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# 1977

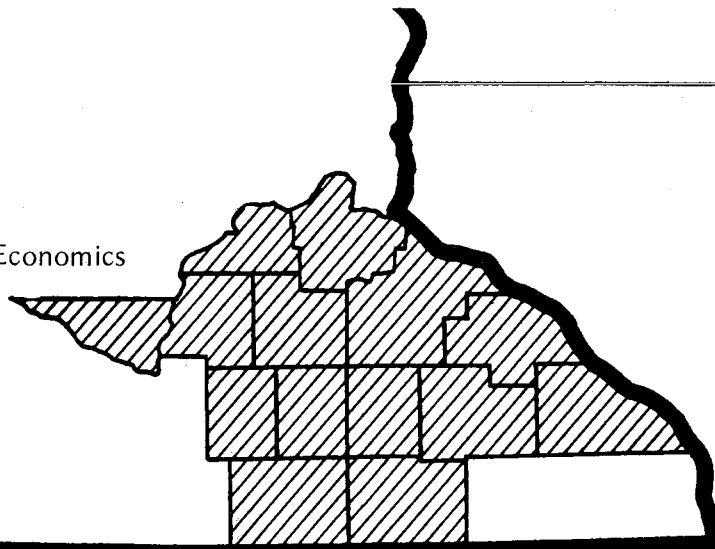
annual report

## Southeastern Minnesota Farm Management Association

### COOPERATING AGENCIES:

University of Minnesota, Institute of Agriculture  
County Extension Services of the 14 Southeastern Counties  
Southeastern Minnesota Farm Management Association

Economic Report ER 78-2  
Department of Agricultural and Applied Economics  
Institute of Agriculture  
St. Paul, Minnesota 55108  
March 1978



# 1977 ANNUAL REPORT OF THE SOUTHEASTERN MINNESOTA

## FARM MANAGEMENT ASSOCIATION

by

Delane E. Welsch and Hilbert B. Pfeifer, Jr.\*

### INTRODUCTION

The Department of Agricultural and Applied Economics and the Agricultural Extension Service of the University of Minnesota and the Agricultural Extension Agents of several southeastern Minnesota counties are cooperating with the Southeastern Minnesota Farm Management Association in maintaining a farm management service. The Association was organized in the fall of 1927 by farmers in that part of the state for the purpose of studying the farm business through farm records. Each farmer pays an annual fee which covers a large part of the cost, with the balance defrayed by the Agricultural Extension and Research programs of the University of Minnesota. The analysis of the records and the preparation of the report are handled by the Department of Agricultural and Applied Economics under the direction of Delane E. Welsch. Hilbert B. Pfeifer, Jr. is the fieldman for this project. Kenneth H. Thomas is the Extension Economist in Farm Management working closely with this Association. Edward Becker is the District Director of Agricultural Extension for the counties which are served by the Association.

Of the 138 farms in the Southeastern Association, 97 submitted records at the time of this report. The data for 80 farms are shown in the tables on succeeding pages. The rest were omitted from the information in the tables because the records were not sufficiently complete for a full analysis. No claim is made as to whether the farmers who belong to the Association are or are not representative of the southeastern Minnesota. However, this report should be of value to farmers and others interested in agriculture in that it illustrates how farm records may be used as a basis for making an analysis of a farm business. It also shows typical enterprise costs and returns for 1977 and the variation in enterprise earnings as well as in total farm earnings.

The content of this report is somewhat different from previous years. While the roots of the analysis lie in the work of the Department of Agricultural and Applied Economics and its predecessor units over the past 60 years, the more detailed analysis found in this report was developed by Professor Edgar Persons of the University of Minnesota. This analysis is also used by Vocational Agriculture Adult Farm Business Management Education classed throughout Minnesota and in some other states. The computer work was done by Specialized Data Systems, Inc., Madison, Wisconsin.

\*Welsch is Professor of Farm Management, Pfeifer is jointly Area Farm Management Extension Agent and Fieldman for the Association. The authors wish to thank the following people for their contributions to this report: Dr. Edgar Persons for his encouragement and training during this first season of using a new data processing procedure; Glen Hahn, Kerry Koestler, Arlene Draeger, and Patti Schmeling for their assistance in account book closing and coding; Wolfgang Vogel for his review of the analyses and correction of errors; Paul Hasbargen and Ken Thomas for much helpful advice; and Michele Wyskocil and Eileen Miley for all of their clerical and secretarial work throughout the project, and especially for putting this report together.

## DISTRIBUTION OF MEMBERSHIP - 1977

County	Number of Members	Number Submit Records	Association Officers	County Extension Directors
Dakota	11	8	Henry Scharr	Warren N. Sifferath
Dodge	15	10	Dean Wright	David H. Hanson
Freeborn	21	12	Jacob Kuiters	Eldon H. Senske
Goodhue	21	17	Merle Schwartz, President	Richard C. Walter
Le Sueur	11	7	Kenneth Krenik, Vice-Pres.	Robert Leary
Mower	2	1	Donald Zimmerman	Harlan L. Johnsrud
Nicollet	4	3	Walter Malmberg	Gregory D. Luehr
Olmsted	9	8	Harold Frost	David Kjome
Rice	8	4	Dean Franz	Warren F. Liebenstein
Scott	12	8	Paul Krueger	David Hart
			Arnie Schoenbauer, Sec. Tres.	
Steele	9	8	Vernal Wilker	Larry Tande
Wabasha	9	7	Forest Lamprecht	Matthias P. Metz
Waseca	2	0		Roger M. Wilkowske
Winona	4	4	Ellsworth Simon	Charles R. Schwartz
Total	138	97		

## 1977 ANNUAL REPORT OF THE SOUTHEASTERN MINNESOTA

## FARM MANAGEMENT ASSOCIATION

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TABLE 1. FARM INVENTORIES - 1977

ITEMS	Average of 80 Farms	
	JAN. 1	DEC. 31
1 SIZE OF FARM-TOTAL ACRES	380.0	
2 -TILLABLE ACRES	328.1	
3 WORK UNITS-CROPS	167.22	
4 -LIVESTOCK	340.02	
5 -OTHER	8.57	
6 TOTAL SIZE OF BUSINESS IN WORK UNITS	515.81	
7 NUMBER OF WORKERS	1.87	
8 FARM CAPITAL INVESTMENT PER WORKER	\$176,389	
9 PRODUCTIVE LIVESTOCK		
10 DAIRY COWS	\$ 9,025	\$ 9,802
11 OTHER DAIRY CATTLE	5,949	5,899
12 BEEF BREEDING CATTLE	936	1,053
13 BEEF FEEDER CATTLE	3,897	3,685
14 HOGS	14,557	18,108
15 SHEEP (INCL. FEEDERS) & GOATS	23	19
16 POULTRY-ALL TYPES	18	5
17 OTHER LIVESTOCK	19	19
18 TOTAL PRODUCTIVE LIVESTOCK	\$ 34,424	38,591
19 CROP, SEED AND FEED	\$ 51,341	\$ 56,455
20 POWER, MACHINERY AND EQUIPMENT		
21 AUTO AND TRUCK (FARM SHARE)	\$ 5,259	\$ 5,262
22 POWER AND MACHINERY	29,034	32,687
23 IRRIGATION EQUIPMENT	337	307
24 CUSTOM WORK EQUIPMENT		
25 LIVESTOCK EQUIPMENT	7,743	8,595
26 TOTAL POWER, MACHINERY AND EQUIPMENT	\$ 42,374	\$ 46,850
27 LAND	\$122,445	\$133,116
28 BUILDINGS-FENCES-ETC.	48,943	54,942
29 TOTAL FARM CAPITAL	\$299,527	\$329,953
30 INCREASE OR DECREASE IN TOTAL FARM CAPITAL		\$ 30,426

TABLE 1 shows the beginning and end of year inventory of farm capital. These inventories include both the value of the operator's assets as well as the landlord's in the case of rented assets. (Table 5 shows only the operator's share of farm capital.) Values of Productive Livestock, and Crop, Seed and Feed reflect the physical amounts on hand at the beginning and end of year multiplied by a conservative market price at the time. Power, Machinery, and Equipment values are cost less depreciation. Land is usually valued at cost. Measures of farm size other than total farm capital are shown in lines 1 through 7. The concept of Work Units is discussed on page 14. The number of workers shown on line 7 includes operator(s), hired labor, unpaid family labor, and the labor portion of custom work hired.

TABLE 1. FARM INVENTORIES - 1977 (CONT.)

ITEMS	16 Most Profitable Farms		16 Least Profitable Farms	
	JAN. 1	DEC. 31	JAN. 1	DEC. 31
1 SIZE OF FARM-TOTAL ACRES	479.5		342.7	
2 -TILLABLE ACRES	430.2		294.6	
3 WORK UNITS-CROPS	217.67		152.07	
4 -LIVESTOCK	444.24		216.82	
5 -OTHER	10.32		5.33	
6 TOTAL SIZE OF BUSINESS IN WORK UNITS	672.22		374.21	
7 NUMBER OF WORKERS	1.94		1.54	
8 FARM CAPITAL INVESTMENT PER WORKER	\$257,913		\$195,958	
9 PRODUCTIVE LIVESTOCK				
10 DAIRY COWS	\$ 5,997	\$ 5,921	\$ 5,316	\$ 6,264
11 OTHER DAIRY CATTLE	3,625	3,056	4,067	4,088
12 BEEF BREEDING CATTLE	796	450	1,465	1,534
13 BEEF FEEDER CATTLE	965	1,238	7,772	7,056
14 HOGS	41,571	47,868	6,640	13,036
15 SHEEP (INCL. FEEDERS) & GOATS				
16 POULTRY-ALL TYPES				
17 OTHER LIVESTOCK				
18 TOTAL PRODUCTIVE LIVESTOCK	\$ 52,954	\$ 58,531	\$ 25,260	\$ 31,977
19 CROP, SEED AND FEED	\$ 85,564	\$ 96,134	\$ 41,151	\$ 41,980
20 POWER, MACHINERY AND EQUIPMENT				
21 AUTO AND TRUCK (FARM SHARE)	\$ 7,136	\$ 7,165	\$ 6,694	\$ 6,873
22 POWER AND MACHINERY	37,658	48,836	26,246	28,744
23 IRRIGATION EQUIPMENT			1,684	1,533
24 CUSTOM WORK EQUIPMENT				
25 LIVESTOCK EQUIPMENT	14,826	17,747	7,164	7,240
26 TOTAL POWER, MACHINERY AND EQUIP.	\$ 59,620	\$ 73,748	\$ 41,787	\$ 44,390
27 LAND	\$185,958	\$209,264	\$117,898	\$117,811
28 BUILDINGS-FENCES-ETC.	60,732	67,043	44,392	45,682
29 TOTAL FARM CAPITAL	\$444,827	\$504,721	\$270,489	\$282,020
30 INCREASE OR DECREASE IN TOTAL FARM CAPITAL \$		\$ 59,894		\$ 11,531

\* ALL FARMS ARE SORTED INTO HIGH AND LOW CATEGORIES BASED ON SIZE OF LABOR EARNINGS. FOR TABLES 1, 2A, 2B, 3, 8, and 9, THIS IS ON WHOLE FARM BASIS, TAKEN FROM TABLE 2B, LINE 46. FOR TABLES 4, 5, 6A and 6B, THIS IS ON OPERATORS SHARE BASIS, TAKEN FROM TABLE 6B, LINE 47.

TABLE 2A. TOTAL FARM RECEIPTS - 1977

ITEMS	Average of 80 Farms	16 Most Profitable Farms	16 Least Profitable Farms
1 SALE OF LIVESTOCK AND LIVESTOCK PRODUCTS			
2 DAIRY COWS	\$ 2,671	\$ 2,375	\$ 1,445
3 DAIRY PRODUCTS	32,495	27,209	20,435
4 OTHER DAIRY CATTLE	2,338	619	2,362
5 BEEF BREEDING CATTLE	201	42	358
6 BEEF FEEDER CATTLE	5,787	2,074	9,819
7 HOGS COMPLETE AND MIXED	34,093	91,366	16,366
8 HOGS FINISHING	935		1,518
9 HOGS PRODUCING WEANING PIGS			
10 SHEEP, GOATS AND WOOL, FARM FLOCK	27		
11 SHEEP AND WOOL, FEEDER LAMBS			
12 CHICKENS (INCL. HENS AND BROILERS)			
13 TURKEYS			
14 EGGS	99		
15 OTHER PRODUCTIVE LIVESTOCK AND PRODUCTS	1		
16 OTHER MISC. LIVESTOCK INCOME			
17 TOTAL LIVESTOCK SALES	\$ 78,648	\$123,686	\$ 52,302
18 SALE OF CROPS			
19 WHEAT	864	1,317	527
20 OTHER SMALL GRAINS	696	274	691
21 CORN	16,256	24,060	18,006
22 SOYBEANS	13,767	37,783	5,190
23 OTHER ROW CROPS	2,156	1,353	1,520
24 LEGUMES AND OTHER FORAGE	460	411	30
25 GRASS SEED			
26 FRUITS AND NUTS			
27 VEG. ROADSIDE MARKET AND SPECIALTY			
28 NURSERY, TIMBER AND OTHER			
29 SET ASIDE ACRES-GOVERNMENT PAYMENTS			
30 TOTAL CROP SALES	\$ 34,199	\$ 65,197	\$ 25,965
31 CAPITAL ASSETS SOLD	580	421	174
32 GAS TAX REFUND	221	209	158
33 INCOME FROM WORK OFF THE FARM	1,169	1,205	1,037
34 CUSTOM WORK ENTERPRISE INCOME			
35 PATRONAGE REFUNDS	1,136	2,251	505
36 MISCELLANEOUS FARM INCOME	1,430	2,154	759
37 TOTAL FARM SALES	\$117,383	\$195,123	\$ 80,900
38 INCREASE IN FARM CAPITAL	33,866	67,697	14,194
39 FAMILY LIVING FROM THE FARM	550	400	442
40 TOTAL FARM RECEIPTS (37)+(38)+(39)	\$151,799	\$263,220	\$ 95,536

SEE PAGE 14 FOR EXPLANATORY NOTE FOR THIS TABLE.



TABLE 2B. TOTAL FARM EXPENSES AND LABOR AND MANAGEMENT EARNINGS - 1977

ITEMS	Average of 80 Farms	16 Most Profitable Farms	16 Least Profitable Farms
1 PURCHASE OF LIVESTOCK			
2 DAIRY COWS	\$ 413	\$ 18	\$ 437
3 OTHER DAIRY CATTLE	487	42	1,239
4 BEEF BREEDING CATTLE	13		
5 BEEF FEEDER CATTLE	1,808		4,394
6 HOGS COMPLETE AND MIXED	1,534	1,950	1,401
7 HOGS FINISHING	665		839
8 HOGS PRODUCING WEANING PIGS			
9 SHEEP AND GOATS	1		
10 SHEEP, FEEDER LAMBS			
11 CHICKENS (INCL. HENS AND BROILERS)			
12 TURKEYS			
13 OTHER PRODUCTIVE LIVESTOCK			
14 MISCELLANEOUS LIVESTOCK EXPENSE	3,668	5,580	3,244
15 FEED BOUGHT	14,217	29,104	11,257
16 FERTILIZER	7,943	9,358	8,412
17 CHEMICALS	3,340	4,905	3,456
18 OTHER CROP EXPENSE	5,627	8,007	5,102
19 IRRIGATION OPERATION COSTS	49		245
20 CUSTOM WORK ENTERPRISE OPERATOR COSTS, INC. LABOR			
21 CUSTOM WORK HIRED	3,280	3,371	2,630
22 REPAIR + UPKEEP OF LIVESTOCK EQUIPMENT	1,067	2,234	1,014
23 REPAIR + UPKEEP OF FARM REAL ESTATE	1,932	2,267	3,604
24 GAS, OIL, GREASE BOUGHT (FARM SHARE)	3,223	3,908	2,739
25 REPAIR + OPERATOR OF MACH., TRACTOR, TRUCK AND AUTO	3,942	4,419	4,150
26 REPAIR + UPKEEP OF IRRIGATION EQUIPMENT	97		485
27 REPAIRS, CUSTOM WORK ENTERPRISE			
28 WAGES OF HIRED LABOR	3,947	5,901	2,408
29 PERSONAL PROPERTY + REAL ESTATE TAXES	3,262	4,743	2,755
30 GENERAL FARM EXPENSE	2,009	2,373	1,588
31 TELEPHONE EXPENSE (FARM SHARE)	269	256	222
32 ELECTRICITY EXPENSE (FARM SHARE)	1,523	2,097	1,250
33 TOTAL CASH OPERATING EXPENSE	\$ 64,315	\$ 90,362	\$ 62,872
34 POWER, CROP AND GENERAL MACH. BOUGHT (FARM SHARE)	\$ 13,645	\$ 25,942	\$ 11,699
35 IRRIGATION EQUIPMENT BOUGHT	128	641	
36 CUSTOM WORK EQUIPMENT BOUGHT			
37 LIVESTOCK EQUIPMENT BOUGHT	2,908	6,109	2,374
38 NEW REAL ESTATE + IMPROVEMENT	21,806	34,546	5,380
39 TOTAL FARM PURCHASES (33) THRU (38)	\$102,803	\$157,600	\$ 82,325
40 DECREASE IN FARM CAPITAL	3,440	7,803	2,663
41 INTEREST ON FARM CAPITAL	18,884	28,486	\$ 16,575
42 UNPAID FAMILY LABOR	614	504	579
43 LABOR CHARGE FOR PARTNERS+OTHER OPERATORS	2,250	1,688	1,688
44 BOARD FURNISHED HIRED LABOR	535	371	1,149
45 TOTAL FARM EXPENSE (39) THRU (44)	\$128,526	\$196,452	\$104,978
46 RETURN TO OPER. LABOR & MGMT.-SINGLE OPER. (WHOLE FARM) (2A/40)-(45)\$	\$ 23,273	\$ 66,769	\$(-9,442)
47 NUMBER OF OPERATORS	1	1	1
48 FULL TIME OPERATOR EQUIVALENTS	1.17	1.22	1.06
49 RETURN TO OPER. LABOR & MGMT/FULL TIME OPER. EQUIVALENT	22,255	60,145	(-8,150)

TABLE 3. ENTERPRISE STATEMENT - 1977

ITEMS	Average of 80 Farms	16 Most Profitable Farms	16 Least Profitable Farms
1 RETURNS AND NET INCREASES			
2 PRODUCTIVE LIVESTOCK			
3 DAIRY COWS	\$ 32,670	27,499	\$ 20,408
4 OTHER DAIRY CATTLE	5,636	2,761	3,538
5 BEEF BREEDING CATTLE	388	50	427
6 FEEDER CATTLE	3,290	1,756	4,781
7 HOGS, COMPLETE & MIXED	35,832	95,771	20,919
8 HOG FINISHING ENTERPRISE	626		1,194
9 PRODUCING WEANING PIGS			
10 SHEEP AND GOATS	21		
11 SHEEP, FEEDER LAMBS			
12 CHICKENS (INCL. HENS AND BROILERS)	87		
13 TURKEYS			
14 OTHER PRODUCTIVE LIVESTOCK	1		
15 TOTAL ALL PRODUCTIVE LIVESTOCK	\$ 78,551	\$127,836	\$ 51,267
16 VALUE OF FEED FED TO LIVESTOCK	40,573	58,483	30,808
17 RETURN OVER FEED FROM LIVESTOCK	37,978	69,353	20,460
18 CROP, SEED AND FEED	48,603	82,694	29,011
19 COOPERATIVE PATRONAGE REFUNDS	1,136	2,251	505
20 MISCELLANEOUS FARM INCOME	1,430	2,154	759
21 CUSTOM WORK ENTERPRISE			
22 TOTAL RETURNS AND NET INCREASES	\$ 89,147	\$156,453	\$ 50,735
23 EXPENSES AND NET DECREASES			
24 TRUCK AND AUTO (FARM SHARE)	\$ 3,998	\$ 4,582	\$ 4,353
25 TRACTORS AND CROP MACHINERY	13,917	19,320	12,143
26 IRRIGATION EQUIPMENT	255	641	636
27 ELECTRICITY	1,523	2,097	1,250
28 LIVESTOCK EQUIPMENT	3,353	5,508	3,411
29 BUILDINGS, FENCES AND TILING	6,935	7,981	7,514
30 BARE LAND	(- 181)	(- 938)	
31 MISC. LIVESTOCK EXPENSE	3,668	5,580	3,244
32 LABOR	5,732	7,266	4,800
33 LABOR CHARGE OTHER OPERATOR(S)	2,250	1,688	1,688
34 PROPERTY TAX	3,262	4,743	2,755
35 GENERAL FARM EXPENSE AND TELEPHONE	2,278	2,729	1,810
36 INTEREST ON FARM CAPITAL	18,884	28,486	16,575
37 TOTAL EXPENSES AND NET DECREASES	\$ 65,874	89,684	\$ 60,177
38 RETURN TO OPERATORS LABOR AND MANAGEMENT	\$ 23,274	66,769	(-9,442)
39 NUMBER OF FARM OPERATORS	1	1	1

SEE PAGE 14 FOR EXPLANATORY NOTE FOR THIS TABLE.

TABLE 4. HOUSEHOLD &amp; PERSONAL EXPENSE AND FAMILY LIVING FROM THE FARM - 1977

ITEMS	Average of 38 Farms	8 Most Profitable Farms	5 Least Profitable Farms
1. NUMBER OF PERSONS - FAMILY	4	5	4
2. NUMBER OF ADULT EQUIVALEN - FAMILY	3.4	4.1	3.7
3. CHURCH AND WELFARE	\$ 1,005	\$ 1,647	\$ 478
4. MEDICAL CARE AND HEALTH INSURANCE	1,709	1,955	1,584
5. FOOD AND MEALS BOUGHT	2,457	2,377	3,000
6. OPERATING EXPENSE AND SUPPLIES	667	564	686
7. FURNISHINGS AND EQUIPMENT	785	608	1,324
8. CLOTHING AND CLOTHING MATERIALS	887	689	1,360
9. PERSONAL CARE, PERSONAL SPENDING	438	419	335
10. EDUCATION	432	259	620
11. RECREATION	552	431	472
12. GIFTS AND SPECIAL EVENTS	964	1,764	379
13. PERSONAL SHARE TRUCK AND AUTO EXP.	706	649	840
14. OPER. SHARE UPKEEP ON DWELLING	59	180	
14A. CASH RENT - PERSONAL			
15. PERSONAL SHARE TEL. AND ELECT. EXP.	395	293	404
15A. PERSONAL SHARE - GEN. FARM EXPENSE	7		
16. TOTAL CASH LIVING EXPENSE	\$ 11,063	\$ 11,835	\$ 11,484
17. PERS. SHARE NEW TRUCK AND AUTO	400	822	775
18. NEW DWELLING BOUGHT	49		
19. TAXES AND OTHER DEDUCTIONS	4,397	9,228	4,900
20. LIFE INSURANCE AND OTHER SAVING AND INVEST	2,833	3,150	987
21. TOTAL HOUSEHOLD AND PERSONAL (16)-(20)	\$ 18,742	\$ 25,034	\$ 18,145
22. TOTAL FAMILY LIVING FROM THE FARM (33)	587	743	467
23. TOTAL CASH AND NON-CASH EXPENSES (21)+(22)	\$ 19,329	\$ 25,777	\$ 18,612
24. FAMILY LIVING FROM THE FARM			
25.	QUANTITY	QUANTITY	QUANTITY
26. MILK AND CREAM (QUARTS)	993	924	584
27. BEEF AND BUFFALO (POUNDS)	772	1,255	540
28. PORK (POUNDS)	191	161	380
30. POULTRY, ALL FOWL (POUNDS)			
31. EGGS (DOZEN)			
33. TOTAL FAMILY LIVING FROM THE FARM	\$587	\$743	\$467

TABLE 4 reports the cash and non-cash expenses of the farm operator's household. Averages include only those members who kept household and personal accounts complete enough to include at least line 5 (food and meals bought). As a result, only 38 out of the 80 farms were included in the averages. Accurate household and personal accounts are important if a family is to manage its financial affairs wisely and be able to check the accuracy of their financial account at the end of the year. If the family is unable or unwilling to keep accurate household records, then a household checking account separate from the farm checking account might be used.

TABLE 5. OPERATOR'S NET WORTH STATEMENT AND SUPPLEMENTARY FINANCIAL INFO. - 1977

ITEMS	Average of 77 Farms	
	Jan. 1	Dec. 31
1 TOTAL PRODUCTIVE LIVESTOCK	\$ 34,400	\$ 38,888
2 CROP, SEED AND FEED	49,066	54,838
3 TOTAL POWER, MACHINERY AND EQUIPMENT	40,382	44,939
4 LAND	63,714	68,896
5 BUILDINGS, FENCES, ETC.	49,055	53,316
6 TOTAL FARM CAPITAL	\$236,618	\$260,877
7 NON-FARM ASSETS	29,003	31,306
7A CASH ON HAND & IN BANK	780	828
8 DWELLING	15,363	15,799
9 TOTAL ASSETS	\$281,764	\$308,810
10 REAL ESTATE MORTGAGES	39,376	45,665
11 CHATTEL MORTGAGES	30,584	30,148
12 NOTES	6,003	6,908
13 ACCOUNTS PAYABLE	2,439	2,678
14 TOTAL LIABILITIES	\$ 78,401	\$ 85,399
15 FARMERS NET WORTH	\$203,363	\$223,411
16 GAIN (OR LOSS) IN NET WORTH		\$ 20,048
17 SUPPLEMENTARY FINANCIAL INFORMATION		
18 RETURN TO OPERATORS LABOR & MANAGEMENT (6B/47)	\$ 23,513	
19 RETURN TO CAPITAL AND FAMILY LABOR (6B/48)	32,243	
20 NON-FARM INCOME		
21 OUTSIDE INVESTMENT INCOME	1,413	
22 OTHER PERSONAL INCOME & INCOME TAX REFUND	1,088	
22A SALE OF PERSONAL SHARE - DWELLING, AUTO & TRUCK	13	
23 TOTAL NON-FARM INCOME	\$ 2,514	
24 TOTAL FAMILY FARM AND NON-FARM INCOME	\$ 34,757	
25 TOTAL MONEY BORROWED	38,992	
26 TOTAL PAID ON DEBT (PRINCIPAL)	32,811	
27 TOTAL HOUSEHOLD + PERSONAL CASH/NON-CASH EXP (4/23)	12,033	
28 RATIO TOTAL FARM EXP TO TOTAL FARM REC OPER SHARE	.832	
	JAN. 1	DEC. 31
29 RATIO TOTAL ASSETS TO TOTAL LIABILITIES	3.594	3.616
30 RATIO NON-REAL EST. ASSETS-NON-REAL EST. LIAB.	3.937	4.299
31 RATIO REAL EST. ASSETS TO REAL EST. LIAB.	3.254	3.022
32 RATIO NET WORTH TO TOTAL LIABILITIES	2.594	2.616
33 RATIO CASH OPER. EXP TO ADJ. TOTAL FARM SALES (O.S.)		.657
34 RATIO TOTAL FARM RECEIPTS TO AVE. FARM CAPITAL (W.F.)		.468
35 RATIO TOTAL FARM RECEIPTS TO AVE. FARM CAPITAL (O.S.)		.564

TABLE 5 reports the assets, liabilities and resultant net worth position of the farm operator at the beginning and end of the year. (This asset list differs from TABLE 1 in that it includes the operator's non-farm assets and excludes the landlord's share of farm assets.) It also shows the change in net worth, or the growth in operator's equity (owned capital) during the year. Note that this TABLE 5 does not include addition to net worth resulting from appreciation in land values or  
(continued next page)

TABLE 5. OPERATOR'S NET WORTH STATEMENT AND SUPP. FINANCIAL INFO - 1977 (CONT.)

ITEMS	15 Most		16 Least	
	Profitable Farms		Profitable Farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
1 TOTAL PROD LIVESTK	\$ 66,368	\$ 76,086	\$ 27,545	\$ 35,073
2 CROP, SEED AND FEED	75,039	92,079	41,511	42,798
3 TOT PWR MACH EQUIP	61,174	75,948	44,429	46,395
4 LAND	110,565	134,425	64,502	64,415
5 BLDG FENCE TILE ETC	77,462	82,640	49,240	50,445
6 TOTAL FARM CAPITAL	\$390,608	\$461,179	\$227,227	\$239,125
7 NON-FARM ASSETS	19,031	20,530	51,825	53,775
7A CASH ON HAND & BANK	2,327	687	194	1,874
8 DWELLING	19,166	19,133	13,061	13,465
9 TOTAL ASSETS	\$431,133	\$501,528	\$292,306	\$308,238
10 REAL ESTATE MORTGAGE	38,321	56,585	53,559	59,499
11 CHATTEL MORTGAGES	32,117	31,466	47,797	50,695
12 NOTES	12,532	11,822	6,008	6,303
13 ACCOUNTS PAYABLE	3,562	4,338	817	2,342
14 TOTAL LIABILITIES	\$ 86,532	\$104,211	\$108,180	\$118,840
15 FARMER NET WORTH	\$344,601	\$397,317	\$184,127	\$189,399
16 GAIN (LOSS) NET WORTH		\$ 52,717		\$ 5,272
17 SUPPLEMENTARY FINANCIAL INFORMATION				
18 RT OP LAB MGT 6B/47	\$ 67,083		\$(-7,939)	
19 RT CAP FAM LAB 6B/48	84,536		(-1,276)	
20 NON-FARM INCOME				
21 OUTSIDE INV INCOME	517		248	
22 OTHER PER INC & TX RF	1,018		2,267	
22A SAL PER SHR-DWLNG	63		3	
23 TOT NON FM INCOME	1,598		2,518	
24 TOT FAM FM & NMF IN	86,134		1,242	
25 TOTAL MONEY BORROWED	54,401		37,516	
26 TOT PD ON PRINCIPAL	44,627		26,356	
27 TOT HH & PER C & NC 4/23	12,857		10,289	
28 RATIO: TOT FM EX/REC OS	.760		1.081	
	JAN. 1	DEC. 31	JAN. 1	DEC. 31
29 RATIO: TOT ASSETS T/LIAB	4.982	4.813	2.702	2.594
30 RATIO: NON REA/RE LIAB	4.645	5.571	3.030	3.032
31 RATIO: RE ASST/RE LIAB	5.407	4.174	2.368	2.157
32 RATIO: N WRTH/TOT LIAB	3.982	3.813	1.702	1.594
33 RATIO: CA OP EX/AFSA OF		.596		.913
34 R: T FM REC/AV FM CAP WF		.488		.384
35 R: T FM REC/AV FM CAP OS		.657		.419

other capital assets, so for credit purposes the operator may wish to revalue those classes of assets. While TABLE 1 showed farm assets for all 80 farms included in the Association averages, TABLE 5 includes data from only those 77 sole proprietorships which had complete net worth data. Net worth data for partnerships were excluded when each partner had a separate analysis.

TABLE 6A. OPERATORS SHARE OF TOTAL FARM RECEIPTS - 1977

ITEMS	Average of 80 Farms	16 Most Profitable Farms	16 Least Profitable Farms
1 SALE OF LIVESTOCK AND LIVESTOCK PRODUCTS			
2 DAIRY COWS	\$ 2,671	\$ 3,407	\$ 1,279
3 DAIRY PRODUCTS	32,443	41,492	19,314
4 OTHER DAIRY CATTLE	2,338	2,169	2,197
5 BEEF BREEDING CATTLE	201	42	381
6 BEEF FEEDER CATTLE	5,787	2,074	10,612
7 HOGS COMPLETE & MIXED	34,093	99,167	21,045
8 HOGS FINISHING	935		1,518
9 HOGS PRODUCING WEANING PIGS			
10 SHEEP, GOATS AND WOOL, FARM FLOCK	27		
11 SHEEP AND WOOL, FEEDER LAMBS			
12 CHICKENS (INCL. HENS AND BROILERS)			
13 TURKEYS			
14 EGGS	99		
15 OTHER PRODUCTIVE LIVESTOCK & PRODUCTS	1		
16 OTHER MISCELLANEOUS LIVESTOCK INCOME			
17 TOTAL SALES OF PRODUCTIVE LIVESTOCK	\$ 78,596	\$148,350	\$ 56,346
18 SALE OF CROPS			
19 WHEAT	861	1,303	531
20 OTHER SMALL GRAIN	687	260	691
21 CORN	15,566	20,760	15,256
22 SOYBEANS	13,032	25,668	6,157
23 OTHER ROW CROPS	2,065	1,353	532
24 LEGUMES & OTHER ROUGHAGE	455	528	30
25 GRASS SEED			
26 FRUITS & NUTS			
27 VEGETABLES, ROADSIDE MAKT. & SPECIALTY			
28 NURSERY, TIMBER & OTHER			
29 SET ASIDE ACRES - GOVERNMENT PAYMENTS			
30 TOTAL SALES FROM CROPS	\$ 32,666	\$ 49,873	\$ 23,196
31 CAPITAL ASSETS SOLD	580	767	174
32 GAS TAX REFUND	221	230	231
33 INCOME FROM WORK OFF THE FARM	1,169	2,132	939
34 CUSTOM WORK ENTERPRISE INCOME			
35 PATRONAGE REFUNDS	1,136	2,033	417
36 MISCELLANEOUS FARM INCOME	1,429	2,045	1,999
37 TOTAL FARM SALES	\$115,797	\$205,429	\$ 83,301
38 INCREASE IN FARM CAPITAL	33,144	71,815	14,052
39 FAMILY LIVING FROM THE FARM	550	670	401
40 TOTAL FARM RECEIPTS (37)+(38)+(39)	\$149,491	\$277,914	\$ 97,754
41 ADJUSTED TOTAL FARM SALES (37)-(31)	115,217	204,663	83,127
42 TOTAL CASH FARM OPERATING EXPENSE	74,952	120,891	75,918
43 NET CASH OPERATING INCOME	\$ 40,265	\$ 83,772	\$ 7,209

SEE PAGE 14 FOR EXPLANATORY NOTE FOR THIS TABLE.

TABLE 6B. OPERATOR'S SHARE OF TOTAL FARM EXPENSES - 1977

ITEMS	Average of 80 Farms	16 Most Profitable Farms	16 Least Profitable Farms
1 PURCHASE OF LIVESTOCK			
2 DAIRY COWS	\$ 413	\$ 418	\$ 437
3 OTHER DAIRY CATTLE	487	321	1,239
4 BEEF BREEDING CATTLE	13		47
5 BEEF FEEDER CATTLE	1,808		4,394
6 HOGS COMPLETE	1,534	2,026	1,438
7 HOGS FINISHING	665		839
8 HOGS PRODUCING WEANING PIGS			
9 SHEEP, FARM FLOCK	1		
10 SHEEP, FEEDER LAMBS			
11 CHICKENS			
12 TURKEYS			
13 OTHER PRODUCTIVE LIVESTOCK			
14 MISCELLANEOUS LIVESTOCK EXPENSE	3,668	7,133	3,426
15 FEED BOUGHT	14,217	32,455	12,467
16 FERTILIZER	7,824	11,407	8,525
17 CHEMICALS	3,252	4,692	3,320
18 OTHER CROP EXPENSE	5,584	8,754	4,763
19 IRRIGATION OPERATION COST	49		245
20 CUSTOM WORK OPERATOR COSTS, INCL. LABOR			
21 CUSTOM WORK HIRED	3,280	4,893	2,810
22 REPAIR + UPKEEP OF LIVESTOCK EQUIPMENT	1,067	2,608	973
23 REPAIR + UPKEEP OF FARM REAL ESTATE	1,932	2,563	3,837
24 GAS, OIL, GREASE BOUGHT (FARM SHARE	3,223	4,224	3,094
25 RPR & OPN MACH, TRAC, TRUCK, AUTO (FS)	3,942	5,168	4,183
26 REPAIR & UPKEEP OF IRRIGATION EQUIPMENT	97		485
27 REPAIRS, CUSTOM WORK ENTERPRISE			
28 WAGES OF HIRED LABOR	3,947	6,259	3,610
29 PERSONAL PROPERTY + REAL ESTATE TAXES	2,751	3,756	2,714
30 CASH RENT	4,002	9,289	1,780
31 GENERAL FARM EXPENSES	2,009	2,542	1,752
32 TELEPHONE EXPENSE (FARM SHARE)	269	339	229
33 ELECTRICITY EXPENSE (FARM SHARE)	1,523	2,387	1,352
34 INTEREST EXPENSE	7,397	9,658	7,960
35 TOTAL CASH OPERATING EXPENSE	\$ 74,952	\$120,891	\$ 75,918
36 POWER, CROP & GENERAL MACH. BOUGHT (FS)	13,645	24,237	11,819
37 IRRIGATION EQUIPMENT BOUGHT	128	641	
38 CUSTOM WORK ENTERPRISE EQUIPMENT BOUGHT			
39 LIVESTOCK EQUIPMENT BOUGHT	2,908	7,349	2,370
40 NEW REAL ESTATE + IMPROVEMENTS	21,394	33,934	5,447
41 TOTAL FARM PURCHASES (35) THRU (40)	\$113,027	\$187,052	\$ 95,554
42 DECREASE IN FARM CAPITAL	3,461	7,803	2,154
43 INTEREST ON FARM CAPITAL (EQUITY)	8,116	16,521	6,031
44 UNPAID FAMILY LABOR	614	429	632
45 BOARD FURNISHED HIRED LABOR	526	440	1,323
46 TOTAL FARM EXPENSE (41) THRU (45)	\$125,745	\$212,244	\$105,693
47 RETURN TO OPERATOR LABOR & MANAGEMENT (OPERATORS SHARE) (6A/40) - (46)	\$ 23,747	\$ 65,670	(-7,939)
48 RETURN TO CAPITAL AND FAMILY LABOR (47)+(44)+(43)	\$ 32,477	\$ 82,619	(-1,276)

## EXPLANATORY NOTES FOR TABLES 2A, 2B, 3, 6A, 6B.

TABLES 2A & 2B comprise the earnings statement for the whole farm (including both operator's and landlord's shares). Lines 1 through 34 and line 36 of TABLE 2A show all sources of cash income to the farm. Line 38 reflects any increase in farm capital, while line 39 credits the business for any produce used by the family. Line 35 records the amount of patronage refunds credited to the business, part of which may have been received as cash and part as equity shares. TABLE 2B shows in lines 1 through 39 all cash expenses of the farm except principal and interest payments on farm debt. Note that cash rent is also not included, as it is an internal farm transaction between operator and landlord. Line 40 reflects any decrease in inventory while line 41 shows an interest return or charge of 6% for all farm capital. Line 46, Labor Earnings, represents the return for the operator's labor and management after all expenses (cash, accrual and imputed) are deducted. In the case of partnerships, line 43 assigns a fixed return to one partner, with the residual return going to the other (line 46). In line 49, the fixed return to one partner is added back to the residual (line 46) and that number is divided equally among the partners.

TABLE 3 represents another way of categorizing and reporting the receipts, expenses and labor earnings of the total farm business. In lines 2-21, cash receipts are adjusted for changes in inventory for each production enterprise, thus giving a better picture of the "value produced" contribution of each enterprise. In lines 24-30, each category of cash expense is adjusted for inventory. Line 33, fixed return to one partner, and line 36, interest charge on farm capital, are handled in the same manner as comparable items were in TABLE 2B (lines 43 and 41, respectively). Although calculated in a different way, the resulting labor earnings (line 38) is equal to that in TABLE 2B (line 46). Lines 24, 25, 28, and 29 actually report the sum of four cost items for each of these categories of capital assets. They are: depreciation; gas, oil, and grease bought; repair and operation cost; and share of custom work hired that was attributed to this category of asset (i.e., 80% of milk hauling cost might be attributed to truck and auto expense). While depreciation cannot be calculated directly from these tables, it can be approximated by the calculation: beginning inventory (TABLE 1) plus assets bought (TABLE 2B) minus ending inventory (TABLE 1). The number missing for a complete depreciation calculation is capital asset sales, which is not given for each category of assets in these tables (but is given for all assets in TABLE 2A).

TABLES 6A & 6B constitute the earnings statement for the operator. TABLES 6A & 6B therefore, are similar to TABLES 2A & 2B, except 6A & 6B exclude the landlord's share of income and expenses. Thus for the full owner-operator, TABLES 2A & 6A should be identical through line 40. TABLES 2B and 6B differ in that 6B includes cash rent paid (line 30) and interest paid on borrowed money (line 34). Line 43 of TABLE 6B thus contains an interest charge on only the operator's equity farm capital, whereas in line 41, TABLE 2B, interest was charged on all farm capital. Line 48 of TABLE 6B thus represents return to operator and family unpaid labor and management and equity capital. When money spent on family living is subtracted from line 48, the remainder plus non-farm income should be equal to the increase in net worth, shown in line 16 of TABLE 5.



## SUPPLEMENTARY INFORMATION USED IN ENTERPRISE ANALYSIS

## Number of Work Units for Crop and Livestock Enterprises

Livestock Enterprise	Work Units	Crop Enterprise	Work Units Per Acre
Complete Hog Enterprise	.12/cwt	Oats, wheat, barley	.30
Dairy Cows	7.00/cow	Canning Corn	.50
Other Dairy Cattle	1.20/head	Corn for grain	.55
Beef Breeding Cows, Range	1.20/head	Soybeans	.45
Beef Feeder Cattle, Grass	.10/cwt	Canning Peas	.40
Beef Feeder Cattle, Feedlot	.12/cwt	Alfalfa Hay, Corn Silage	.60
		Oats Silage	.40
		Tillable grass pasture	.04

## Average Prices Used in Analysis

Product	Feed	Harvest <sup>a/</sup>	Beginning Inventory	Ending Inventory	Pasture per head per mo.
Oats/bu	\$ 1.20	\$ 1.00	\$ 1.50	\$ 1.10	Cows \$6.00
Wheat/bu	2.50	2.20	2.70	2.50	Calves 3.00
Corn for Grain/bu	2.00	1.60	2.25	1.90	Hogs 0.40
Soybeans/bu	-	5.00	6.60	5.50	Sheep 1.00
Alfalfa Hay/ton	50.00	45.00	65.00	40.00	Lambs 0.50
All other Hay/ton	40.00	30.00	55.00	35.00	Products Used at Home
Corn Silage/ton	16.00	14.00	16.00	15.00	Straw \$0.50/bale
Oats Silage/ton	15.00	15.00	20.00	15.00	Milk \$1.00/gal.
Barley	1.60	1.60	1.60	1.60	Cream \$1.00/qt.
Unpaid family labor \$500/mo. or \$2.50/hr.					Eggs \$0.60/doz.
Board for hired labor \$4/day or \$120/mo.					
Second Operator's Labor \$10,000/yr.					

## Animal or Livestock Units Used in Analysis

Enterprise	Per Adult	Per Other
Complete Hogs	.40	.20
Dairy Cows	1.00	.50
Other Dairy Cattle	1.00	.50
Beef Breeding Cows	.80	.30
Beef Feeder Cattle	1.00	1.00

<sup>a/</sup> For crop enterprise analysis (TABLE 10's) a constant harvest price was used on almost all farms, but other prices were used on a few. Therefore when comparing your own individual analysis for a particular crop with the Association average, be sure to check the price used in your analysis with Association average price (line 3 of TABLE 10's) and adjust your returns accordingly.

## DESCRIPTION OF MEASURES OF FARM ORGANIZATION AND MANAGEMENT EFFICIENCY

The following explanations and definitions are for use in interpreting Table 8 and the Thermometer Chart.

1. Labor Earnings - A measure of the relative financial return for the operator's labor taking into account all income and expense, cash and non-cash, including a charge for the use of farm capital. This is based on the whole farm business and is found in Table 2B and Table 3.
2. Crop Yield Index - A measure of the crop yield level for all crops produced expressed as a percentage of the Association average.
3. Percent of Tillable Land in High Return Crops - A measure of crop selection based on a rating of individual crops. Crop ratings take into account such things as dollar return, effect on soil, TDN yield, labor required, etc. Ratings can be found on Table 9.
4. Gross Return Per Acre - An additional measure of crop selection based on total production times an average price for the crops.
5. Return per \$100 Feed Fed to Productive Livestock - Measures the general level of efficiency for all livestock. It is expressed as a percentage of the Association average and combines the individual indexes for all livestock enterprises on the farm into one figure.
6. Livestock Units Per 100 Acres - A measure of livestock density or population. Unit values are assigned to the various classes of livestock.
7. Size of Business - Work Units - A measure of the size of farm business, or total work load. A work unit represents the average accomplishment of a worker in one 10 hour day. Work Unit values are assigned to each class of livestock, each crop, and to other tasks utilizing farm labor. Total work units may also be interpreted differently for different farm situations such as work efficiency, degree of mechanization, careful planning, or hours worked. While it does not measure how hard a farmer works, it does measure how much is being accomplished on the farm.
8. Work Units Per Worker - Measures labor efficiency. Total work units divided by the number of workers including the operator, hired labor, and family labor.
9. Power, Machinery, Equipment and Building Expense Per Work Unit - A measure of expense control. It is the total cost of items listed in Table 3 divided by the number of work units.
10. Farm Capital Investment Per Worker - Indicates size of business. Useful in comparing a farm business to other industries or businesses.

Other items listed on Table 8 are related to the above measures and serve to further define and describe the efficiency level of a farm business. Note should be taken that items listed in Table 8 and the Thermometer Chart are to be considered in light of the individual farm and farm operator. Although in general, an above-average level for each factor listed would indicate an above average earnings, this may not be true when individual farms are considered. The inter-relationship of factors varies from farm to farm.

TABLE 8. MEASURES OF FARM ORGANIZATION AND EFFICIENCY - 1977

ITEMS	Average of 80 Farms	16 Most Profitable Farms	16 Least Profitable Farms
1 RETURN TO OPERATORS LABOR & MANAGEMENT	\$ 23,273	\$ 66,769	\$(-9,442)
2 CROP YIELD INDEX	100.0	101.4	103.7
3 PERCENT TILLABLE LAND IN HIGH RETURN CROP	80.2	90.0	76.6
4 GROSS RETURN PER TILL ACRE (EXCL PASTURE)	\$ 195.61	\$ 205.36	\$ 214.04
5 RET PER \$100 FEED FED PROD LVSTOCK INDEX	100.0	107.0	97.6
6* LIVESTOCK UNITS PER 100 ACRES	36.91	47.49	31.42
7 SIZE OF BUSINESS-WORK UNITS	515.81	672.22	374.21
8 WORK UNITS PER WORKER	275.83	346.51	242.99
9 PWR MACH EQUIP BLDG EXPENSE/WORK UNIT	\$ 58.12	\$ 59.70	\$ 78.31
10 FARM CAPITAL INVESTMENT PER WORKER	\$168,310	\$244,729	\$179,386
11 INDEX OF RETURN PER \$100 FEED FED			
12 6010A BEEF BREDDING RANGE/COM/GEN/COW HERD	100.0	-	88.1
13 6100A BEEF BREDDING FARM,WHOLE HRD, COM	100.0	56.6	-
14 6130A BEEF FEEDERS GRASS FED	100.0	-	77.7
15 6140A BEEF FEEDERS FEEDLOT	100.0	128.5	121.1
16 6290A DAIRY COWS, COMMERCIAL, GENERAL	100.0	104.3	89.4
17 6310A OTHER DAIRY, COMMERCIAL, REPLACEMENTS	100.0	70.3	95.0
18 6470A HOGS, FARROW, FINISH, GENERAL	100.0	110.1	83.9
19 6490A HOGS, FINISHING	100.0	-	98.2
20 6530A HOGS, MIXED SYSTEMS	100.0	115.8	105.3
30 NUMBER OF ANIMAL UNITS	122.69	208.86	94.51
31 WORK UNITS			
32 CROPS	167.22	217.67	152.07
33 PRODUCTIVE LIVESTOCK	340.02	444.24	216.82
34 OTHER PRODUCTIVE WORK UNITS	8.57	10.32	5.33
35 EXPENSES PER WORK UNIT			
36 TRACTOR & CROP MACHINERY EXPENSE	\$ 27.48	\$ 29.69	\$ 34.15
37 FARM SHARE OF AUTO & TRUCK EXPENSE	7.75	6.82	11.63
38 FARM SHARE OF ELECTRIC EXPENSE	2.95	3.12	3.34
39 LIVESTOCK EQUIPMENT EXPENSE	6.50	8.19	9.12
40 BUILDING, FENCE & TILING EXPENSE	13.44	11.87	20.08
41**TRACTOR & CROP MACH EXPENSE/CROP ACRE	42.39	44.91	41.22
42 FARM PWR & MACH COST ALLOCATED TO LVSTK	3,241.41	4,601.86	2,420.80
43 BUILDING, FENCE TILE COST ALLOC TO CROPS	1,768.35	1,490.76	1,837.33

\* ACRES INCLUDE ALL TILLABLE LAND, NON-TILLABLE HAY & PASTURE

\*\* ACRES INCLUDE ALL TILLABLE LAND PLUS ACRES IN NON-TILLABLE HAY

TABLE 9. CROP ACRES, YIELDS, RETURNS AND SUPPLEMENTARY MANAGEMENT INFORMATION

CROP	Average of 80 Farms acres	16 Most Profitable Farms acres	16 Least Profitable Farms acres
SMALL GRAIN & CANNING PEAS	34.1	22.5	43.3
ROW CROPS	230.8	359.7	203.1
LEGUMES, INCLUDING SEED	44.9	33.4	38.2
OTHER HAY	1.1	-	-
SILAGE & FODDER	15.1	12.1	12.7
TILLABLE PASTURE	2.8	2.5	.7
FALLOW & IDLE LAND	-.7 <sup>a/</sup>	-	-3.4 <sup>a/</sup>
TILLABLE LAND	328.1	430.2	294.6
NON TILLABLE HAY/PASTURE	4.3	9.5	6.3
WILD HAY NOT HARVESTED (NON TILLABLE)	1.3	.6	1.3
PASTURE NOT HARVESTED	14.2	14.2	11.8
TIMBER NOT HARVESTED	7.0	4.4	4.8
ROADS & WASTE	14.5	11.8	12.6
FARMSTEAD	10.6	8.8	11.4
LAND NOT HARVESTED	47.6	39.8	41.9
NON TILLABLE LAND	51.9	49.3	48.2
LAND IN FARM OR RANCH	380.0	479.5	342.8
SUPPLEMENTARY MANAGEMENT INFORMATION			
PERCENT LAND TILLABLE	% 86.3	% 89.7	% 86.0
PERCENT LAND IN HIGH RETURN CROPS	% 80.2	% 90.0	% 76.6
FERTILIZER COST PER ACRE	\$23.42	\$19.83	\$28.30
CROP CHEMICALS PER ACRE	\$10.94	\$11.94	\$12.83
SEED & OTHER COSTS PER ACRE	\$16.10	\$15.58	\$16.94
GAS, OIL & GREASE BOUGHT PER ACRE	\$ 6.80	\$ 6.31	\$ 6.45

Crop	Crop Rank	No. Farms Growing	Acres Per Farm	Total Acres	Ave. Yield Per Acre	Return Over Direct Costs Per Acre
BARLEY	D	5	36.5	183	71.2 bu.	\$ 99.78
OATS	D	51	30.5	1,556	76.0 bu.	60.65
SPRING WHEAT	C	22	31.3	689	42.9 bu.	72.96
CANNING CORN	B	8	68.0	544	\$219.94	142.61
CORN FOR GRAIN	A	85	162.7	13,830	119.9 bu.	114.03
SOYBEANS	A	46	103.3	4,752	43.0 bu.	189.23
CANNING PEAS	B	5	39.2	196	\$335.13	302.43
ALFALFA HAY	B	60	59.7	3,582	4.3 t	166.97
OATS SILAGE	C	12	27.6	331	7.4 t	91.53
CORN SILAGE	A	38	20.7	787	17.9 t	178.46
TILLABLE GRASS PASTURE	D	7	20.5	144	\$ 59.85	51.80

<sup>a/</sup> Negative sign means that area double cropped exceeded area not cropped by the amount shown.

## DESCRIPTION OF CROPS TABLES

The following tables for each individual crop represent an attempt to calculate the costs and returns for these enterprises. Returns include the value of the crop produced --line 4-- (which was calculated as measured yield multiplied by a common harvest-time price--see footnote for exceptions) plus other crop income. The latter has two components: a cash component, such as diverted acre payments, deficiency payments, crop insurance payments for a loss, sale of a by-product (such as straw) etc; and a non-cash component, which is the operator's estimate of the value of straw, corn stalks, and other crop by-products and residues used in livestock enterprises.

Two categories of costs are calculated. The first consists of costs that are "directly" attributable to that crop, such as fertilizer, chemicals, seed, etc., and are normally recorded on pages 38-39 of the Account Book. These are normally all cash costs, although some may have been actually paid in a previous year, i.e., fertilizer paid for last year but used on this year's crop. Thus the sum of fertilizer costs for all crops may not necessarily equal total fertilizer purchased in the current year as reported in TABLES 2B and 6B. The costs in this "direct" category may also be called variable costs, in two ways. The first is in that the level of these costs per acre can be varied by the farmer, such as varying the amount of fertilizer per acre, etc. The second is in that the total of these costs usually vary in direct proportion to the number of acres grown. For example, if 10% fewer acres of corn were planted, expenses for corn seed and fertilizer might decrease by 10%. The second category of costs represents an attempt to "allocate" some costs that are not easily attributable to a specific enterprise. Some are cash costs and others are non-cash, some are variable and others are fixed or overhead costs. For example, the ownership cost of farm power and machinery consists of depreciation, which is a non-cash, fixed cost that continues even if corn acreage is cut back by 10%. In contrast, the operation cost of farm power and machinery, which, includes fuel, lubricants, and repair, is a cash variable cost.

The power and machinery costs (both ownership and operation) were allocated among crop (and livestock when present) enterprises on the basis of work units. The ownership costs and the total operation costs are each divided by the sum of total crop work units plus one-tenth of the total livestock work units (or one-twelfth if livestock work units are greater than 400) because livestock use relatively less power per work unit than crops. The resulting ownership cost per work unit is then multiplied by the standard work unit per acre figure to obtain the allocated cost per acre. The same procedure is followed for operation costs. If the operator feels that this procedure does not adequately reflect his relative use of power among enterprises, or if he wants some enterprises to carry a relatively heavier cost burden than others, then he may modify the allocation by the use of different values for the Power Cost Allocation Factor (PCAF).

Land cost shown is an attempt to measure the opportunity cost of the land. For the tenant, the cash rent or equivalent was reported. For the owner-operator, the amount that could be received for renting out the land was obtained. Interest on machinery and equipment investment was calculated at 6% on the average amount held during the year (beginning plus ending inventories divided by two).

TABLE 10-0040 - CROP DATA FOR BARLEY - 1977

ITEMS	Average of 5 Farms
1 ACRES	36.5
2 YIELD PER ACRE, BUSHELS	71.2
3 VALUE PER BUSHEL	\$ 1.60
4 CROP PRODUCT RETURN	113.92
5 OTHER CROP INCOME	
6 TOTAL CROP RETURN PER ACRE	\$ 113.92
7 DIRECT COSTS PER ACRE	
8 FERTILIZER	\$ 9.01
9 CHEMICALS	.14
10 SEED & OTHER	4.52
11 SPECIAL HIRED LABOR	
12 CUSTOM WORK HIRED	.47
13 IRRIGATION OPERATION	
14 TOTAL DIRECT COSTS	14.14
15 RETURN OVER DIRECT COSTS PER ACRE	\$ 99.78
16 ALLOCATED COSTS PER ACRE	
17 FARM POWER & MACHINERY - OWNERSHIP	\$ 25.54
18 FARM POWER & MACHINERY - OPERATION	16.83
19 IRRIGATION EQUIPMENT - OWNERSHIP	
20 LAND COSTS	65.00
21 MISCELLANEOUS COSTS	
22 INTEREST ON MACH. & EQUIP. INVESTMENT	7.42
23 TOTAL ALLOCATED COSTS PER ACRE	114.79
24 RETURN OVER ALL LISTED COSTS PER ACRE	\$ (-15.01)
25 SUPPLEMENTARY MANAGEMENT INFORMATION	
26 WORK UNITS ASSIGNED PER ACRE	.30
27 POWER COSTS ALLOCATION FACTOR	.82
28 TOTAL LISTED COST PER BUSHEL	\$ 1.81
29 RETURN OVER LISTED COSTS PER BUSHEL	\$ (-.21)
30* BREAKEVEN YIELD, BUSHELS	80.58
31 TOTAL LISTED COSTS PER ACRE	\$ 128.93

\* TO COVER TOTAL LISTED COSTS PER ACRE (LINE 31) AT PRICE GIVEN ON LINE 3.

TABLE 10-0105 - CROP DATA FOR OATS - FEED - 1977

ITEMS	Average of 51 Farms	25 Farms Highest in Yield	25 Farms Lowest in Yield
1 ACRES	30.5	26.8	34.5
2 YIELD PER ACRE, BUSHELS	76.0	95.2	61.3
3 VALUE PER BUSHEL	\$ 1.02	\$ 1.01	\$ 1.04
4 CROP PRODUCT RETURN	77.48	96.19	63.77
5 OTHER CROP INCOME	.46	.90	.12
6 TOTAL CROP RETURN PER ACRE	77.94	97.09	63.89
7 DIRECT COSTS PER ACRE			
8 FERTILIZER	\$ 4.69	\$ 5.67	\$ 4.09
9 CHEMICALS	.43	.67	.26
10 SEED & OTHER	8.79	9.37	8.26
11 SPECIAL HIRED LABOR			
12 CUSTOM WORK HIRED	3.38	4.70	2.43
13 IRRIGATION OPERATION			
14 TOTAL DIRECT COSTS PER ACRE	17.29	20.41	15.04
15 RETURN OVER DIRECT COSTS PER ACRE	60.65	76.68	48.85
16 ALLOCATED COSTS PER ACRE			
17 FARM POWER & MACHINERY - OWNERSHIP	\$ 13.33	\$ 12.30	\$ 14.00
18 FARM POWER & MACHINERY - OPERATION	10.05	8.53	10.89
19 IRRIGATION EQUIPMENT - OWNERSHIP			
20 LAND COSTS	61.08	64.60	57.40
21 MISCELLANEOUS COSTS			
22 INTEREST ON MACH. & EQUIP. INVESTMENT	3.30	2.83	3.68
23 TOTAL ALLOCATED COSTS PER ACRE	87.76	88.26	86.05
24 RETURN OVER ALL LISTED COSTS PER ACRE	(-27.11)	(-11.58)	(-37.20)
25 SUPPLEMENTARY MANAGEMENT INFORMATION			
26 WORK UNITS ASSIGNED PER ACRE	.30	.30	.30
27 POWER COSTS ALLOCATION FACTOR	.84	.82	.85
28 TOTAL LISTED COST PER BUSHEL	\$ 1.38	\$ 1.14	\$ 1.65
29 RETURN OVER LISTED COSTS PER BUSHEL	\$ (-.36)	\$ (-.12)	\$ (-.61)
30* BREAKEVEN YIELD, BUSHELS	102.99	107.59	97.20
31 TOTAL LISTED COSTS PER ACRE	\$105.05	\$108.67	\$101.09

\* TO COVER TOTAL LISTED COSTS PER ACRE (LINE 31) AT PRICE GIVEN ON LINE 3.

TABLE 10-0195 - CROP DATA FOR SPRING WHEAT - 1977

ITEMS		Average of 22 Farms	11 Farms Highest in Yield	11 Farms Lowest in Yield
1	ACRES	31.3	33.2	29.3
2	YIELD PER ACRE, BUSHELS	42.9	50.2	34.8
3	VALUE PER BUSHEL	\$ 2.20	\$ 2.20	\$ 2.20
4	CROP PRODUCT RETURN	94.31	110.33	76.59
5	OTHER CROP INCOME	4.98	2.23	8.16
6	TOTAL CROP RETURN PER ACRE	99.29	112.56	84.75
7	DIRECT COSTS PER ACRE			
8	FERTILIZER	\$ 15.18	\$ 13.70	\$ 16.86
9	CHEMICALS	.80	1.14	.44
10	SEED & OTHER	7.67	7.50	7.88
11	SPECIAL HIRED LABOR			
12	CUSTOM WORK HIRED	2.68	4.04	1.16
13	IRRIGATION OPERATION			
14	TOTAL DIRECT COSTS PER ACRE	26.33	26.38	26.34
15	RETURN OVER DIRECT COSTS PER ACRE	72.96	86.18	58.41
16	ALLOCATED COSTS PER ACRE			
17	FARM POWER & MACHINERY - OWNERSHIP	\$ 11.12	\$ 10.78	\$ 11.55
18	FARM POWER & MACHINERY - OPERATION	8.43	8.12	8.81
19	IRRIGATION EQUIPMENT - OWNERSHIP			
20	LAND COSTS	60.23	68.64	51.82
21	MISCELLANEOUS COSTS			
22	INTEREST ON MACH. & EQUIP. INVESTMENT	2.73	2.57	2.93
23	TOTAL ALLOCATED COSTS PER ACRE	82.51	90.11	75.11
24	RETURN OVER ALL LISTED COSTS PER ACRE	(-9.55)	(-3.93)	(-16.70)
25	SUPPLEMENTARY MANAGEMENT INFORMATION			
26	WORK UNITS ASSIGNED PER ACRE	.30	.30	.30
27	POWER COSTS ALLOCATION FACTOR	.92	.92	.93
28	TOTAL LISTED COST PER BUSHEL	\$ 2.54	\$ 2.32	\$ 2.91
29	RETURN OVER LISTED COSTS PER BUSHEL	\$ (-.22)	\$ (-.08)	\$ (-.48)
30*	BREAKEVEN YIELD, BUSHELS	49.47	52.95	46.11
31	TOTAL LISTED COSTS PER ACRE	\$108.84	\$116.49	\$101.45

\* TO COVER TOTAL LISTED COSTS PER ACRE (LINE 31) AT PRICE GIVEN IN LINE 3.



TABLE 10-0265 - CROP DATA FOR CANNING CORN - 1977

ITEMS	Average of 8 Farms	4 Farms Highest in Yield	4 Farms Lowest in Yield
1 ACRES	68.0	87.0	49.0
2 YIELD PER ACRE, DOLLARS	219.9	290.1	95.4
3 VALUE PER PRODUCTION UNIT	1.00	1.00	1.00
4 CROP PRODUCT RETURN	\$219.94	\$290.09	\$ 95.39
5 OTHER CROP INCOME			
6 TOTAL CROP RETURN PER ACRE	\$219.94	\$290.09	\$ 95.39
7 DIRECT COSTS PER ACRE			
8 FERTILIZER	\$ 30.33	\$ 29.39	\$ 33.17
9 CHEMICALS	21.81	25.13	11.86
10 SEED & OTHER	10.81	11.90	7.59
11 SPECIAL HIRED LABOR			
12 CUSTOM WORK HIRED	14.38	19.16	
13 IRRIGATION OPERATION			
14 TOTAL DIRECT COSTS	\$ 77.33	\$ 85.58	\$ 52.62
15 RETURN OVER DIRECT COSTS	\$142.61	\$204.51	\$ 42.77
16 ALLOCATED COSTS PER ACRE			
17 FARM POWER & MACHINERY - OWNERSHIP	\$ 19.10	\$ 17.72	\$ 23.22
18 FARM POWER & MACHINERY - OPERATION	13.16	13.26	\$ 12.88
19 IRRIGATION EQUIPMENT - OWNERSHIP			
20 LAND COSTS	60.00	71.25	48.75
21 MISCELLANEOUS COSTS			
22 INTEREST ON MACH. & EQUIP. INVESTMENT	4.51	4.16	5.54
23 TOTAL ALLOCATED COSTS	\$ 96.77	\$106.39	\$ 90.39
24 RETURN OVER ALL LISTED COSTS	\$ 45.84	\$ 98.12	\$(-47.62)
25 SUPPLEMENTARY MANAGEMENT INFORMATION			
26 WORK UNITS ASSIGNED PER ACRE	.44	.50	.38
27 POWER COSTS ALLOCATION FACTOR	.70	\$ .75	\$ .65
28 TOTAL LISTED COST PER UNIT OF PRODUCTION	\$ .68	\$ .66	\$ .89
29 RETURN OVER LISTED COSTS PER UNIT	\$ .32	\$ .34	\$ .11
30* BREAKEVEN YIELD, DOLLARS	\$197.84	\$191.97	\$190.68
31 TOTAL LISTED COSTS PER ACRE	\$174.10	\$191.97	\$143.01

\* TO COVER TOTAL LISTED COSTS PER ACRE (LINE 31) AT PRICE GIVEN ON LINE 3.

TABLE 10-0275 - CROP DATA FOR CORN FOR GRAIN - 1977

ITEMS	Average of 85 Farms	42 Farms Highest in Yield	42 Farms Lowest in Yield
1 ACRES	162.7	200.7	121.9
2 YIELD PER ACRE, BUSHELS	119.9	129.6	103.9
3 VALUE PER BUSHEL	\$ 1.60	\$ 1.60	\$ 1.60
4 CROP PRODUCT RETURN PER ACRE	191.89	207.37	166.30
5 OTHER CROP INCOME PER ACRE	.11	.14	.07
6 TOTAL CROP RETURN PER ACRE	192.00	207.51	166.37
7 DIRECT COSTS PER ACRE			
8 FERTILIZER	\$ 37.05	\$ 38.80	\$ 34.90
9 CHEMICALS	15.73	15.99	15.22
10 SEED & OTHER	22.14	23.49	20.82
11 SPECIAL HIRED LABOR			
12 CUSTOM WORK HIRED	3.05	3.38	2.70
13 IRRIGATION OPERATION	77.97	81.66	73.64
14 TOTAL DIRECT COSTS PER ACRE			
15 RETURN OVER DIRECT COSTS PER ACRE	114.03	125.85	92.73
16 ALLOCATED COSTS PER ACRE			
17 FARM POWER & MACHINERY - OWNERSHIP	\$ 24.86	\$ 26.80	\$ 20.91
18 FARM POWER & MACHINERY - OPERATION	16.99	17.16	16.92
19 IRRIGATION EQUIPMENT - OWNERSHIP			
20 LAND COSTS	63.41	67.86	60.48
21 MISCELLANEOUS COSTS			
22 INTEREST ON MACH. & EQUIP. INVESTMENT	5.89	6.50	4.82
23 TOTAL ALLOCATED COSTS PER ACRE	111.15	118.32	103.13
24 RETURN OVER ALL LISTED COSTS PER ACRE	\$ 2.88	\$ 7.53	\$(-10.40)
25 SUPPLEMENTARY MANAGEMENT INFORMATION			
26 WORK UNITS ASSIGNED PER ACRE	.54	.55	.54
27 POWER COSTS ALLOCATION FACTOR	1.02	1.14	.90
28 TOTAL LISTED COST PER BUSHEL	\$ 1.58	\$ 1.54	\$ 1.70
29 RETURN OVER LISTED COSTS PER BUSHEL	\$ .02	\$ .06	\$ (-.10)
30* BREAKEVEN YIELD, BUSHELS	119.70	124.99	113.31
31 TOTAL LISTED COSTS PER ACRE	\$189.12	\$199.98	\$176.77

\* TO COVER TOTAL LISTED COSTS PER ACRE (LINE 31) AT PRICE GIVEN IN LINE 3.

TABLE 10-0335 - CROP DATA FOR SOYBEANS - 1977

ITEMS	Average of 46 Farms	23 Farms Highest in Yield	23 Farms Lowest in Yield
1 ACRES	103.3	110.7	95.8
2 YIELD PER ACRE - BUSHELS	43.0	48.1	37.2
3 VALUE PER BUSHEL	\$ 5.00	\$ 5.00	\$ 5.00
4 CROP PRODUCT RETURN PER ACRE	214.96	240.33	185.80
5 OTHER CROP INCOME PER ACRE			
6 TOTAL CROP RETURN PER ACRE	214.96	240.33	185.80
7 DIRECT COSTS PER ACRE			
8 FERTILIZER	\$ 2.44	2.46	2.43
9 CHEMICALS	12.07	10.75	13.61
10 SEED & OTHER	9.31	8.51	10.23
11 SPECIAL HIRED LABOR	.12	.18	.04
12 CUSTOM WORK HIRED	1.79	2.37	1.10
13 IRRIGATION OPERATION			
14 TOTAL DIRECT COSTS PER ACRE	25.73	24.27	27.41
15 RETURN OVER DIRECT COSTS PER ACRE	\$189.23	216.06	\$158.39
16 ALLOCATED COSTS PER ACRE			
17 FARM POWER & MACHINERY - OWNERSHIP	\$ 19.90	\$ 22.92	\$ 16.35
18 FARM POWER & MACHINERY - OPERATION	13.26	13.73	12.71
19 IRRIGATION EQUIPMENT - OWNERSHIP			
20 LAND COSTS	66.63	72.83	60.43
21 MISCELLANEOUS COSTS			
22 INTEREST ON MACH. & EQUIP. INVESTMENT	4.91	5.36	4.38
23 TOTAL ALLOCATED COSTS PER ACRE	\$104.70	\$114.84	\$ 93.87
24 RETURN OVER ALL LISTED COSTS PER ACRE	\$ 84.53	\$101.22	\$ 64.52
25 SUPPLEMENTARY MANAGEMENT INFORMATION			
26 WORK UNITS ASSIGNED PER ACRE	.44	.45	.43
27 POWER COSTS ALLOCATION FACTOR	1.02	1.17	.86
28 TOTAL LISTED COST PER BUSHEL	\$ 3.03	\$ 2.89	\$ 3.27
29 RETURN OVER LISTED COSTS PER BUSHEL	\$ 2.00	\$ 2.11	\$ 1.82
30* BREAK-EVEN YIELD, BUSHELS	26.67	27.82	25.37
31 TOTAL LISTED COSTS PER ACRE	\$130.43	\$141.35	\$121.28

\* TO COVER TOTAL LISTED COSTS PER ACRE (LINE 31) AT PRICE GIVEN IN LINE 3.

TABLE 10-0365 - CROP DATA FOR CANNING PEAS - 1977

ITEMS	Average of 5 farms
1 ACRES	39.2
2 YIELD PER ACRE, DOLLARS	\$335.13
3 VALUE PER PRODUCTION UNIT	1.00
4 CROP PRODUCT RETURN	335.13
5 OTHER CROP INCOME	
6 TOTAL CROP RETURN PER ACRE	335.13
7 DIRECT COSTS PER ACRE	\$ 13.37
8 FERTILIZER	2.47
9 CHEMICALS	14.46
10 SEED & OTHER	
11 SPECIAL HIRED LABOR	
12 CUSTOM WORK HIRED	2.40
13 IRRIGATION OPERATION	
14 TOTAL DIRECT COSTS	32.70
15 RETURN OVER DIRECT COSTS	\$302.43
16 ALLOCATED COSTS PER ACRE	
17 FARM POWER & MACHINERY - OWNERSHIP	\$ 16.95
18 FARM POWER & MACHINERY - OPERATION	11.19
19 IRRIGATION EQUIPMENT - OWNERSHIP	
20 LAND COSTS	62.00
21 MISCELLANEOUS COSTS	
22 INTEREST ON MACH. & EQUIP. INVESTMENT	4.49
23 TOTAL ALLOCATED COSTS	94.63
24 RETURN OVER ALL LISTED COSTS	\$207.80
25 SUPPLEMENTARY MANAGEMENT INFORMATION	
26 WORK UNITS ASSIGNED PER ACRE	.40
27 POWER COSTS ALLOCATION FACTOR	.64
28 TOTAL LISTED COST PER UNIT OF PRODUCTION	.38
29 RETURN OVER LISTED COSTS PER UNIT	.62
30* BREAKEVEN YIELD, DOLLARS	\$127.33
31 TOTAL LISTED COSTS PER ACRE	\$127.33

\* TO COVER TOTAL LISTED COSTS PER ACRE (LINE 31) AT PRICE GIVEN IN LINE 3.

TABLE 10-0400 - CROP DATA FOR ALFALFA HAY - 1977

ITEMS	Average of 60 Farms	30 Farms Highest in Yield	30 Farms Lowest in Yield
1 ACRES	59.7	63.8	55.5
2 YIELD PER ACRE, TONS	4.3	5.4	3.0
3 VALUE PER TON	\$ 44.92	\$ 44.83	\$ 45.00
4 CROP PRODUCT RETURN PER ACRE	\$191.88	\$241.02	\$135.41
5 OTHER CROP INCOME PER ACRE			
6 TOTAL CROP RETURN PER ACRE	\$191.88	\$241.02	\$135.41
7 DIRECT COSTS PER ACRE			
8 FERTILIZER	\$ 10.90	\$ 13.87	\$ 7.53
9 CHEMICALS	.18	.33	
10 SEED & OTHER	11.64	14.36	8.54
11 SPECIAL HIRED LABOR			
12 CUSTOM WORK HIRED	2.19	4.00	.13
13 IRRIGATION OPERATION			
14 TOTAL DIRECT COSTS PER ACRE	24.91	32.56	16.20
15 RETURN OVER DIRECT COSTS PER ACRE	\$166.97	\$208.46	\$119.21
16 ALLOCATED COSTS PER ACRE			
17 FARM POWER & MACHINERY - OWNERSHIP	\$ 21.97	\$ 22.80	\$ 21.06
18 FARM POWER & MACHINERY - OPERATION	18.26	17.74	18.87
19 IRRIGATION EQUIPMENT - OWNERSHIP			
20 LAND COSTS	61.50	62.00	61.00
21 MISCELLANEOUS COSTS	.15	.02	.31
22 INTEREST ON MACH. & EQUIP. INVESTMENT	5.39	5.72	5.02
23 TOTAL ALLOCATED COSTS PER ACRE	107.27	108.28	106.26
24 RETURN OVER ALL LISTED COSTS PER ACRE	\$ 59.70	\$100.18	\$ 12.95
25 SUPPLEMENTARY MANAGEMENT INFORMATION			
26 WORK UNITS ASSIGNED PER ACRE	.60	.60	.60
27 POWER COSTS ALLOCATION FACTOR	.94	.94	.94
28 TOTAL LISTED COST PER TON	\$ 30.95	\$ 26.20	\$ 40.71
29 RETURN OVER LISTED COSTS PER TON	\$ 13.97	\$ 18.63	\$ 4.29
30* BREAKEVEN YIELD, TONS	2.94	3.14	2.72
31 TOTAL LISTED COSTS PER ACRE	\$132.18	\$140.84	\$122.46

\* TO COVER TOTAL LISTED COSTS PER ACRE (LINE 31) AT PRICE GIVEN IN LINE 3.

TABLE 10-0545 - CROP DATA FOR GRAIN (OATS) SILAGE - 1977

ITEMS	Average of 12 Farms	6 Farms	6 Farms
		Highest in Yield	Lowest in Yield
1 ACRES	27.6	36.7	18.5
2 YIELD PER ACRE, TONS	7.4	9.4	3.2
3 VALUE PER TON	14.92	15.00	14.83
4 CROP PRODUCT RETURN PER ACRE	109.75	141.42	48.11
5 OTHER CROP INCOME PER ACRE			
6 TOTAL CROP RETURN PER ACRE	109.75	141.42	48.11
7 DIRECT COSTS PER ACRE			
8 FERTILIZER	10.83	11.12	10.27
9 CHEMICALS			
10 SEED & OTHER	6.85	8.07	4.49
11 SPECIAL HIRED LABOR			
12 CUSTOM WORK HIRED	.54	.63	.38
13 IRRIGATION OPERATION			
14 TOTAL DIRECT COSTS PER ACRE	18.22	19.82	15.14
15 RETURN OVER DIRECT COSTS PER ACRE	91.53	121.60	32.97
16 ALLOCATED COSTS PER ACRE			
17 FARM POWER & MACHINERY - OWNERSHIP	17.27	23.28	5.36
18 FARM POWER & MACHINERY - OPERATION	12.70	15.22	7.71
19 IRRIGATION EQUIPMENT - OWNERSHIP			
20 LAND COSTS	48.75	51.67	45.83
21 MISCELLANEOUS COSTS			
22 INTEREST ON MACH. & EQUIP. INVESTMENT	3.95	5.15	1.55
23 TOTAL ALLOCATED COSTS PER ACRE	82.67	95.32	60.45
24 RETURN OVER ALL LISTED COSTS PER ACRE	8.86	26.28	(-27.48)
25 SUPPLEMENTARY MANAGEMENT INFORMATION			
26 WORK UNITS ASSIGNED PER ACRE	.40	.40	.40
27 POWER COSTS ALLOCATION FACTOR	.81	.98	.63
28 TOTAL LISTED COST PER TON	13.72	12.21	23.32
29 RETURN OVER LISTED COSTS PER TON	1.20	2.79	(-8.48)
30* BREAKEVEN YIELD, TONS	6.76	7.68	5.10
31 TOTAL LISTED COSTS PER ACRE	100.89	115.14	75.59

\* TO COVER TOTAL LISTED COSTS PER ACRE (LINE 31) AT PRICE GIVEN IN LINE 3.

TABLE 10-0550 - CROP DATA FOR CORN SILAGE - 1977

ITEMS	Average of 38 Farms	19 Farms Highest in Yield	19 Farms Lowest in Yield
1 ACRES	20.7	18.3	23.0
2 YIELD PER ACRE, TONS	17.9	22.0	14.7
3 VALUE PER TON	\$ 14.03	\$ 14.05	\$ 14.00
4 CROP PRODUCT RETURN PER ACRE	251.45	309.40	206.35
5 OTHER CROP INCOME PER ACRE			
6 TOTAL CROP RETURN PER ACRE	251.45	309.40	206.35
7 DIRECT COSTS PER ACRE			
8 FERTILIZER	\$ 38.36	\$ 35.40	\$ 40.96
9 CHEMICALS	14.83	12.57	16.65
10 SEED & OTHER	15.89	16.12	15.74
11 SPECIAL HIRED LABOR			
12 CUSTOM WORK HIRED	3.91	2.90	4.70
13 IRRIGATION OPERATION			
14 TOTAL DIRECT COSTS PER ACRE	72.99	66.89	78.05
15 RETURN OVER DIRECT COSTS PER ACRE	\$178.46	\$242.51	\$128.30
16 ALLOCATED COSTS PER ACRE			
17 FARM POWER & MACHINERY - OWNERSHIP	\$ 24.14	\$ 22.81	\$ 25.30
18 FARM POWER & MACHINERY - OPERATION	17.85	17.69	18.06
19 IRRIGATION EQUIPMENT - OWNERSHIP			
20 LAND COSTS	58.95	64.74	53.16
21 MISCELLANEOUS COSTS			
22 INTEREST ON MACH. & EQUIP. INVESTMENT	5.75	5.84	5.70
23 TOTAL ALLOCATED COSTS PER ACRE	106.69	\$111.08	\$102.22
24 RETURN OVER ALL LISTED COSTS PER ACRE	\$ 71.77	\$131.43	26.08
25 SUPPLEMENTARY MANAGEMENT INFORMATION			
26 WORK UNITS ASSIGNED PER ACRE	.60	.60	.60
27 POWER COSTS ALLOCATION FACTOR	.88	.87	.88
28 TOTAL LISTED COST PER TON	10.03	8.08	12.23
29 RETURN OVER LISTED COSTS PER TON	4.00	5.97	1.77
30* BREAKEVEN YIELD, TONS	12.81	12.67	12.88
31 TOTAL LISTED COSTS PER ACRE	\$179.68	\$177.97	\$180.27

\* TO COVER TOTAL LISTED COSTS PER ACRE (LINE 31) AT PRICE GIVEN IN LINE 3.

TABLE 10-0575 CROP DATA FOR TILLABLE GRASS PASTURE - 1977

ITEMS	Average of 7 Farms
1 ACRES	20.5
2 YIELD PER ACRE	59.85
3 VALUE PER PRODUCTION UNIT	\$ 1.00
4 CROP PRODUCT RETURN PER ACRE	59.85
5 OTHER CROP INCOME	
6 TOTAL CROP RETURN PER ACRE	\$ 59.85
7 DIRECT COSTS PER ACRE	
8 FERTILIZER	\$ 5.51
9 CHEMICALS	
10 SEED & OTHER	2.10
11 SPECIAL HIRED LABOR	
12 CUSTOM WORK HIRED	.44
13 IRRIGATION OPERATION	
14 TOTAL DIRECT COSTS PER ACRE	\$ 8.05
15 RETURN OVER DIRECT COSTS PER ACRE	51.80
16 ALLOCATED COSTS PER ACRE	
17 FARM POWER & MACHINERY - OWNERSHIP	\$ .58
18 FARM POWER & MACHINERY - OPERATION	.88
19 IRRIGATION EQUIPMENT - OWNERSHIP	
20 LAND COSTS	65.00
21 MISCELLANEOUS COSTS	
22 INTEREST ON MACH. & EQUIP. INVESTMENT	.21
23 TOTAL ALLOCATED COSTS	\$ 66.67
24 RETURN OVER ALL LISTED COSTS PER ACRE	(-14.87)
25 SUPPLEMENTARY MANAGEMENT INFORMATION	
26 WORK UNITS ASSIGNED PER ACRE	.04
27 POWER COSTS ALLOCATION FACTOR	.62
28 TOTAL LISTED COST PER UNIT OF PRODUCTION	\$ 1.25
29 RETURN OVER LISTED COSTS PER UNIT	\$ (-.25)
30 BREAK-EVEN YIELD/UNITS OF PRODUCTION	\$ 74.72
31 TOTAL LISTED COSTS PER ACRE	\$ 74.72



## DESCRIPTION OF LIVESTOCK TABLES

Livestock provide an important source of farm income, especially on farms with relatively small acreages, or acreages not well suited to the production of cash crops. If the crop land area is limited, and/or the farm family is short of capital relative to labor, livestock may be needed to provide the volume of earnings necessary for family living and to meet goals that the farm family hopes to achieve.

The following tables provide cost and return calculations for the livestock enterprises on the farms included in this report. Since feed is the largest single item of cost for all classes of livestock, return above feed cost was used to classify farms into high or low in the following tables. The reader is cautioned to remember that farms are classified into the high or low return above feed cost categories for each table, so that a particular farm might be in the low category in one livestock table and in the high category in another livestock table. And these classifications are separate and independent of the classifications based on labor earnings used in TABLES 1 through 6B. Feed costs are determined from feed records kept by the farm operator. Given the overwhelming importance of feed as the major cost of livestock production, it is suggested that the livestock producer try to keep an accurate set of feed records for each major livestock enterprise,

Purchase price is used for all feeds purchased from off the farm. An average price, shown elsewhere in this report, is charged for each kind of home-grown feed.

In general, the net increase in value of animals is calculated as: ending inventory plus sales plus transfers out plus butchered minus beginning inventory minus purchases minus transfers in. For fed livestock, pounds or cwt produced is calculated in the same way. Since inventory values play such an important role in determining net increase in value, producers are urged to be extremely careful in changing inventory prices, especially of breeding livestock which may be on hand during the whole year. This is, paper gains and losses from changing prices of inventory should be avoided.

Return over feed costs, because of the proportion of total costs represented by feed, is an important overall measure, and very useful in comparing an enterprise over time on the same farm or with other farms in a given year. It is a general measure that indicates success in getting top dollar for products sold, as well as in holding down feed costs. The relative size of the return over feed cost, or a companion measure, return for \$100 feed fed, varies by kind of enterprise, depending upon the size of non-feed costs. For example, dairy cows, with high labor and building and equipment costs, need a higher return above feed cost and return per \$100 feed fed than a low labor, low building/equipment cost enterprise such as feeder cattle. It also varies by year as both commodity prices and feed prices vary.

A few of the other direct cash costs, such as veterinary costs, bedding, etc. are shown in each livestock table. Certain overhead costs were also allocated among enterprises, using the work unit procedure described for the crops tables, which again can be modified by use of power and machinery, livestock equipment, and building and fences cost allocation factors. (PCAF, ECAF, AND BCAAF, respectively).

TABLE 11A-6470 - COSTS AND RETURNS FROM COMPLETE HOG ENTERPRISE\* - 1977

ITEMS	Average of 30 Farms	10 Farms Highest in Return Above Feed Cost	10 Farms Lowest in Return Above Feed Cost
1 POUNDS OF HOGS PRODUCED	220,725 Per Cwt.	290,535 Per Cwt.	138,673 Per Cwt.
2 NET INCREASE IN VALUE OF HOGS	\$ 41.43	\$ 43.20	\$ 39.39
3 OTHER MISCELLANEOUS HOG INCOME			
4 TOTAL VALUE PRODUCED	\$ 41.43	\$ 43.20	\$ 39.39
5 POUNDS OF FEED FED			
6 CORN	293.3	276.1	306.5
7 SMALL GRAIN	17.0	17.7	25.4
8 COMPLETE RATION	8.1	3.8	28.6
9 PROTEIN, SALT & MINERAL & MILK	73.1	68.0	84.6
10 TOTAL CONCENTRATES	391.5	365.6	445.1
11 FORAGES	.5	.2	.4
12 FEED COST			
13 GRAINS	\$ 10.91	\$ 9.87	\$ 12.25
14 COMPLETE RATION	.49	.08	1.85
15 PROTEIN, SALT & MINERAL & MILK	8.17	7.32	10.76
16 FORAGES	.02	.01	.01
17 PASTURE	.01	.01	
18 TOTAL FEED COSTS	\$ 19.60	\$ 17.29	\$ 24.87
19 RETURN OVER FEED COSTS	\$ 21.83	\$ 25.91	\$ 14.52
20 OTHER DIRECT COSTS			
21 MISCELLANEOUS LIVESTOCK EXPENSE	\$ .74	\$ .61	\$ 1.01
22 VETERINARY EXPENSE	.99	1.58	.51
23 CUSTOM WORK	.31	.31	.29
24 SPECIAL HIRED LABOR			
25 TOTAL OTHER DIRECT COSTS	2.04	2.50	1.81
26 RETURN OVER FEED & OTHER DIRECT COSTS	\$ 19.79	\$ 23.41	\$ 12.71
27 ALLOCATED COSTS			
28 POWER & MACHINERY COSTS	\$ 1.47	\$ .93	\$ 2.08
29 LIVESTOCK EQUIPMENT COSTS	1.52	1.64	1.38
30 BUILDING & FENCES	2.73	1.81	3.93
31 TOTAL ALLOWED COSTS	\$ 5.72	\$ 4.38	\$ 7.39
32 RETURN OVER ALL LISTED COSTS	\$ 14.07	\$ 19.03	\$ 5.32
33 SUPPLEMENTARY MANAGEMENT INFORMATION			
34 RETURN FOR \$100 FEED FED	\$ 211.37	\$ 249.83	\$ 158.39
35 PRICE RECEIVED PER CWT. ALL ANIMALS	\$ 40.61	\$ 41.49	\$ 39.80
36 PRICE RECEIVED/CWT SOLD MKT ONLY	\$ 40.68	\$ 40.82	\$ 40.70
37 NUMBER OF LITTERS FARROWED	120	165	62
38 NUMBER OF PIGS BORN PER LITTER	9.6	10.2	11.9
39 NUMBER OF PIGS WEANED PER LITTER	7.4	8.1	9.3
40 PERCENT DEATH LOSS	14.6	13.4	13.4
41 AVERAGE WEIGHT OF ALL HOGS SOLD	235.1	238.8	223.4
42 AVERAGE WEIGHT OF MKT. HOGS SOLD	209.1	202.4	211.4
43 PRICE PER CWT. CONCENTRATE FED	\$ 5.00	\$ 4.72	\$ 5.59
44 PRICE/CWT PROT SALT MIN. FED	\$ 11.18	\$ 10.76	\$ 12.72
45 POUNDS OF PORK PURCHASED	5652	9211	6302
46 TOTAL LISTED COSTS/CWT PORK PROD.	\$ 27.36	\$ 24.17	\$ 34.07

\*FARMS INCLUDED IN TABLE 11A CARRIED OUT A COMPLETE PROGRAM OF FARROWING AND MARKETING THEIR OWN HOGS. THE FEED COSTS INCLUDE FEED FOR THE BREEDING HERD AND

TABLE 12-6290 - COSTS AND RETURNS FROM DAIRY COWS, COMMERCIAL HERDS - 1977

ITEMS	Average of 43 Farms	14 Farms	14 Farms
		Highest in Return Above Feed Costs	Lowest in Return Above Feed Costs
1 AVERAGE NUMBER OF COWS	48.3	47.1	50.3
	Per Cow	Per Cow	Per Cow
2 POUNDS OF MILK	13,933	15,273	12,827
3 POUNDS OF BUTTERFAT	509.3	559.8	449.3
4 PERCENT OF BUTTERFAT IN MILK	3.7	3.7	3.5
5 VALUE OF PRODUCE			
6 DAIRY PRODUCTS SOLD	\$1,259.05	\$1,373.69	\$1,175.43
7 DAIRY PRODUCTS USED IN HOME	8.05	5.35	10.52
8 MILD FED TO LIVESTOCK	4.10	5.14	1.41
9 NET INCREASED IN VALUE OF COWS	(-7.37)	9.41	(-34.67)
10 OTHER MISCELLANEOUS DAIRY INCOME			
11 TOTAL VALUE PRODUCED	\$1,263.83	\$1,393.59	\$1,152.69
12 POUNDS OF FEED FED			
13 CORN	5448.1	4743.4	5876.7
14 SMALL GRAIN	785.5	1697.0	420.2
15 COMPLETE RATION	11.2		
16 PROTEIN, SALT & MINERAL	617.5	420.8	779.2
17 TOTAL CONCENTRATES	6862.3	6861.2	7076.1
18 LEGUME HAY	5704.8	6495.0	5657.5
19 OTHER HAY & DRY ROUGHAGE	251.8	229.3	116.2
20 SILAGE	11504.0	10923.3	13217.6
21 FEED COSTS			
22 GRAINS	\$ 214.04	\$ 196.45	\$ 231.19
23 COMPLETE RATION	.70		
24 PROTEIN, SALT & MINERAL	74.43	49.62	90.72
25 ALL HAY & DRY ROUGHAGE	148.47	164.90	150.56
26 SILAGE	106.87	90.13	126.96
27 PASTURE	1.55	.91	3.60
28 TOTAL FEED COSTS	\$ 546.06	\$ 502.01	\$ 603.03
29 RETURN OVER FEED COSTS	\$ 717.77	\$ 891.58	\$ 549.66
30 OTHER DIRECT COSTS			
31 MISCELLANEOUS LIVESTOCK EXPENSE	54.68	51.00	60.48
32 VETERINARY EXPENSE	20.25	16.09	24.71
33 CUSTOM WORK HIRED	30.31	28.03	34.29
34 SPECIAL HIRED LABOR			
35 TOTAL OTHER DIRECT COSTS	\$ 105.24	\$ 95.12	\$ 119.48
36 RET. OVER FEED & OTHER DIRECT COSTS	\$ 612.53	\$ 796.46	\$ 430.18
37 ALLOCATED COSTS			
38 POWER & MACHINERY COSTS	70.29	67.25	61.85
39 LIVESTOCK EQUIPMENT COSTS	53.47	51.94	50.70
40 BUILDING & FENCES	82.27	85.38	58.26
41 TOTAL ALLOCATED COSTS	\$ 206.03	\$ 204.57	\$ 170.81
42 RETURN OVER ALL LISTED COSTS	\$ 406.50	\$ 591.89	\$ 259.37
43 SUPPLEMENTARY MANAGEMENT INFORMATION			
44 RETURN FOR \$100 FEED FED	\$ 231.44	\$ 277.60	\$ 191.15
45 FEED COST PER CWT. MILK	\$ 3.92	\$ 3.92	\$ 4.70
46 FEED COST PER POUND OF BUTTERFAT	\$ 1.07	\$ .90	\$ 1.34
47 POUNDS OF MILK/POUND OF CONCERN	\$ 2.03	\$ 2.23	\$ 1.81
48 AVERAGE PRICE PER CWT. MILK SOLD	\$ 9.12	\$ 9.07	\$ 9.25
49 AVERAGE PRICE/POUND OF BUTTERFAT	\$ 2.49	\$ 2.47	\$ 2.64
50 TOTAL LISTED COSTS/CWT MILK PRO	\$ 6.15	\$ 5.25	\$ 6.96
51 DAIRY COW TURNOVER PERCENTAGE	33.1	38.2	27.8
52 TOTAL LISTED COSTS PER COW	\$ 857.33	\$ 801.70	\$ 893.32

TABLE 13-6310 - COSTS AND RETURNS FROM OTHER DAIRY CATTLE COMMERCIAL HERD REPLACEMENTS

ITEMS	Average of 43 Farms	14 Highest in Return Above Feed Per Cow	14 Lowest in Return Above Feed Per Cow
1 NUMBER OF HEAD	62.1	72.9	61.8
	Per Cow	Per Cow	Per Cow
2 NET INCREASE IN VALUE	\$ 165.41	\$ 238.00	\$ 101.28
3 OTHER MISCELLANEOUS INCOME			
4 TOTAL INCOME	165.41	238.00	101.28
5 POUNDS OF FEED FED			
6 CORN	963.3	945.7	1048.7
7 SMALL GRAIN	200.5	234.7	136.6
8 COMPLETE RATION	250.8	470.1	190.5
9 PROTEIN, SALT & MINERALS	103.0	66.8	96.8
10 HAY & DRY ROUGHAGE	2317.7	2041.7	2947.3
11 SILAGE	5038.3	4195.4	7230.0
12 MILK	36.4	23.8	42.1
13 FEED COST			
14 GRAINS	\$ 41.74	\$ 41.63	\$ 42.83
15 COMPLETE RATION	6.36	9.48	4.84
16 PROTEIN, SALT & MINERALS	13.48	9.52	12.85
17 HAY & DRY ROUGHAGE	56.28	49.81	71.86
18 SILAGE	34.40	31.98	38.72
19 MILK	2.96	1.29	3.74
20 PASTURE	1.64	.12	3.88
21 TOTAL FEED COSTS	156.86	143.83	178.72
22 RETURN OVER FEED COSTS	\$ 8.55	\$ 94.17	\$ (-77.44)
23 OTHER DIRECT COSTS			
24 MISCELLANEOUS EXPENSE	4.44	4.29	4.53
25 VETERINARY EXPENSE	2.22	2.58	1.52
26 CUSTOM WORK HIRED	.92	1.78	.19
27 SPECIAL HIRED LABOR			
28 TOTAL OTHER DIRECT COSTS	7.58	8.65	6.24
29 RET OVER FEED & OTHER DIRECT COSTS	\$ .97	\$ 85.52	\$ (-83.68)
30 ALLOCATED COSTS			
31 POWER & MACHINERY COSTS	\$ 6.95	\$ 6.78	\$ 6.76
32 LIVESTOCK EQUIPMENT COSTS	4.24	4.50	4.30
33 BUILDING & FENCES	6.27	7.04	6.28
34 TOTAL ALLOCATED COSTS	\$ 17.46	\$ 18.32	\$ 17.34
35 RETURN OVER ALL LISTED COSTS	\$ (-16.49)	\$ 67.20	\$ (-101.02)
36 SUPPLEMENTARY MANAGEMENT INFORMATION			
37 RETURN FOR \$100 FEED FED	\$ 105.45	\$ 165.47	56.67
38 PERCENT DEATH LOSS - TOTAL	8.5	5.3	10.2
39 PERCENT CALF DEATH LOSS	18.0	10.9	22.9
40 TOTAL LISTED COSTS PER COW	\$ 181.90	\$ 170.80	\$ 202.30

TABLE 14 - COSTS AND RETURNS FROM ALL DAIRY CATTLE - 1977

ITEMS	Average of 42 Farms	14 Farms Highest in Return Above Feed Costs	14 Farms Lowest in Return Above Feed Costs
1 AVERAGE NUMBER OF COWS	47.9	44.1	46.7
	Per Cow	Per Cow	Per Cow
2 VALUE OF DAIRY PRODUCTS	\$1,271.77	\$1,356.76	\$1,192.38
3 NET INCREASE IN VALUE	206.72	262.31	141.37
4 MISCELLANEOUS DAIRY INCOME			
5 TOTAL VALUE PRODUCED	\$1,478.49	\$1,619.07	\$1,333.75
6 POUNDS OF FEED FED PER COW			
7 GRAINS	7777.0	8255.8	7822.1
8 COMPLETE RATIONS	344.4	694.5	41.0
9 PRO SALT MIN INCL MILK EQUIV	741.5	696.5	1106.3
10 HAY & DRY ROUGHAGE	8924.9	6946.9	8853.8
11 SILAGE	17,755.4	13,318.4	22,056.3
12 FEED COST PER COW			
13 GRAINS	\$ 269.16	\$ 253.27	\$ 285.10
14 COMPLETE RATIONS	9.19	11.61	5.67
15 PROT, SALT & MIN, INCL MILK	97.16	97.32	137.13
16 HAY & DRY ROUGHAGE	221.90	173.74	218.59
17 SILAGE	148.60	110.52	164.63
18 PASTURE COSTS	3.78	4.38	4.22
19 TOTAL FEED COSTS	749.79	650.84	815.34
20 RETURN OVER FEED COSTS PER COW	\$ 728.70	\$ 968.23	\$ 518.41
21 OTHER DIRECT COSTS			
22 MISCELLANEOUS LIVESTOCK EXPENSE	\$ 61.19	\$ 66.21	\$ 68.97
23 VETERINARY EXPENSE	23.30	24.92	24.03
24 CUSTOM WORK	32.42	34.01	27.64
25 SPECIAL HIRED LABOR			
26 TOTAL OTHER DIRECT COSTS	\$ 116.91	\$ 125.14	\$ 120.64
27 RET OVER FEED & OTHER DIRECT COSTS	\$ 611.79	\$ 843.09	\$ 397.77
28 ALLOCATED COSTS			
29 POWER & MACHINERY COSTS	\$ 79.85	\$ 120.00	\$ 68.88
30 LIVESTOCK EQUIPMENT COSTS	59.49	70.96	45.36
31 BUILDING & FENCES	89.66	124.53	57.43
32 TOTAL ALLOCATED COSTS	229.00	315.49	171.67
33 RETURN OVER ALL LISTED COSTS	\$ 382.79	\$ 527.60	\$ 226.10
34 SUPPLEMENTARY MANAGEMENT INFORMATION			
35 RETURN FOR \$100 FEED FED	\$ 197.19	\$ 248.77	\$ 163.58
36 TOTAL LISTED COSTS PER COW	\$1,095.70	\$1,091.47	\$1,107.65

TABLE 15A-6100 - BEEF BREEDING CATTLE, RANGE, COMMERCIAL HERD - 1977

ITEMS	Average of 5 Farms
1 AVERAGE NUMBER OF BEEF COWS	29.7
2 AVERAGE NUMBER OF OTHER BEEF ANIMALS & BULLS	33.4
3 POUNDS OF BEEF PRODUCED	13,780
4 NET INCREASE IN VALUE	Per Cow \$ 193.43
5 OTHER MISCELLANEOUS BEEF INCOME	
6 TOTAL VALUE PRODUCED	193.43
7 POUNDS OF FEED FED	
8 GRAIN	1153.8
9 PROTEIN, SALT & MINERAL	438.6
10 LEGUME HAY	3286.2
11 OTHER HAY & DRY ROUGHAGE	4350.2
12 SILAGE	1643.1
13 FEED COST	
14 GRAIN	\$ 42.26
15 PROTEIN, SALT & MINERAL	7.47
16 LEGUME HAY	82.15
17 OTHER HAY & DRY ROUGHAGE	35.45
18 SILAGE	12.32
19 PASTURE	
20 TOTAL FEED COSTS	179.65
21 RETURN OVER FEED COST	\$ 13.78
22 OTHER DIRECT COSTS	
23 MISCELLANEOUS LIVESTOCK EXPENSE	\$ 1.99
24 VETERINARY EXPENSE	.84
25 CUSTOM WORK	.64
26 SPECIAL HIRED LABOR	
27 TOTAL OTHER DIRECT COSTS	3.47
28 RETURN OVER FEED & OTHER DIRECT COSTS	\$ 10.31
29 ALLOCATED COSTS	
30 POWER & MACHINERY COSTS	15.23
31 LIVESTOCK EQUIPMENT COSTS	13.17
32 BUILDING & FENCES	32.99
33 TOTAL ALLOCATED COSTS	61.39
34 RETURN OVER ALL LISTED COSTS	\$ (-51.08)
35 SUPPLEMENTARY MANAGEMENT INFORMATION	
36 RETURN FOR \$100 FEED FED	\$ 107.66
37 PRICE PER CWT. SOLD	\$ 30.21
38 PRICE/CWT CALVES SOLD OR TRANS.	\$ 25.67
39 AVERAGE WEIGHT PER HEAD SOLD	993.0
40 AVER. WEIGHT PER CALF SOLD OR TRANS.	793.8
41 PERCENT DEATH LOSS	4.7
42 PERCENT CALF CROP	100.0
43 TOTAL LISTED COSTS PER COW	\$ 244.51

TABLE 15A-6100 INCLUDES ONLY THOSE FARMS WITH TEN OR MORE COWS IN THE BEEF BREEDING HERD. NET INCREASE IN VALUE INCLUDES THE VALUE OF CALVES WHETHER SOLD OR TRANSFERRED TO THE FEED LOT.

TABLE 15B-6130 - COST AND RETURNS FROM BEEF FEEDER CATTLE, GRASS FED - 1977

ITEMS	Average of 8 Lots
1 AVERAGE NUMBER OF BEEF FEEDERS	48.0
2 POUNDS OF BEEF PRODUCED	29,434
	Per Cwt
3 NET INCREASE IN VALUE OF ANIMALS	\$ 30.98
4 OTHER MISCELLANEOUS BEEF INCOME	
5 TOTAL VALUE PRODUCED	\$ 30.98
6 POUNDS OF FEED FED	
7 GRAIN	282.5
8 PROTEIN, SALT & MINERAL	21.4
9 LEGUME HAY	285.4
10 OTHER HAY & DRY ROUGHAGE	8.5
11 SILAGE	938.5
12 FEED COST	
13 GRAIN	\$ 10.09
14 PROTEIN, SALT & MINERAL	4.23
15 LEGUME HAY	7.13
16 OTHER HAY & DRY ROUGHAGE	.13
17 SILAGE	6.99
18 PASTURE	
19 TOTAL FEED COST	28.57
20 RETURN OVER FEED COST	\$ 2.41
21 OTHER DIRECT COSTS	
22 MISCELLANEOUS LIVESTOCK EXPENSE	\$ .04
23 VETERINARY EXPENSE	.02
24 CUSTOM WORK HIRED	.07
25 SPECIAL HIRED LABOR	
26 TOTAL OTHER DIRECT COSTS	.13
27 RET OVER FEED & OTHER DIRECT COSTS	\$ 2.28
28 ALLOCATED COSTS	
29 POWER & MACHINERY COSTS	\$ 3.29
30 LIVESTOCK EQUIPMENT COSTS	1.67
31 BUILDINGS & FENCES	4.05
32 TOTAL ALLOCATED COSTS	9.01
33 RETURN OVER ALL LISTED COSTS	\$(-6.73)
34 SUPPLEMENTARY MANAGEMENT INFORMATION	
35 RETURN FOR \$100 FEED FED	\$108.46
36 PRICE PER CWT. SOLD	\$ 35.98
37 AVERAGE WEIGHT PER HEAD SOLD	1147.8
38 PRICE PER CWT. BOUGHT	\$ 40.38
39 AVERAGE WEIGHT PER HEAD BOUGHT	1297.4
40 NUMBER OF HEAD BOUGHT	9
41 PERCENT DEATH LOSS	3.9
42 EFFECTIVE DAILY GAIN-LB/HEAD/DAY	1.68
43 TOTAL LISTED COST/CWT. PRODUCED	\$ 37.71

TABLE 15B-6140 - COST AND RETURNS FROM BEEF FEEDER CATTLE, FEEDLOT - 1977

ITEMS	Average of 8 Lots
1 AVERAGE NUMBER OF BEEF FEEDERS	87.7
2 POUNDS OF BEEF PRODUCED	49,644
3 NET INCREASE IN VALUE OF ANIMALS	Per Cwt \$ 46.43
4 OTHER MISCELLANEOUS BEEF INCOME	
5 TOTAL VALUE PRODUCED	\$ 46.43
6 POUNDS OF FEED FED	
7 GRAIN	512.9
8 PROTEIN, SALT & MINERAL	58.7
9 LEGUME HAY	454.0
10 OTHER HAY & DRY ROUGHAGE	
11 SILAGE	1074.4
12 FEED COST	
13 GRAIN	\$ 18.56
14 PROTEIN, SALT & MINERAL	5.67
15 LEGUME HAY	11.22
16 OTHER HAY & DRY ROUGHAGE	-
17 SILAGE	8.94
18 PASTURE	
19 TOTAL FEED COST	44.39
20 RETURN OVER FEED COST	\$ 2.04
21 OTHER DIRECT COSTS	
22 MISCELLANEOUS LIVESTOCK EXPENSE	\$ .88
23 VETERINARY EXPENSE	.19
24 CUSTOM WORK HIRED	1.34
25 SPECIAL HIRED LABOR	-
26 TOTAL OTHER DIRECT COSTS	2.41
27 RET OVER FEED & OTHER DIRECT COSTS	\$ (-.37)
28 ALLOCATED COSTS	
29 POWER & MACHINERY COSTS	\$ 1.87
30 LIVESTOCK EQUIPMENT COSTS	1.88
31 BUILDINGS & FENCES	3.79
32 TOTAL ALLOCATED COSTS	7.54
33 RETURN OVER ALL LISTED COSTS	\$ (-7.91)
34 SUPPLEMENTARY MANAGEMENT INFORMATION	
35 RETURN FOR \$100 FEED FED	\$104.59
36 PRICE PER CWT. SOLD	\$ 37.85
37 AVERAGE WEIGHT PER HEAD SOLD	1114.8
38 PRICE PER CWT. BOUGHT	\$ 34.35
39 AVERAGE WEIGHT PER HEAD BOUGHT	648.3
40 NUMBER OF HEAD BOUGHT	60
41 PERCENT DEATH LOSS	1.6
42 EFFECTIVE DAILY GAIN-LB/HEAD/DAY	1.55
43 TOTAL LISTED COST/CWT. PRODUCED	\$ 54.34



Averages by Type of Farm, 1977, Southeastern Minnesota Farm Management Association.

ITEMS	Average All 80 Farms	Dairy Less Than 45 Cows	Dairy 45 or More Cows	Cash Crops Plus Hogs Complete	Cash Crops Plus Dairy	Cash Crops
Number of farms	80	9	10	14	14	10
Land						
Acres per farm	380	201	280	379	441	579
Acres tillable	328	157	248	338	385	516
% tillable	86.3	78.1	88.6	89.0	87.3	89.0
% tillable in high return crops	80.2	63.0	71.4	88.0	76.9	n.a.
% tillable in corn & corn silage	55.7	45.7	48.1	52.2	52.7	52.1
% tillable in soybeans	18.1	0	0	29.9	13.5	32.2
% tillable in alfalfa	13.6	27.6	36.5	0.5	17.9	0
Labor						
Number of workers	1.87	1.57	1.81	1.77	2.41	1.41
Total work units	516	378	697	402	647	272
Work units in crops	167	80	135	170	196	257
Work units in livestock	340	297	561	221	432	3
Work units per worker	276	241	385	227	268	194
Capital						
Average farm capital managed	314,740	149,029	262,691	341,677	372,778	493,621
Capital managed per worker	176,389	94,923	145,133	206,315	158,617	350,086
Earnings						
Net cash operating income	40,265	19,155	40,235	32,845	35,391	61,222
Labor and management earnings	23,273	7,298	17,303	29,497	22,530	31,781
Rate earned on invest. whole farm %	10.2%	10.0	12.6	11.7%	9.4%	11.9
Total farm sales	117,383	54,165	102,186	115,907	114,227	140,098
Total value added	89,147	41,758	81,895	100,258	96,304	99,329
Proportion of Value Added						
From livestock	42.6	54.0	56.3	39.6	42.3	0
From crops	54.5	39.7	42.3	58.8	54.6	95.8
Expenses						
Cash expense/\$100 sales	55	57	50	63	55	38
Purchase/\$100 sales	88	69	81	97	80	95
Yields						
Corn/bu.	119.9	94.7	120.5	122.5	118.7	129.3
Soybeans, bu.	43.0	38.7	39.3	45.1	35.3	45.5
Alfalfa, tons	4.3	3.6	4.5	4.1	4.0	3.4
Corn silage, tons	17.9	16.5	21.0	-	18.0	15.2

Summary by Years, Southeastern Minnesota Farm Management Association

ITEM	Average 1955-59	Average 1960-64	Average 1965-69	Average 1970-74	1972	1973	1974	1975	1976	1977
Number of farms	165	158	134	114	114	118	112	101	78	80
Total farm capital managed	\$49342	\$60988	\$84088	\$148924	\$137338	\$174068	\$204978	\$246038	\$221625	\$314,740
Monthly charge for;										
Unpaid family labor <sup>a/</sup>	133	147	160	410	300	350	400	450	500	500
Second operator <sup>a/</sup>	133	187	295	b/	600	b/	b/	b/	b/	833
Board for hired labor <sup>a/</sup>	38	40	45	69	60	75	90	120	130	120
FARM EXPENSES										
Dairy cattle bought	\$ 235	\$ 265	\$ 398	\$ 584	\$ 363	\$ 527	\$ 966	\$ 522	\$ 457	900
Beef cattle bought	913	1185	791	2304	2536	3768	2080	2770	1506	1821
Hogs bought	258	386	504	796	751	1523	557	1573	1387	2199
Sheep bought (incl. feeders)	143	88	7	8	11	4	8	7	8	1
Poultry bought (incl. turkeys)	124	154	110	34	9	24	14	39	36	-
Horses bought	6	2	1	2	-	7	-	-	6	-
Miscellaneous livestock expense	530	731	947	1723	1662	1978	2161	2552	3397	3668
Fertilizers bought	877	1085	1978	3906	2940	4286	7362	7996	6169	7943
Miscellaneous crop expense <sup>c/</sup>	651	926	1878	3960	3341	4869	6029	7266	6768	9016
Feed bought	2747	3735	4279	7184	5975	10372	10030	12059	14883	14217
Custom work hired	745	857	1295	1953	1908	2023	2222	2285	2586	3280
Power & crop machinery (new)	1825	1803	3538	6984	6434	9096	9919	11499	9506	13773
Power & crop machinery (upkeep) <sup>e/</sup>	1937	2378	2712	4757	4254	5444	6384	7178	7123	8785
Livestock equipment (new)	347	412	658	1547	954	1544	3099	1673	2503	2908
Livestock equipment (upkeep)	152	171	225	505	440	649	710	794	937	1067
New real estate & improvements	982	1229	1930	3757	3909	3648	5479	8584	6625	21806
Buildings and fencing (upkeep)	320	344	436	812	684	994	1188	1272	1177	1932
Hired labor	878	922	1123	2086	1895	2335	2642	2896	3243	3947
Taxes	861	1301	1589	2191	2129	2287	2232	2795	2544	3262
General farm expense <sup>f/</sup>	316	409	555	959	901	1069	1270	1586	1698	2278
Total farm purchases	\$14847	\$18383	\$24954	\$46052	\$41096	\$56447	\$64352	\$75319	\$ 72559	\$102803
Decrease in farm capital	-	-	-	-	-	-	-	-	-	-
Interest on farm capital <sup>d/</sup>	2467	3049	4482	9345	8240	10444	14349	17223	15514	18884
Unpaid family labor	540	629	815	3485	1532	8186	5132	4578	4254	2864
Board furnished hired labor	134	101	64	72	45	55	140	83	137	535
Total farm expense	\$17988	\$22162	\$30315	\$58954	\$50913	\$75132	\$83973	\$97203	\$92464	\$125086

a/ These adjustments should be considered in comparing 1977 with previous years.

b/ Labor earnings was divided between the various partners.

c/ Includes chemicals.

d/ Interest was calculated at the rate of 5% on capital managed from 1950 to 1966, at 5.5% from 1967 to 1969, at 6% from 1970-1973, at 7% in 1974-76, and 6% in 1977.

e/ Including electricity expense (farm share).

f/ Including telephone expense (farm share).

Summary by Years, Southeastern Minnesota Farm Management Association (cont.)

ITEM	Average 1955-59	Average 1960-64	Average 1965-69	Average 1970-74	1972	1973	1974	1975	1976	1977
<b>FARM RECEIPTS</b>										
Dairy cattle sold	\$ 1641	\$ 2061	\$ 3246	\$ 4746	\$ 4694	\$ 5855	\$ 5552	\$ 4825	\$ 4937	\$ 5009
Dairy products sold	6032	8105	11631	19710	17262	20694	26432	24988	29269	32495
Beef cattle sold	1891	2688	2148	5039	5319	6310	5983	6206	4631	5988
Hogs sold	4653	5961	7973	14437	12516	22993	20670	33495	31272	35028
Sheep and wool sold	272	222	95	104	111	118	111	92	107	27
Poultry (incl. turkeys) sold	212	88	82	12	8	13	8	4	7	-
Eggs sold	1075	1015	732	125	90	85	96	107	170	99
Horses sold	8	4	1	-	1	1	-	-	3	1
Corn sold	1926	1594	2467	8865	5255	11136	18267	13527	13763	16256
Soybeans sold	-	-	1689	6062	4464	7991	12156	7897	8217	13767
Small grain sold	481	624	492	587	259	494	1407	1375	1974	1560
Other crops sold <sup>a/</sup>	1334	2181	2582	2553	4023	2568	1364	1825	1242	2616
Mach., & equip. sold & tax ref.	271	323	379	460	348	397	664	532	423	801
Income from work off the farm	269	239	432	608	484	889	923	1417	1111	1169
Miscellaneous farm income	458	559	1022	1523	1508	1768	1805	2562	2337	2566
Total farm sales	\$20523	\$25664	\$34971	\$64831	\$56342	\$81312	\$95438	\$98862	\$99463	\$117383
Increase in farm capital	941	601	3516	13137	10109	33825	12241	11377	10400	30426
Family living from the farm	304	307	321	437	380	526	564	558	573	550
Total farm receipts	\$21768	\$26572	\$38808	\$78405	\$66831	\$115663	\$108243	\$110797	\$110436	\$148359
Total farm expenses	17988	22162	30515	58954	50913	75132	83973	97203	92464	125086
Labor and management earnings	\$ 3780	\$ 4410	\$ 8293	\$19451	\$15918	\$ 40531	\$ 24270	\$ 13594	\$ 17972	\$ 23273
<b>MEASURES OF FARM ORGANIZATION AND MANAGEMENT EFFICIENCY</b>										
Percent land in high ret crops <sup>b/</sup>	62.7	60.1	60.5	65.2	64.8	65.3	66.3	67.8	67.3	80.2
Livestock units per 100 acres <sup>c/</sup>	33.7	36.4	34.3	42.1	33.1	36.9	36.9	36.4	40.6	36.9
Work units <sup>d/</sup>	486	548	505	462	446	482	509	522	494	516
Work units per worker <sup>d/</sup>	274	318	305	323	262	284	283	272	261	276
Expenses per work unit <sup>d/</sup>	\$10.81	\$11.61	\$17.99	\$33.94	\$31.75	\$38.89	\$41.48	\$44.92	\$48.72	\$58.12

a/ Includes soybeans 1950-1965, and crop disaster payments 1976.

b/ The crop ratings used in calculating the percentage of the tillable land in high return crops were considerably changed in 1957 and 1977.

c/ The basis for computing animal units was revised in 1951.

d/ The basis for computing work units was revised in 1953, 1967, and 1970.

## Summary of Miscellaneous Items by Years

Item	Average 1955-59	Average 1960-64	Average 1965-69	Average 1970-74	1972	1973	1974	1975	1976	1977
RETURN ABOVE FEED COST PER										
Dairy cow	\$162.86	\$183.05	\$266.74	\$409.16	\$417.68	\$455.85	\$424.99	\$340.01	\$564.65	\$717.77
100 lbs. feeder cattle prod.	4.76	1.78	5.08	3.28	17.82	14.06	-28.90	7.09	-8.29	2.04
Ewe	6.18	5.40	7.52	10.36	16.75	15.99	-3.04	-19.17	-1.40	-
100 lbs. hogs produced	4.62	4.57	8.86	10.66	14.17	21.49	6.42	21.35	11.59	21.83
Hen	1.39	1.27	.84	.82	.14	1.67	2.22	-.01	1.56	-
Beef cow	-	-	-	30.17	30.69	61.27	-63.88	-103.52	124.67	13.78
FEED COST PER										
Dairy cow	\$147.05	\$169.62	\$215.79	\$332.30	\$257.59	\$381.72	\$521.92	\$622.52	\$649.52	\$546.06
100 lbs. feeder cattle prod.	18.83	19.10	21.60	30.78	22.10	36.23	51.39	45.33	49.91	44.39
Ewe	11.17	13.46	19.51	32.17	24.58	32.46	56.97	66.60	67.05	-
100 lbs. hogs produced	10.65	10.65	11.90	16.86	12.88	20.77	26.00	27.35	24.95	19.60
Hen	3.78	3.28	3.31	3.38	2.78	4.27	3.88	5.44	5.14	-
Beef cow	-	-	-	132.41	121.69	147.62	189.10	193.42	241.27	179.65
MISCELLANEOUS LIVESTOCK INFORMATION										
Number of dairy cows <u>a/</u>	19.8	22.2	24.2	26.6	25.7	25.8	27.6	25.3	22.4	26.0
Pounds of feeder cattle prod. <u>a/</u>	3529	5573	4308	7297	7211	8593	7882	6770	4655	4964
Litters of pigs <u>a/</u>	17.3	19.4	19.7	26.6	24.3	34.3	34.1	39.1	40.5	45
Pounds of hogs produced <u>a/</u>	28272	36619	36519	46973	47090	56762	59433	68265	72232	82772
Number of hens <u>a/</u>	209	197	138	26	23	14	15	17	20	-
Pounds of butterfat per dairy cow	342	375	417	458	461	457	462	474	486	509
Pigs weaned per litter	6.9	7.1	7.3	7.2	7.2	7.2	7.2	7.4	7.5	7.4
Number of head of ewes <u>a/</u>	5	4	3	2	2	2	2	1	1	-
Eggs per hen	203	205	201	186	198	168	181	200	185	-

- Information not available

a/ The reader is cautioned that these six items are calculated as follows. The total number of head, pounds, litters, hens, etc., reported by all farmers whose records are included in the summary averages, is divided by the number of records included in the analysis (first line, table 22). Thus, items are not averages per farm reporting this item, instead they are averages for all farms included in the summary, regardless of whether all farms had that particular livestock enterprise or not. The correct interpretation of such information is to display trends over time in agriculture in the areas in which record keepers live whose records are included in the summary. For example, the number of hens is increasing, the number of litters being farrowed is increasing, etc., in the general area covered by the Southeast Farm Management Association.

## Summary of Miscellaneous Items by Years (continued)

Item	Average 1955-59	Average 1960-64	Average 1965-69	Average 1970-74	1972	1973	1974	1975	1976	1977
PRICE RECEIVED PER										
Pound of butterfat in milk	\$ .90	\$ .94	\$ 1.15	\$ 1.60	\$ 1.43	\$ 1.73	\$ 2.06	\$ 2.07	\$ 2.46	\$ 2.49
Cwt. of milk	--	3.48	4.31	6.01	5.47	6.50	7.75	7.93	9.11	9.12
Cwt. of hogs	15.99	15.55	20.89	28.41	26.13	41.28	34.67	47.91	42.95	40.61
Cwt. of feeder cattle sold	21.19	22.61	24.02	34.22	33.48	43.58	38.02	37.80	35.03	37.85
Pound of wool sold	.50	.62	.56	.67	.86	1.08	.36	.24	-	-
Dozen of eggs sold	.31	.28	.28	.34	.25	.46	.47	.45	-	-
PRICE OF FEED										
Corn (per bu.)	\$ 1.11	\$ .99	\$ 1.10	\$ 1.57	\$ 1.08	\$ 1.70	\$ 2.75	\$ 2.65	\$ 2.45	\$ 2.00
Barley (per bu.)	.92	.91	.97	1.06	.92	1.55	-	-	-	1.60
Oats (per bu.)	.59	.61	.62	.89	.65	.90	1.70	1.45	1.45	1.20
Oilmeal (per cwt.)	3.73	4.36	4.99	7.46	6.35	13.50	-	-	-	-
Alfalfa (per ton)	18.20	19.40	20.80	26.20	21.00	30.00	40.00	60.00	70.00	50.00
Timothy hay (per ton)	10.58	11.22	12.00	14.44	11.60	18.70	18.70	-	-	-
Corn silage (per ton)	6.08	6.60	7.36	9.15	7.25	10.00	14.00	20.00	22.00	16.00
ACRES PER FARM										
Small grains	36.1	34.5	30.4	26.1	23.4	24.3	29.2	29.4	32.6	34.1
Cultivated crops	90.0	103.6	132.4	187.5	175.7	215.3	223.8	249.9	207.1	245.9
Tillable land in hay	37.6	39.4	40.0	43.3	41.3	41.4	43.5	45.6	45.1	46.0
Tillable land in pasture	20.0	16.6	12.8	9.2	8.6	8.6	7.0	7.5	6.8	2.8
Tillable land not cropped <u>a/</u>	1.9	14.4	22.0	18.4	37.7	8.2	.8	.8	1.5	-0.7 <sup>b/</sup>
Total tillable land	186.5	208.5	237.6	284.5	286.7	297.8	304.3	33.2	293.1	328.1
Non-tillable land	48.2	47.3	46.3	49.7	51.5	47.1	52.9	52.8	47.3	51.9
Total acres per farm	234.7	255.8	283.9	334.2	338.2	344.9	357.2	386.0	340.4	380.0
YIELD PER ACRE										
Corn (bu.)	73.1	72.4	86.8	96.2	101.1	109.3	77.6	90.1	86.1	119.9
Barley (bu.)	41.4	44.9	51.4	47.6	53.4	54.8	42.8	31.3	58.5	71.2
Oats (bu.)	58.3	58.3	62.4	61.6	66.6	61.0	63.5	62.4	67.0	76.0
Alfalfa (tons)	2.9	3.0	3.2	3.6	3.6	3.6	3.7	3.5	3.2	4.3
Soybeans (bu.)	24.8	23.6	24.4	28.4	30.9	33.0	23.1	28.1	29.8	43.0

- Information not available.

a/ Including feed grain program.b/ Negative sign means that area double cropped exceeded area not cropped by the amount shown.