268
13. Purchase of capital items	\$ 8224	\$ 2092	\$ 4338	\$ 7288	\$ 8418	\$ 6304
14. Power, machinery, equip- ment & building ex- pense per work unit	\$31.16	\$15.71	\$16.00	\$16.87	\$17.42	\$22.93
15. Tractor & machinery expense per crop acre	\$12.94	\$18.52	\$18.27	\$21.29	\$22.00	\$20.62

* \$6000 was deducted as a charge for the operator's labor.

Table 14. Earnings, Resources Utilized, Size of Business, and Expenses, by Type of Farming, 1968 (continued)

	Dairy and hogs	Dairy and cash crops	Hogs (finish), cash crops	Hogs and feeder cattle	Hogs (C.P.), cash crops	Feeder, cattle, cash crops	Dairy, hogs, cash crops	Hogs, feeder cattle, cash crops
Earnings								
1.	\$ 9014	\$ 7973	\$ 8621	\$11302	\$ 8256	\$10207	\$11032	\$12492
2.	9406	11708	11708	11143	10465	14178	11946	18134
3.	8.6	6.8	7.2	8.5	6.8	7.4	10.0	8.9
Resources used								
4.	225	337	340	332	336	448	325	438
5.	189	282	308	291	305	397	276	392
6.	\$83910	\$108338	\$119952	\$153531	\$128768	\$174738	\$101340	\$164575
7.	1.5	1.6	1.2	1.6	1.3	1.4	1.6	1.7
8.	\$55940	\$ 67711	\$ 99960	\$ 95957	\$ 99052	\$124812	\$ 63338	\$ 96809
9.	288	262	198	273	228	248	266	249
Size of business								
10.	\$33369	\$32825	\$41750	\$89414	\$37155	\$69512	\$36260	\$68429
11.	432	419	238	437	296	347	426	423
Expenses								
12.	\$17977	\$15730	\$25579	\$69390	\$20785	\$47424	\$18649	\$41872
13.	\$ 5986	\$ 5387	\$ 4463	\$ 8881	\$ 5905	\$ 7910	\$ 5665	\$ 8423
14.	\$18.28	\$19.73	\$32.57	\$22.71	\$26.52	\$27.65	\$17.37	\$24.67
15.	\$21.98	\$17.59	\$17.28	\$17.44	\$15.34	\$15.88	\$15.29	\$15.66

The type of farming which a farmer selects is the result of factors such as the number of acres of tillable land and non-tillable land, topography, soils, climate, markets, availability of labor and capital, and personal preference. Most farmers face some limitations in adopting a particular farming type since each farm needs to be organized so as to make the best possible use of the particular bundle of resources available on that farm. In general, in order to maximize income, farmers should attempt to maximize the returns from their most scarce resources. If the supply of labor is short, enterprises should be selected that best fit that amount of labor. Others may have limitations in respect to land or capital, which in turn affect the selection of enterprises. What to produce and how much to produce depends on many physical, economic, and personal factors. Some of these personal factors take precedence over the maximizing of income.

There are many possible combinations of crops and livestock from which a farmer can make a choice. The specific combination that he chooses should be dependent on the resources available and be consistent with the personal goals of the farm operator and his family.