VOCATIONAL AGRICULTURE FARM ANALYSIS

EAST SOUTH CENTRAL MINNESOTA



AUSTIN AREA VOCATIONAL SCHOOL AUSTIN, MINNESOTA

IN COOPERATION WITH

VOCATIONAL DIVISION, MINNESOTA DEPARTMENT OF EDUCATION AND AGRICULTURAL EDUCATION DEPARTMENT UNIVERSITY OF MINNESOTA

1957 REPORT OF THE VOCATIONAL AGRICULTURE FARM ANALYSIS SERVICE IN EAST SOUTH CENTRAL MINNESOTA

Charles M. Painter

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INTRODUCTION

This is the third year that an analysis has been made by the Austin Area Vocational School. This type of analysis follows the same pattern as that used by the Farm Management Division of the University of Minnesota. These techniques have been developed through studies made with farm management association members since 1928.

We are indebted to Truman Nodland and his associates in the Farm Management Division for the many years of service rendered to vocational agriculture. The analysis of Veterans: Agriculture farm account books and those of cooperating Vocational Agriculture adult farmers has been the principle, but by no means the only, contribution to Vocational Agriculture by the Farm Management Division.

We would like also to express our appreciation to J. A. Kontta, Printing Instructor of the Austin Area Vocational School, and his class for preparing our cover page.

The main purposes of the farm analysis service in this area are: (1) to give assistance to instructors in the mechanics of farm record supervision; (2) to assist instructors and cooperating farmers in farm accounting techniques; (3) to aid the farmer in the study of his farm business through analysis reports and; (4) to provide case study material that can be used by farmers and farm groups to study management problems. The analysis is not set up for research purposes, but we hope that the date included here can be used for comparative studies.

This report and the analysis of records included in the report were done under the direction of Charles M. Painter, Vocational Agriculture Instructor of the Austin Area Vocational School. Clerical assistants were: Madge (Mrs. Merle) Anderson and Colleen Despard. Nylva Elkins, vocational office secretary, prepared the report. The loyalty of the clerical assistants was deeply appreciated.

Directing in a supervisory capacity for this and the other cooperating projects were: G. R. Cochran, State Supervisor of Agricultural Education and S. K. Wick, Assistant Director of Vocational Education in charge of Area Vocational Schools, and Morton Carney, Acting Director of the Austin Area Vocational School. Promotion and technical assistance were provided by Milo Peterson, Professor of Agriculture Education, and Lauren Granger, Farm Management Coordinator.

The professional assistance of G. A. Pond, University Division of Agricultural Economics, E. H. Hartmans and Harlan Routhe, Agriculture Extension Service, have done much to bring farm management study up to date. Lauren Granger's services are the result of a grant from the Hill Family Foundation.

Farmers pay a fee to cover the actual analysis costs. This fee covers the clerical costs of the analysis and cost of paper and stencils.

The following schools submitted 1957 farm records for analysis:

Name of School	No. of Books	<u>Instructors</u>
Adams	2	Arvid Anderson
Austin (with Hayfield cooperating)	26	Charles Painter, Bert Fuller, and Marvin Thomsen
Blooming Prairie	1	Truman Tilleraas
Byron	l	Wallace J. McKay
Cannon Falls	1	James Erredge
Kenyon	1	John Shelstad
Spring Valley	1	Ed Morine
Zumbrota	6	Kenneth Monson
	39*	

^{*} One book arrived too late to be included in the averages.

Table 1 Summa		m Inventories	x / / _ ## ***	
Items	Your Jan. l	Farm Dec. 31	Average of Jan. 1	of 38 farms Dec. 31
Size of farm (acres) Size of business (work units)**			219 448	
Dairy and dual purpose cows Other dairy & dual purpose cattle Beef cattle (including feeders) Hogs Sheep (including feeders) Poultry (including turkeys) Productive livestock (total) Horses Grop, seed, and feed Power machinery (farm share) Crop and general machinery Livestock equipment Machinery & equipment (total) Miscellaneous Land Buildings, fences, etc.			\$ 2529 1418 1765 2106 102 509 8429 18 6896 3015 3366 1018 7399 12361 11678	\$ 2600 1506 2442 2658 102 361 9669 20 6587 3102 3663 1121 7886 12370 11922
Total farm capital			46781	48454
12 Items	most Pro Jan. 1	fitable farms Dec. 31	12 least Rr Jan. 1	ofitable far Dec. 31
Size of farm (acres) Size of business (work units)***	229 5 7 5		230 379	
Dairy and dual purpose cows Other dairy & dual purpose cattle Beef cattle (including feeders) Hogs Sheep (including feeders) Poultry (including turkeys) Productive livestock (total) Horses Crop, seed, and feed	\$ 2460 1031 2262 2948 238 1063 10002 21 7626	\$ 2450 1416 4142 4968 250 567 13793 20 8134	\$ 1898 1209 3238 2143 70 340 8898 37 7425	\$ 1934 823 3452 1704 60 352 8325 42 6908

Power Machinery (farm share) Crop & general machinery

Machinery & equipment (total)

Livestock equipment

Total farm capital

Buildings, fences, etc.

Miscellaneous

Land

For the purpose of comparison, all the data shown in this report, with the exception of household expenses, are presented on a full-owner basis. The assets, expenses and receipts of the landlord were included in the records from rented farms.

^{**} See explanation of work unit on page 9.

Table 2 Summary of Farm	Earnings			
Items	Your	Average of 37*	12 most profitable	12 least profitable
	farm	farms	farms	farms
FADM DUCETOMS				
FARM RECEIPTS		#		
Dairy and dual -purpose cattle	-	\$ 1220	\$ 1134	\$ 1050
Dairy products		4406	4635	2784
Beef cattle (including feeders) Hogs		2960	6106	2952
Sheep and wool (including feeders)		6814	10518	5559
Horses	-	137 2	304	92
Poultry		1609	4447	7 384
Eggs		1334	1952	1179
Corn		1683	1604	2516
Small grain	and the same of th	332	624	173
Other crops		896	650	1274
Mach. & equip. sold & gas tax ref.		134	147	139
Misc. farm income		232	358	221
Income from work off the farm		152	190	150
(1) Total farm sales		21911	32669	18480
(2) Increase in farm capital	************	1993	6374	
(3) Family living from the farm	***********	260	210	287
(4) Total farm receipts $(1)+(2)+(3)$	-	24164	39253	18767
FARM EXPENSES				
Dairy and dual-pur. cattle bought		\$ 301	\$ 223	\$ 332
Beef cattle bought (incl. feeders)		2038	5022	1260
Hogs bought	-	489	549	719
Sheep bought (incl. feeders)	***************************************	10	~~	23
Horses bought Poultry bought		١.٤٣	7770	
Misc. livestock expense		465 539	11 7 2 880	166 365
Feed bought		3946	7 7 49	2522
Fertilizers		892	1322	816
Other crop expenses	***************************************	678	713	953
Custom work hired		565	604	556
Gas, oil & grease bought (f.share)		817	842	932
Rep. of Mechanical power (f.share)		375	386	431
Repair and upkeep of real estate		345	350	307
Rep. & upkeep of crop & gen. Mach.		289	366	309
Rep. & upkeep of livestock equip.		177	241	177
Wages of hired labor		570	619	738
Electricity expense (f. share) Real estate & pers. prop. taxes		221 657	253 600	193
Cash rent		U51	692	65 7
General farm expense		235	301	256
(5) Total cash operating expense		13609	22284	11712
(6) Cap. purcmech.pow. (f.share)		680	1190	716
(7) Cap. purccrop & gen. Mach.		912	1067	1195
(8) Cap. purclivestock equip.		316	14149	160
(9) Cap. purcbldgs. & fencing		848	1759	432
(10) Total farm purchases (5)to(9)		16365	26749	14215
(11) Decrease in farm capital(12) Interest on farm capital		2328	2503	71) ₁
(13) Unpaid family labor		2328 345	2593 297	2503 349
(14) Board furnished hired labor		20	12	18
(15) Total farm expenses (10)to(14))	19058	29651	17799
(16) Labor earnings (4) - (15)	·	5106	9602	968
	***************************************		•	

^{*} See the Footnote** on page 5

Table 3 Summary of Farm Earnings (Enterprise Statement) 1957

	Table 3 Summary of Farm Ear	nings (E	interprise S	Statement) 19	
			Average	12 most	12 least
ITE	MS	Your	of 37**	profitable	profitable
****	146.	farm	farms	farms	farms
T) 770	IDAG AM NUM TRADELANA				
	URNS AND NET INCREASES		the Lordon	# 1 m1 /	# ~~~
ļ.	Dairy and dual-purpose cows		\$ 4595	\$ 4746	\$ 2831
2.	Other dairy & dual-pur. cattle	-	1228	1361	603
3.	Beef breeding herd		241		744
4.	Feeder cattle		1399	2976	1219
5.	Hogs		6941	12030	4442
6.	Sheep-farm flock		128	316	59
7.	Sheep-feeders		· mm	~~	07.0
8.	Turkeys		973	2789	210
9•	Chickens		1409	2004	1239
10.	All productive livestock		16914	26222	111350
11.	Value of feed fed to livestock	-	9451	14466	7608
12.	Return over feed from livestock		7463	11756	3742
13.	Crops, seed, and feed		6660	7975	6626
14.	Income from labor off the farm		1.0	19	2
15. 16.	Agricultural conservation payments	***************************************	48	58	88
	Miscellaneous		181	294	133
17.	Total returns and net increases	-	14359	20102	10591
EXPE	NSES AND NET DECREASES				
18.	Horses		\$ -4	\$	\$ -13
19.	Truck		257	231	316
20.	Auto (farm share)		375	436	290
21.	Tractor		987	1068	1163
22.	Elec. & gas engine exp. (f. share)		214	214	194
23.	Hired power	***************************************	362	35 3	344
24.	Total power		2191	2302	2294
25.	Crop and general machinery	-	1022	1120	1185
26.	Livestock equipment	-	390	554	364
27.	Buildings, fencing, and tiling	-	956	1130	892
28.	Misc. productive livestock exp.		539	880	365
29.	Labor		935	928	1105
30.	Real estate taxes		512	559	526
31.	Personal property tax		145	133	132
32.	Insurance		125	160	135
33.	General farm		110	141	121
34.	Interest on farm capital		2328	2593	2504
	•		en dipetitiva di santipipa	***********	and the state of t
35.	Total expenses & net decreases		9253	10500	9623
36.	Labor earnings		5106	9602	968

^{*} Cash receipts and expenses are adjusted for changes in inventory for each enterprise and for each item of expense in order to show total receipts and net increases, and total expenses and net decreases.

^{**} One farm omitted from averages because part of livestock enterprise involved commercial buying and selling.

Table 4 Household and Personal Expenses for Those Farms Which Kept Complete Accounts of These Expenses 1957

Top Company of These	Expenses 195	1
Items	Your farm	Average of 17 farms
Number of persons - family		4.5
Number of adult equiv family other*		3.3
Food and meals bought Operating and supplies Furnishings and equipment Clothing and clothing materials Personal care, personal spending Education, recreation, and development Gifts and special events Medical care and health insurance Church, welfare Personal share of auto expense Operator's share of upkeep on dwelling Household share of electric and telephone expense Total cash living expense H.H. & pers. share of new auto New dwelling Taxes and other deductions Life insurance Other savings and investments Total household and personal cash expense Income: Operators labor earnings Return to capital and labor		\$ 678 251 249 253 118 214 76 268 83 194 49 118 \$2551 155 7 1 596 55 \$3367 \$4878 \$6547

^{*} Hired help or others boarded.

Table 5 Net Worth Statement for Those Farmers Who Kept A Complete Record of All Assets and Liabilities 1957 (Operator's Share)

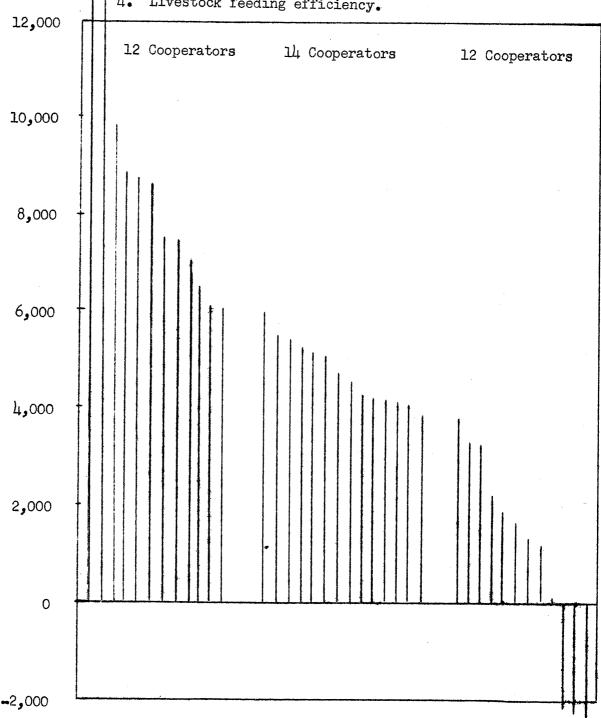
		// (obergoor a purite)
Items	Your farm Jan. 1 Dec. 31	31 farms Jan. 1 Dec. 31
Total farm capital Auto (personal share) Dwelling Other personal assets TOTAL ASSETS		\$37080 \$38225 428 524 1751 1689 3773 4574 \$43032 \$45012
Real estate indebtedness Other indebtedness TOTAL LIABILITIES		8782 8677 5189 5366 \$13969 \$14043
Farmer's Net Worth Gain in Net Worth		\$29063

Table 6 Summary of Farm Earnings by Tenure 1957 (Operator's Share)

Table o Summary of Farm Earnin	ngs by Tenur	e 1957 (Operator's S	ha r e)
Items	Your	30 Owners and	
FARM RECEIPTS	farm	Part Owners	7 renters
Dairy and dual-purpose cattle Dairy products		\$ 1148	\$ 726
Beef cattle (including feeders)	-	3887	4224
Hogs		3379	582
	***************************************	7713	2331
Sheep and wool (including feeders) Horses		152	58
	-	.3	
Poultry (including turkeys) Eggs		1957	92
Corn	*****	1279	1366
Small grain	-	1322	1851
Other crops		326	303
Machinery and a series and a series	***************************************	846	737
Machinery and equipment sold		135	105
Income from work off the farm Miscellaneous	*****************************	163	105
		234	222
(1) Total farm sales		22544	12702
(2) Increase in farm capital		2492	726
(3) Family living from the farm		239	304
(4) Total farm receipts $(1)+(2)+(3)$		<u> 25275</u>	13732
FARM EXPENSES			
Dairy and dual-purpose cattle bought		\$ 231	\$ 94
Beef cattle bought (including feeders)		2513	Ψ 74
Hogs bought		596	٠
Sheep bought (including feeders)		12	25
Horses bought		12	
Poultry (including turkeys)		5 52	ران مدسم
Misc. livestock expense		532	57
Feed	-		397
Fertilizers		4313	1736
Other crop expense		886	570
Custom work hired	-	590	639
Gas, oil, and grease		556 850	380
Rep. tractor, truck, auto (farm share)		852	560
Rep. and upkeep of real estate		365	414
Rep. and upkeep of crop & gen. mach.		340	52
Rep. and upkeep of livestock equip.		309	198
Wages of hired labor		145	155
Electricity expense (farm share)		58 7	464
Real est. and pers. prop. taxes		217	216
Cash rent	-	598	104
Gen. farm and insurance	-	116	499
Interest paid		239	175
Total cash operating expenses	***************************************		
Mec. power bought (farm share)		14549	6735
Crop and gen. mach. bought		742	416
Livestock equipment bought	-	870	1039
	-	293	413
New real estate improvements (5) Total farm purchases		1038	<u>31</u>
		17492	8634
; ;	**************************************	may been	90.00
4		2213	908
•		318	464
		24	
(10) Total farm expenses (5)+(6)+(7)+(8)+(9)		20047	10006
(11) Labor earnings (4) - (10)	THE STREET CONTRACTOR OF THE STREET	5228	3726
(12) Ret. to cap. & fam. Lab. (7+8+11)		7 759	5098

RANGE IN EARNINGS

There was a wide range of earnings in 1957. This was in sharp contrast to 1956. Crop yields were somewhat lower than in 1956. Grain prices were lower, and costs (corn in harvesting in particular) were considerably higher. Feeding operations were unusually profitable in 1957. Factors that we feel contributed the most to differences in labor earnings this particular year were in order of our appraisal: 1. Size of business; 2. Work units per worker; 3. Productive livestock per 100 acres; 4. Livestock feeding efficiency.



"WORK UNITS"

The total "work units" for any one farm is a measure of the size of that farm business. A work unit as used in this report is the average accomplishment of a farm worker in a ten hour day. The number of work units for each class of livestock and each acre of crop are presented in Table 7.

Table 7 Number of Work Units for Each Class of Livestock and Each Acre of Crop

Item	No. of work units	Item	No. of work units
Dairy and dual-purpose cows Other dairy & du. pur. cattle Beef breeding herd Feeder cattle Sheep - farm flock Sheep - feeders Hogs Turkeys Hens Canning peas Soybeans for grain	10.0 per cow 3.5 per an. unit* 3.5 per an. unit* .25 per 100 lbs. 1.5 per an. unit* .3 per 100 lbs2 per 100 lbs5 per 100 lbs. 20.0 per 100 hens .5 per acre .5 per acre	Small grain Sugar beets Sweet corn Corn husked Corn, hogged Corn, shredded Gorn, silage Corn, fodder Alfalfa hay Soybean hay Other hay crops	.5 per acre 1.5 per acre .7 per acre .4 per acre 1.5 per acre 1.0 per acre 1.0 per acre 1.0 per acre .6 per acre .8 per acre

^{*} Animal unit represents one dairy cow or bull; two other dairy cattle; 1 1/4 beef cows or bull; 1 feeder steer or heifer; 3 1/3 other beef cattle; 7 sheep; 14 lambs; 2 1/2 hogs; 5 pigs; 50 hers or 1,100 pounds of turkeys produced.

Measures of Farm Organization and Management Efficiency 1957 Average 12 most 12 least Your of 38 profitable profitable Measures used in chart on page 11 farm farms farms farms Labor earnings \$5106 \$9602 \$968 (1)Crop yields* 100 107 94 (2) Per cent tillable land in high return crops 56,5 56.3 59.2 (3) Return for \$100 feed to produce livestock* 100 103 90 (4) Prod. livestock units per 100 A.** 39.8 53.6 32.8 Size of business - work units 448 575 379 (6) Work units per worker 294 357 253 Pow.; Mach.; equip.; & bldg. exp. per work unit 10.78 10.15 \$ 12.76 Items related to some of the above measures: Index of return for \$100 feed from: Dairy cattle (see pages 15 & 16) 100 95 101 Beef cattle-breeding herd (see page 17) 100 97 Beef cattle-feeders (see page 17) 100 111 95 Hogs (see page 13 & 14) 100 108 81 Sheep - farm flock (see page 18) 100 54 77 Chickens (see page 19) 100 95 84 Turkeys (see page 20) 100 112 97 (4) Number of animal units 69.2 95 62.8 (5) Work units on crops 103 113 108 Work units on productive livestock 345 46.2 271 (7) Power exp. per work unit 5.42 5.06 6.29

Livestock equip, exp. per work uni \overline{t}

Bldg. & fence exp. per work unit \$

Crop Mach. exp. per work unit

2.36

2.23

2.01

2.27

.81

3.17

2.44

.86

^{*} Given as a percentage of the average.

Acres in timber not pastured, roads, waste and farmstead were not included.

^{***} Cooperators from Austin and Mankato were combined on beef breeding herds, beef feeder cattle, sheep, and turkeys.

Using your figures from page 10, locate your standing with respect to the various measures of farm organization and management efficiency. The averages for the 38 farms included in this summary are located between the dotted lines across the center of this page.

					10-	•	
			THERMOMET	ER CHART			
		High	Return from	Pr. L. S.			Pow.;Mach.;
Labor	Crop	Return	Productive		Work	Work units	Eqp.; Bldg exp.
Earnings	Yields	Crops	Livestock	100 A.	Units	Per worker	perworkunit
\$10,000	140	77	126,	65	800	430	\$ 5.95
						-	-
9,300	130					<u> </u>	
-		74	122	60	750	425	6.60
8,600	125	71	118	55	700	1.00	-
—					100	400	7.25
7,900	120	68	114	52	650	375	7.90
-							
7,200	336						
1,200	115	65	110	49	590	350	8.55
		-	-	-			
6,500	110	62	106	46	۲۱.۵	220	
<u> </u>	F-		100 =	40	540	330	9.15
	<u> </u>	<u> </u>				-	-
5,800	105	59	102	43	490	310	9.95
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5,100	100	56	100	40	448	001	30.5%
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4,400	94	54	94	37	400	286	11.15
				- 1	F	F_	
3,600	90	52	90	21	202		
			90 E	34	380	276	11.65
			EI		=	FI	
3,000	86	49	86	30	360	266	12.30
2,200	82	45	00				
-,200	02	45	82	25	330	246	13.00
	<u> </u>	<u> </u>		F			_
1,400	78	40	78	20	310	226	13.65
	<u> </u>			<u> </u>	- 1		
600	7).	31 F- 1	_,				
000	74	34	74	15	285	206	14.30
					<u> </u>		
oF	70	21	70		070	-07	
<u> </u>		T	<u>' </u>	10	270	185	14.95
/ /		. / 5	\ / \				
()	' ()	' () ()	()) ()	()

Table	9 Distri	bution	of Acres	and Yield 19	5 7	
Crop	Crop N rating g	Number growing	Acres your farm	Average acres of 38 farms	Your yields	Average yield
Oats (and mixtures) Oats silage Canning Peas Wheat Barley and Rye Total small grain &	D C B C D	37 7 2 1 3		34.4 3.1 .9 .8 .7 39.9		56.8 8.2 \$54.00 16.9
Canning corn Corn grain Soybeans (grain) Corn silage Total cultivated cro	B A B B	3 38 20 21		2.1 69.1 20.1 4.4 95.7		5.3T 69.7 27.9 12.9T
Alfalfa hay Red Clover hay Other Legumes & Legume	B 6	31 4		22.4 1.8		2.6 T
mixt *Misc. Hay and seed Total tillable land	ures C D in hay	<u>l</u> 4 14		1.7 1.3 27.2		2.11
Alfalfa pasture Other legume pasture Other tillable pasture Total tillable land		27 8 10		16. 4. 2.6 22.6		
Soil Bank and tillable land not cropped	. A.			1.6		
Total tillable land				187.		
Wild Hay Non-tillable pasture Timber Roads and waste Farmstead				•7 9•8 3•5 9•0		
Total acres in farm				219.		
Per cent land tillable Per cent in high retur	n crops			85 . 56 . 3		

^{*} Some crops were grouped because acreages for each were less than one acre.
Included are legumes for seed and timothy for seed and emergency hay crops.

TOTAL FEED COSTS AND RETURNS FROM YOUR LIVESTOCK ENTERPRISES

The total "return over feed costs" for each class of livestock is shown in Table 10. This differs from the "return over feed" shown in the enterprise statement in that it is the total for each class of livestock instead of a return "per head" "per unit" or "per 100 pounds". These data indicate the relative importance of different classes of livestock as a source of income and as a market for feed. The value of milk consumed by calves is included in the total returns from dairy or dual purpose cows and in the total feed cost for other dairy or other dual purpose cattle. The value of milk consumed by calves is not included in either the total returns or the feed cost of "all dairy" or "all dual purpose" cattle. The return over feed is not a net return, but rather the amount available from the gross income, after paying the feed bill, to cover the outlay for hired labor, power, equipment, taxes, insurance, interest, and veterinary bills, and to provide a return for the use of family labor and capital.

Table 10 Total Feed Costs and Returns From Your Livestock Enterprises, 1957

	Dairy or	ose Cattle	Beef breeding	
	Cows	Other	All	herd
Total returns Total feed cost Total return over feed				
	Feeder cattle	Hogs	Farm flock of sheep	Chickens
Total returns Total feed cost Total return over feed				

Feed is the largest single item of cost for all classes of livestock. The proportion of the total cost represented by feed varies between classes of livestock. Feed makes up approximately 45 per cent of the total costs of maintaining dairy cattle and poultry, 50 per cent in the case of a farm flock of sheep, and 75 to 90 per cent for hogs, feeder cattle and feeder lambs. It is necessary to secure a relatively higher return over feed from dairy cattle and poultry than from the other livestock enterprises to cover costs other than feed.

HOGS

Hogs and dairy were the major livestock enterprises in the area. Only those farmers producing 4000 pounds of pork or more were included in the analysis. 1957 was an ideal year to feed hogs. Feed prices were relatively low as compared to pork prices. Toward the close of the year the corn-hog ratio was as wide as 1:20.

Table 11 Feed Costs and Returns from Hogs 195

reed Costs and Returns from Hogs 1957				
Items	Your farm	Average* of 30 farms	10 farms highest in returns above feed	in returns
Feed per cwt. hogs produced, lbs.:			goode reed	above reed
Small grain		332 77	272	414
Commercial feeds		60	6 9 5 0	112
Total concentrates & alfalfa Whey		469	391	<u>62</u> 588
Feed cost per cwt. hogs produced:		72	1.	91
Concentrates (incl. whey & alf.) Milk		\$10.98	\$ 9.07	\$13.55
Pasture			17	•08
TOTAL FEED COSTS	·	\$11.09	\$ 9.24	\$13.63
let increase in val. per cwt. hogs pro	d	\$18.72	\$19.89	\$17. 50
ETURNS ABOVE FEED COST PER CWT.				
HOGS PRODUCED	-	\$ 7.63	\$10.65	\$ 3.87
ETURNS FOR \$100 OF FEED	**************************************	\$177	\$218	\$132
rice received per cwt. hogs sold		\$18.29	\$19.03	\$17.89
o. of spring litters raised		13	12	8.4
o. of fall litters raised otal no. of litters raised		12	10	4.3
out no or inters raised		25	22	1217
o. of pigs born per litter		8.9	9.5	7.7
o. of pigs weaned per litter		6.8	7.5	5.4
ounds of hogs produced		42601	38782	23972

^{*} Thirty-three cooperators qualified as hog producers - Three records showed slight inconsistency and were ommitted from the averages.

DAIRY AND DUAL PURPOSE CATTLE

No herds were classes as dual purpose. Young cattle from herds bred to beef bulls were classes as beef.

Production was generally high. It will be noted that the high producing herds gave a higher return per hundred dollars worth of feed than the average, but this difference was not nearly as significant as the return over feed cost per cow.

Table 12 Factors of Cost and Returns from Dairy Cows 1957

Table 12 Factors of Cost and Returns from Dairy Cows 1957				
Items	Your farm	Average of 25 farms	8 farms Highest in butterfat	8 farms lowest in butterfat
Pounds of Butterfat per cow Price rec. per lb. B.F. sold (cents)		332 90•3	90.6	per cow 227- 88.5
Feeds per cow, lbs: Corn Small grain Commercial feeds		1 80 9 693 505	1773 658 672	1592 579 438
Legume hay Other hay Fodder and stover		4492 22 	5367	3755 68
Total concentrates Total dry roughage Silage		3007 4514 7361	3103 5367 6998	2609 382 3 9019
Feed cost per cow: Concentrates Roughages Pasture TOTAL FEED COSTS		\$ 70.05 60.89 13.62 \$144.56	\$ 74.96 72.06 12.77 \$159.79	\$ 59.36 58.22 14.11 \$131.69
Value of produce per cow: B.F. sales Dairy produce used in home Milk to livestock Net increases in value of cows TOTAL VALUE PRODUCED		\$284.91. 5.59 11.20 -3.34 \$298.36	\$340.46 5.00 9.95 -5.54 \$349.87	\$227.65 4.95 11.11 2.74 \$246.45
RETURNS ABOVE FEED COST PER COW		\$153.80	\$190.08	\$114.76
RETURNS FOR \$100 OF FEED		\$211.00	\$223.00	\$194.00
eed cost per 1b. B.F. (cents)		44.6	41.0	48.4
lumber of cows*		21.7	26.0	17.4

^{*} All dairy cows which have at some time in the past freshened are included in the dairy herd, and affect the average number of cows used in computing this table. There is some variation in the number of months of dry period per cow; however, this variation is small for the majority of farms. Herds of less than five cows were omitted from this study.

Table 13 Feed Costs and Returns from Other Dairy and Dual Purpose Cattle 1957

8 farms 7 farms

Average highest in lowest in

Items	Your farm	Average of 24 farms	8 farms highest in butterfat per cow	7 farms lowest in butterfat per cow
Feeds per head, lbs.: Concentrates Hay and fodder Silage Skim milk Whole milk		1050 1883 2321 325	883 2048 2526 282	674 1768 2879
Feed cost per head: Concentrates Roughages Milk Pasture		\$19.90 21.51 9.98 4.94	\$24.43 25.04 8.28 4.85	\$17.28 23.60 9.63 4.45
TOTAL FEED COSTS PER HEAD		\$56.33	\$62.60	\$54.96
Net inc. in value of other cattle	-	\$84.76	\$86.95	\$81.08
RETURNS ABOVE FEED COST PER HEAD		\$28 .43	\$24.35	\$26.12
RETURNS FOR \$100 OF FEED		\$154.00	\$143.00	\$152.00
Number of head of other cattle	· · · · · · · · · · · · · · · · · · ·	23.1	27.7	18.8

TABLE 14 Feed Costs and Returns from All Dairy and Dual Purpose Cattle 1957

TADDE 14 Feed 00565 and Resultis 110	m All Dairy	and Duar	rurpose cat	TTE 1957
			8 farms	7 farms
		Average	highest in	lowest in
	Your	of 24	butterfat	butterfat
Items	farm	farms	per cow	per cow
Feed per animal unit, lbs.:		*		
Concentrates		2566	2607	2066
Hay and fodder		4206	4880	3829
Silage		6532	6361	8288
TOTAL FEED COSTS PER AN IMAL UNIT		\$129.60	\$140.72	\$118.69
77-7				
Value of produce per animal unit:		//		
Dairy products		\$195.34	\$222.62	\$154.50
Net increase in value of dairy		& 22 00	dh	H/ C
cattle TOTAL VALUE PRODUCED		\$ 55.30	\$ 55.59	• \$ 56 . 79
TOTAL VALUE PRODUCED		\$250.64	\$278,21	\$211.29
RETURNS ABOVE FEED PER ANIMAL UNIT		\$121.04	\$137.49	\$ 92.60
		ψ-re-gr ⊕ Oct	₩ ±21•43	Ψ 92.400
RETURNS PER \$100 OF FEED		\$195.00	\$199.00	\$182,00
• • • • • • • • • • • • • • • • • • •		11-12-00	# - //•00	Abrea # 00
Animal units of cattle		33.3	40.0	28 .3 .
			- -	

Table 15 Feed Cost and Returns from Beef Cattle 1957

Items	Your	Average of all
	farm	farms
Beef breeding herd: No. of farms: 3 Austin Area,	1 Mankato Area	
reeds per animal unit, lbs.:		
Concentrates	•	1883
Legume		4324
Other hay		
Silage		2265
		2205
Feed cost per animal unit:		
Concentrates	\$	\$ 42.47
Roughages	***************************************	44.67
Pasture		17.98
TOTAL FEED COSTS		\$105.12
		他エクシ・エス
Value of produce per animal unit:		
Dairy products	#	\$ _96
Net increase in value of animals	₩	
TOTAL VALUE PRODUCED		112.82
		\$113.78
ETURNS ABOVE FEED COST PER ANIMAL UNITS	\$	\$ 9.87
	4	\$ 9.87
ETURNS FOR \$100 OF FEED	\$	\$3.03.00
	Ψ	\$107.00
umber of cows and herd bulls		20 €
umber of animal units in the herd		29.5
ounds of beef produced		32.8
		16,151
eeding Cattle: No. of farms: 4 Austin Area, 11 Ma	ankato Area	
eeding Cattle: No. of farms: 4 Austin Area, 11 Ma	ankato Area	
eeding Cattle: No. of farms: 4 Austin Area, 11 Ma eeds per cwt. beef produced, lbs.: Corn	ankato Area	L-2 L-
eeds per cwt. beef produced. lbs.:	ankato Area	515
eeds per cwt. beef produced, lbs.: Corn	ankato Area	17
eeds per cwt. beef produced, lbs.: Corn Small grain	ankato Area	
eeds per cwt. beef produced, lbs.: Corn Small grain Commercial feeds	ankato Area	17 67
eeds per cwt. beef produced, lbs.: Corn Small grain Commercial feeds Legume hay	ankato Area	17 67 226
eeds per cwt. beef produced, lbs.: Corn Small grain Commercial feeds	ankato Area	17 67
corn Small grain Commercial feeds Legume hay Other hay and fodder	ankato Area	17 67 226 12
corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates	ankato Area	17 67 226 12 599
corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder	ankato Area	17 67 226 12 599 238
corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage	ankato Area	17 67 226 12 599
Corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage eed cost per cwt. beef produced:		17 67 226 12 599 238 482
Corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage eed cost per cut, beef produced: Concentrates	ankato Area	17 67 226 12 599 238 482 \$ 12.58
Corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage ed cost per cwt. beef produced: Concentrates Roughages		17 67 226 12 599 238 482 \$ 12.58 3.56
corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage eed cost per cut, beef produced: Concentrates Roughages Pasture		17 67 226 12 599 238 482 \$ 12.58 3.56 .56
corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage ed cost per cut. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS		17 67 226 12 599 238 482 \$ 12.58 3.56 .56 \$ 16.70
corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage ed cost per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS et increase in value of feeders		17 67 226 12 599 238 482 \$ 12.58 3.56 .56 \$ 16.70 27.42
corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage ed cost per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS et increase in value of feeders		17 67 226 12 599 238 482 \$ 12.58 3.56 .56 \$ 16.70
Corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage ed cost per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS et increase in value of feeders TURNS ABOVE FEED COST PER CWT. BEEF PRODUCED		\$ 12.58 3.56 .56 \$ 16.70 27.42 10.72
Corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage ed cost per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS et increase in value of feeders TURNS ABOVE FEED COST PER CWT. BEEF PRODUCED		17 67 226 12 599 238 482 \$ 12.58 3.56 .56 \$ 16.70 27.42
Corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage ed cost per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS et increase in value of feeders TURNS ABOVE FEED COST PER CWT. BEEF PRODUCED		\$ 12.58 3.56 .56 \$ 16.70 27.42 10.72
Corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage ed cost per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS et increase in value of feeders TURNS ABOVE FEED COST PER CWT. BEEF PRODUCED TURNS FOR \$100 OF FEED ice paid per cwt. beef bought		\$ 12.58 3.56 \$ 16.70 27.42 10.72 \$172.00 \$ 22.20
Corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage Sed cost per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS St increase in value of feeders TURNS ABOVE FEED COST PER CWT. BEEF PRODUCED TURNS FOR \$100 OF FEED Tice paid per cwt. beef bought ice received for feeder cattle sold		\$ 12.58 \$ 12.58 \$ 3.56 \$ 16.70 27.42 10.72 \$172.00 \$ 22.20 21.05
corn Small grain Commercial feeds Legume hay Other hay and fodder Total concentrates Total hay and fodder Silage eed cost per cwt. beef produced: Concentrates Roughages Pasture		\$ 12.58 3.56 \$ 16.70 27.42 10.72 \$172.00 \$ 22.20

SHEEP

FARM FLOCKS IN THIS AREA ARE SMALL AND THE FEED CONSUMPTION IS HIGH BECAUSE OF FEED AVAILABILITY. EFFORTS WERE MADE TO HAVE COOPERATORS CHARGE THE FLOCK FOR ALL FEED CONSUMED. THE TABLE BELOW INCLUDES 2 FARMS FROM THE AUSTIN AREA AND 5 FARMS FROM THE MANKATO AREA.

. Table 16 Feed Costs and Returns from a Farm Flock of Sheep 1957

y lable to reed costs and neturns	from a farm frock of Sne	ep 1951
Items	Your farm	Average of 7 farms in southern Minnesota
Feeds per head, * 1bs.:		
Concentrates		142
Legume hay	*** **********************************	623
Other hay	**************************************	31
Silage	**************************************	283
Feed cost per head:		
Concentrates	\$	\$ 3.22
Roughages		6.78
Pasture		1.85
TOTAL FEED COSTS	\$	\$ 11.85
Value of produce per head:	and the second of the second o	
Wool	\$	\$ 4.28
Net increase in value of sheep	-	16.01
TOTAL VALUE PRODUCED	\$	\$ 20.29
RETURNS ABOVE FEED COST PER HEAD	\$	\$ 8.44
RETURNS FOR \$100 OF FEED	\$	\$175.00
Price per cwt. of lambs sold	\$	\$ 22.33
Price per 1b. wool sold (cents)		•58
Pounds of wool per sheep sheared		8 .6
Number of ewes kept for lambing		54.5
Per cent lamb crop**		127
Per cent death loss***		10
David a constant of the consta		# / / # / #
Pounds of sheep produced		54,313
Number of head of sheep*		83.3

^{*} Two lambs under six months of age considered as one head.

^{**} Lambs which die during month of birth are not included.

CHICKENS

Flocks from 17 farms are included in this report. Only those flocks averaging 100 or more hens, and having a full year's production are included in the averages. Thirteen farms did not have laying flocks at any time of the year. Three were without a laying flock for a part of the year.

Table 17 Feed Costs and Returns from Chickens 1957

Table I/ reed Costs an	a keturns	irom Unicke	ens 1957	
Items	Your farm	Average of 17 farms	6 farms highest in return above feed	6 farms lowest in return above feed
Feed per hen, lbs.: Grain Commercial feeds Total concentrates Skim milk and buttermilk		85 42 127	93 41 134	73 <u>48</u> 121
TOTAL FEED COST PER HEN		\$ 3.64	\$ 3.87	\$ 3.48
Value of produce per hen: Eggs sold and used in house Net increase in value of chickens	3	\$ 5.27 \$.25	\$ 5.81 \$.76	\$ 4.58 \$ 02
TOTAL VALUE PRODUCED	****	\$ 5.52	\$ 6.57	\$ 4.56
RETURNS ABOVE FEED COST FER HEN	***************************************	\$ 1.88	\$ 2.70	\$ 1.08
RETURNS FOR \$100 OF FEED	. Marie Marie Marie and American American	\$155.00	\$174.00	\$135.00
Price rec'd. per doz. eggs sold (cents Eggs laid per hen	5)	28.9 218	29 . 6 237	28.5 185
Ave. No. hens on farm during year Per cent death loss of hens		455 10 . 3	471 6.0	622 12 . 8

^{*} Includes feeds and returns from laying flock and chicks raised.

TURKEYS

Turkeys were produced on only two farms included in the Austin Area. These were averaged with one cooperator from the Mankato Area.

Below are the averages from these three farms.

Table 18 Feed Costs and Returns for Turkeys 1957 (3 Farms in Southern Minnesota)

Items	Your farm	Average of 3 farms
Feed per cwt. turkeys produced, lbs.: Grain Commercial feeds Total concentrates		228 204 432
Feed cost per cwt. turkeys produced Net increase in value per cwt. turkeys produced		\$14.00 \$18.65
RETURNS ABOVE FEED COST PER CWT. TURKEYS PRODUCED RETURNS FOR \$100 OF FEED	Military of the state of the st	\$ 4.65 \$134.00
No. of poults put on feed Price paid per poult purchased (cents) Per cent death loss Price received per 1b. turkeys sold (cents) Weight per bird sold (lbs.) Pounds of turkey produced		11122 65.2 6.1 23.9 13.8

LOCATION OF COOPERATING EAST SOUTH CENTRAL SCHOOLS

