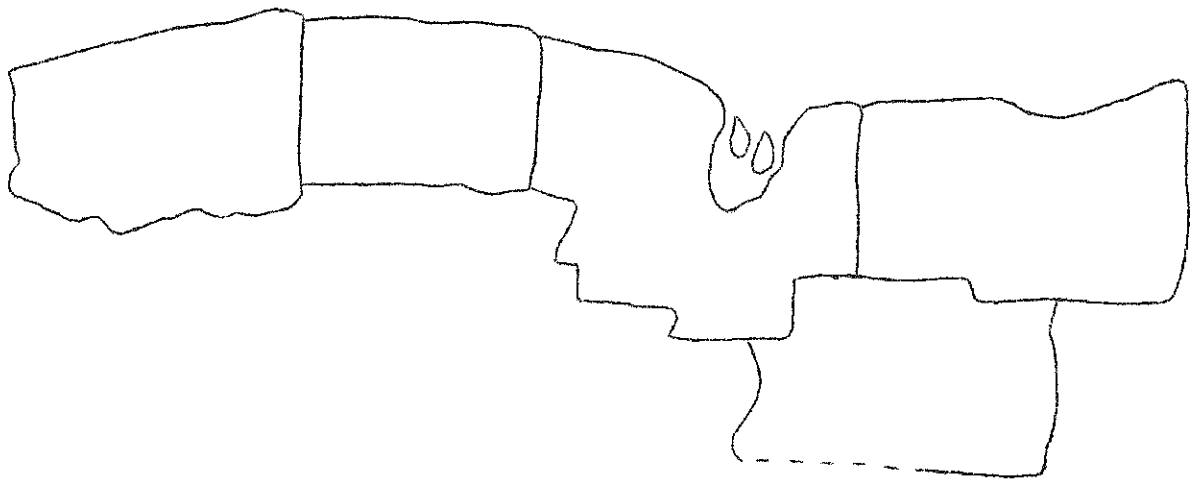


1968 FRUIT FARM BUSINESS SUMMARY

LAKE ONTARIO FRUIT GROWERS



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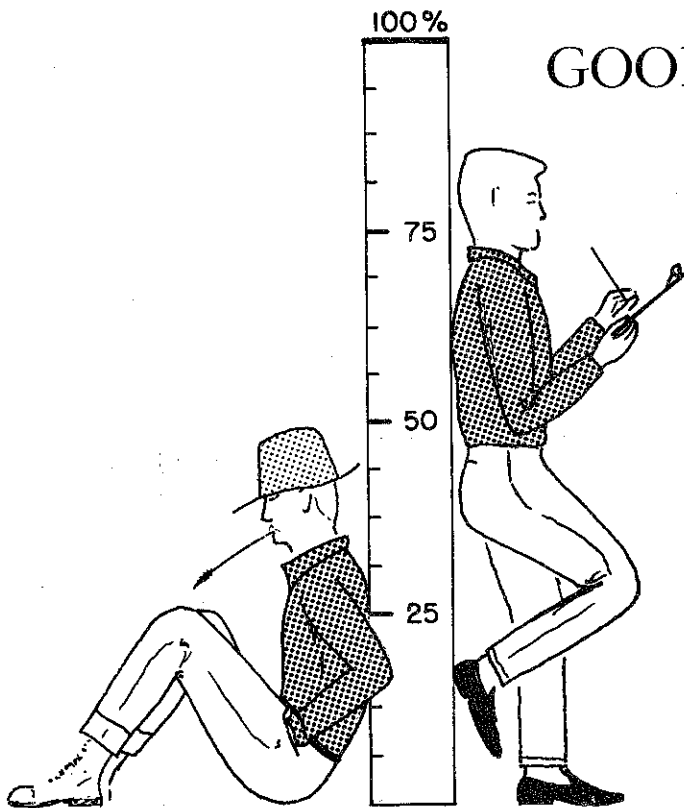
1968 FRUIT FARM
BUSINESS SUMMARY
LAKE ONTARIO FRUIT GROWERS

This report summarizes the 1968 farm business records of 16 Lake Ontario fruit growers located in Niagara, Orleans, Ontario and Wayne Counties. The records were kept under the Farm Business Management Program sponsored by the Cooperative Extension Service. Record keeping assistance and supervision was provided by R. L. Pease, Cooperative Extension Agent, Niagara County, in cooperation with the Department of Agricultural Economics, Cornell University. The data presented here do not represent the average of all fruit growers in the Lake Ontario region, but the average of a group of fruit growers interested enough in their business to keep good records and take the time to study and analyze them.

One of the purposes of business management projects is to teach and encourage farmers to keep better records. A more important purpose is to teach farmers to use the records as a basis for sound management decisions. Each farmer has the opportunity to participate. He should learn good record keeping and learn how to analyze his business. This should enable him to use more effectively the economic and management information available from many sources, including the farm management program offered by Cooperative Extension.

Some of the data from the 1967 Lake Ontario Fruit Summary is included this year for comparison purposes. 1968 was not as good a year as 1967 for most New York State fruit growers. The apple crop of 20 million bushels was the shortest in five years. Only the 1968 peach and cherry crops were larger than in 1967.

This summary was prepared by Stuart F. Smith, Extension Associate, Department of Agricultural Economics, Cornell University. Richard L. Pease, Cooperative Extension Agent, Niagara County, worked with the fruit growers in providing the complete business records. The fruit farm management program is under the supervision of Professor B. A. Dominick, Jr., Department of Agricultural Economics, Cornell University.



GOOD MANAGEMENT IS BASIC

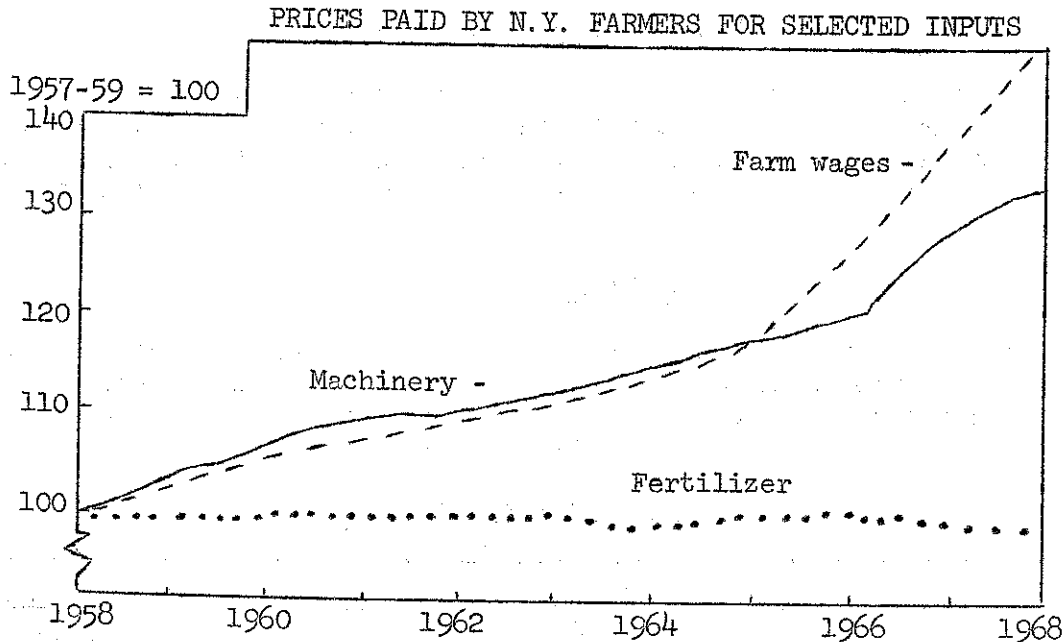
How do you measure up?

1. Have you developed a systematic approach to management problems?
2. Do you have the facts on your business?
3. Are you improving your managerial skills?

Steps in making a management decision :

1. Locate the trouble spot (problem)
2. What is your objective? (goal)
3. Size up what you have to work with (resources)
4. Look for various ways to solve the problem (alternatives)
5. Consider probable results of each way (consequences)
6. Compare the expected results (evaluate)
7. Select way best suited to your situation (decision)
8. Put the decision into operation (action)

This workbook can help you !



Prices are one of the important factors affecting farm incomes. The relationship of prices received and prices paid determine the general level of farm incomes. In recent years, prices of most farm inputs have risen. From 1964 to 1968 farm wages increased more than 30%. Machinery prices increased approximately 18% while fertilizer prices remained about the same. Farm land value, taxes and interest rates have risen even more rapidly than farm wage rates in recent years. The index of prices paid by farmers for all items used in production and in family living rose 4 percent in 1968.

Prices received by New York fruit growers in 1968 remained significantly higher than the average prices from 1962 to 1966. Apple prices were about 50% above the 1962-66 average, and red tart cherry prices were more than 100% above the average even though they were down from 1967. Only the price of grapes has failed to increase.

AVERAGE FARM PRICES OF FRUITS, NEW YORK AND UNITED STATES

Fruit	New York			United States		
	Ave. 1962-66	1967	1968	Ave. 1962-66	1967	1968
dollars per ton						
Apples						
Fresh	126	160	N.A.	112	152	N.A.
Processing	43	53	N.A.	44	59	N.A.
All sales	76	96	114	84	113	127
Grapes	125	116	N.A.	56	69	N.A.
Red tart cherries	157	360	326	153	350	298
Pears	107	131	139	99	172	158
Peaches	125	258	210	90	127	107
Sweet cherries	233	306	354	331	400	441

SOURCE: Agricultural Prices and Crop Values by U.S.D.A.

N.A. - not available

LAKE ONTARIO FRUIT GROWERS SUMMARY 1968

PART I
SUMMARY OF THE FARM BUSINESS

The first part of this booklet is designed to enable you to summarize your business in a systematic, orderly manner. It provides an opportunity to study your physical resources, capital investment, receipts, and expenses. This is the first step to be taken in the study and analysis of your farm business.

PHYSICAL RESOURCES

Knowledge of what resources are employed and how they are combined is fundamental to sound business planning. This includes both the physical and financial resources of the business. Below are listed the physical resources for this group of Lake Ontario Fruit farms.

FARM ORGANIZATION

Item	Average of 11 fruit farms 1967	My farm	16 Lake Ont. Fruit Farms 1968		
			Average	Range Low High	
<u>Labor:</u>					
Man equivalent	5.4	_____	5.7	3.0	11.5
Partnerships			(3 farms)		
Full-time hired men			(11 farms)		
Part-time hired men			(16 farms)		
Family labor			(9 farms)		
<u>Crops: (Acres grown)</u>					
Apples	85 (11)*	_____	83 (16)*	25	180
Cherries, red tart		_____	12 (10)*	0	84
Cherries, sweet	16 (9)**	_____	4 (13)*	0	20
Peaches	3 (5)*	_____	5 (7)*	0	45
Pears	5 (5)*	_____	5 (9)*	0	39
Plums & Prunes	4 (8)*	_____	4 (12)*	0	11
Grapes	4 (1)*	_____	3 (2)*	0	48
Non-bearing fruit***	24 (7)*	_____	19 (13)*	0	53
Total fruit	141	_____	135	52	270
Other crops	13 (8)*	_____	52 (13)*	0	220
Total crop acres	154	_____	187	59	437

* Number of growers that reported each crop although average acreage is for all growers.

** Includes both red tart and sweet cherries in 1967.

*** All non-bearing fruit acres are reported here, the other data is for bearing acres only.

LAKE ONTARIO FRUIT GROWERS SUMMARY 1968

CAPITAL INVESTMENT

Management of the capital resource of a farm business is becoming increasingly important. To measure the complete financial progress of a farm, year to year changes in the capital structure must be considered.

In this report borrowed as well as owned capital is included and the end-of-year farm inventory is used as the measure of capital investment.

FARM INVENTORY VALUES, end of year

Item	Average of 11 fruit farms 1967	My farm	16 Lake Ontario fruit farms, 1968	
			Average per farm	Percent of total
Machinery and equipment	\$29,823	\$ _____	\$31,459	23
Crops and supplies	14,993	_____	22,671	17
Livestock	1,550	_____	3,868	3
Land and buildings	<u>59,390</u>	_____	<u>78,345</u>	<u>57</u>
Total Farm Inventories	\$105,756	\$ _____	\$136,343	100

In many farm businesses, poor capital efficiency is a major cause of low profits. The following measures of capital efficiency will help you evaluate your overall capital management.

INVESTMENT ANALYSIS

Item	Average of 11 fruit farms 1967	My farm	Average of 16 fruit farms 1968
Total Investment per man	\$19,584	\$ _____	\$23,919
Total Investment per crop acre	\$ 778	\$ _____	\$ 729
Total Investment per acre of fruit	\$ 904	\$ _____	\$ 1,010
Machinery Investment per crop acre	\$ 219	\$ _____	\$ 168
Land & Buildings per crop acre	\$ 437	\$ _____	\$ 419
Capital Turnover*	1.5 years	_____	years 1.8 years

* Calculated by dividing the total year end investment by the total cash receipts for the year. Investment analysis on 70 Western New York dairy farms summarized in 1968 showed Investment per man at \$56,716, Land and Buildings per crop acre equaled \$305 and it took 2.5 years to turn over capital.

LAKE ONTARIO FRUIT GROWERS SUMMARY 1968

SOURCES OF INCOME

A successful farm business requires a level of gross earnings great enough to pay all costs, both operating and overhead, and leave a margin for the operator's labor and management. Here we examine the sources of receipts for this group of fruit farms.

FARM RECEIPTS

Item	Average of 11 fruit farms 1967	My farm	16 Lake Ontario fruit farms, 1968	
			Average per farm	Percent of total
Apples	\$30,794	\$ _____	\$42,559	58
Cherries, red tart		_____	9,735	13
Cherries, sweet	18,726*	_____	1,894	2
Peaches		_____	1,924	3
Pears		_____	2,148	3
Plums & Prunes	809	_____	1,941	3
Grapes		_____	1,633	2
Other fruits	17,266**	_____	--	--
Total Fruits	\$67,595	\$ _____	\$61,834	--
Other crop sales		_____	5,273	7
Livestock sales	288	_____	3,945	5
Miscellaneous	1,676***	_____	2,790	4
TOTAL CASH RECEIPTS	\$69,559	\$ _____	\$73,842	100
Increase in inventory	9,906	_____	12,036	
TOTAL FARM RECEIPTS	\$79,465	\$ _____	\$85,878	

* Includes all cherries in 1967.

** Includes peaches, pears, grapes and other fruits in 1967.

*** Includes other crop sales in 1967.

Estimates were made for a few farms to arrive at a division of incomes from the various fruits.

Increases in inventory resulting from more crops in storage, more machinery and equipment, additions to land and new buildings are a normal occurrence in most "going" farm businesses and are considered as farm receipts. These items could have been sold and turned into cash, but instead the operator decided to invest this additional capital in his business. The cost of producing or acquiring these items is normally included in the farm expenses.

The increase in inventory on these farms in 1968 was made up of the following: Machinery and equipment - \$1,518, Crops and supplies - \$6,538, Land and buildings \$3,725, Livestock - \$255.

LAKE ONTARIO FRUIT GROWERS SUMMARY 1968

WHERE THE MONEY WENT

Some farmers may be able to increase profits by reducing costs. This requires a complete knowledge of what the business expenses are. With the large amount of cash flowing through a farm business today it is important that the farm operator study his expenses closely. Here is an opportunity for you to see how you're doing.

FARM EXPENSES

Item	Average of 11 fruit farms 1967	My farm	16 Lake Ontario fruit farms, 1968	
			Average per farm	Percent of total
Hired labor	\$22,612	\$ _____	\$22,929	43
Machine hire	756	_____	1,615	3
Equipment repair	2,911	_____	3,297	6
Auto expense (farm share)	162	_____	251	--
Gasoline and oil	2,026	_____	2,173	4
Lime and fertilizer	1,699	_____	2,681	5
Seeds and plants	157	_____	857	2
Other crop expense*	8,010	_____	10,726	20
Real estate upkeep	849	_____	1,283	3
Taxes and insurance	2,110	_____	3,226	6
Electricity and telephone	559	_____	852	2
Miscellaneous**	2,063	_____	3,114	6
TOTAL CASH OPERATING EXPENSE	\$43,914	\$ _____	\$53,301	100
New machinery	10,622	_____	6,799	
New real estate and imp.	1,156	_____	3,941	
Purchased livestock	16	_____	2,484	
Unpaid family labor	300	_____	413	
Decrease in inventory	--	_____	--	
TOTAL FARM EXPENSES	\$56,007	\$ _____	\$66,938	

* Spray materials are the major part of other crop expenses.

** Miscellaneous includes livestock expenses and in some cases fruit bought for resale.

Farm expenses on these 16 Lake Ontario fruit farms averaged nearly \$67,000. Hired labor was the largest item, accounting for 43 percent of the total cash operating expenses. The cash expenses of growing and harvesting the crops are the items from machine hire through other crop expense. These items accounted for 40 percent of total cash operating expenses. New machinery, real estate, and livestock purchased are capital items and are not included in operating expenses because they usually represent a size increase or an investment that should be depreciated over a number of years. Unpaid family labor has been charged to the business at a rate of \$300 per month.

LAKE ONTARIO FRUIT GROWERS SUMMARY 1968

FINANCIAL SUMMARY OF THE YEAR'S BUSINESS

There are several ways of measuring the returns from a farm business. These measures have been developed for specific purposes. The measure selected at any one time will depend on the purpose for which it is to be used.

Three measures are used here. The first is "Farm Cash Operating Income". The second, "Labor Income", is a measure of the returns to the operator for his labor and management. The last one is "Return on Investment".

FARM CASH OPERATING INCOME

Item	Average of 11 fruit farms 1967	My farm	Average of 16 Lake Ont. fruit farms, 1968
Total Cash Receipts	\$69,559	\$ _____	\$73,842
Total Cash Operating Expenses	- 43,914	- _____	- 53,301
FARM CASH OPERATING INCOME	\$25,645	\$ _____	\$20,541
Less: Family Living Expense*	- 6,480	- _____	- 6,480
Amount available for debt pay- ments and purchase of capital items	\$19,165	\$ _____	\$14,061

* Estimated cash living expenses @ \$5,400 per operator. The 11 fruit farms in 1967 averaged 1.2 operators per farm and the 16 Lake Ontario fruit farms averaged 1.2 operators per farm in 1968.

"Farm Cash Operating Income" is the amount of money available from the farm business for family living, debt payments, and purchases of new capital items such as equipment, real estate, and livestock.

The "cash flow" of a farm business is important to the operator and his family in planning for capital purchases, debt payments and living expenses. However, the above measures are not good indicators of the profitability of your farm business. This is because you may increase the amount of cash available during the year by selling off or using up some of your farm property or, more likely, you decrease the amount of cash available by investing more dollars in your business during the year. Labor Income is a much better measure of what the business did for you during the year.

LABOR INCOME

Item	Average of 11 fruit farms 1967	My farm	Average of 16 Lake Ont. fruit farms, 1968
Average capital investment	\$100,803	\$ _____	\$130,325
TOTAL FARM RECEIPTS	\$79,465	\$ _____	\$85,878
TOTAL FARM EXPENSES	- 56,007	- _____	- 66,938
FARM INCOME	\$23,458	\$ _____	\$18,940
Interest on capital at 5%	- 5,040	- _____	- 6,516
LABOR INCOME per farm	\$18,418	\$ _____	\$12,424
Number of operators	13	_____	19
LABOR INCOME per operator	\$15,584	\$ _____	\$10,462

"Labor Income" is a measure used to determine the return the farm operator receives for his labor and management. It is the amount left after paying all farm expenses, and deducting charges for unpaid family labor and for interest on all of the capital invested in the farm business. Labor Income is the measure most commonly used when studying or comparing farm businesses.

Interest payments and payments on debts are not included in the farm expenses. To make all farms comparable, a five percent interest charge on the average capital investment (average of beginning and end inventories) is deducted in calculating Labor Income.

In addition to Labor Income, the family has "farm privileges" such as the use of a house and farm produced food. These items may amount to \$1,000 or more per year.

RETURN ON INVESTMENT

Item	Average of 11 fruit farms 1967	My farm	Average of 16 Lake Ont. fruit farms, 1969
Farm Income	\$23,458	\$ _____	\$18,940
Value of Operator's Labor*	- 6,480	- _____	- 6,480
Return on Investment	\$16,978	\$ _____	\$12,460
Rate of Return on Capital and management	16.8%	_____ %	9.6%

* \$5,400 per year. There were 19 operators on the 16 Lake Ontario fruit farms.

"Return on Investment" is calculated by deducting from the "farm income" a charge for the operator's labor. This return is then divided by the average capital investment for the year to arrive at the rate of return on investment.

LAKE ONTARIO FRUIT GROWERS SUMMARY 1968

PART II
ANALYSIS OF THE FARM BUSINESS

Farm business records provide information which can be used in making management decisions. One important phase of management is finding ways to improve the income. A number of measures have been developed to aid in analyzing farm businesses for strong and weak points.

In this section, four business factors are examined. These are: size of business, rates of production, labor efficiency and cost control. Capital efficiency measures were presented on page 5. The 1967 and 1968 averages for selected measures for each of these factors are reported.

When analyzing a farm business, remember that many of the measures are interrelated. This means that all of the factors should be examined before arriving at major conclusions. A complete analysis of the business factors should point up the major strong and weak points of a farm business.

SIZE OF BUSINESS

In analyzing a farm business, size is usually the first factor to be examined. Size of farm has an important effect on many of the other factors such as labor efficiency, cost control, and capital efficiency. The prices received and paid by a farmer are often affected by the volume involved which is a function of the size factor.

In general, larger farm businesses make larger incomes. There are at least basic reasons for this. Larger businesses make possible more efficient use of inputs such as equipment, the regular labor force, and other overhead items. Secondly, there are more units of production on which to make a profit. However, some small farms make greater incomes than large farms. This can happen when management ability is not in balance with size of business.

MEASURES OF SIZE OF BUSINESS

Measure	Average of 11 fruit farms 1967	My farm	Average of 16 Lake Ont. fruit farms, 1968
Acres in fruit	141	_____	135
Total crop acres	154	_____	187
Man equivalent	5.4	_____	5.7
Total work units	1,651	_____	1,440

LAKE ONTARIO FRUIT GROWERS SUMMARY 1968

RATES OF PRODUCTION

High rates of production of both animals and crops are very important to the success of a farm business. However, when high crop and animal yields are achieved without regard to costs, net income is reduced. In general, it pays to increase yields up to the point where the last unit of input (such as feed or fertilizer) is just paid for by the increase in output due to this last unit of input.

MEASURES OF RATES OF PRODUCTION

Item	Average of 11 fruit farms 1967	My farm	Average of 16 Lake Ont. fruit farms, 1968
Bushels of apples per acre	417	_____	313
Tons sour cherries per acre		_____	1.9
Tons sweet cherries per acre	4.2	_____	2.4
Bushels peaches per acre	85	_____	90
Bushels pears per acre	298	_____	115

(Yields are based on acres of bearing fruit. Cherries were combined in 1967).

LABOR EFFICIENCY

Labor is one of the limiting resources on many farms. Efficient use of labor tends to add to the profitability of a farm business. The productivity of labor can be increased by use of modern equipment, buildings and materials. However, one must be careful not to invest in technology that adds little to productivity in relation to cost.

MEASURES OF LABOR EFFICIENCY

Item	Average of 11 fruit farms 1967	My farm	Average of 16 Lake Ont. fruit farms, 1968
Acres in fruit per man	26	_____	24
Fruit receipts per man	\$12,518	\$ _____	\$10,848
Total cash receipts per man	\$12,881	\$ _____	\$12,955
Work units per man	306	_____	253

LAKE ONTARIO FRUIT GROWERS SUMMARY 1968

COST CONTROL

Obtaining high production at reasonable cost is one of the keys to a profitable farm business. The exact level of production items to be used to obtain the greatest net return is difficult to determine. The averages presented here may help you find some of the weaknesses in the cost structure on your farm.

FARM POWER AND MACHINERY COSTS

On today's dairy farms, power and machinery costs account for a large part of the total costs. For this group of farms, power and machinery costs were 23 percent of the total farm expenses.

POWER AND MACHINERY COSTS

Item	Average of 11 fruit farms 1967	My farm	Average of 16 Lake Ont. fruit farms, 1968
Beginning inventory	\$22,733	\$ _____	\$29,941
New machinery bought	10,662	_____	6,799
Total	\$33,355	\$ _____	\$36,740
End inventory	\$29,823	\$ _____	\$31,459
Machinery sold	25	_____	162
Total	<u>\$29,848</u>	<u>\$ _____</u>	<u>\$31,621</u>
Depreciation	\$ 3,507	\$ _____	\$ 5,119
<hr style="border-top: 1px dashed black;"/>			
Depreciation	\$ 3,507	\$ _____	\$ 5,119
Interest at 5% av. inventory	1,313	_____	1,535
Gas and oil	2,026	_____	2,173
Machinery repairs	2,911	_____	3,297
Machine hire	756	_____	1,615
Auto expense (farm share)	162	_____	251
Electricity (farm share)	410	_____	634
TOTAL MACHINERY COSTS	\$11,085	\$ _____	\$14,624
Gas tax refunds	\$ 19	\$ _____	\$ 50
Income from machine work	332	_____	305
Total	- 351	- _____	- 355
NET MACHINERY COST	\$10,734	\$ _____	\$14,269

LAKE ONTARIO FRUIT GROWERS SUMMARY 1968

NET MACHINERY COST ANALYSIS

Item	Average of 11 fruit farms 1967	My farm	Average of 16 Lake Ont. fruit farms, 1968
Net machinery cost per man	\$1,988	\$ _____	\$2,503
Net machinery cost per crop acre	\$ 79	\$ _____	\$ 76
Net machinery cost per \$ fruit sold	\$ 0.16	\$ _____	\$ 0.23

(Net power and machinery cost does not include insurance, housing, or farm labor on repairs)

LABOR AND MACHINERY COSTS

Most farm operators justify major machinery purchases as a way to save labor and increase productivity. How well labor and machinery are combined has an important bearing on farm profits.

LABOR AND POWER AND MACHINERY COSTS

Item	Average of 11 fruit farms 1967	My farm	Average of 16 Lake Ont. fruit farms, 1968
Value of operator's labor	\$ 6,383	\$ _____	\$ 6,412
Hired labor	22,612	_____	22,903
Unpaid family labor	300	_____	394
TOTAL LABOR COSTS	\$29,295	\$ _____	\$29,709
Net power and machinery cost	10,734	_____	14,269
TOTAL LABOR & MACHINERY COST	\$40,029	\$ _____	\$43,978

Total per man	\$ 7,413	\$ _____	\$ 7,715
Total per crop acre	\$ 294	\$ _____	\$ 235
Total per \$ fruit sold	\$ 0.59	\$ _____	\$ 0.71

LAKE ONTARIO FRUIT GROWERS SUMMARY - 1968

FARM BUSINESS CHART FOR FRUIT GROWERS

Fruit Yields Per Acre				Labor		
Bushels of Apples	Bushels of Pears	Tons of Grapes	Tons of Sour Cherries	Total Work Units	Man Equiv- alent	Work Units Per man
540	330	7.0	6.6	1,000	3.5	420
480	260	5.5	4.6	720	2.7	340
430	230	4.6	3.6	590	2.3	310
390	200	4.2	3.0	520	2.0	290
355	180	3.9	2.6	460	1.8	270
325	160	3.6	2.3	430	1.6	250
295	140	3.2	2.0	390	1.4	230
260	120	2.8	1.6	350	1.3	210
220	100	2.4	1.2	310	1.2	190
180	70	2.0	0.8	250	1.0	160

SOURCE: Farm Business Chart prepared by S. W. Warren, Department of Agricultural Economics, Cornell University.

The Farm Business Chart is a tool which can be used in analyzing a business to determine the strong and weak points. The chart shows how far the individual farm is above or below the average for each factor.

The figure at the top of each column is the average of the top ten percent of the farms for that factor. For example, the figure 540 at the top of the first column is the average apple yield on the ten percent of the farms with the highest apple yields. The other figures in the column are the averages for "the next 10 percent", "the 10 percent below that", and so forth. The figure 180 at the bottom of the column is the average of the 10 percent of the farms with the lowest apple yields.

Each column of the chart is independent of the others. The farms which are in the top ten percent for one factor would not necessarily be the same farms which make up the top ten percent for any other factor.

This chart is used in analyzing a particular business by drawing a line through the figure in each column which shows where the farm being analyzed stands for that factor. This helps identify the strengths and weaknesses.

Family Living Expenditures

Family living expenses have first claim on farm income. In any farm business financial planning, it is important that the family living expenses be considered.

The 1967 family living expenditures for 99 Michigan farm families are reported below. These families were cooperators in the Michigan electronic farm accounting program. These data give an indication of the living expenses for some farm families. The total living expenses of individual families varied from \$2,766 to \$16,429. The high family had education expenses of \$4,051.

FARM FAMILY LIVING EXPENDITURES 99 Michigan Farm Families, 1967

Expenditure	My family	Average of 99 families	Percent of total
Food	\$ _____	\$1,626	22
Housing	_____	1,449	19
Transportation	_____	793	10
Personal insurance	_____	778	10
Clothing	_____	628	8
Medical care	_____	557	7
Gifts and contributions	_____	488	7
Personal taxes	_____	362	5
Recreation	_____	255	3
Education	_____	255	3
Personal care	_____	84	1
Miscellaneous	_____	277	5
TOTAL LIVING EXPENSES	\$ _____	\$7,552	100

SOURCE: Michigan State University Agricultural Economics Report No. 106

These 99 families had an average of 5.6 persons per family. The average age of the husband was 42 and the wife 39.

The various living expense items are affected considerably by the number of family members, their ages, health, and interests, and the educational requirements of the children. A family must consider these factors when evaluating their expenditures or in making estimates of the amount of money to include for family living.