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ONEIDA MOHAWK REGION 1979

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1979 FARM BUSINESS SUMMARY ONEIDA - MOHAWK REGION

The Oneida - Mohawk Region of New York State includes Oneida, Herkimer, Fulton, Montgomery and Schoharie counties. This report is a summary of the 1979 business records from 86 of the dairy farms in this region.

The primary purpose of the Cornell business management project is to assist cooperators in farm record keeping and analysis and thereby improve their skills as farm business managers. This report is prepared in workbook form for use in the systematic study of individual farm business operations.

Presented below is a historical view of the characteristics of the farms included in the Oneida - Mohawk farm management program.

			teter - A	
		Y	ear	
Item	1969	1977	<u> 1978</u>	1979
Number of farms	48	63	69	86
Cows per farm	54	58	56	62
Labor force	2.0	2.1	2.1	2.3
Investment per farm	\$97,000	\$223,400	\$252,895	\$335,245
Investment per cow	\$1,804	\$3,850	\$4,437	\$4,859
Milk sold per cow (1bs)	12,000	13,300	13,400	14,500
Milk sold per man (lbs)	325,000	371,000	362,000	399,000
Average price per cwt.				
milk sold	\$5.73	\$9,59	\$10.31	\$11.61
Feed cost per cwt. milk	\$1.38	\$2.82	\$3.11	\$3.19
Average cash operating ex-				
penses per cwt. milk sold	\$3.71	\$8.05	\$8.86	\$9.62
Labor & mgmt. income/oper.	\$7,629	\$13,032	\$13,542	\$23,363

Oneida - Mohawk Dairy Farm Management Summary

The record high 1979 average return to labor and management is largely due to skyrocketing cow values that pushed the cattle inventory up about \$25,000 per farm. Nearly 90 percent of the 1979 labor and management income can be directly attributed to owning and maintaining the dairy herd in a period of rapidly rising prices. An important factor limiting labor and management income was higher costs of capital. The charge for equity capital was increased from seven to nine percent in 1979, resulting in an increased cost per farm of \$4,300.

This summary was prepared by Eddy L. LaDue, Department of Agricultural Economics, New York State College of Agriculture and Life Sciences, Cornell University, in cooperation with John S. Adams, Cooperative Extension Specialist; David L. Roy, Cooperative Extension Agent; Teddy J. Aber, Cooperative Extension Agent and Ed Luczynski, Farm Credit Service.



Price changes affect the inventory values on New York dairy farms. Real estate and machinery prices have risen steadily during the past five years. Dairy cow prices dropped during 1974, rose sharply in late 1975, fluctuated throughout 1976 and 1977, and then jumped 62 percent in 1978. Dairy cow prices continued upward in 1979 and were reported at \$1,105 for December, or 38 percent above the December 1978 price. From 1967 to 1979, machinery prices increased 202 percent, dairy cows 256 percent and real estate increased an estimated 255 percent.

Table 1. REPORTED VALUES OF DAIRY FARM INVENTORY ITEMS, 1975-1979

	N.Y. Dairy Cows	Machinery	N.Y. Farm Real Estate
Year	Value/Head 1967=100	1967=100	Value/Acre 1967=100
1975	(Dec.) \$450 145	(Dec.) 222	(Nov.) \$54 3 294
1976	(Dec.) 485 156	(Dec.) 233	(Nov.) 562 304
1977	(Dec.) 495 160	(Dec.) 253	(Nov.) 593 320
1978	(Dec.) 800 258	(Dec.) 276	(Nov.) 629 339
1979	(Dec.) 1105 356	(Dec.) 302	(est.) 355
Percent change:	· · · ·		
1975 to 1976	+ 8%	+ 5%	+ 3%
1976 to 1977	+ 3%	+ 9%	+ 5%
1977 to 1978	+62%	+ 9%	+ 6%
1978 to 1979	+38%	+ 9%	+ 5% (est.)

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Business Characteristics and Resources Used

Information on the availability of farm resources and their characteristics is fundamental to judging management performance. The combination of resources and the management techniques used to put the resources to work is an important function called farm organization.

> BUSINESS CHARACTERISTICS AND RESOURCES USED 36 Oneida - Mohawk Region Dairy Farms, 1979

Type of Business Individual Partnership Corporation	<u>Number</u> 71 15 0	Business R CAMIS Account Bo Agrifax Other	ecords ok	Number 5 29 45 7	Dairy D.H.I Owner Other None	Records .C. Sampler	Number 51 9 4 22
Barn Type	Number	Milking Sy	stem	Number			Number
Stanchion	65	Bucket & c	arry	3	Herri	ngbone	16
Freestall	16	Dumping st	ation	18	Other	parlor	0
Other	5	Pipeline		49		-	
Labor Force	My Farm	Average	Land U	sed		My Farm	Average
Operator		14 mo.	Total	acres own	ed		279
Family paid	2	4 mo.	Total	acres ren	ted		63
Family unpaid		4 mo.	Total	crop acres	5		194
Hired		5 mo.	Crop a	cres rent	bed		54
Total	· · · ·	27 mo.					
			Number	of Cows		My Farm	Average
Man equivalent	· · · · · · · · · · · · · · · · · · ·	2.3	Beginn	ing of yea	ar		65
Estimated value of	per's		End of	year			69
labor & managemen	t	\$12,878	Averag	e for year	r .		62

There were 103 operators on the 86 farms for an average of 1.20 per farm. Sixty-one of the 86 farms rented an average of 54 crop acres per farm. Only five farms rented all the land cropped. <u>Total farm inventory</u> increased \$50,234 or 18 percent during 1979. The end of year farm inventory values are the financial measures of farm assets used in this report.

CAPITAL	INVES	STMENT .	- FARM	INVENTO)RY	VALUE
86 Onei	lda -	Mohawk	Region	Dairy	Far	ms,

	N	ly Farm	Average 86 Farms		
Item	1/1/79	1/1/80	1/1/79	1/1/80	
Livestock Feed & supplies Machinery & equipment Land and buildings	\$	\$	\$ 68,538 17,036 55,712 <u>143,725</u>	\$`93,436 19,759 63,398 <u>158,65</u> 2	
TOTAL	\$	\$	\$285,011	\$335,245	
			-		

Machinery and Real Estate Inventory Calculations

Capital outlays for machinery and buildings usually occur in large, uneven amounts, but these assets depreciate gradually over a period of time. Machinery depreciation is calculated below and is included as a farm expense.

Item	My	Farm	Average	86 Farms
Beginning inventory	\$		\$55,712	
Machinery purchases			15,634	
Total (1)		\$		\$71,346
End of year inventory	\$		\$63,398	
Machinery sold	tie synger y synstemiske syntregger, erer		970	
Total (2)		\$		\$64,368
DEPRECIATION (1 minus 2)		\$		\$ 6,978
Percent depreciation		7		10%

MACHINERY & EQUIPMENT DEPRECIATION 86 Oneida - Mohawk Region Dairy Farms, 1979

REAL ESTATE INVENTORY CALCULATIONS 86 Oneida - Mohawk Region Dairy Farms, 1979

Item	My Farm	Average	86 Farms
Beginning market value	 \$		\$143,725
Cost of new real estate	\$ 	\$12,626	
Less lost capital		- 2,733	
Value of new added	+\$		+ 9,893
Less building depreciation			- 3,210
Less real estate sold	-		- 1,008
Total Without Appreciation	\$		\$149,400
Appreciation of beginning real estate	+		+ 9,252
End of Year Market Value	\$		\$158,652

Lost Captial is the difference between the cost of new buildings and the amount these improvements added to the value of the farm. It is <u>not</u> included in farm expenses, since building depreciation is based on the full cost of new buildings and will account for lost capital over the life of the building. Building depreciation was taken from the farm depreciation schedule and is included as a farm expense. <u>Real Estate Appreciation</u> was estimated by each farm operator. It is the increase in value of real estate caused by demand and inflation. Appreciation averaged six percent on these farms in 1979.

Receipts

Receipts from the business should be large enough to cover the operating and overhead costs and leave a return for the operator's labor and management. Here we look at sources and amounts of receipts for this group of farms.

	94	Average	Average 86 Farms		
Item	My Farm	Per Farm	Per Cow		
Milk sales	\$	\$104,240	1681		
Crop sales	And the second	794	13		
Dairy cattle sold	and a far and a supplementary of	9,976	161		
Calves & other livestock sales	Ange of Same Age and Same And Same	1,320	21		
Gas tax refunds		183	3		
Government payments		573	9		
Work off farm		144	3		
Custom machine work		73	, 1		
Other	an a	732	12		
Total Cash Receipts	\$	\$118,035	1904		
Increase in livestock		24,898	401		
Increase in feed & supplies	Allowed and the second s	2,723	44		
TOTAL FARM RECEIPTS	\$	\$145,656	2349		

			FAF	RECE:	IPTS	· · · · · ·	
86	Oneida	-	Mohawk	Region	Dairy	Farms,	1979

The large increase in livestock inventory is due largely to the increase in dairy cattle prices during the year. The average number of cows per farm increased from 65 to 69 cows. When the inventory increase due to change in livestock numbers is eliminated, livestock inventory increased \$334 per cow. This reflects the price increase in both cows and youngstock.

Nineteen percent of total farm receipts were made up of noncash items: livestock, feed and supplies inventory increases. This is much higher than the four to six percent normally experienced by New York dairy farmers and implies that a much lower proportion of net farm income will be spendable without sale of assets.

INCOME	ANALYSTS
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Item	Average 69 Farms 1978	Average 86 Farms 1979	My Farm
Average price/cwt. milk sold	\$ 10.31	\$ 11.61	\$
Milk sales per cow	\$ 1,386	\$ 1,681	\$
Total cash receipts per man	\$42,884	\$52,460	\$

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Expenses

There are many cost control opportunities when cash farm expenses average \$236 per day. Classifying expenses into the categories on this page will help you identify those that may need tighter control.

		Average	86 Farms
Item	My Farm	Per Farm	Per Cow
Hired Labor	\$	\$ 5,790	93
Feed			
Dairy concentrate	and the subscience of the subs	20,622	462
other feed	and as present of the first of the second state of the	469	0
Machinery		hor	0
Machine hire		495	0
Machinery repairs	-	5,000	02
Auto expense (farm share)	and a subscription of the second states and the se	544	9
Gas & oll		3,618	58
Livestock			
Purchased livestock		4,383	71
Breeding fees		1,247	20
Veterinary & medicine		1,808	29
Milk marketing		2,083	34
Other livestock expense	an a star a s	3,662	59
Crops			
Fertilizer & lime	Min. May add Tillib and Stilling of Address of the	4,387	71
Seeds & plants		1,517	24
Spray, other crop expense	an and a star of the latter of the second	833	13
Real Estate			
Land, building, fence repair	·	2,269	37
Taxes		2,550	41
Insurance	· · · · · · · · · · · · · · · · · · ·	1,660	27
Rent	agen a ger en de gegen de fan de generaties gewene	1,509	24
Other			
Telephone (farm share)		373	6
Electricity (farm share)		2,012	32
Interest paid		9,650	156
Miscellaneous		1,755	28
Total Cash Expenses	\$	\$ 86,304	1392
Non-Cash Items		А	
Machinery Depreciation	\$	\$ 6,978	112
Building Depreciation		3,210	52
Unpaid Family Labor @ \$425/month		1,800	29
Interest on Equity Capital @ 9%	an a	19,398	313
Decrease in Livestock & Feed		0	0
TOTAL FARM EXPENSES	\$	\$117,690	1898

FARM EXPENSES 86 Oneida - Mohawk Region Dairy Farms, 1979

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Financial Summary of Year's Business

The results of management are reflected in the net return from the business. Agricultural Economists have developed a number of ways to measure the returns from a farm business. Four common measures are reported on the next two pages.

NET CASH FARM INCOME Oneida - Mohawk Region Dairy Farms, 1979

		Average of 86 Farms		
Item	My Farm	Per Farm	Per Cow	
Cash Farm Receipts	\$	\$118,035	1,904	
Cash Farm Expenses		86,304	1,392	
NET CASH FARM INCOME	\$	\$ 31,731	512	

<u>Net Cash Farm Income</u> reflects the cash available from the year's operation of the business. Family living has first claim on cash income followed by fixed payments on debts. A family may have additional cash available if they have a non-farm income. Cash flow is <u>not</u> a good measure of farm business profits, but it is useful when planning debt repayment programs.

		Avera	age for 86	Farms, 19	79
		Inclu	ding	Exclud	ling
Item	My Farm	Cattle 1	Price	Cattle 1	Price
		Increa	ases	Increa	ases#
		Per Farm	Per Cow	Per Farm	Per Cow
Total Farm Receipts	\$	\$145,656	\$2,349	\$124,948	\$2,015
Total Farm Expenses		117,690	1,898	114,461	1,846
LABOR & MANAGEMENT INCOME	\$	\$ 27,966	\$ 451	\$ 10,487	\$ 169
Number of Operators		1.20		1.20	
LABOR & MANAGEMENT INCOME PER OPERATOR	\$	\$ 23,363	\$ 377	\$ 8,739	\$ 141

LABOR AND MANAGEMENT INCOME Oneida - Mohawk Region Dairy Farms - 1979

* Calculated by subtracting from receipts the increase in livestock inventory due to price increases and subtracting from expenses the increased interest on equity capital due to the higher livestock investment.

Labor and management income is the return to the operator for his efforts in operating the business. It is computed with and without the affect of the large increase in livestock inventory caused by higher cattle prices. Dairymen who used realistic cow values in their beginning and end inventories should recognize this increase as part of the return for operating the farm. A nine percent charge for the use of the operator's equity capital in the business has been included as a farm expense. This interest charge reflects what the operator could have earned from this capital had it been invested elsewhere. Labor, management and ownership income per operator measures the combined return to the farmer for his triple role of worker-manager, financier and owner. The return here provides for the operator's living and his gain in business net worth.

> LABOR, MANAGEMENT AND OWNERSHIP INCOME Cneida - Mohawk Region Dairy Farms, 1979

Item	My Farm	Average 86 Farms 1979		
		Per Farm	Per Cow	
Labor & management income	\$	\$27,966	\$ 451	
Real estate appreciation		9,252	149	
Interest on equity capital	a -	19,398	31.3	
Total Per Farm	\$	\$56,616	\$ 913	
Number of operators		1.20		
LABOR, MANAGEMENT AND OWNERSHIP INCOME PER OPERATOR	\$	\$47,298	\$ 763	

Return on equity capital is a common measure for non-farm businesses. When appreciation in all assets is included the rate of return for these businesses in 1979 was 19.1%. When real estate appreciation was excluded the rate dropped to 14.8%. Also excluding livestock appreciation reduced the rate to 6.7%.

> RETURN ON EQUITY CAPITAL Oneida - Mohawk Region Dairy Farms, 1979

tem	<u>Average & Farms 1979</u> Including Exclud y Farm Cattle Price Cattle P Increases Increa	ing rice
	ncluding Real Estate Appreciatio	n
Mgt. & Ownership Income/Farm	\$56,616 \$39,1	.37
Value of Operator's Labor & Mgt.	15,436 15,4	36*
on Equity Capital	\$41,180 \$23,7	01
Return on Equity Capital	% 19.1% 11.0	1%
	xcluding Real Estate Appreciatio	n
on Equity Capital (from above)	\$41,180 \$23,7	'01
Real Estate Appreciation	9,2529,2	52
on Equity Capital	\$31,928 \$14,4	.49
Return on Equity Capital	% 14.8% 6.7	%
on Equity Capital (from above) Real Estate Appreciation on Equity Capital Return on Equity Capital	xcluding Real Estate Appreciation \$41,180 \$23	<u>10</u> ,7 ,2 ,4

* Value of operator's labor and management estimated by operators, \$12,878 from page 3, times 1.20 operators per farm.

Farm Family Financial Situation

The financial situation is an important part of the farm business summary. It has a direct affect on current cash outflow and future capital investment decisions. A farmer with a high level of scheduled debt repayment may find his menagement flexibility seriously restricted even though he has a good labor and management income.

FARM FAMILY FINANCIAL SITUATION 86 Oneida - Mohawk Region Dairy Farms, January 1, 1980

Item	My Farm	<u>Average</u> for Per Farm	or 86 Farms Per Cow [®]
Assets			
Livestock Feed and supplies Machinery and Equipment Land and buildings Co-op investment Accounts receivable Cash and checking accounts	\$	\$ 93,437 19,759 63,399 158,653 4,269 8,786 2,115	\$1354 286 919 2299 62 127 <u>31</u>
Total Farm Assets Savings accounts Cash value life insurance Stocks and bonds Non-farm real estate Auto (personal share) All other	\$ \$	\$350,418 \$2,992 2,410 1,318 2,426 2,390 2,722	\$5078 \$ 43 35 19 35 35 40
Total Non-Farm Assets	\$	\$ 14,258	\$ 207
TOTAL ASSETS	\$	\$364,676	\$5285
Liabilities		, P	
Real estate mortgage Liens on cattle and equipment Installment contracts Other loans: 10 years and over 1 to 10 years Under 1 year	\$ 	\$ 75,985 45,208 1,754 2,876 5,925 1,298	\$1101 655 25 42 86 19
Accounts payable	9999-9999-9999-9999-9999-9999-9999-9999-9999	1,834	27
Total Farm Liabilities	\$	\$134,880	\$1955
Non-Farm Liabilities TOTAL LIABILITIES	\$	<u>1,178</u> \$136,058	<u>17</u> \$1972
Farm Net Worth (equity capital)	\$	\$215,538	3123
Family Net Worth	\$	\$228,618	\$3313

* Number of cows January 1, 1980 was 69.

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<u>Payment Ability</u> is the most important consideration in determining if and how proposed investments should be financed. The farm business must produce enough cash income to meet operating expenses, to cover family or personal living expenses and to make debt payments. Cash purchases of capital items that normally take place during the year must also be included.

Payment ability is calculated in the following table. Interest paid is added to net cash farm income because planned or budgeted debt payments will include interest as well as principal. Estimate family living expenses for your farm to calculate cash available for debt payment and capital purchases made in cash.

Debt payments planned for 1980 are the scheduled debt payments as of January 1980. Some farms in the group had scheduled debt payemnts exceeding 40 percent of the milk receipts. Committing this much cash inflow to debt payments can put a "big squeeze" on cash available for operating the business and family living.

Item	My Farm	Average for Per Farm	86 Farms Per Cow*
Payment Ability			
Net cash farm income	\$	\$31,731	\$ 512
Add: Interest paid		9,650	155
CASH AVAILABLE FOR DEBT SERVICE & LIVING	\$	\$41,381	\$ 667
Less: Family living espenses	No. and the No. or an and the second	11,921**	192
CASH AVAILABLE FOR DEBT PAYMENT & CAPITAL PURCHASES	\$ \$	\$29,460	\$ 475
Scheduled Annual Debt Payments			
Real estate mortgage	\$	\$ 8,097	\$ 117
Cattle and equipment liens	and an angle in the surgery of the surgery	11,470	166
Installment contracts		279	4
Other loans: 10 years and over 1 to 10 years		829 1,426	12 21
Notes and other loans under 1 year		1,583	23
TOTAL PAYMENTS PLANNED 1980	\$	\$23,684	\$ 343
Measure of Debt Commitment & Equity Position			
Scheduled debt payments per cow	\$	\$ 343	
Scheduled debt payments as 🖇 of milk sales	5	23%	
Farm debt per cow	\$	\$ 1,927	
Percent equity (total)	<u></u> 7,	63%	

FINANCIAL MEASURES & DEBT COMMITMENT 86 Oneida - Mohawk Region Dairy Farms, January 1, 1980

* Average of 62 cows for 1979 and 69 cows for 1980.

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** Estimated at \$6,000 per family and four percent of cash receipts, assuming one family per operator.

ANALYSIS OF THE FARM BUSINESS

Research has shown that certain factors controlled by management affect farm incomes. In analyzing a farm business, we examine the factors of size, rates of production, labor efficiency, capital efficiency and cost control.

Size of Business

Studies have shown that, in general, larger farms pay better. Two basic reasons for this are that larger businesses make possible more efficient use of overhead inputs such as labor and machinery and there are more units of production on which to make a profit. It is imperative to remember, however, all large farms are not profitable and big size without good management can lead to <u>big trouble</u>!

Measure	111	Avera Farma	age 69 s 1978	Average 86 Farms 1979	My Farm
Number of cows			56	62	
Number of heifers			36	43	
Pounds of milk sold		752	,400	897,500	
Man equivalent	. 1		2.1	2.3	
Total work units	•		631	692	General Contraction of the contr
Total acres of crops			189	194	

MEASURES OF SIZE OF BUSINESS Oneida - Mohawk Region Duiry Farms, 1978 & 1979

In the table below, the 527 New York farms for 1978 are sorted by number of cows and the labor income is shown for each size group. In general, the large farms paid better, but variability of income was significant.

> COWS PER FARM AND LABOR AND MANAGEMENT INCOME 527 New York Dairy Farms, 1978

Number	Number	Percent	Labor & Managen	nent Income
of Cows	of Farms	of Farms	Per Operator	Per Cow
Under 40	73	13%	\$ 9,865	\$307
40 - 54	156	30	14,480	345
55 - 69	104	20	18,505	376
70 - 84	68	13	20,246	345
85 - 99	34	6	18,818	286
100 - 114	28	5	32,417	382
115 - 129	19	4	27,440	358
130 - 149	16	3	32,752	341
150 and over	29	6	45,387	329
		• • • • • • • • • • • • • • • • • • • •		

Rates of Production

Crop yields and animal production rates are factors that affect farm incomes. Crop acres, yields and pounds of milk sold per cow are compared in the following table.

0		Average of	Farms Re	porting	My	Farm
crop	Farms	Reporting	Acres	Yield	Acres	Yield
Dry hay		80	87	(combined		
Hay crop silage		59	56	below)		و. وي المراجع المراجع وي المراجع و
Corn silage		81	54	11.8 ton	-	
Grain corn		27	33	87 bu.	with the second second second	يسترك والمرابعة المراري المروا المراجع
Oats		20	22	64 bu.		
Hay equivalent:					gana paus tant gyan van	
All hay crops		86	121	2.6 ton	antonia antono 17 - Marine	
All hay & silage		86	172	3.0 ton		
Milk sold per cow			14,	476 lbs.		

CROP YIELDS AND MILK SOLD PER COW 86 Oneida - Mohawk Region Dairy Farms, 1979

Tons of hay equivalent of all hay and silage is a good measure of the overall rate of forage production. One ton of hay equivalent is equal to one ton of dry hay containing 90 percent dry matter.

The hay crop yields reported in 1979 were 13 percent higher than in 1978 but corn silage yields were 14 percent below those reported last year. Milk sold per cow was about the same in 1979 as in 1978.

The importance of strong milk output per cow is shown in the table below.

Pounds of Milk	Number	Number	Feed Bought	Labor & Manager	ent Income
Sold Per Cow	of Farms	of Cows	Per Cow	Per Operator	Per Cow
Under 10,000	28	60	\$294	\$ 3,400	\$ 64
10,000 - 10,999	37	52	339	10,170	227
11,000 - 11,999	37	67	334	19,230	349
12,000 - 12,999	76	69	370	18,680	296
13,000 - 13,999	99	75	378	18,680	294
14,000 - 14,999	99	79	442	23,650	369
15,000 - 15,999	85	75	465	26,690	456
16,000 and over	66	65	499	21,590	438

MILK SOLD PER COW AND LABOR AND MANAGEMENT INCOME 527 New York Dairy Farms, 1978

Labor Efficiency

Labor utilization is an important factor in milk production. Several measures of accomplishment per man or labor efficiency are shown below...

	Average 69	Average 86	
ltem	Farms 1978	Farms 1979	My Farm
Man equivalent	2.1	2.3	
Cows per man	27	28	staan all the state of the stat
Pounds of milk sold per man	362,000	399,000	an and a state of the state of the state of the
Works units per man	303	308	anner The Allerige goding is

MEASURES OF LABOR EFFICIENCY Oneida - Mohawk Region Dairy Farms, 1978 & 1979

Number of <u>cows per man</u> is calculated by dividing the average number of cows by the man equivalent which represents the total farm labor force. There was an increase of one cow per man when the average for 1979 is compared with the average of the 69 farms summarized for 1978.

<u>Pounds of milk sold per man</u> is the single best measure of labor efficiency on the dairy farm. It measures the ability of the labor force to handle a large number of cows without sacrificing milk output per cow. The farms included in the 1979 summary were more efficient than those in the 1978 study as milk output per man increased by 37,000 pounds.

It is important to look at other measures of labor efficiency, such as work units per man because all dairy farms do not have the same relationship between cows, heifers and crops grown. One work unit is the equivalent of one ten hour work day.

Labor efficiency depends on a number of things. Among these are the amount of mechanization, the field and building layout, the work methods, and the abilities of the workers. All of these are management items under the control of the operator.

Pounds of Milk	Number	Number	Lhs. Milk	Labor & Managem	ent Income
Sold Per Man	of Farms	of Cows	Per Cow	Per Operator	Per Cow
Under 250,000	62	41	11,200	\$ 6,760	\$191
250,000 - 299,999	60	119	12,900	12,830	309
300,000 - 349,999	71	68	13,100	14,170	279
350,000 - 399,999	91	66	13,800	21,000	376
400,000 - 449,999	82	73	14,400	23,090	392
450,000 - 499,999	64	79	14,500	23,500	337
500,000 - 599,999	67	97	15,200	25.570	366
600,000 and over	30	120	14,500	34,840	413

MILK SOLD PER MAN AND LABOR AND MANAGEMENT INCOME 527 New York Dairy Farms, 1978

Capital Efficiency

Capital is a key resource and a manager must continually analyze its use in the business. The measures of capital efficiency shown in the following table include owned as well as borrowed capital. The management of borrowed capital has been analyzed on page 10. It's possible for the business to be under capitalized, but investing too much capital per productive unit is a more common problem. The best way a farmer can get a good return on capital invested in his business is to "put it to work".

Average 69 Farms 1978	Average 86 Farms 1979	My Farm
\$121,584	\$148,998	\$
4,437	4,859	·····
2,278	2,299	
1,091	1,133	
882	919	
2.4 years	2.3 years	
	Average 69 Farms 1978 \$121,584 4,437 2,278 1,091 882 2.4 years	Average 69 Farms 1978Average 86 Farms 1979\$121,584\$148,9984,4374,8592,2782,2991,0911,1338829192.4 years2.3 years

MEASURES OF CAPITAL EFFICIENCY Oneida - Mohawk Region Dairy Farms

Land and building investment per crop acre owned shows the relationship between investments in land and buildings. The farmer who owns little cropland but invests in lots of farm buildings will have a relatively large land and building investment per crop acre owned. This could be an indication that his use of capital is "out of balance".

<u>Capital turnover</u> is calculated by dividing the total farm capital (total year end farm inventory) by the total farm receipts for the year. The factor is called capital turnover because it measures the number of years of receipts needed to equal or "turnover" farm capital. A fast rate of turnover is more desirable than a slow rate because it means capital purchases can be paid off at a faster rate.

Capital Turnover (Years)	Number of Farms	Labor and Management Income Per Operator		
Less than 1.5	61	\$ 33186		
1.5 - 1.9	188	26706		
2.0 - 2.4	168	17035		
2.5 - 2.9	61	8326		
3.0 - 3.4	23	3576		
3.5 and over	26	-9006		

CAPITAL TURNOVER AND LABOR INCOME 527 New York Dairy Farms, 1978

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Cost Control

The control of costs could be a dominant factor in the success of modern commercial dairy operations. Feed, machinery and labor costs are major items exemined in detail. However, it is important to check all cost items both large and small.

Feed Costs

Feed purchased is the largest single expenditure category on these dairy farms. These Oneida-Mohawk region dairy farms used 27 cents from each dollar's worth of milk sold to purchase dairy feed in 1979.

The crop program has an important influence on purchased feed costs. Increasing the amount of roughage and/or grain grown on the farm will reduce the quantity of feed to be purchased. However, this will reduce the total cost of feeding the animals only if the cost of growing feed on the farm is less than the cost of purchased feed. Also, the number of heifers being raised on the farm will affect the total feed cost per cow or hundredweight of milk sold. The overall feed situation must be examined and evaluated as a "system".

Item	Average 69 Forma 1078	Average 86	My Farm
Feed bought per cow	\$418	\$462	\$
Crop expense per cow	\$103	\$109	
Feed bought per cwt. milk	\$ 3.11	\$ 3.19	مورور مان می ورون و مان می ورون و مان می و مورور و مورون و مورو مورون و مورون و
Feed & crop expense per cwt. milk	\$ 3.88	\$ 3.94	an a
Percent feed is of milk receipts	30%	27%	
Hay equivalent per cow (tons)	9.2	8.3	
Crop acres per cow	3.4	3.1	· Marine Marine - Street Marine
Lime & fertilizer per crop acre	\$ 19	\$ 23	\$
Heifers as % of cow numbers	64%	69%	7

FEED COSTS AND RELATED MEASURES Oneida - Mohawk Region Dairy Farms, 1978 & 1979

Several factors are known to be an important influence on feed and crop expense per hundreweight of milk. Early cutting of hay and hay crop silage increases the amount of protein and energy that can be supplied by forage. Feeding according to production so that cows in early lactation are not underfed and cows in late lactation are not overfed increases the efficiency of concentrate use. Feeding a balanced, least-cost ration reduces the cost of the concentrate required to meet the cow's needs.

Machinery, Labor and Miscellaneous Costs

Labor and machinery operate as a "team" on a modern farm. The management challenge is to find the combination of labor and mechanization that will give a reasonable cost per unit of output.

ItemAverage 69 Farms 1978Average 86 Farms 1979My FeTotal Machinery $1/$ $\$16,760$ $\$22,063$ $\$_$ Machinery cost per cow $\$ 299$ $\$ 356$ Machinery cost per cwt. of milk 2.23 2.46 Total labor costs $$2/$ $\$13,578$ $\$16,340$ Labor costs per cwt. of milk 251 264 Labor costs per cwt. of milk 1.86 1.82				
Total Machinery $$16,760$ $$22,063$ $$_{_}$ Machinery cost per cow $$299$ $$356$ Machinery cost per cwt. of milk 2.23 2.46 Total labor costs ^{2/} $$13,578$ $$16,340$ Labor costs per cow 251 264 Labor costs per cwt. of milk 1.86 1.82	Item	Average 69 Farms 1978	Average 86 Farms 1979	My Farm
Machinery cost per cow \$ 299 \$ 356 Machinery cost per cwt. of milk 2.23 2.46 Total labor costs ^{2/} \$13,578 \$16,340 Labor costs per cow 251 264 Labor costs per cwt. of milk 1.86 1.82	al Machinery ^{1/}	\$16,760	\$22,063	\$
Machinery cost per cwt. of milk 2.23 2.46 Total labor costs ^{2/} \$13,578 \$16,340 Labor costs per cow 251 264 Labor costs per cwt. of milk 1.86 1.82	hinery cost per cow	\$ 299	\$ 356	Nasa and a subscription of the
Total labor costs ^{2/} \$13,578 \$16,340 Labor costs per cow 251 264 Labor costs per cwt. of milk 1.86 1.82	hinery cost per cwt. of milk	2.23	2.46	
Labor costs per cow251264Labor costs per cwt. of milk1.861.82	al labor costs ^{2/}	\$13,578	\$16,340	
Labor costs per cwt. of milk 1.86 1.82	or costs per cow	251	264	Anna an Anna a
	or costs per cwt. of milk	1.86	1.82	nyatya dipenyanya mulifikania
Labor & machinery costs per cwt. of milk 4.09 4.28	or & machinery costs per cwt. of	milk 4.09	4,28	and the statement interaction

LABOR AND MACHINERY COSTS Oneida - Mohawk Region Dairy Farms, 1978 & 1979

- <u>1</u>/ Machinery depreciation, interest on the average machinery inventory, machine hire, machinery repairs, farm share of auto expense and gas and oil are all included.
- 2/ Includes hired labor and paid family labor, plus unpaid family labor valued at \$425 per month and operator's labor valued at \$650 per month.

Machinery costs increased more than labor costs in 1979. Labor and machinery costs per cow in 1979 were 13 percent higher than the average for 1978.

MISCELLANEOUS COSTS CONTROL MEASURES Oneida - Mohawk Region Dairy Farms, 1978 & 1979

Item	Average 69 Farms 1978	Average 86 Farms 1979	My Farm
Veterinary & medicine per cow	\$ 22.93	\$ 29.16	\$
Other livestock expense per cow	51.23	59.06	alen ogsantega - oberlagdeskelingssonssor
Real estate expense per cow	106.77	128.84	
Total farm expense per cow	\$1,558	\$1,898	anter, and a supervised

Other livestock expenses per cow include dairy supplies, bedding and DHIC fees, but exclude breeding fees and milk marketing. Real estate expenses include repairs, taxes, insurance and rent.

Total farm expenses per cow were up 22 percent in 1979.

Cost of Producing Milk

The "farm unit" method is used here to compute cost of producing milk. Farm expenses include all costs except the operator's labor and management. Non-milk receipts are deducted on the assumption they were produced at cost.

	FA	RM	I COST	\mathbf{OF}	PRODU	JCING	MILK	
86	Oneida	-	Mohawk	Re	gion	Dairy	Farms,	1979

Ttem	My Ferm	Average	86 Farms
Total cash farm expenses	\$	\$ 86,304	
Machinery depreciation		6,978	
Building depreciation		3,210	
Unpaid labor		1,800	
Interest on equity capital @ 9%		19,398	
Decrease in feed and supplies		0	
Decrease in livestock inventory		0	
TOTAL FARM EXPENSES	\$	\$117,690	
Value Operator's Labor @ \$700/mo.		10,080	
TOTAL COST OF PRODUCTION (A)	\$	\$	127,770
Total cash farm receipts	\$	\$118,035	
Less: Milk sales		-104,240	
Non-milk cash receipts		13,795	
Increase in feed & supplies		2,723	
Increase in cattle inventory ^a		4,190	
TOTAL NON-MILK INCOME (B)			20,708
COST OF PRODUCING MILK (A minus B)	\$	\$	106,982
Hundredweights of milk sold		8,975	
COST OF PRODUCING CWT. MILK	\$\$	*	11.92
Management charge @ 5% cash receipts	3	\$ 4,315	
Management charge per cwt. milk	alle ander van Berne Minneligene wie e	,48	
COST OF PRODUCING MILK WITH MGT, CHARGE	\$	ب	12.40

<u>a</u>/ Due to change in livestock numbers. Excludes inventory change due to price variation.

Value Operator's			Cost/Cwt. W	ith Management	Average Price		
Year	Labor	Management*	Excluded	Included	Received	Reported**	
1.972	\$6,000	\$3,275	\$ 6.43	\$ 6.80	\$ 6.41	\$ 6.25	
1973	6,000	3,689	7.26	7.69	7.30	7.30	
1974	6,000	4,330	8.34	8.82	8.57	8.24	
1975	6,000	4,474	9.07	9.55	8.65	8.66	
1976	6,000	5,162	9.87	10.42	9.90	9.86	
1977	7,200	5,212	10.55	11,09	9.76	9.61	
1978	7,800	5,862	10.74	11.34	10.51	10.38	

COST OF PRODUCING MILK, NEW YORK DAIRY FARMS, 1972-1978

* Estimated @ 5% of cash receipts.

** New York - New Jersey Milk Marketing Area.

YEARLY FINANCIAL PLANNING AND ANALYSIS 86 Oneida - Mohawk Region Dairy Farms, 1979

Average: 62 Cows, 14,476 Lbs. Milk Per Cow, \$11.61 Per Cwt.

	Average	My Farm	,(Cows	
Item	Per Cow	Per Cow	Total	Goal	
CASH RECEIPTS					
Milk Sales	\$1,681	\$	\$	\$	
Crop Sales	13				
Dairy cattle	161				
Calves & other livestock	21				
Other	28				
Total Cash Receipts	\$1,904	\$	\$	\$	
CASH EXPENSES					
Hired Labor	\$ 93	\$	\$	\$	
Dairy Concentrate	462	Annoni (Barradi) marili di fatta di Barra	in an an phone and a		
Hay & other	8	and magnetic binanges	and Manager v		
Machine hire	8				
Machine repair & auto expense	91	*******************	a. Herefander general		
Gas & oil	58	alder fillinge agenualie i 44 vieter	Terrine I Grandgestarie	**************************************	
Breeding fees	20	in an	ana, da - Agar aktistingaya	and the second	
Vet & medicine	29		wang, Break group.	ar anna anna	
Milk marketing (ADA, dues, hauling)	34	and a second second	unter Brits Brits, approx	and a standing of the second s	
Other livestock expense	59	alan allan an an an allan allan a		and the second s	
Fertilizer & lime	71	- ange Antoninggerand Attractions	and the second		
Seeds & plants	24	Anne-Mair Maine - Anne-	All and a second second second		
Spray & other	13	alle an agree alle and an all an all	and "We called		
Land, bldg., fence repair (owner)	37	mannapagina voiraitianne	territik dirakalar terki	and second territory and	
Taxes (owner)	41	angenfigtin differin . Afferdir	9000 g 190.0 -	1770 good 200 100 - 100 - 100	
Insurance (owner)	27	an Managaratan Anan'	and the state of t	an - Gran Grangesanna -	
Rent (owner)	24	North Contraction (State Street Stree		attisk man gan on omganise	
Telephone (farm share)	6	alla sange yn swynaet y nysteraet	. Brown - Minage , -		
Electricity (farm share)	32		1	، بينې مېرمېنو د	
Miscellaneous	28	The start of the start of the start	the second se	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
Total Cash Expenses 1/	\$1,165	\$	\$	\$	
Total Cash Receipts	\$1,904	\$	\$	\$	
Total Cash Expenses $\frac{1}{}$	-1,165	 		non. ma-anandijanja	
Net Cash Flow	\$ 739	\$	\$	\$	
Cash Family Living Expense ^{2/} Amount Left for Debt Service, Capital	- 192	ana an a daoint dhathadan a a t	-	1885 1974 - J Billion Statement	
Investment & Retained Earnings	\$ 547	\$	\$	\$	
Scheduled Debt Service	- 343		i anti anno quantiti attan g		
Available for Capital Investment ^{3/}	\$ 204	\$	\$	\$	
Planned Equipment Purchase					
Borrowed Funds Needed4/		\$	\$	\$	

1/ Interest paid excluded from cash expenses as it is contained in Scheduled Debt Service. Purchased livestock are also excluded.

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 $\frac{2}{3}$ Estimated: \$6,000 per family and $\frac{3}{4}$ Retained earnings are \$0. $\frac{1}{4}$ May be replaced by equity capital. Estimated: \$6,000 per family and four percent of cash receipts. · . . .

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Farm Business Chart

The Farm Business Chart is a tool which can be used in analyzing a business to determine the strong and weak points. The figure at the top of each column is the average of the top 10 percent of the 527 farms for that factor. The other figures in each column are the average for the second 10 percent, third 10 percent, etc. Each column of the chart is independent of the others. The farms which are in the top 10 percent for one factor would not necessarily be the same farms which make up the top 10 percent for any other factor.

Size	of Bu	siness	Rate	s of Produ	Labor	Efficiency	
Man	No.	Pounds	Pounds	Tons Hay	Tons Corn	Cows	Pounds
Equiv-	of	Milk	Milk Sold	Crops	Silage	Per	Milk Sold
alent	Cows	Sold	Per Cow	Per Acre	Per Acre	Man	Per Man
5.0	168	2,333,700	17,100	4.4	20	44	631,900
3.4	106	1,499,800	15,800	3.4	17	37	518,900
2.9	83	1,188,200	15,200	3.0	16	33	473,100
2.5	70	1,004,200	14,700	2.7	15	31	434,000
2.3	62	875,000	14,100	2.5	14	29	403,100
			12 (00				
2.0	22	/69,/00	13,600	2.3	13	27	3/3,500
2.0	50	671,400	13,000	2.1	12	25	340,700
1.7	44	578,000	12,400	1.9	11	23	306,000
1.5	39	487,500	11,300	1.7	9	21	264,200
1.2	31	352,100	9,400	1.2	6	17	192,400

FARM	BUSINESS	CHART	FOR FARM	MANAGEMENT	COOPERATORS
	527	New Yo	ork Dairy	Farms, 197	8

Feed Bought		Machinery	Labor and	Feed and Crop		
Per	% of Milk Cost		Machinery Cost	Expense Per		
Cow	Receipts	Per Cow	Per Cow	Cwt. Milk		
\$178	13%	\$151	\$382	\$2.36		
263	20	197	443	2.98		
322	24	226	482	3.24		
371	26	250	517	3.48		
398	28	271	541	3.67		
424	30	288	565	3.85		
455	32	311	598	4.04		
489	34	338	636	4.29		
539	37	376	695	4.62		
644	43	476	826	5.27		

The cost control factors are ranked from low to high, but the <u>lowest cost</u> <u>is not necessarily the most profitable</u>. Many things affect the level of costs, and these items must be taken into account when analyzing the factors.

This chart can be used to analyze a dairy business by drawing a line through the figure in each column which represents the level of management for this farm.

Item40 to55 to70 toCapital Investment (end of year)Livestock\$ 35,739\$ 52,755\$ 65,255\$ 78,46Feed and supplies8,17313,25819,89228,54Machinery and equipment30,53042,33456,06770,12Land and buildings89,130119,477144,548187,02TOTAL INVESTMENT\$163,572\$227,824\$285,762\$364,15Milk sales\$ 44,369\$ 64,277\$ 88,791\$113,62Dairy cattle sold3,8225,5538,1469,00Other livestock sales1,2601,4811,6232,36Crop sales32761085565Miscellaneous receipts1,4741,6121,9692,73Total Cash Receipts\$ 51,252\$ 73,533\$101,384\$128,39
Item40 Cows54 Cows69 Cows84 CowCapital Investment (end of year)Livestock\$ 35,739\$ 52,755\$ 65,255\$ 78,46Feed and supplies $8,173$ $13,258$ $19,892$ $28,54$ Machinery and equipment $30,530$ $42,334$ $56,067$ $70,12$ Land and buildings $89,130$ $119,477$ $144,548$ $187,02$ TOTAL INVESTMENT\$163,572\$227,824\$285,762\$364,15Receipts $844,369$ \$ 64,277\$ 88,791\$113,62Dairy cattle sold $3,822$ $5,553$ $8,146$ $9,00$ Other livestock sales $1,260$ $1,481$ $1,623$ $2,36$ Crop sales 327 610 855 65 Miscellaneous receipts $1,474$ $1,612$ $1,969$ $2,73$ Total Cash Receipts\$ 51,252\$ 73,533\$101,384\$128,39
Capital Investment (end of year)Livestock\$ 35,739\$ 52,755\$ 65,255\$ 78,46Feed and supplies $8,173$ $13,258$ $19,892$ $28,54$ Machinery and equipment $30,530$ $42,334$ $56,067$ $70,12$ Land and buildings $89,130$ $119,477$ $144,548$ $187,02$ TOTAL INVESTMENT\$163,572\$227,824\$285,762\$364,15ReceiptsMilk sales\$ 44,369\$ 64,277\$ 88,791\$113,62Dairy cattle sold $3,822$ $5,553$ $8,146$ $9,00$ Other livestock sales $1,260$ $1,481$ $1,623$ $2,366$ Crop sales 327 610 855 655 Miscellaneous receipts $1,474$ $1,612$ $1,969$ $2,73$ Total Cash Receipts\$ 51,252\$ 73,533\$101,384\$128,399
Livestock \$ 35,739 \$ 52,755 \$ 65,255 \$ 78,46 Feed and supplies 8,173 13,258 19,892 28,54 Machinery and equipment 30,530 42,334 56,067 70,12 Land and buildings <u>89,130</u> <u>119,477</u> <u>144,548</u> <u>187,02</u> TOTAL INVESTMENT \$163,572 \$227,824 \$285,762 \$364,15 <u>Receipts</u> Milk sales \$ 44,369 \$ 64,277 \$ 88,791 \$113,62 Dairy cattle sold 3,822 5,553 8,146 9,00 Other livestock sales 1,260 1,481 1,623 2,36 Crop sales 327 610 855 65 Miscellaneous receipts <u>1,474 1,612 1,969 2,73</u> Total Cash Receipts \$ 51,252 \$ 73,533 \$101,384 \$128,39
Feed and supplies8,17313,25819,89228,54Machinery and equipment30,53042,33456,06770,12Land and buildings89,130119,477144,548187,02TOTAL INVESTMENT\$163,572\$227,824\$285,762\$364,15ReceiptsMilk sales\$ 44,369\$ 64,277\$ 88,791\$113,62Dairy cattle sold3,8225,5538,1469,00Other livestock sales1,2601,4811,6232,36Crop sales32761085565Miscellaneous receipts1,4741,6121,9692,73Total Cash Receipts\$ 51,252\$ 73,533\$101,384\$128,39
Machinery and equipment 30,530 42,334 56,067 70,12 Land and buildings 89,130 119,477 144,548 187,02 TOTAL INVESTMENT \$163,572 \$227,824 \$285,762 \$364,15 Receipts 118,81es \$44,369 \$64,277 \$88,791 \$113,62 Dairy cattle sold 3,822 5,553 8,146 9,00 Other livestock sales 1,260 1,481 1,623 2,36 Crop sales 327 610 855 65 Miscellaneous receipts 1,474 1,612 1,969 2,73 Total Cash Receipts \$51,252 \$73,533 \$101,384 \$128,39
Land and buildings89,130119,477144,548187,02TOTAL INVESTMENT\$163,572\$227,824\$285,762\$364,15ReceiptsMilk sales\$ 44,369\$ 64,277\$ 88,791\$113,62Dairy cattle sold3,8225,5538,1469,00Other livestock sales1,2601,4811,6232,36Crop sales32761085565Miscellaneous receipts1,4741,6121,9692,73Total Cash Receipts\$ 51,252\$ 73,533\$101,384\$128,39
TOTAL INVESTMENT \$163,572 \$227,824 \$285,762 \$364,15 Receipts Milk sales \$44,369 \$64,277 \$88,791 \$113,62 Dairy cattle sold 3,822 5,553 8,146 9,00 Other livestock sales 1,260 1,481 1,623 2,36 Crop sales 327 610 855 65 Miscellaneous receipts 1,474 1,612 1,969 2,73 Total Cash Receipts \$51,252 \$73,533 \$101,384 \$128,39
Receipts Milk sales \$ 44,369 \$ 64,277 \$ 88,791 \$113,62 Dairy cattle sold 3,822 5,553 8,146 9,00 Other livestock sales 1,260 1,481 1,623 2,36 Crop sales 327 610 855 65 Miscellaneous receipts 1,474 1,612 1,969 2,73 Total Cash Receipts \$ 51,252 \$ 73,533 \$101,384 \$128,39
Milk sales\$ 44,369\$ 64,277\$ 88,791\$113,62Dairy cattle sold3,8225,5538,1469,00Other livestock sales1,2601,4811,6232,36Crop sales32761085565Miscellaneous receipts1,4741,6121,9692,73Total Cash Receipts\$ 51,252\$ 73,533\$101,384\$128,39
Dairy cattle sold 3,822 5,553 8,146 9,00 Other livestock sales 1,260 1,481 1,623 2,36 Crop sales 327 610 855 65 Miscellaneous receipts 1,474 1,612 1,969 2,73 Total Cash Receipts \$ 51,252 \$ 73,533 \$101,384 \$128,39
Other livestock sales 1,260 1,481 1,623 2,36 Crop sales 327 610 855 65 Miscellaneous receipts 1,474 1,612 1,969 2,73 Total Cash Receipts \$ 51,252 \$ 73,533 \$101,384 \$128,39
Crop sales 327 610 855 65 Miscellaneous receipts 1,474 1,612 1,969 2,73 Total Cash Receipts \$ 51,252 \$ 73,533 \$101,384 \$128,39
Miscellaneous receipts 1,474 1,612 1,969 2,73 Total Cash Receipts \$ 51,252 \$ 73,533 \$101,384 \$128,39
Total Cash Receipts \$ 51,252 \$ 73,533 \$101,384 \$128,39
Increase in livestock 9,421 13,303 15,071 17,98
Increase in feed & supplies 1,470 2,855 4,074 4,79
TOTAL FARM RECEIPTS \$ 62,143 \$ 89,691 \$120,529 \$151,18
Expenses
Hired labor \$ 1,371 \$ 2,682 \$ 5,625 \$ 9,87
Dairy feed 12,936 18,960 24,903 31,01
Other feed 830 1.067 1.242 1.04
Machine hire 299 476 637 1.08
Machinery repair 2.287 3.202 4.783 6.27
Auto expense (farm share) 281 308 283 37
Gas and oil 1.534 1.996 2.823 3.49
Purchased animals 2,402 3,242 2,776 1,88
Breeding fees 606 912 1.085 1.33
Veterinary and medicine 841 1.236 1.559 1.95
Milk marketing 1.218 1.581 2.516 3.16
Other livestock expense 1,734 2,543 3,185 4,23
Fertilizer and lime 1.922 2.788 4.508 6.90
Seeds and plants 612 1.044 1.525 2.10
Spray and other crop expense 327 744 877 1.45
Land, bldg, fence repair 1.085 1.091 1.708 2.15
Taxes and insurance $2,304$ $3,068$ $3,752$ $4,80$
Electric & phone (farm share) 1.218 1.622 2.098 2.54
Interest paid 3.190 5.806 7.232 8.65
Miscellaneous expenses 885 1,467 2,190 3,32
Total Cash Expenses \$ 37,882 \$ 55,835 \$ 75,307 \$ 97,67
Machinery depreciation 3.077 4.280 5.626 6.50
Building depreciation 1.283 1.835 2.574 2.95
Unpaid family labor 1,700 1,700 1,275 85
$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Decrease in feed & supplies
TOTAL FARM EXPENSES \$ 52,012 \$ 73,821 \$ 97 583 \$125 28
Financial Summary
Total Farm Receipts \$ 62.143 \$ 89.691 \$120.529 \$151 18
Total Farm Expenses 52.012 73.821 97.583 125.29
Labor & Mgt. Income $\$ 10.131 \$ 15.870 \$ 22.946 \$ 25.89$
Number of operators 1.03 1.10 1.24 1.2
LABOR & MGT. INCOME/OPERATOR \$ 9,865 \$ 14,480 \$ 18,505 \$ 20,24

FARM BUSINESS SUMMARY BY HERD SIZE 527 New York Dairy Farms, 1978

-	Farms with:				
	85 to	100 to	115 to	130 to	150 or
Item	99 Cows	114 Cows	129 Cows	149 Cows	More Cows
Capital investment (end of year)	¢ 07 3/7	6121 000	6110 710	61/1 220	¢100 265
Livestock	₹ 97,347 20 205	\$121,909 25 5/9	\$119,/19	<i>Q</i>141,329	\$190,303
Feed and supplies	30,203	33,340	41,538	43,000	04,020
Machinery and equipment	74,732	07,043	93,000	99,001 200,070	132,120
Land and Dulldings	$\frac{207,013}{6410,007}$	<u>233,434</u>	233,232	200,079	5756 126
TUTAL INVESIMENT	3410,097	3470,734	116,1069	\$J00,29J	γ/J4,120
<u>Kecelpts</u>	¢121 902	¢156 736	¢170 011	\$200 111	\$202 A88
Milk sales	۶۲JL,072 ۱2 974	91 34,73 4	γ1/0,211 12 270	17 7/4	7272,000 73 75%
Dairy cattle sold	12,070	14,430	12,273	2 1 2 2	5 066
Other livestock sales	2,//0	4,071	2,343	5,102	2,000
	1,JJ/ 2 717	2 077	1,4/2	5 336	7 646
Miscellaneous receipts	$\frac{2,717}{6151,709}$	<u>3,377</u> <u>¢179 971</u>	$\frac{3,314}{6108,032}$	\$236 219	\$330 656
Toral Cash Receipts	γIJI,/90 22 212	γ1/0,0/1 25 070	20 327	36 682	45,650
Increase in fixescock	22,212	9 / 71	5 050	3 0 3 7	9 566
Increase in leeu a supplies	$\frac{2,474}{$176,484}$	\$222 421	\$233 378	\$276 836	\$386 872
FUTAL FARM RECEIFIS	9110,404	7222,421	<i>4233,370</i>	9274,034	4300,072
Hirad Jahar	\$ 12 139	\$ 14 607	\$ 18 495	\$ 24 385	\$ 41 507
Deiry food	36, 223	48,215	46,532	58,126	78,730
Other feed	2,093	3,096	3,003	2,422	3,797
Machine hire	1,325	1,025	950	972	3,918
Machinery repair	8.028	8,105	9.079	12,487	15,440
Auto expense (farm share)	584	523	448	379	572
Gas and oil	4,808	4,963	5.854	6.361	9.147
Purchased animals	2,219	8,158	4,912	4,120	9.642
Breeding fees	1,764	1,938	2.186	2,640	3,151
Veterinary and medicine	2,419	2,870	3,102	4,394	4,704
Milk marketing	4.026	3,733	5,333	5.473	9,729
Other livestock expense	4.170	5.089	5,572	6,937	9.295
Fertilizer and lime	7,551	7,293	7.886	9,950	16,339
Seeds and plants	2,415	2,844	2,785	3,767	5,176
Spray and other crop expense	1,583	2,026	2,815	3,429	4,364
Land, bldg., fence repair	2,524	1,957	2,740	4,565	4,788
Taxes and insurance	5,970	5,919	7,178	8,028	11,419
Electric & phone (farm share)	3,176	3,258	3,914	3,406	5,161
Interest paid	10,676	13,477	12,395	14,610	20,567
Miscellaneous expenses	3,854	4,016	5,995	5,297	8,626
Total Cash Expenses	\$117,547	\$143,112	\$151,174	\$181,748	\$266,072
Machinery depreciation	9,155	9,979	9,912	10,443	15,674
Building depreciation	3,284	5,885	4,293	7,095	7,289
Unpaid family labor	850	1,700	425	425	850
Interest on equity @ 7%	19,641	21,224	24,274	28,063	32,855
Decrease in feed & supplies					
TOTAL FARM EXPENSES	\$150,477	\$181,900	\$190,078	\$227,774	\$322,740
Financial Summary					
Total Farm Receipts	\$176,484	\$222,421	\$233,378	\$274,838	\$386,872
Total Farm Expenses	150,477	181,900	190,078	227,774	322,740
Labor & Mgt. Income	\$ 26,007	\$ 40,521	\$ 43,300	\$ 47,064	\$ 64,132
Number of operators	1.38	1.25	1.58	1.44	1.41
LABOR & MGT. INCOME/OPR	\$ 18,818	\$ 32,417	\$ 27,440	\$ 32,752	\$ 45,387

FARM BUSINESS SUMMARY BY HERD SIZE 527 New York Dairy Farms, 1978

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	Farms with:				
	Less than	40 to	55 to	70 to	
Item	40 Cows	54 Cows	69 Cows	84 Cows	
Number of farms	73	156	104	68	
Size of Business					
Number of cows	33	46	61	75	
Number of heifers	22	31	41	54	
Pounds of milk sold	426,800	624,700	855,100	1,085,500	
Man equivalent	1.6	1.8	2.3	2.6	
Total work units	370	512	677	839	
Total crop acres	111	147	199	244	
(Crop acres rented)	(17)	(29)	(50)	(70)	
Rates of Production			(2)	(<i>i</i> =)	
Milk sold per cow	12,930	13,600	14,000	14.500	
Tons hay crops per acre	2.1	2.3	2.4	2.6	
Tons corn silage per acre	13.0	13.2	13.3	14.2	
Bushels of oats per acre	55	72	58	61	
Labor Efficiency					
Cows per man	21	25	27	29	
Pounds milk sold per man	270,100	341,400	380,000	420,700	
Work units per man	234	280	301	325	
Feed Costs					
Feed purchased per cow	\$392	\$412	\$408	\$413	
Crop expense per cow	\$87	\$99	\$113	\$139	
Feed cost per cwt. milk	\$3.03	\$3.04	\$2.91	\$2.86	
Feed & crop exp./cwt. milk	\$3.70	\$3.77	\$3.72	\$3.82	
% feed is of milk receipts	29%	29%	28%	27%	
Hay equivalent per cow	7.8	8.3	8.5	8.8	
Crop acres per cow	3.4	3.2	3.3	3.3	
Fertilizer & lime/crop acre	\$17	\$19	\$23	\$28	
Machinery and Labor Costs		•	•	•	
Total machinery costs	\$9,501	\$13,110	\$17,825	\$22,372	
Machinery cost per cow	\$288	\$285	\$292	\$298	
Machinery cost/cwt. milk	\$2.23	\$2.10	\$2.08	\$2.06	
Labor cost per cow	\$329	\$279	\$273	\$273	
Labor cost per cwt. milk	\$2.55	\$2.05	\$1.95	\$1.89	
Capital Efficiency			·		
Investment per man	\$103,500	\$124,500	\$127,000	\$141,100	
Investment per cow	\$4,800	\$4,850	\$4,600	\$4,860	
Investment per cwt. milk	\$38	\$36	\$33	\$34	
Land & buildings per cow	\$2,620	\$2,540	\$2,330	\$2,490	
Machinery investment/cow	\$900	\$900	\$900	\$935	
Capital turnover	2.6	2.5	2.4	2.4	
Other					
Price per cwt. milk sold	\$10.40	\$10.29	\$10.38	\$10.47	
Acres hay crops	85	99	123	140	
Acres corn silage	22	37	52	66	
Inventory changes 1978*:					
Number of cows	0	0	0	+1	
Invt. value per cow**	+\$277	+\$348	+\$243	+\$229	

SELECTED BUSINESS FACTORS BY HERD SIZE 527 New York Dairy Farms, 1978

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* Change from 1/1/78 to 1/1/79. ** Livestock inventory includes heifers.

	Farms with:				
	85 to	100 to	115 to	130 to	150 or
Item	99 Cows	<u>114 Cows</u>	129 Cows	149 Cows	More Cows
Number of farms	34	28	19	16	29
Size of Business					
Number of cows	91	106	121	138	195
Number of heifers	72	77	90	90	124
Pounds of milk sold	1,240,100	1,482,800	1,699,200	1,999,300	2,651,400
Man equivalent	2.8	3.4	3.5	3.8	5.4
Total work units	1.014	1,183	1,333	1.487	2,064
Total crop acres	271	331	361	382	506
(Crop acres rented)	(83)	(115)	(159)	(111)	(212)
Rates of Production					
Milk sold per cow	13,600	14,000	14,000	14,500	13,600
Tons hay crops per acre	3.0	2.5	2.6	2.5	2.6
Tons corn silage/acre	14.1	13.6	14.4	14.6	14.4
Bushels oats/acre	52	52	64	66	73
Labor Efficiency					
Cows per man	32	31	35	36	36
Pounds milk sold/man	438,200	433,600	485,500	522,000	489,200
Work units per man	358	346	381	388	381
Feed Costs					
Feed purchased per cow	\$398	\$455	\$385	\$421	\$404
Crop expense per cow	\$127	\$115	\$111	\$124	\$133
Feed cost per cwt. milk	\$2.92	\$3.25	\$2.74	\$2.91	\$2.97
Feed & crop exp./cwt. milk	\$3.85	\$4.07	\$3.53	\$3.76	\$3.95
% feed is of milk receipts	27%	31%	26%	28%	27%
Hay equivalent per cow	8.7	8.9	8.8	8.2	7.7
Crop acres per cow	3.0	3.1	3.0	2.8	2.6
Fertilizer & lime/crop acre	\$28	\$22	\$22	\$26	\$32
Machinery and Labor Costs					
Total machinery costs	\$28,917	\$30,361	\$32,366	\$37,230	\$53,376
Machinery cost per cow	\$318	\$286	\$267	\$270	\$274
Machinery cost/cwt. milk	\$2.33	\$2.05	\$1.90	\$1.86	\$2.01
Labor cost per cow	\$257	\$246	\$258	\$260	\$274
Labor cost/cwt. milk	\$1.89	\$1.76	\$1.84	\$1.79	\$2.01
Capital Efficiency					
Investment per man	\$144,900	\$140,000	\$145,000	\$147,900	\$139,100
Investment per cow	\$4,410	\$4,470	\$4,100	\$4,000	\$3,800
Investment/cwt. milk	\$33	\$32	\$30	\$28	\$28
Land & buildings/cow	\$2,235	\$2,180	\$2,000	\$2,000	\$1,840
Machinery investment/cow	\$800	\$820	\$750	\$700	\$660
Capital turnover	2.3	2.2	2.2	2.1	1.9
Other					
Price per cwt. milk sold	\$10.64	\$10.44	\$10.49	\$10.46	\$11.02
Acres hay crops	141	180	194	198	234
Acres corn silage	80	110	115	130	185
Inventory changes 1978*:					
Number of cows	+3	+1	+4	+1	+3
Invt. value per cow**	+\$212	+\$320	+\$212	+\$239	+\$222

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* Change from 1/1/78 to 1/1/79. ** Livestock inventory includes heifers.

	Farms with:				
	Less than	40 to	55 to	70 to	
Item	40 Cows	54 Cows	69 Cows	84 Cows	
Number of farms	73	156	104	68	
Assets					
Livestock	\$ 35,740	\$ 52,755	\$ 65,255	\$ 78,470	
Feed and supplies	8,174	13,258	19,892	28,543	
Machinery & equipment	30,530	42,335	56,068	70,121	
Land and buildings	89,130	119,478	144,549	187,022	
Co-op investment	838	2,393	2,585	3,794	
Accounts receivable	3,226	4,828	6,532	8,284	
Cash & checking accounts	1,275	1,374	1,971	2,617	
Total Farm Assets	\$168,913	\$236,421	\$296,852	\$378,851	
Savings accounts	2,336	3,254	4,117	3,505	
Cash value life insurance	2,376	1,886	2,570	3,131	
Stocks and bonds	982	520	1,808	3,695	
Nonfarm real estate	2,201	2,698	3,157	4,945	
Auto (personal share)	969	1,032	962	1,042	
All other	3,816	3,620	4,336	4,843	
Total Nonfarm Assets	\$ 12,680	\$ 13,010	\$ 16,950	\$ 21,161	
TOTAL ASSETS	\$181,593	\$249,431	\$313,802	\$400,012	
Liabilities					
Real estate mortgage	\$ 27,851	\$ 53,975	\$ 63,209	\$ 77,966	
Liens on cattle & equipt.	18,893	29,321	38,989	40,351	
Installment contracts	1,567	1,913	2,363	2,447	
Other loans over 7 years	720	1,317	2,591	2,185	
Other loans 1 to 7 years	2,696	2,481	3,040	5,201	
Other loans less than 1 year	201	517	1,372	1,787	
Feed store & other accounts	1,693	1,592	2,414	1,725	
Total Farm Liabilities	\$ 53,621	\$ 91,116	\$113,978	\$131,662	
Nonfarm Liabilities	412	587	711	7 29	
TOTAL LIABILITIES	\$ 54,033	\$ 91,703	\$114,689	\$132,391	
Farm Net Worth	\$115,292	\$145,305	\$182,874	\$247,189	
(Equity Capital)					
FAMILY NET WORTH	\$127,560	\$157,728	\$199,113	\$267,621	
Financial Measures					
Percent equity	70%	63%	63%	67%	
Farm debt per cow	\$1,577	\$1,898	\$1,809	\$1,755	
Available for debt service					
and living	\$16,555	\$23,498	\$33,303	\$39,376	
Scheduled annual debt payment	\$9,140	\$14,216	\$19,411	\$23,752	
Scheduled debt payment/cow	\$269	\$296	\$308	\$317	
percent of milk check	21 7	22%	22%	212	
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FARM FAMILY FINANCIAL SITUATION BY HERD SIZE 527 New York Dairy Farms, January 1, 1979

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	Farms with:				
	85 to	100 to	115 to	130 to	150 or
Item	99 Cows	114 Cows	129 Cows	149 Cows	More Cows
Number of farms	34	28	19	16	29
Assets					
Livestock	\$ 97,349	\$121,910	\$119,720	\$141,329	\$190,366
Feed and supplies	30,206	35,549	41,539	45,886	64,626
Machinery & equipment	74,733	87,844	93,069	99,001	132,127
Land and buildings	207,814	233,435	253,252	280,080	367,010
Co-op investment	5,970	5,439	8,301	8,186	12,723
Accounts receivable	10,338	10,866	20,992	18,651	24,789
Cash & checking accounts	1,929	2,476	4,846	5,012	3,992
Total Farm Assets	\$428,339	\$497,519	\$541,719	\$598,145	\$795,633
Savings accounts	4,607	4,087	3,571	3,327	2,497
Cash value life insurance	3,013	7,869	2,509	4,274	3,698
Stocks and bonds	3,118	4,885	1,465	5,580	4,771
Nonfarm real estate	2,058	250	7,236	15,656	15,442
Auto (personal share)	561	1,206	816	1,134	2,131
All other	3,191	3,780	2,942	4,281	9,901
Total Nonfarm Assets	\$ 16,548	\$ 22,077	\$ 18,539	\$ 34,252	\$ 38,440
TOTAL ASSETS	\$444,887	\$519,596	\$560,258	\$632,397	\$834,073
Liabilities					
Real estate mortgage	\$ 80,379	\$109,060	\$105,786	\$119,664	\$172,762
Liens on cattle & equipt.	52,117	62,451	74,989	70,337	129,739
Installment contracts	2,163	3,762	2,755	2,366	3,763
Other loans over 7 years	3,663	719	2,184	687	10,191
Other loans 1 to 7 years	6,754	10,783	3,793	1,666	5,731
Other loans less than 1 year	828	2,184	1,895	625	1,995
Feed store & other accounts	1,846	5,361	3,540	1,902	2,088
Total Farm Liabilities	\$147,750	\$194,320	\$194,942	\$197,247	\$326,269
Nonfarm Liabilities	276	324	3,476	687	1,724
TOTAL LIABILITIES	\$148,026	\$194,644	\$198,418	\$197,934	\$327,993
Farm Net Worth	\$280,589	\$303,199	\$346,777	\$400,898	\$469,364
(Equity Capital)					
FAMILY NET WORTH	\$296,861	\$324,952	\$361,840	\$434,463	\$506,080
Financial Measures					
Percent equity	67%	63%	65%	69%	61%
Farm debt per cow	\$1,572	\$1,799	\$1,572	\$1,379	\$1,623
Available for debt service					
and living	\$44,922	\$49,231	\$59,244	\$69,078	\$85,141
Scheduled annual debt paymen	t \$27,466	\$33,068	\$36,631	\$31,485	\$56,418
Scheduled debt payment/cow	\$ 29 2	\$306	\$295	\$220	\$281
Scheduled debt payment as					
percent of milk check	21%	21%	21%	15%	19%

FARM FAMILY FINANCIAL SITUATION BY HERD SIZE 527 New York Dairy Farms, January 1, 1979

PROGRESS OF THE FARM BUSINESS

Comparing your business with that of other farmers is one part of a business checkup. It is equally important to compare your current year's business with that of earlier years to show the progress you are making, and to plan ahead, by setting business targets or goals.

Item	1977	1978	1979	1980 Go al
Size of Business				
Number of cows				
Number of heifers			······································	
Pounds of milk sold				
Man equivalent			·····	
Acres of crops	An			
Rates of Production Lbs. milk sold per cow				
Tons hay crops per acre			·····	Margani in casa a sa s
Tons corn silage/acre				
Labor Efficiency Cows per man				
Lbs. milk sold per man			`. 	Palacer - and an and a state of the state of the
Cost Control				
Feed bought per cow	\$	\$	\$	\$
Machinery cost per cow	\$	\$	\$	\$
Labor cost per cow	\$	\$	\$	\$
Capital Efficiency				
Farm capital per cow	\$	\$	\$	\$
Land & bldgs. per cow	\$	\$	\$	\$
Machinery investment				
per cow	\$	\$	\$	\$
Price				
Price per cwt. milk	\$	\$	\$	\$
Financial Summary				
Net cash farm income	\$	\$	\$	\$
Total farm receipts	\$	\$	\$	\$
Total farm expenses	\$	\$	\$	\$
Labor & mgmt. inc./oper.	\$	\$	\$	\$
Farm Net Worth	\$	\$	\$	\$

Are you satisfied with your progress? Have you set a realistic goal for 1980?