

1963 ANNUAL REPORT

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

1963 REPORT OF THE VOCATIONAL AGRICULTURE
FARM ANALYSIS SERVICE IN EAST SOUTH CENTRAL MINNESOTA

Charles M. Painter

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INTRODUCTION

This is the ninth year that an analysis has been made by the Austin Area Vocational-Technical 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 to express our appreciation to J. A. Kentta, Printing Instructor of the Austin Area Vocational-Technical School, and his class for preparing our cover page and assembling the report. The special design on the cover page is characteristic of Jack's creativeness.

Some main purposes of the farm analysis services in this area are: (1) to assist instructors and cooperating farmers in farm accounting techniques; (2) to aid the farmer in the study of his farm business through analysis reports and (3) to provide case study material that can be used by farmers and farm groups to study management problems. The analysis also probably has some research value.

This report and the analysis of records included in the report were done under the direction of Charles M. Painter, Vocational Agriculture Coordinator, Austin Area Vocational-Technical School. Analysis assistants were: Madge Anderson, Dexter; Elaine Harber and Eileen Heimsness, both of Austin; Audrey Anhorn and Donna Qualey of Faribault and Patricia Francis of Blooming Prairie. Helen Bergh and Lynda Planz, school secretaries, deserve credit for the typing and duplicating. Without the excellent work and team effort of these people this report would not have been possible.

Directing in a supervisory capacity for this and the other cooperating projects were: G. R. Cochran, State Supervisor of Agricultural Education; S. K. Wick, Director of Vocational Education; Morton A. Carney, Director of the Austin Area Vocational-Technical School and Irwin T. Mickelson, Austin Superintendent of Schools. William Knaak, former Assistant Director of Vocational Education, assisted in the early development of the program. Technical assistance was provided by the University Agricultural Education Department under the direction of Dr. Milo Peterson. The professional assistance of the University Division of Agricultural Economics and the Agricultural Extension Service have done much to bring farm management study up to date. Financial assistance from the Hill Family Foundation helped to initiate the program from 1954 through 1957.

Farmers pay a fee to cover clerical costs, paper, and stencils.

The following schools submitted 1963 farm records for analysis:

<u>Name of School</u>	<u>No. of Books</u>	<u>Instructors</u>
Adams	9	Dwain Vangsness*
Austin	22	Leland Arneson*
Blooming Prairie	30	Eugene Francis* Truman Tilleraas
Faribault	45	Ralph Palan* Paul Day
Hayfield	12	Bruce Oxtan* Bert Fuller Frank Moon
Kenyon	6	Dennis Kluver* John Shelstad
LeRoy	4	Donald Haugland*
Lyle	1	"Pete" Godfredson
New Richland	24	Wayne Broecker* Gary Leske
Rochester	1	W. O. Woodman*
Owatonna	3	John Zwiebel* Glenn Edin
Spring Valley	3	Ed Morine* Rollis Larson
Wanamingo	2	Robert Johnson*
West Concord	3	Hilbert Hoof*
Zumbrota	4	Gerald Halvorson*
Alden	1	John Nelson*
TOTAL	170	

* Instructor responsible for the Adult Agriculture program

Table 1 Summary of Farm Inventories 1963

Items	Your Farm		Average of 140 Farms	
	Jan. 1 - Dec. 31		Jan. 1 - Dec. 31	
Size of Farm (Acres)			251.4	
Size of Business (Work Units)**			467	
Dairy and Dual Purpose Cows			\$ 3360	\$ 3338
Other Dairy and Dual Purpose Cattle			1676	1725
Beef Cattle (including feeders)			2673	3262
Hogs			3143	3290
Sheep (including feeders)			215	140
Poultry (including turkeys)			148	141
Productive Livestock (total)			\$11215	\$11896
Crop, Seed and Feed			7998	9634
Power Machinery (farm share)			3608	3543
Crop and General Machinery			4522	4510
Livestock Equipment			1171	1337
Machinery & Equipment (total)			\$9301	\$9390
Miscellaneous			----	----
Land			\$26575	\$26576
Buildings, Fences, etc.			14192	14339
Total Farm Capital			\$69281	\$71835

Items	28 Most Profitable Farms		28 Least Profitable Farms	
	Jan. 1-Dec. 31		Jan. 1-Dec. 31	
Size of Farm (Acres)	333		224.5	
Size of Business (work units)**	589		413	
Dairy and Dual Purpose Cows	\$ 3475	\$ 3092	\$ 2712	\$ 2554
Other Dairy & Dual Purpose Cows	1757	1551	1390	1515
Beef Cattle (including feeders)	1216	3339	7184	6816
Hogs	5427	5863	2212	2593
Sheep (including feeders)	629	148	242	408
Poultry	93	75	134	84
Productive Livestock (total)	\$12597	\$14068	\$13874	\$13970
Crop, Seed, Feed	15587	18778	5374	6128
Power Machinery (farm share)	5119	4975	3219	2988
Crop & General Machinery	6836	6539	3803	3968
Livestock Equipment	1276	1484	898	907
Machinery & Equipment (total)	\$13231	\$12998	\$7920	\$7863
Miscellaneous	----	----	----	----
Land	35243	35243	23043	23043
Buildings, Fences, etc.	20555	21197	14955	15045
Total Farm Capital	\$97213	\$102284	\$65166	\$66049

* 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 (Cash Statement) 1963

Items	Your Farm	Average of 140 Farms	28 Most Profitable Farms	28 Least Profitable Farms
FARM RECEIPTS				
Dairy and dual purpose cattle		\$ 1348	\$ 1908	\$ 1211
Dairy Products		5073	5271	3614
Beef cattle (including feeders)		3813	3269	10830
Hogs		7860	14380	5455
Sheep & wool (including feeders)		234	803	173
Poultry		25	28	24
Eggs		546	435	330
Corn		2137	4809	925
Small Grain		726	970	584
Other crops		2472	4890	1230
Mach & equip sold-gas tax ref.		281	533	189
Income from work off the farm		327	334	397
Miscellaneous farm income		1478	2811	1045
(1) Total farm sales		\$26320	\$40441	\$26007
(2) Increase in farm capital		2554	5070	883
(3) Family living from the farm		330	338	261
(4) Total farm receipts (1+2+3)		\$29204	\$45849	\$27151
FARM EXPENSES				
Dairy & dual purp. cattle bought		\$ 221	\$ 138	\$ 325
Beef cattle bought (inc. feeders)		2829	3647	7519
Hogs bought		590	632	564
Sheep bought (inc. feeders)		36	5	168
Airplane - gas, oil, repair		4	19	--
Poultry bought		57	30	36
Miscellaneous livestock expense		582	769	620
Feed bought		4341	6220	4641
Fertilizers		1327	2354	1088
Other crop expenses		973	1686	652
Custom work hired		722	941	639
Gas, oil, grease bought (F. share)		1079	1547	897
Rep. mechanical power (F. share)		595	856	475
Rep. & upkeep of real estate		336	444	388
Rep. & upkeep of crop & gen. mach.		440	614	385
Rep. & upkeep of livestock equipment		172	296	116
Wages of hired labor		538	1190	317
Electricity expense (farm share)		299	403	255
Real estate & personal prop. tax		1206	1626	1109
General farm expenses		333	510	278
(5) Total cash operating expense		\$16680	\$23927	\$20472
(6) Cap. purc-mech. pow. (F. share)		693	964	451
(7) Cap. purc-crop & gen. mach.		923	1081	965
(8) Cap. purc. livestock equipment		423	536	220
(9) Cap. pur. buildings & fencing		1095	2199	1061
(10) Total farm purchases (5-9)		\$19814	\$28707	\$23169
(11) Decrease in farm capital		-----	-----	-----
(12) Interest on farm capital		3528	4987	3280
(13) Unpaid family labor		634	730	737
(14) Board furnished hired labor		66	94	45
(15) Total farm expenses (10-14)		\$24042	\$34518	\$27231
(16) Labor earnings (4-15)		5162	11331	-80

Table 3 Summary of Farm Earnings (Enterprise Statement) 1963*

Items	Your Farm	Average of 140 Farms	28 Most Profitable Farms	28 Least Profitable Farms
<u>RETURNS AND NET INCREASES</u>				
Dairy and dual purpose cows		\$ 5057	\$ 5224	\$ 3547
Other dairy & dual purpose cattle		1512	1647	1158
Beef breeding herd		248	73	373
Feeder cattle		1300	1536	2607
Hogs		7477	14279	5317
Sheep - farm flock		123	318	172
Sheep - feeders		---	---	---
Turkeys		---	---	---
Chickens		529	434	277
ALL PRODUCTIVE LIVESTOCK		\$16246	\$23511	\$13451
Value of feed fed to livestock		-12080	-16601	-12093
Return over feed from livestock		\$ 4166	\$ 6910	\$ 1358
Crops, seed, and feed		12341	20141	9137
Income from labor off the farm		208	206	301
Agricultural conservation payments		1288	2588	865
Miscellaneous		189	216	181
(1) TOTAL RETURNS & NET INCREASES		\$18192	\$30061	\$11842
<u>EXPENSES AND NET DECREASES</u>				
Airplane		\$ 9	\$ 45	\$ --
Truck		321	586	243
Auto (farm share)		500	696	381
Tractor		1320	1803	1202
Elec. & gas engine expense (F.share)		299	404	256
Hired power		384	514	344
Total power		\$ 2833	\$ 4048	\$ 2426
Crop & general machinery		1409	2065	1211
Livestock equipment		418	588	326
Buildings, fencing and tiling		1241	1810	1360
Misc. prod. livestock expense		582	769	620
Labor		1479	2328	1312
Real estate taxes		999	1354	894
Personal property tax		208	272	214
Insurance		163	253	134
General farm		170	256	145
Interest on farm capital		3528	4987	3280
(2) TOTAL EXPENSES & NET DECREASES		\$13030	\$18730	\$11922
(3) LABOR EARNINGS (1) - (2)		\$ 5162	\$11331	\$ -80

* 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.

Table 4 Cash Household and Personal Expenses for
Those Farms which kept complete accounts of these expenses 1963

Items	Your farm	Average of 58 farms
Number of persons - family	_____	5.5
Number of adult equivalent - family	_____	3.8
Food and meals bought	_____	\$1070
Operating and supplies	_____	293
Furnishings and equipment	_____	249
Clothing and clothing materials	_____	391
Personal care, personal spending	_____	131
Education, recreation and development	_____	212
Gifts and special events	_____	137
Medical care and health insurance	_____	444
Church, welfare	_____	214
Pers. share truck & auto exp.	_____	185
Oper. share upkeep on dwelling	_____	109
Pers. share tel. & elect. expense	_____	116
Total cash living expenses	_____	\$3551
Pers. share new auto & truck	_____	125
Taxes and other deductions	_____	14
Life insurance	_____	240
Other savings and investments	_____	123
Total household & personal cash exp.	_____	\$4053
Total family living from the farm	_____	353
Total cash exp. and perquisites	_____	\$4406
Income: Operators labor earnings	_____	\$4164
Return to capital & labor	_____	\$6335

Table 5 Net Worth Statement for those Farmers who kept a
complete record of all Assets and Liabilities 1963 (Operator's share)

Items	Your farm		Owners-Part Owners	100 farms	Renters-21 farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31.	Jan. 1	Dec. 31.
Total farm capital			\$44898	\$46855	\$18125	\$20083
Auto (Personal share)			449	431	336	339
Dwelling			2465	2547	---	----
Other personal assets			4756	4769	4525	4960
TOTAL ASSETS			\$52568	\$54602	\$22986	\$25382
Real estate mortgages			\$14194	\$14037	\$ ----	\$ ----
Chattel mortgages			3984	3792	2769	3523
Notes			1949	2075	2408	2675
Accounts payable			918	1072	1357	1480
TOTAL LIABILITIES			\$21045	\$20976	\$ 6534	\$ 7678
Farmer's Net Worth			\$31523	\$33626	\$16452	\$17704
Gain in Net Worth				\$ 2103		\$ 1252

Table 6 Summary of Farm Earnings by Tenure 1963 (Operator's Share)

Items	Your Farm	57 Owners	59 Part Owners	23 Renters
<u>FARM RECEIPTS</u>				
Dairy and dual purpose cattle	\$	\$ 1229	\$ 1267	\$ 918
Dairy products		4656	4636	3938
Beef cattle (including feeders)		2452	5889	1217
Hogs		9585	6146	4527
Sheep and wool (including feeders)		122	401	48
Poultry (including turkeys)		30	28	1
Eggs		697	540	52
Corn		1329	2160	840
Small grain		504	745	482
Other crops		1792	2832	1230
Machinery and equipment sold		248	320	218
Income from work off the farm		284	312	440
Miscellaneous		1452	1605	677
(1) Total farm sales	\$	\$24380	\$26881	\$14588
(2) Increase in farm capital		1643	3836	1974
(3) Family living from the farm		317	325	290
(4) Total farm receipts (1)+(2)+(3)	\$	\$26340	\$31042	\$16852
<u>FARM EXPENSES</u>				
Dairy and dual purpose cattle bought	\$	\$ 143	\$ 203	\$ 249
Beef cattle bought (including feeders)		1159	5022	718
Hogs bought		793	331	547
Sheep bought (including feeders)		21	61	9
Airplane expenses		10	--	--
Poultry		94	37	5
Miscellaneous livestock expense		581	545	388
Feed		4540	4052	2622
Fertilizers		1297	1285	685
Other crop expense		905	1019	518
Custom work hired		591	782	518
Gas, oil, grease		989	1176	768
Rep. tractor, truck, auto (farm share)		549	635	527
Rep. & upkeep of real estate		289	343	50
Rep. & upkeep of crop & gen. mach.		448	425	395
Rep. & upkeep of livestock equipment		184	180	107
Wages of hired labor		466	641	382
Electricity expense (farm share)		303	295	237
Real estate & personal property taxes		1098	789	138
Cash rent		---	731	992
General farm expenses		351	340	185
Interest paid		1628	1121	343
Total cash operating expenses	\$	\$16439	\$20013	\$10383
Mechanical power bought (farm share)		557	733	947
Crop and general machinery bought		740	1097	831
Livestock equipment bought		373	513	336
New real estate improvements		944	1523	381
(5) Total farm purchases	\$	\$19053	\$23879	\$12878
(6) Decrease in farm capital		---	---	---
(7) Interest on farm capital		1682	1735	735
(8) Unpaid family labor		551	743	470
(9) Board furnished hired labor		57	68	71
(10) Total farm expenses (5+6+7+8+9)	\$	\$21343	\$26425	\$14154
(11) Labor earnings (4-10)		4997	4617	2698
(12) Ret. to cap. & fam. labor (7+8+11)		7230	7095	3903

RANGE IN EARNINGS

Range in earnings between the top and bottom groups was very pronounced. In general, livestock prices were lower than for 1962 with feed prices generally higher. Yields were again a very important factor in determining labor earnings. Corn yields were at an all time high.

\$18000

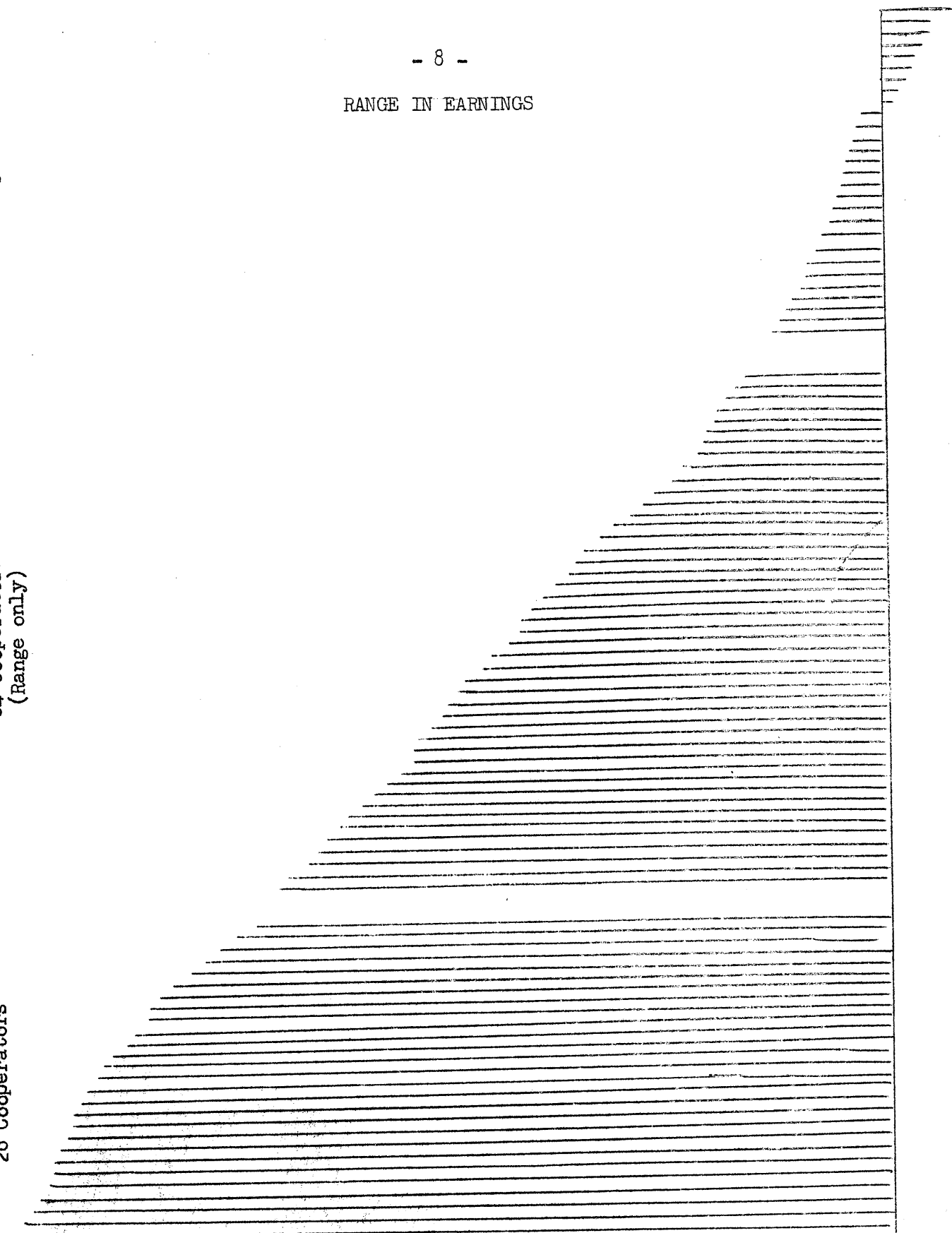
28 Cooperators

84 Cooperators
(Range only)

28 Cooperators

\$8000

\$2000



"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 per farm or per worker may be interpreted differently for different farm situations. They may measure the degree of efficiency of labor due to mechanization or careful planning. They may also measure quality or quantity of work. Occasionally high work units per worker indicate an excessive work load. 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 Wrk. Units
Dairy and dual-purpose cows	10.0 per cow	Small grain	.5 per acre
Other dairy & du. pur. cattle	3.5 per an. unit*	Sugar beets	1.5 per acre
Beef breeding herd	3.5 per an. unit*	Sweet corn	.7 per acre
Feeder cattle	.25 per 100 lbs.	Corn husked	.7 per acre
Sheep - farm flock	1.5 per an. unit*	Corn, hogged	.4 per acre
Sheep - feeders	.3 per 100 lbs.	Corn, Shredded	1.5 per acre
Hogs	.2 per 100 lbs.	Corn, silage	1.0 per acre
Turkeys	.2 per 100 lbs.	Corn, fodder	1.0 per acre
Hens	20.0 per 100 hens	Alfalfa hay	.6 per acre
Canning peas	.5 per acre	Soybean hay	.8 per acre
Saybeans for grain	.5 per acre	Other hay crops	.4 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 hens or 1,100 pounds of turkey produced.

Table 8 Measures of Farm Organization and Management Efficiency 1963

Measures used in chart on page 11	Your farm	Average of 140 farms	28 most profitable farms	28 least profitable farms
Labor earnings	\$ _____	\$5162	\$11,331.	\$ -81.00
(1) Crop yields*	_____	100	111	94
(2) Per cent tillable land in high return crops	_____	66.5	71.5	68.4
(3) Return for \$100 feed to produce livestock*	_____	100	106	87
(4) Prod. livestock units per 100 acres**	_____	37.4	39.8	43.8
(5) Size of business-work units	_____	467	589	413
(6) Work units per worker	_____	323	355	293
(7) Power; machinery; equipment; building expense per work unit	\$ _____	\$13.62	\$ 15.01	\$ 15.67
Items related to some of the above measures				
(3) Index of return for \$100 feed from:				
Dairy cattle (see pgs 15 & 16)	_____	100	100	83
Beef cattle-breeding herd (see page 17)	_____	100	124	102
Beef cattle-feeders (see pg 17)	_____	100	104	93
Hogs (see pages 13 & 14)	_____	100	109	95
Sheep-farm flock (see pg 18)	_____	100	99	121
Turkeys (see page 20)	_____	100	---	---
Chickens (see page 19)	_____	100	117	65
(4) Number of animal units	_____	78.8	103.6	86.4
(5) Work units on crop	_____	118	173	97
Work units on prod. livestock	_____	349	416	316
(7) Power expense per work unit	\$ _____	\$6.71	\$7.31	\$7.50
Crop Machinery expense per work units	\$ _____	\$3.20	\$3.64	\$3.37
Livestock equip expense per work unit	\$ _____	\$.85	\$.95	\$.86
Building & fence expense per work unit	\$ _____	\$2.86	\$3.11	\$3.94

* Given as a percentage of the average.

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

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 114 farms included in this summary are located between the dotted lines across the center of this page.

THERMOMETER CHART

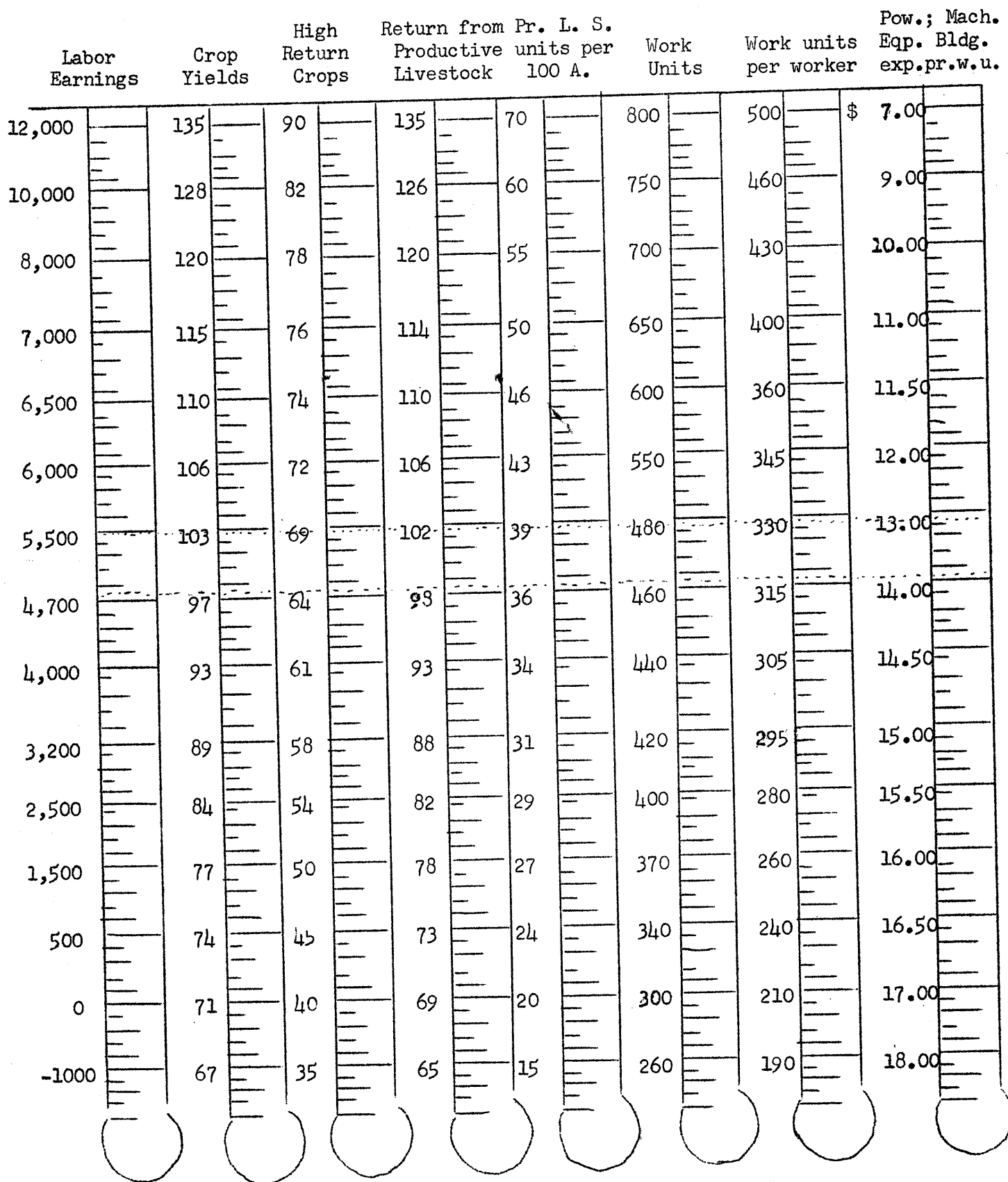


Table 9 Distribution of Acres and Yield 1963

Crop	Crop rating	Number growing	Acres your farm	Average acres of 166 farms	Your yields	Average Yield
Canning peas	B	5	_____	.7	_____	\$49.06
Flax	C	5	_____	.9	_____	12.7 T
Wheat	C	80	_____	8.5	_____	31.0 bu.
Oats silage	C	9	_____	.5	_____	5.5 T
Oats for grain	D	133	_____	21.5	_____	61.2 bu.
Barley and rye*	D	1	_____	.7	_____	41.8 bu.
Total small grain & peas			_____	32.8	_____	
Sugar beets	A	4	_____	2.7	_____	14.5 T
Corn grain	A	166	_____	84.2	_____	87.5 bu.
Sweet corn	B	12	_____	1.4	_____	6.8 T
Soybeans	B	122	_____	32.4	_____	26.6 bu.
Corn silage	B	114	_____	9.5	_____	13.9 T
Truck crops, potatoes*	A	1	_____	.1	_____	
Total cultivated crops			_____	130.3		
Alfalfa hay	B	144	_____	24.9	_____	2.9 T
Other leg. & leg. mixtures	C	17	_____	1.9	_____	2.1 T
Miscellaneous hay and seed*	D	5	_____	.3	_____	1.7 T
Total tillable land in hay			_____	27.1		
Alfalfa pasture	B	91	_____	9.3		
Other legume pasture	(C or B)	10	_____	.9		
Other tillable pasture	D	8	_____	.3		
Total tillable land in pasture			_____	10.5		
Government program		117	_____	20.7		
Tillable land not cropped (including plowdown & waterways)		11	_____	.5		
Total tillable land			_____	221.9		
Wild hay			_____	.5		
Non-tillable pasture			_____	15.6		
Timber			_____	2.7		
Roads and waste			_____	10.4		
Farmstead			_____	9.0		
Miscellaneous			_____	.1		
Total acres in farm			_____	260.2		
Per cent land tillable			_____	85.0		
Per cent in high return crops			_____	67.0		

* 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 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 1963

	Dairy or Dual Purpose Cattle			Beef
	Cows	Other	All	Breeding 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 70 to 80 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.

Table II Feed Costs and Returns from Hogs 1963

Items	Your farm	Average of 90 farms	22 farms highest in returns above feed	22 farms lowest in returns above feed
Feed per cwt. hogs produced, lbs:				
Corn	_____	340	303	413
Small grain	_____	46	36	50
Commercial feeds	_____	69	55	100
Total concentrates	_____	455	394	563
Forage and Misc.	_____	7	6	12
Feed cost per cwt. hogs produced:				
Concentrates (plus forage & misc.	_____	\$11.72	\$ 9.95	\$13.84
Pasture	_____	.01	.01	---
TOTAL FEED COSTS	_____	\$11.73	\$ 9.96	\$13.84
Net increase in val per cwt. hogs pro.	_____	\$14.29	\$15.15	\$13.56
RETURNS ABOVE FEED COST PER CWT. HOGS PRODUCED	_____	\$ 2.56	\$ 5.19	- 28
RETURN FOR \$100 OF FEED	_____	\$123.00	\$152.00	\$ 98.00
Price received per cwt. hogs sold	_____	\$14.94	\$15.35	\$14.23
No. of spring litters raised	_____	20	25.	13
No. of fall litters raised	_____	20	27.	13
Total no. of litters raised	_____	40	52.	26
No. of pigs born per litter	_____	9.2	9.4	8.4
No. of pigs weaned per litter	_____	7.2	7.7	6.1
Pounds of hogs produced	_____	69423	89136	39853

Operators producing less than 10000 pounds of pork are omitted from hog averages. Ten feeder pig operations are shown on a separate table. Questionable records were omitted including those who produced hogs for only a portion of the year.

DAIRY AND DUAL PURPOSE CATTLE

No herds were classed as dual purpose. Several farms raising only dairy heifers were omitted as were herds with averages of less than five cows. Also omitted were those who had herds for only a portion of the year.

Table 12 Factors of Cost and Returns from Dairy Cows 1963

Items	Your Farm	Average of 83 Farms	20 Farms Highest in Butterfat per Cow	20 Farms Lowest in Butterfat per Cow
Pounds of butterfat per cow	_____	359	435	285
Pounds of milk per cow	_____	9983	11974	7953
% of butterfat in milk	_____	3.6	3.6	3.6
Price rec'd per lb. of B.F. sold ¢	_____	91.0	91.6	89.7
Price rec'd per cwt. milk sold	_____	3.29	3.32	3.24
Feed per cow, lbs.:				
Corn	_____	2926	3340	2481
Small grain	_____	600	842	559
Commercial feeds	_____	436	656	249
Legume hay	_____	5307	5397	4499
Other hay	_____	372	276	920
Total concentrates	_____	3962	4838	3289
Total dry roughage	_____	5679	5673	5419
Silage	_____	7443	7746	6919
Feed cost per cow:				
Concentrates	_____	\$ 92.98	\$115.84	\$ 72.71
Roughages	_____	75.11	76.09	69.88
Pasture	_____	9.21	8.34	10.66
TOTAL FEED COSTS	_____	\$177.30	\$200.27	\$153.25
Value of produce per cow:				
B.F. sales	_____	\$316.36	\$388.58	\$245.02
Dairy products used in home	_____	4.43	3.97	4.72
Milk to livestock	_____	5.78	4.43	5.99
Net increases in value of cows	_____	-11.84	-15.93	-12.32
TOTAL VALUE PRODUCED	_____	\$314.73	\$381.05	\$243.41
RETURNS ABOVE FEED COST PER COW	_____	\$137.43	\$180.78	\$ 90.16
RETURNS FOR \$100 OF FEED	_____	\$178.00	\$190.00	\$159.00
Feed cost per lb. B.F. (cents)	_____	49.8	46.3	53.9
Number of cows *	_____	26.2	26.5	24.7

* 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 12A Factors of Cost and Returns from Dairy Cows 1963

Items	Your Farm	Average of 83 Farms	20 Farms Highest Ret. over Feed Cost	20 Farms Lowest Ret. over Feed Cost
Pounds of butterfat per cow	_____	359	418	312
Pounds of milk per cow	_____	9983	11584	8698
% of butterfat in milk	_____	3.6	3.6	3.6
Price rec'd per lb. B.F. sold (¢)	_____	91.0	94.1	90.5
Price rec'd per cwt. milk sold	_____	\$3.29	\$3.41	\$3.28
Feed per cow, lbs.:				
Corn	_____	2926	3007	3203
Small grain	_____	600	793	418
Commercial feeds	_____	436	553	389
Legume hay	_____	5308	5608	5755
Other hay	_____	372	80	678
Total concentrates	_____	3962	4353	4010
Total dry roughage	_____	5680	5688	6433
Silage	_____	7443	8049	7231
Feed cost per cow:				
Concentrates	_____	\$92.99	\$102.09	\$ 92.88
Roughages	_____	75.10	77.20	81.45
Pasture	_____	9.21	8.10	8.41
TOTAL FEED COSTS	_____	\$177.30	\$187.39	\$182.74
Value of produce per cow:				
B.F. sales	_____	\$316.35	\$382.92	\$271.19
Dairy products used in home	_____	4.43	4.15	4.20
Milk to livestock	_____	5.78	5.83	7.27
Net increases in value of cows	_____	-11.84	-9.99	-16.25
TOTAL VALUE PRODUCED	_____	\$314.72	\$382.91	\$266.41
RETURN ABOVE FEED COST PER COW	_____	\$137.42	\$195.52	\$ 83.67
*RETURN ABOVE FEED COST-ALL DAIRY	_____	\$110.58	\$163.88	\$ 63.69
RETURNS FOR \$100 OF FEED	_____	\$178.00	\$204.00	\$146.00
Feed cost per lb. B.F. (¢)	_____	49.8	44.8	58.6
Number of cows*	_____	26.2	29.2	27.3

* Herds were classified on return over feed cost per animal unit for all dairy cattle in the herd.

Table 13 Feed Costs and Returns from Other Dairy and Dual Purpose Cattle 1963

Items	Your Farm	Average of 83 Farms	20 Farms Highest in Butterfat Per Cow	20 Farms Lowest in Butterfat Per Cow
Feeds per head, lbs.:				
Concentrates	_____	932	1225	796
Hay and fodder	_____	1857	1825	1498
Silage	_____	2016	1985	1619
Whole milk	_____	166	132	164
Feed cost per head:				
Concentrates	_____	\$ 25.23	\$ 32.99	\$ 21.06
Roughages	_____	23.30	23.13	18.71
Milk	_____	5.46	4.44	5.71
Pasture	_____	3.68	4.06	3.12
TOTAL FEED COSTS PER HEAD	_____	\$ 57.67	\$ 64.62	\$ 48.60
Net inc. in value of other cattle	_____	\$ 86.79	\$102.30	\$ 75.25
RETURNS ABOVE FEED COST PER HEAD	_____	\$ 29.12	\$ 37.68	\$ 26.65
RETURNS FOR \$100 OF FEED	_____	\$151.00	\$158.00	\$147.00
Number of head of other cattle	_____	28.8	28.6	24.2

Table 14 Feed Costs and Returns from All Dairy and Dual Purpose Cattle 1963

Items	Your Farm	Average of 83 Farms	20 Farms Highest in Butterfat Per Cow	20 Farms Lowest in Butterfat Per Cow
Feed per animal unit, lbs.:				
Concentrates	_____	3196	3927	2737
Hay and fodder	_____	4980	5060	4624
Silage	_____	5155	6506	926
TOTAL FEED COSTS PER ANIMAL UNITS	_____	\$152.06	\$174.85	\$131.99
Value of produce per animal unit:				
Dairy products	_____	\$209.66	\$262.00	\$168.87
Net increase in value of dairy catt.	_____	\$ 52.98	\$ 60.14	\$ 42.34
TOTAL VALUE PRODUCED	_____	\$262.64	\$322.14	\$211.21
RETURNS ABOVE FEED PER ANIMAL UNIT	_____	\$110.58	\$147.29	\$ 79.22
RETURNS PER \$100 OF FEED	_____	\$173.00	\$184.00	\$158.00
Animal units of cattle	_____	39.2	40.8	36.8

Table 15 Feed Cost and Returns from Beef Cattle 1963

Items	Your farm	Average of 5 farms
<u>Beef breeding herd:</u>		
Feeds per animal unit - lbs.:		
Concentrates	_____	316
Legume Hay	_____	3647
Silage	_____	2581
Other Hay	_____	475
Feed cost per animal unit:		
Concentrates	\$ _____	\$ 7.09
Roughages	\$ _____	\$42.74
Pasture	\$ _____	\$14.61
TOTAL FEED COSTS	\$ _____	\$64.44
Value of produce per animal unit:		
Dairy products	_____	-----
Net increase in value of animals	_____	\$83.27
TOTAL VALUE PRODUCED	_____	\$83.27
RETURNS ABOVE FEED COST PER ANIMAL UNIT	_____	\$18.83
RETURNS FOR \$100 OF FEED	_____	\$129.00
Number of cows and herd bulls	_____	41.0
Number of animal units in the herd	_____	40.7
<u>Feeding Cattle: 24 farms</u>		
Feeds per cwt. beef produced - lbs.:		
Corn	_____	547
Small grain	_____	18
Commercial feeds	_____	48
Legume hay	_____	414
Other hay and fodder	_____	.1
Total concentrates	_____	613
Total hay and fodder	_____	414
Silage	_____	689
Feed cost per cwt. beef produced:		
Concentrates	\$ _____	\$13.66
Roughages	_____	4.94
Pasture	_____	.40
TOTAL FEED COSTS	\$ _____	\$19.00
Net increase in value of feeders	_____	\$16.17
RETURNS ABOVE FEED COST PER CWT. BEEF PROD.	_____	-2.83
RETURNS FOR \$100 OF FEED	\$ _____	\$85.00
Price paid per cwt. beef bought	\$ _____	\$24.10
Price received for feeder cattle sold	_____	\$20.49
Number of animal units	_____	62.9
Pounds of beef produced	_____	34926

Several cooperators had beef breeding animals and also feeders but sometimes failed to make a distinction. These were not included in the averages. In some cases club calves and project animals represented the only beef produced. Only those producing 8000 pounds or more of beef were included in the feeder cattle operations.

SHEEP

Farm flocks in this area are small and the feed consumption is often impossible to determine. Flocks were carefully screened for reliability. Only six of the twenty reporting sheep were used. Costs and returns are determined on a per ewe basis.

* * * *

Table 16 Feed Costs and Returns from a farm flock of Sheep 196

Items	Your farm	Average of 6 farms
Feeds per ewe - lbs.:		
Concentrates	_____	247
Legume hay	_____	708
Other hay	_____	
Silage	_____	71
Feed cost per ewe:		
Concentrates	\$ _____	\$ 7.23
Roughages	_____	6.63
Pasture	_____	2.23
TOTAL FEED COSTS	\$ _____	\$16.09
Value of produce per head:		
Wool	_____	\$ 5.84**
Net increase in value of sheep	_____	15.82
TOTAL VALUE PRODUCED	\$ _____	\$21.66
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$ 5.57
RETURNS FOR \$100 OF FEED	\$ _____	\$135.00
Price per cwt. of lambs sold	\$ _____	\$18.15
Price per lb. wool sold (cents)	_____	\$.46***
Pounds of wool per sheep sheared	_____	9.9
Number of ewes kept for lambing	_____	80.0
Per cent lamb crop*	_____	97.7
Per cent death loss*	_____	5.3
Average number of ewes	_____	75.6

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

** Wool return including incentive payment.

*** Price per pound excludes incentive payment.

CHICKENS

Flocks from 22 farms are included in this report. Only those flocks averaging 200 or more hens, and having a full year's production are included in the averages.

Table 17 Feed Costs and Returns from Chickens 1963*

Items	Your Farm	Average of 22 Farms	7 Farms Highest in Return Above Feed	7 Farms Lowest in Return Above Feed
Feed per Hen - lbs.:				
Grain	_____	74	63	82
Commercial Feeds	_____	36	28	42
Total Concentrates	_____	110	91	124
TOTAL FEED COST PER HEN	_____	\$3.57	\$3.20	\$3.91
Value of Produce per hen:				
Eggs Sold & Used in the Home	_____	\$5.21	\$5.56	\$4.84
Net Increase in Val. of Chickens	_____	-.46	-.22	-.75
TOTAL VALUE PRODUCED	_____	\$4.75	\$5.34	\$4.09
RETURNS ABOVE FEED COST PER HEN	_____	\$1.18	\$2.14	\$.18
RETURNS FOR \$100 OF FEED	_____	\$133.00	\$167.00	\$105.00
Price rec'd per doz. Eggs Sold (¢)	_____	27.9	28.4	28.5
Eggs Laid Per Hen	_____	227	235	210
Ave. No. Hens on Farm during year	_____	605	880	551
Per cent Death Loss of Hens	_____	7.2%	7.4%	7.5%

* Includes feeds and returns from laying flock and chicks raised.

Table 18 Feed Costs and Returns from Feeder Pigs 1963

Item	Your Farm	Average of 10 Farms
Feed per cwt. hogs produced		
Corn	_____	303
Small Grain	_____	35
Commercial Feeds	_____	51
Total Concentrates	_____	389
Miscellaneous (Forage, Buttermilk, Potatoes)	_____	10
Feed cost per cwt. hogs produced		
Concentrates	_____	\$10.24
Miscellaneous	_____	.06
Pasture	_____	---
 TOTAL FEED COSTS	_____	 \$10.30
Net Increase in Value per Cwt. Hogs. Produced	_____	\$11.47
Return over Feed Cost per Cwt. Hogs. Produced	_____	\$ 1.17
Return \$100 Feed Fed	_____	\$111.00
Average Price Received	_____	\$15.26
Pounds of Pork Produced	_____	70024
Average Weight of Pigs Bought	_____	43.3#
Average Price Paid per Pig	_____	\$11.21
Per cent of Death Loss	_____	2.7%

Table 19 Average Prices Used for Feed 1963

Item	Pasture (Per Head Per Month)
Ear Corn	\$1.10
Oats, per bushel	.65
Alfalfa Hay, per ton	\$18.50
Red or Alsike Clover Hay, 1 ton	15.25
Non-legume, per ton	10.00
Corn Silage, per ton	\$6.00-7.00
Dairy Cows, Bulls	\$3.00 (Beef \$2.50)
Young Cattle	1.50 (" 1.25)
Hogs	.16
Pigs	.08
Ewes	.40
Lambs	.20

Prices were based on average farm prices received (inventory crops) and prices paid for purchased feed. This was arrived at from local market quotations and cooperators purchase and sales records.

When feeds are not corrected for test weight, shelling percentage and water content, analysis reports can be misleading. Estimates of yields and inventories are very important. Instructors and cooperators are advised to reduce forage quantities rather than the value per ton when the quality is inferior.

3

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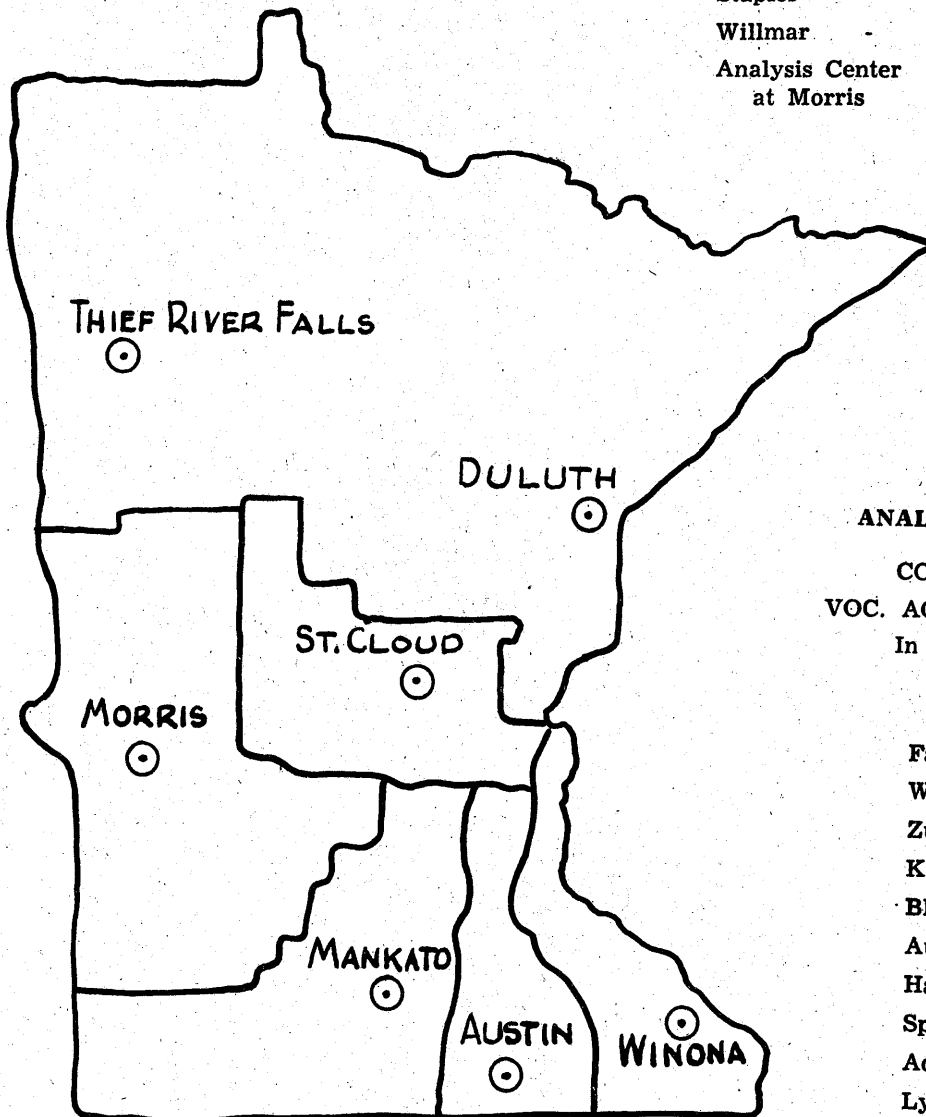
SUMMARY OF FARM EARNINGS BY YEARS

Items	1958	1959	1960	1961	1962	1963
<u>FARM RECEIPTS</u>						
Dairy cattle	\$ 1481	\$ 1828	\$ 1160	\$ 1602	\$ 1402	\$ 1348
Dairy products	4517	4492	4726	4776	5050	5073
Beef cattle (including feeders)	3630	5130	6958	5585	4645	3813
Hogs	7083	5895	6426	8751	8346	7860
Sheep and wool	121	221	181	147	155	234
Horses	5	3	-	-	-	-
Poultry (including turkeys 1958-59-60)	1573	1879	2280	78	49	25
Eggs	1095	917	1628	989	676	546
Corn	1862	1473	1468	883	1601	2137
Small grain	372	495	401	505	507	726
Other crops	1118	975	961	1179	1491	2472
Machine equipment sold & gas tax refund	173	194	172	208	266	281
Income from work off the farm	349	357	406	174	228	327
Miscellaneous	143	237	239	875	983	1478
(1) Total farm sales	\$23522	\$24096	\$27006	\$25752	\$25399	\$26320
(2) Increase in farm capital	3891	2754	1795	3180	669	2554
(3) Family living from the farm	269	271	326	341	368	330
(4) Total farm receipts (1)+(2)+(3)	\$27682	\$27121	\$29127	\$29273	\$26436	\$29204
<u>FARM EXPENSE</u>						
Dairy cattle bought	\$ 313	\$ 539	\$ 373	\$ 333	\$ 250	\$ 221
Beef cattle bought (including feeders)	2618	3290	3493	3949	2386	2829
Hogs bought	633	387	530	537	669	590
Sheep bought (including feeders)	43	287	43	17	5	36
Airplane	--	--	--	--	--	4
Poultry bought	501	475	720	117	92	57
Miscellaneous livestock	624	546	777	568	570	582
Feed bought	4377	4585	5546	4604	4238	4341
Fertilizers	955	1112	1085	1000	1065	1327
Other crop expenses	645	894	695	699	716	973
Custom work hired	672	593	607	592	629	722
Gas, oil & grease bought (farm share)	931	949	991	951	1010	1079
Repair of mechanical power (farm share)	419	487	533	522	534	595
Repair & upkeep of real estate	468	377	324	332	375	336
Repair & upkeep of crop & gen. machinery	326	354	397	347	357	440
Repair & upkeep of livestock equipment	127	97	139	168	158	172
Wages of hired labor	503	606	570	459	348	538
Electricity expense (farm share)	235	257	309	292	300	299
Real estate & personal property taxes	704	838	906	934	1066	1206
General farm expense	290	302	330	293	310	333
(5) Total cash operating expense	\$15384	\$16975	\$18368	\$16714	\$15078	\$16680
(6) Cap. purchases, mech. power bought	914	920	697	560	992	693
(7) Crop and general machinery bought	990	1448	1174	995	1090	923
(8) Livestock equipment bought	385	400	628	216	320	423
(9) New real estate improvements	1652	1136	1360	1010	1036	1095
(10) Total farm purchases (5) - (9)	\$19325	\$20879	\$22227	\$19495	\$18516	\$19814
(11) Decrease in farm capital	-----	-----	-----	-----	-----	-----
(12) Interest on farm capital	2535	2839	3106	3077	3138	3528
(13) Unpaid family labor	348	380	529	550	638	634
(14) Board furnished hired labor	41	41	51	68	67	66
(15) Total farm expense (10) - (14)	\$22249	\$24139	\$25913	\$23190	\$22359	\$24042
(16) Labor earnings (4) - (15)	5433	2982	3214	6083	4077	5162

AREA COORDINATORS

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Thief River Falls	-	Peter Probasco
Duluth	-	Robert Anderson
St. Cloud	-	Ed O'Connell
Mankato	-	Del Hodgkins
Austin	-	Charles Painter
Winona	-	Gordon Ferguson
Staples	-	William Guelker
Willmar	-	Michael Cullen
Analysis Center at Morris	-	Ralph Smith Station Director



ANALYSIS CENTERS



COOPERATING
VOC. AG. DEPARTMENTS
In Austin Area

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Zumbrota
Kenyon
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Hayfield
Spring Valley
Adams
Lyle
Rochester
Owatonna
LeRoy
West Concord
New Richland