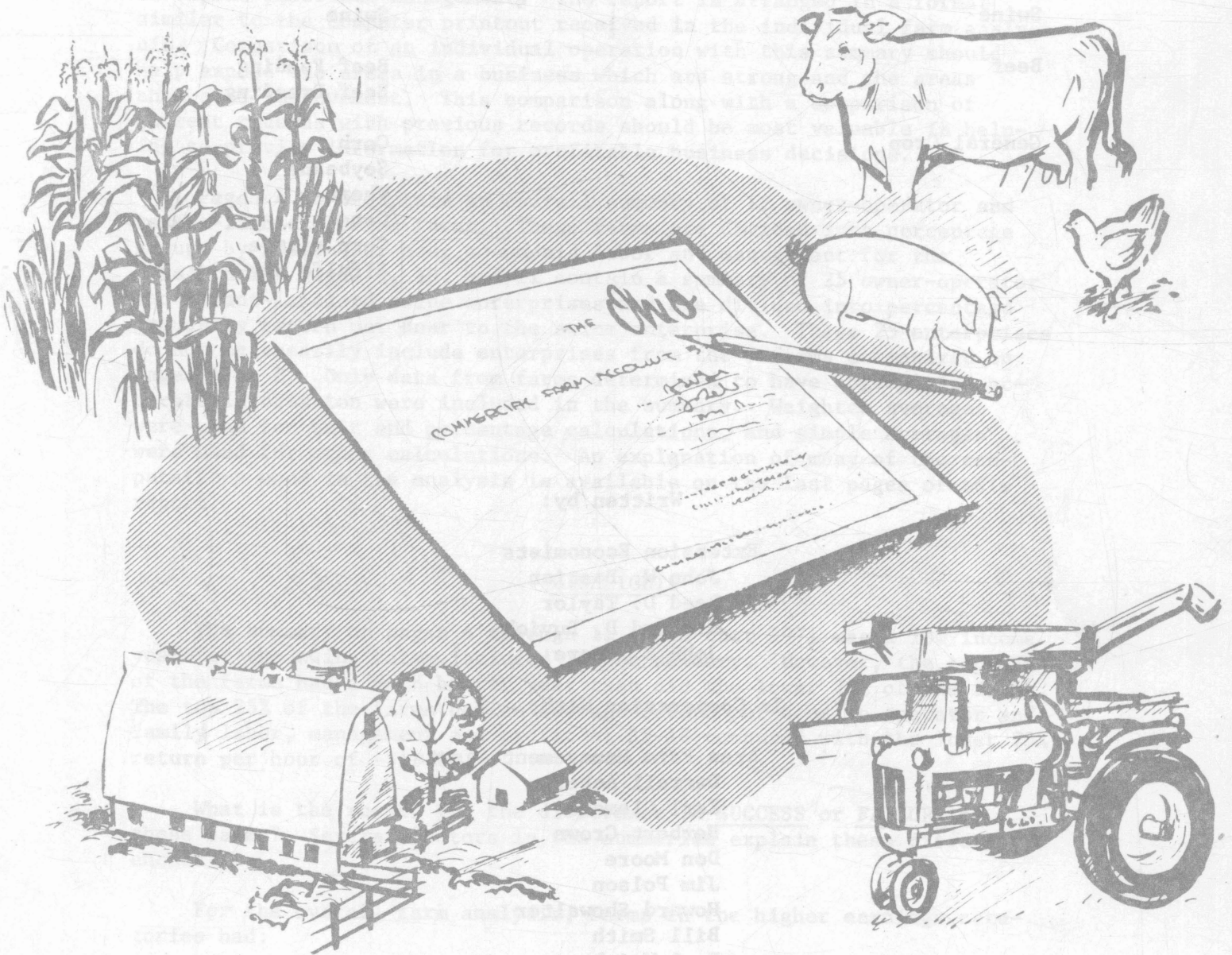


1971

# Farm Business Analysis Report

## Swine Summary



Department of Agricultural Economics and Rural Sociology

COOPERATIVE EXTENSION SERVICE

THE OHIO STATE UNIVERSITY

Columbus, Ohio

SUMMARIES AVAILABLE FOR 1971

TOTAL FARM SUMMARIES

ENTERPRISE SUMMARIES INCLUDED

Dairy

Dairy  
Milk

Swine

Swine

Beef

Beef Feeding  
Beef Breeding

General Crop

Corn  
Soybeans  
Wheat  
Oats  
Corn silage  
Alfalfa Hay

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# 1971 OHIO FARM BUSINESS ANALYSIS REPORT

## SWINE SUMMARY

This summary is designed to help farm businessmen improve their income. Each section is divided into three groups composed of the top 25%, middle 50%, and lower 25% of the farms by return per hour to unpaid labor and management. The report is arranged in a format similar to the computer printout received in the individual farm analysis. Comparison of an individual operation with this summary should help expose the areas in a business which are strong and the areas that need improvement. This comparison along with a comparison of current records with previous records should be most valuable in helping to provide information for profitable business decisions.

Pages 4 to 8 contain an overall summary of 12 owner-operator and tenant-landlord swine farms. These farms are divided into percentage groups by return per hour to unpaid labor and management for the total farm. Pages 9, 10, and 11 contain a summary of 25 owner-operator and tenant-landlord swine enterprises and are divided into percentage groups by return per hour to the swine enterprise. These 25 enterprises do not necessarily include enterprises from the 9 farms summarized on pages 4 to 8. Only data from farms determined to have logical and accurate information were included in the summary. Weighted averages were used for unit and percentage calculations, and simple averages were used for other calculations. An explanation of many of the computations used in the analysis is available on the last pages of this report.

### HIGHLIGHTS

The summary on pages 4 through 11 shows that 1971 was a low income year for the swine farms included in the summary. However, the top 25% of the farms had a much better year than did the lower 25% of the farms. The top 25% of the farms had an average return per hour to operator and family labor, management and profit of \$2.18 compared with the lower 25% return per hour of -\$1.30.

What is the reason for the difference in SUCCESS or FAILURE on these farms? Several factors in the summaries explain these differences.

For the overall farm analysis, farms in the higher earnings categories had:

1. Lower overhead costs as a percent of gross income.
2. Greater gross farm income per farm and per man.
3. Higher returns per dollar feed fed.

4. Greater gross income per \$1,000 invested. (greater turnover)
5. Greater profit margin. (Management Income and Profit plus paid and unpaid interest ÷ Gross Income)
6. Greater percent return on investment. (Management Income and Profit plus paid and unpaid interest ÷ Total Investment)

Of all the farms that were analyzed, 25 had swine enterprises that were included in the summary. (See pages 9 through 11 for more detail). For these enterprises, the higher percentage categories had:

1. Greater return per dollar of feed fed.
2. Greater number of sows and gilts farrowing.
3. Greater number of feeder pigs sold.
4. Lower total expense per cwt pork produced.
5. Lower depreciation expense per cwt pork produced.
6. Lower total investment per cwt pork produced.
7. Greater turnover (Value of pork production per \$1,000 invested in swine enterprise)
8. Greater profit margin. (Management Income and Profit plus interest ÷ Gross Income)
9. Greater return on investment. (Management Income and Profit plus interest ÷ Total Investment)

SUCCESS or FAILURE depends on whether the business:

1. IS MAKING A PROFIT on each dollar of output.

Is the cropping program geared to produce maximum net return per crop acre?

Does the swine operation produce maximum return per dollar of feed fed?

Is machine cost per crop acre low enough to permit a profit?

2. HAS ENOUGH VOLUME.

Is there enough volume to provide a satisfactory income potential?

Is the business volume large enough to carry the investment and overhead cost in equipment, facilities and other capital resources?

Is the business large enough to provide productive and profitable employment for labor resources?

The high income operators out-performed their competition in both making a profit with each dollar of sales, and having enough volume for the amount of investment and labor available. They managed larger businesses, accomplished more per worker, and used capital resources more effectively. They excelled in performance of livestock enterprise.

No one factor can be singled out as the basic difference between high and low income farms. For each of the efficiency measures studied, some farms in the low income group ranked near the top. SATISFACTORY INCOMES were the result of above average performance "ACROSS THE BOARD", rather than outstanding achievement in only one or two departments.

1971 OHIO FARM BUSINESS ANALYSIS REPORT

OVERALL SWINE FARM SUMMARY

12 OWNER-OPERATOR & TENANT-LANDLORD SWINE FARMS

Rank by Family Labor & Management  
Income Per Hour to Farm

	<u>Top 25%</u>	<u>Middle 50%</u>	<u>Lower 25%</u>	<u>My farm</u>
Number of Farms	3	6	3	_____
<u>INCOME</u>				
Cash Receipts	\$43,993	\$32,584	\$12,963	_____
Capital Gains and Losses	1,820	2,038	83	_____
Inventory Changes	4,488	2,033	3,424	_____
- Feeder Livestock Purchased		-1,416	-372	_____
Gross Farm Income	50,301	35,240	16,099	_____
<u>EXPENSES</u>				
Cash Expenses	34,725	24,705	15,219	_____
Depreciation	5,059	3,945	2,323	_____
Interest Not Charged	4,994	4,236	1,786	_____
Unpaid Operator & Family Labor	7,625	8,948	5,341	_____
- Feeder Livestock Purchased		-1,416	-372	_____
Total Farm Expense	52,404	40,420	24,298	_____
<u>MANAGEMENT INCOME &amp; PROFIT</u>				
Total	-2,102	-5,180	-8,199	_____
As a Percent of Gross Income	-4.2%	-14.7%	-50.9%	_____
<u>UNPAID OPERATOR &amp; FAMILY LABOR</u>				
Total	7,625	8,948	5,341	_____
As a Percent of Gross Income	15.2%	25.4%	33.2%	_____
<u>OVERHEAD COSTS</u>				
Total	13,175	12,017	7,904	_____
As a Percent of Gross Income	26.2%	34.1%	49.1%	_____
<u>VARIABLE COSTS</u>				
Total	31,604	19,454	11,053	_____
As a Percent of Gross Income	62.8%	55.2%	68.7%	_____
<u>NET CASH INCOME</u>				
	9,267	7,878	-2,256	_____
<u>NET FARM INCOME</u>				
	10,516	8,004	-1,071	_____
<u>INVESTMENT</u>				
Total	109,338	89,459	68,694	_____
Return to Investment	4,457	186	-4,078	_____
Percent Return on Investment	4.1%	0.2%	-5.9%	_____
Gross Income Per \$1,000 Invested	460	394	234	_____
<u>LABOR EFFICIENCY FACTOR</u>				
	1.067	.670	.572	_____
<u>TOTAL UNPAID LABOR &amp; MANAGEMENT INCOME</u>				
Total	5,522	3,768	-2,857	_____
Hour	2.18	.94	-1.30	_____

1971 Ohio Farm Business Analysis Report

Overall Swine Farm Summary

<u>CASH RECEIPTS</u>	<u>Top 25%</u>	<u>Middle 50%</u>	<u>Lower 25%</u>	<u>My farm</u>
General Crops	\$ 973	\$ 2,477	\$ 333	_____
Special Crops		67		_____
Cash Rent and Royalties	196	53	52	_____
Labor Off Farm	240			_____
Custom Work	160	754	69	_____
Wool		140		_____
Tax Refund	24	157	26	_____
Patronage Dividend	9	136	38	_____
Miscellaneous Receipts	286	26	187	_____
Government Payments	842	458	420	_____
Government Crop Payments	217	660	59	_____
Market Livestock				_____
Swine	40,515	22,607	11,310	_____
Cattle	527	3,264	381	_____
Veal Calves		48	85	_____
Lambs		1,731		_____
<b>Total Cash Receipts</b>	<b>\$43,993</b>	<b>\$32,584</b>	<b>\$12,963</b>	_____
 <u>CASH EXPENSES</u>				
Hired Labor	1,922	1,514	129	_____
Feed Purchased	22,115	8,675	5,281	_____
Farm Supplies	859	840	768	_____
Machinery Repairs	741	1,004	447	_____
Bldg., Fence, Tile, Etc. Repairs	544	788	411	_____
Fuel, Oil, and Grease	835	1,359	673	_____
Electricity (Farm Share)	572	245	243	_____
Telephone (Farm Share)	61	58	51	_____
Miscellaneous Expenses	580	736	209	_____
Seeds and Plants	589	598	574	_____
Fertilizer and Lime	1,486	3,531	1,876	_____
Machine Hire and Trucking	340	250	227	_____
Auto Expense (Farm Share)	81	320	73	_____
Interest on Notes and Mortgage	1,566	1,130	2,335	_____
Veterinary and Medicine	1,420	318	263	_____
Breeding Fees and Registration		2	235	_____
Feeder Livestock Purchase		1,416	372	_____
Taxes	861	835	643	_____
Cash Rent		812	46	_____
Insurance	150	268	358	_____
<b>Total Cash Expenses</b>	<b>\$34,725</b>	<b>\$24,705</b>	<b>\$15,219</b>	_____

# 1971 Ohio Farm Business Analysis Report

## Overall Swine Farm Summary

	<u>Top 25%</u>	<u>Middle 50%</u>	<u>Lower 25%</u>	<u>My farm</u>
<u>CAPITAL GAIN</u>				
Raised Breeding Stock	2,104	2,005	316	_____
Purchased Breeding Stock	-302	-48	-169	_____
Machinery and Equipment	17	81	-64	_____
Total Capital Gain or Loss	1,820	2,038	83	_____
<u>NET INVENTORY CHANGE</u>				
Raised Breeding Livestock	2,122	-805	-491	_____
Market Livestock	4,732	1,628	2,508	_____
Grain, Hay, Supplement	-2,252	1,118	1,477	_____
Supplies and Fertilizer	-112	92	-69	_____
Total Inventory Change	4,488	2,033	3,424	_____
<u>DEPRECIATION</u>				
Buildings, Fence, Etc.	2,182	1,430	970	_____
Machinery and Equipment	2,819	2,274	1,353	_____
Purchased Breeding Stock	58	240		_____
Total Depreciation	5,059	3,945	2,323	_____
<u>CAPITAL INVESTMENT</u>				
Purchased Breeding Stock	4,118	1,601	805	_____
Raised Breeding Stock	4,799	6,531	1,932	_____
Market Livestock	12,619	8,731	4,115	_____
Grain and Hay	8,446	13,130	2,913	_____
Supplies and Fertilizer	365	110	59	_____
Machinery and Equipment	9,813	10,598	6,556	_____
Buildings, Fence, Tile	20,373	16,403	17,960	_____
Land (Current Ag. Value)	48,802	32,352	34,351	_____
Total Capital Investment	109,338	89,459	68,694	_____
<u>RATIO ANALYSIS</u>				
Profit Margin	.089	.005	-.253	_____
Turnover	.460	.394	.234	_____
Return on Investment	.041	.002	-.059	_____



1971 Ohio Farm Business Analysis Summary

Overall Swine Farm Summary

<u>LABOR EFFICIENCY</u>	<u>Top 25%</u>	<u>Middle 50%</u>	<u>Lower 25%</u>	<u>My Farm</u>
<u>Reported Labor Used on Farm</u>				
Operators Labor Used				
First Operator				
Hours	2,200.0	2,772.5	1,548.3	_____
Value/Hr	\$3.00	\$2.38	\$2.66	_____
Second Operator				
Hours		528.0		_____
Value/Hr		\$1.90		_____
Unpaid Family Labor Used				
Wife				
Hours	316.6	153.3	66.6	_____
Value/Hr	\$1.87	\$2.16	\$2.00	_____
Family Labor Over 14				
Hours	83.3	658.3	741.6	_____
Value/Hr	\$1.50	\$1.66	\$1.75	_____
Family Labor Under 14				
Hours	16.6	83.3		_____
Value/Hr	\$1.00	\$1.00		_____
Hired Labor				
Hours	936.6	591.3	71.0	_____
Value/Hr	\$2.05	\$2.56	\$1.82	_____
Number of Man Equivalent Hours Used	3,465	4,582	2,266	_____
Number of PMWU Used	346	458	226	_____
Number of Man-Year Equivalents Used	1.15	1.52	.75	_____
Value of Operators Labor Used	\$6,866	\$7,430	\$3,925	_____
Value of Unpaid Family Labor Used	\$758	\$1,518	\$1,416	_____
Value of Hired Labor Used	\$1,922	\$1,514	\$129	_____
Value of Total Labor	\$9,547	\$10,463	\$5,471	_____
Value of Labor Per Man Hour				
Equivalent	2.75	2.28	2.42	_____
Value of Labor Per PMWU	\$27.59	\$22.84	\$24.20	_____
Value of Labor Per Man-Year				
Equivalent	\$8,266	\$6,852	\$7,246	_____

1971 Ohio Farm Business Analysis Report

Overall Swine Farm Summary

	<u>Top 25%</u>	<u>Middle 50%</u>	<u>Lower 25%</u>	<u>My Farm</u>
<u>CROPS SUMMARY</u>				
Crop Production*				
Corn				
Acres	85	99	64	_____
Yield	98.6 bu.	85.2 bu.	92 bu.	_____
Soybeans				
Acres	4	10		_____
Yield	37.0 bu.	41.0 bu.		_____
Oats				
Acres	2	17	8	_____
Yield	101.2 bu.	43.8 bu.	62 bu.	_____
Wheat				
Acres	3	18	3	_____
Yield	50.0 bu.	27.0 bu.	45 bu.	_____
Clover				
Acres	1	28	2	_____
Yield	2.0 T.	1.4 T.	1.2 T.	_____
General Crop Acres	100	213	87	_____
Total Harvested Crop Acres	129	221	88	_____
Value of General Crops	\$10,390	\$16,017	\$7,484	_____
Value of All Crops	\$10,607	\$16,745	\$7,543	_____
General Crop Prod. Value/Acre	\$103.90	\$75.20	\$86.02	_____
All Crop Prod. Value/Acre	\$82.22	\$75.77	\$85.71	_____
Percent of Gen. Crops in Corn and Soybeans	89.0%	51.6%	73.6%	_____
Percent Total Tillable Acres in Corn and Soybeans	67.9%	48.5%	71.9%	_____
Fertilizer and Lime Cost Per Acre	\$11.34	\$15.55	\$21.08	_____
Machinery Investment Per Crop Acre	\$74.91	\$46.69	\$73.66	_____
Total Power and Machinery Cost	\$5,245	\$5,090	\$3,099	_____
Machinery Cost Per Crop Acre	\$40.04	\$22.42	\$34.82	_____
<u>LIVESTOCK SUMMARY</u>				
Total Value of Feed Fed to all Livestock Enterprises	\$30,570	\$19,415	\$9,109	_____
Value of Net Livestock Increase	\$50,440	\$31,133	\$13,401	_____
Returns Per \$ Feed Fed to all Livestock Enterprises	\$1.65	\$1.60	\$1.47	_____

\* A few farms produced crops such as barley, other hay or sweet corn which were not included in this list.

1971 Ohio Farm Business Analysis Report

Swine Enterprise

	<u>Top 25%</u>	<u>Middle 50%</u>	<u>Lower 25%</u>	<u>My farm</u>
<u>NUMBER OF FARMS</u>	6	12	7	_____
<u>GENERAL INFORMATION</u>				
Swine Performance				
Number of Sows and Gilts	55	40	34	_____
Number of Sows and Gilts Per Man Equivalent	105	81	80	_____
Number of Litters Farrowed	94	73	56	_____
Total Number of Pigs Weaned	735	640	310	_____
Number of Pigs Weaned Per Litter	7.8	8.7	5.5	_____
Pounds of Pork Produced	111,371	123,246	90,345	_____
Pounds of Pork Produced Per Man Equivalent	212,800	249,800	213,400	_____
Returns Per \$ Feed Fed	\$1.71	\$1.56	\$1.53	_____
Feeder Pigs Sold				
Number	372	99	16	_____
Pounds	16,727	4,026	645	_____
Value	\$5,985	\$1,258	\$268	_____
Wt/Pig	45.0	40.5	40.3	_____
Value/Pig	\$16.09	\$12.66	\$16.75	_____
Market Hogs Sold				
Number	374	529	360	_____
Pounds	83,063	114,607	77,874	_____
Value	\$15,649	\$22,123	\$15,325	_____
Wt/Hog	221	216	215	_____
Value/Pound	.188	.193	.196	_____
<u>PER CWT INFORMATION</u>				
	<u>Per cwt</u>	<u>Per cwt</u>	<u>Per cwt</u>	
(The following information is on a per cwt pork produced basis)				
Productive Man Work Units	.14	.12	.14	_____
Value of Labor Used	\$3.19	\$3.21	\$3.48	_____
VALUE OF PORK PRODUCTION				
Total for Farm	22.66	20.88	20.60	_____
Cash Expenses				
Hired Labor	.96	.34	.96	_____
Feed Purchased	6.36	8.47	7.34	_____
Farm Supplies	.36	.16	.09	_____
Machine Repairs	.08	.06	.16	_____
Build Fence, Etc.	.29	.28	.41	_____
Fuel, Oil & Grse.	.13	.22	.42	_____
Electric	.15	.24	.21	_____

1971 Ohio Farm Business Analysis Report

Swine Enterprise Summary (cont.)

	<u>Top 25%</u> Per cwt	<u>Middle 50%</u> Per cwt	<u>Lower 25%</u> Per cwt	<u>My farm</u>
Telephone	.03	.02	.06	_____
Misc. Expense	.26	.14	.08	_____
Machine Hired Trk.	.08	.03	.00	_____
Auto Expense	.05	.06	.04	_____
Interest on Notes	.29	.57	.39	_____
Vet Medicine	.34	.48	.42	_____
Breeding Fees			.11	_____
Feeder Livestock *	.23	1.32	.46	_____
Taxes	.22	.21	.28	_____
Rent	.01	.01	.36	_____
Insurance	.08	.15	.22	_____
Total Cash Expenses	9.68	11.43	11.57	_____
Non-Cash Expenses				
Depreciation				
Bldg. Fence Tile	\$ .57	\$ .73	\$ .93	_____
Machinery & Equip.	.29	.77	.64	_____
Purchased Brdg. Stk.	.08	.02	.09	_____
Total Depreciation	.94	1.58	1.66	_____
Unpaid Opr. and Fam. Labor	2.23	2.88	2.52	_____
Interest Not Charged	.86	.96	1.66	_____
Home Grown Feeds	6.92	4.92	6.12	_____
Total Non-Cash Expenses	10.96	10.35	11.97	_____
TOTAL EXPENSE OF PORK PRODUCTION				
	20.64	21.78	23.54	_____
Management Income and Profit	2.02	-.90	-2.93	_____
Value of Production - Cash Expenses	12.97	9.44	9.03	_____
Total Investment	19.28	25.49	34.05	_____
Return on Investment	3.18	.63	-.89	_____
Percent Return on Investment	16.5%	2.5%	-2.6%	_____
Total Feed Costs	13.28	13.39	13.46	_____
Feed Required				
Value of Supplement	5.47	5.94	7.07	_____
Value of Grain	7.69	7.37	6.24	_____
Value of Roughages	.12	.07	.14	_____

\* Feeder livestock purchases are not included in the cash expense total. They are deducted from value of pork production.

1971 Ohio Farm Business Analysis Report

Swine Enterprise Summary (cont.)

	<u>Top 25%</u>	<u>Middle 50%</u>	<u>Lower 25%</u>	<u>My farm</u>
Return to Unpaid Operator and Family Labor, Management and Profit				
Total per cwt	\$4.25	\$1.97	-\$ .41	_____
Per hour	\$4.88	\$1.89	-\$ .45	_____
 <u>RATIO ANALYSIS</u>				
Profit Margin	.140	.030	-.043	_____
Turnover	1.175	.819	.605	_____
Return on Investment	.165	.025	-.026	_____

## MAJOR IMPROVEMENTS

Two major improvements have been added to the farm records analysis: an expanded enterprise analysis, and a ratio analysis. The enterprise analysis examines the swine enterprise as if it was a separate business. The ratio analysis examines three key areas of a business to help determine how it compares with other businesses. These ratio analysis figures are located at the bottom of page 6 for the total farm summary and page 11 for the swine enterprise.

The enterprise analysis section, which starts on page 9 of this summary, gives an item by item breakdown of cost and income information for the swine enterprise. Data for the swine enterprise summary is taken from farms which had the cost and production information necessary to receive an analysis of the swine enterprise.

## HOW TO USE THE RATIO ANALYSIS SECTION

The ratio analysis section permits a comparison of a business with larger or smaller businesses. Comparison of these ratio figures with state summary figures will quickly indicate how a farm or a particular enterprise compares with others in the state concerning "profit margin", "turnover", and "return on investment".

The "return on investment" figure, called  $\text{MANAGEMENT INCOME AND PROFIT} + \text{PAID AND UNPAID INTEREST} \div \text{TOTAL INVESTMENT}$  in the printout, gives a good indication of how well the investments in a business are working. If the return on investment figure for a particular business or enterprise is low, that investment is not returning as much as other similar investments in the state. A closer examination of return on investment can easily be made by looking at the "profit margin" and "turnover" ratios.

The "profit margin" ratio, referred to as  $\text{MANAGEMENT INCOME AND PROFIT} + \text{PAID AND UNPAID INTEREST} \div \text{GROSS INCOME}$  on the individual print-out, is a measure of the profitability of a business. If the figure is low, the farm or enterprise has less profit for each dollar of product sold than other similar farms or enterprises in the state. This may indicate that expenses are high or sale price is low, or both. A look at income figures such as  $\text{VALUE PER CWT OF PORK PRODUCED}$  or  $\text{RETURN PER \$ FEED FED}$  and at cost figures per cwt will provide a better idea of what is causing profit margin to be low.

The "turnover" ratio, called  $\text{GROSS INCOME} \div \text{TOTAL INVESTMENT}$  in the individual printout, is a measure of how well investments are being utilized. If the "turnover" ratio is low, the farm or enterprise has less sales for each dollar invested than the farms or enterprises in the state summary. Turnover can be examined more closely by looking at receipts and investments. Such items as  $\text{TOTAL VALUE OF PRODUCTION PER CWT PORK PRODUCED}$  or  $\text{GENERAL CROP PRODUCTION VALUE PER ACRE}$  will indicate how an individual farm's receipts compare with those in the state summary. Investments can be examined more closely by comparing such figures as  $\text{TOTAL INVESTMENT PER CWT PORK PRODUCED}$  or  $\text{MACHINERY INVESTMENT PER CROP ACRE}$  with state summary figures.

An example of how these ratios can be used follows.

**EXAMPLE:**

John Doe, a swine farm operator in west central Ohio, thinks that hog prices will improve in 1972, but would like to improve the profitability of his business as much as possible. He notes that the number of farms in the state summary is small, and will keep this in mind when making his

comparison. His farm has a Return on Investment ratio for 1971 of .028 (or a return on investment of 2.8%). He compares this return with those in the state summary, and finds that his farm is slightly below the top 25% average, but well above the middle 50% average. John decides that he wants to improve his return on investment to the farm. To see where improvements should be made, he compares the two other ratios for his farm with those in the state summary. His profit margin ratio is .090 (or profit and interest per dollar of gross farm income is 9¢), slightly above the average of farms in the upper 25%. However, his turnover ratio is .300 (or gross farm income per \$1,000 invested of \$300), less than the middle 50% average in the summary. John would like to improve both of these ratios, but since the turnover ratio is low, he feels it probably holds the most promise for improvement.

To see how his turnover may be improved, John looks at several factors. He finds that his return per crop acre is \$86, somewhat greater than the figures in the state summary. His machinery investment per crop acre of \$97.00 per acre is well above the figures in the state summary. To further examine his crop situation, he examines the crops grown and yield per acre listed in the summary. John thinks that several improvements can be made in his crop operation such as growing less oats and clover, growing more corn, soybeans and alfalfa, improving yield per acre, and renting more crop land.

Next John looks at his livestock enterprise. He finds that his return per dollar of feed fed of \$1.60 is near the middle 50% of the farms for the overall farm summary and the swine summary. He looks further and finds that his total return per cwt of pork produced of \$21.00 is near the mid-



dle 50% average and that pigs weaned per litter of 7.0 is rather low in comparison to farms in the upper 25% and middle 50%. His investment per cwt pork produced is in line with the top 25% at \$20.00. John thinks he can increase the number of pigs per litter to increase return per dollar of feed fed, gross income to the swine enterprise and swine enterprise profit.

John looks at several other factors and decides he can improve his farm business in several ways, including an increase in number of pigs per litter, number of sows and gilts, and number of crop acres, while keeping cost increases relatively low. This should improve his turnover as well as his profit margin, and thereby increase his return on investment.

Use of these ratios will permit fast identification of trouble spots and help to locate what is causing them. For questions concerning this analysis, contact your county agent or farm management area agent in your area.

## GLOSSARY OF SELECTED TERMS\*

GROSS FARM INCOME - is the sum of all cash receipts plus increases in inventory and capital gains less decreases in inventory, capital losses, and feeder livestock purchases. Feeder livestock purchases are deducted to reflect on farm production.

INTEREST NOT CHARGED - represents an estimated charge for equity capital. It is determined by taking six percent of total investment and subtracting the amount of interest paid during the year. This calculation makes a similar charge for the total investment of each farm business.

UNPAID OPERATOR & FAMILY LABOR - is the wage charge for the operator and unpaid family labor using the time worked and rates per hour estimated by the farm operator.

TOTAL FARM EXPENSE - is the sum of all cash and non-cash expense for the farm less the cost of purchased feeder livestock. Non-cash expense includes depreciation, interest not charged and unpaid operator and family labor charge.

MANAGEMENT INCOME & PROFIT - equals Gross Income minus Total Farm Expense. This represents the return to management income and profit after all cash and non-cash expenses are deducted.

FAMILY LABOR & MANAGEMENT INCOME - equals Management Income and Profit plus Unpaid Operator and Family Labor. This represents the return to the operator and his family for their unpaid labor, management and profit.

NET FARM INCOME - equals Family Labor and Management Income plus Interest Not Charged. This represents the return to the operator for equity capital, unpaid labor, management and profit.

RETURN TO INVESTMENT - equals Management Income and Profit plus paid and unpaid interest. Paid and unpaid interest equals six percent of Total Investment. This represents the return to all capital, owned and borrowed, plus management and profit. This return times 100 divided by Total Investment gives Percent Return On Investment.

OVERHEAD COSTS - is the sum of depreciation, building repairs, interest paid, property taxes, cash rent, insurance and interest not charged. These represent costs that are essentially fixed and must be recovered regardless of the level of production.

VARIABLE COSTS - is the sum of all cash expenses other than those included in Overhead Costs. These costs vary with the level of production.

NUMBER OF MAN-YEAR EQUIVALENTS - represents the number of full-time man equivalents available on the farm for the entire year. Family labor is adjusted to a man-equivalent basis. One man-year equivalent is 3,000 hours.

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\* A complete listing of calculations is contained in occasional paper #49, "A Guide To Interpretation of the Computer Printout".

VALUE OF ALL CROPS - represents all crop production valued at market price (not necessarily sold) plus government crop payments.

VALUE OF NET LIVESTOCK INCREASE - is the net value of livestock and livestock products produced during the year. This includes livestock sold less value of feeder livestock plus change in inventory.

RETURN PER \$ FEED FED TO ALL LIVESTOCK ENTERPRISES - equals the Value of Net Livestock Increase divided by the Total Value of Feed Fed to All Livestock. The returns per dollar of feed fed should pay for the feed, labor, overhead on buildings and equipment required by livestock, other production costs, and provide a profit.

MACHINERY COST PER CROP ACRE - is the sum of fuel, oil, grease, repairs, and machine hire expenditures plus charges for depreciation and investment, less custom work receipts divided by acres of cropland.

PROFIT MARGIN RATIO - equals Management Income and Profit plus paid and unpaid interest divided by gross income. This ratio shows the dollars of profit and interest received from each dollar of gross income.

TURNOVER RATIO - equals Gross Income divided by Total Investment. This ratio is the same as Gross Income Per \$1,000 Invested figure, but is given as a decimal figure rather than a return per \$1,000. It gives the dollars of gross income received during the year for each dollar of investment.

RETURN ON INVESTMENT RATIO - equals Management Income and Profit plus paid and unpaid interest divided by Total Investment. This ratio is the same as Percent Return On Investment, but is stated as a decimal rather than a percentage. It gives the dollars of profit and interest received during the year for each dollar of investment.

#### SAMPLE POPULATION

The 12 owner-operator and tenant-landlord swine farm records summarized in this report are part of the 462 farm records of all types submitted by Ohio farmers to Ohio State University for analysis in 1971. Not all farm records were complete and accurate enough to be used in the summaries. Care must be used in interpreting the summaries, especially where only a small number of farms are included.

#### SUMMARY DATA

All data included in the tables are either simple averages for all farms in the group or weighted averages comparing two simple averages for that group. For example, Total Crop Acres is a simple average representing the total number of crop acres for any particular group of farms divided by the number of farms in the group. However, Machinery Cost Per Crop Acre is a weighted average calculated by dividing the average Total Machinery Cost for any particular group by the average Total Crop Acres for that group.