

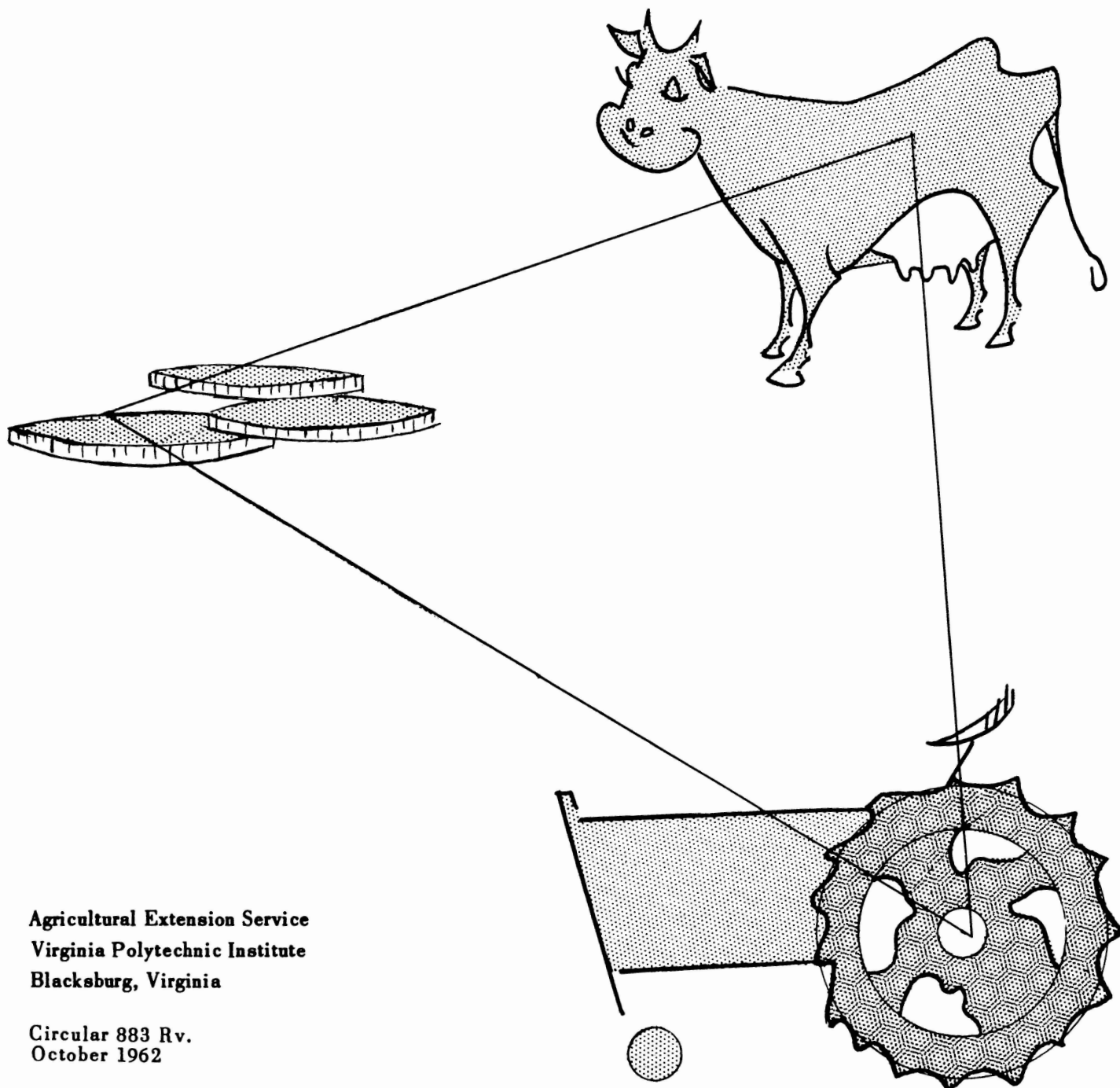
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1961

# DAIRY FARM BUSINESS SUMMARY

*ELECTRONIC FARM ACCOUNT PROGRAM*



Agricultural Extension Service  
Virginia Polytechnic Institute  
Blacksburg, Virginia

Circular 883 Rv.  
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DAIRY FARM BUSINESS SUMMARY  
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Introduction

A look at the financial records of the 101 Grade-A dairy farms enrolled in the V.P.I. Electronic Farm Account Program during 1961 reveals wide variations from farm to farm in nearly every efficiency factor. These variations are associated with large differences in net income among farms. This summary of farm records is designed for your use in locating weak and strong points in your business with an eye toward improving the "profit-ability" of your dairy operation.

The comparable data for your farm may be entered in the "my farm" column of each table. Your county agent can arrange to help you find ways to improve your net income, if he has not already done so.

The tables show averages for 101 Grade-A dairy farms and for 8 manufacturing milk farms enrolled in the program during 1961. The 101 Grade-A dairy farms are subdivided into three categories based on net farm income. The high net income group consists of 32 farms, and ranges from \$9,280 to \$24,470, the medium group contains 32 farms from \$5,120 to \$8,490, and the low group numbers 37 farms from minus \$27,840 to \$4,490.

A strict mathematical subdivision of 34 farms per group is not used, since it would result in farms of nearly the same net income being placed in different groups. The present division of farms into groups occurs at logical breaking places in the data. The manufacturing milk group is not divided into income categories because the number of farms involved is too small to be meaningful.

Net farm income averages \$6,825 on the 101 Grade-A dairy farms. The 32 high income farms enjoy an average net income of \$14,219 and a labor income of \$9,115. The medium income farms average \$6,862 in net farm income and \$4,169 in labor income. The low income group has a net farm income of only \$394 and a labor income of minus \$3,504.

Labor income is calculated by subtracting a 5% charge on investment from net farm income. Labor income is one measure of return to operator labor and management, although it should be distinguished from labor earnings. Labor earnings include the value of perquisites, such as housing and farm-raised food products used by the operator's family. Refer to page 6 for complete data and explanation. Be sure you read the footnotes on all pages for the important explanations they contain.

The distribution of these farms among the Extension Districts of Virginia are as follows:

East Central District	35
Northeastern District	7
Northern District	18
Southeastern District	2
Southwestern District	27
West Central District	12

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An analysis not given here indicates that data for the individual Extension districts differs little from data for the entire State.

Please bear in mind that the information contained in this publication does not necessarily represent the situation on all Grade-A or manufacturing milk farms in Virginia, since no statistical sampling procedure was used in selecting the farms.

The V.P.I. Electronic Farm Account Program is a joint project of the Virginia Agricultural Extension Service and the Virginia Agricultural Experiment Station, and is conducted by the Department of Agricultural Economics. The analysis figures contained in this summary were made possible through combined efforts and assistance of the Extension personnel in the following counties:

Albermarle	Lancaster
Amelia	Lee
Amherst	Loudoun
Appomattox	Mecklenburg
Augusta	Montgomery
Bedford	Nelson
Bland	Nottoway
Buckingham	Page
Carroll	Patrick
Charlotte	Pittsylvania
Clarke	Powhatan
Culpeper	Prince Edward
Cumberland	Prince William
Fairfax	Princess Anne
Fauquier	Rockingham
Franklin	Russell
Grayson	Smyth
Halifax	Tazewell
Henry	Warren
King & Queen	Washington
King William	Westmoreland

Capital Investment

	Grade-A Dairy			Manufacturing Milk	My Farm	
	101 Farms	32 High Income Farms	32 Medium Income Farms	37 Low Income Farms		8 Farms
<u>Dollars Invested In:</u>						
Land & buildings.....	\$ 51,190	\$ 54,980	\$ 51,650	\$ 47,530	\$ 24,060	_____
Mach. & equip. ....	11,870	14,180	10,870	10,720	3,050	_____
Dairy cattle.....	18,510	25,450	16,470	14,260	4,750	_____
Other livestock.....	760	640	620	990	850	_____
Feed, seed, supply...	4,990	6,830	3,760	4,470	1,130	_____
TOTAL INVESTMENT.....	\$ <u>87,320</u>	\$ <u>102,080</u>	\$ <u>83,370</u>	\$ <u>77,970</u>	\$ <u>33,840</u>	_____
<u>Percent of Investment</u>						
<u>In:</u>						
Land & buildings <sup>1/</sup> ....	59	54	62	61	71	_____
Mach. & equip. ....	13	14	13	14	9	_____
Livestock <sup>1/</sup> .....	22	25	20	20	17	_____
Feed, seed, supply...	6	7	5	5	3	_____
Number of cows <sup>2/</sup> .....	47	60	41	40	18	_____
<u>Dollars Invested Per</u>						
<u>Cow In:</u>						
Land & buildings.....	\$ 1,089	\$ 916	\$ 1,260	\$ 1,188	\$ 1,375	_____
Mach. & equip. ....	253	236	265	268	174	_____
Dairy cattle <sup>3/</sup> .....	394	424	402	356	271	_____
Feed, seed, supply...	106	114	92	112	65	_____
Total invest. per cow <sup>3/</sup>	\$ <u>1,858</u>	\$ <u>1,701</u>	\$ <u>2,033</u>	\$ <u>1,949</u>	\$ <u>1,934</u>	_____
Man equivalents <sup>4/</sup> .....	2.9	3.5	2.3	2.8	1.7	_____
<u>Dollars Invested Per</u>						
<u>Man In:</u>						
Land & buildings.....	\$ 17,652	\$ 15,709	\$ 22,457	\$ 16,975	\$ 14,153	_____
Mach. & equip. ....	4,093	4,051	4,726	3,829	1,794	_____
Dairy cattle <sup>5/</sup> .....	6,383	7,271	7,161	5,093	2,794	_____
Feed, seed, supply...	1,720	1,951	1,635	1,596	665	_____
Total invest. per man	\$ <u>30,110</u>	\$ <u>29,166</u>	\$ <u>36,248</u>	\$ <u>27,846</u>	\$ <u>19,906</u>	_____



Acres crops & pasture <sup>6/</sup>	213	258	173	209	119	
<u>Dollars Invested Per</u>						
<u>Acres Crops &amp; Pasture</u>						
<u>In.</u>						
Land & buildings.....	\$ 240	\$ 213	\$ 299	\$ 227	\$ 202	
Mach. & equip. ....	56	55	63	51	26	
Dairy cattle.....	87	99	95	68	40	
Total invest. per acre						
crops & pasture....	\$ <u>410</u>	\$ <u>396</u>	\$ <u>482</u>	\$ <u>373</u>	\$ <u>284</u>	
Crop acreage <sup>6/</sup> .....	99	126	68	103	43	
<u>Dollars Invested Per</u>						
<u>Acres Crops In:</u>						
Land & buildings.....	\$ 517	\$ 436	\$ 760	\$ 461	\$ 560	
Mach. & equip. ....	120	113	160	104	71	
Dairy cattle.....	187	202	242	138	110	
Total invest. per acre						
crops.....	\$ <u>882</u>	\$ <u>810</u>	\$ <u>1,226</u>	\$ <u>757</u>	\$ <u>787</u>	

- 1/ While a quick look at the total investment figures might give the impression that high income farms are larger than those of lower income, closer study will reveal that it is more important how investment capital is used. Although the lower income farms average 7% to 8% more invested in land and buildings than the higher group, they average 5% lower investment in livestock.
- 2/ Size of the farm when measured in number of cows is closely associated with net farm income. The 33 farms with the fewer cows average 27 cows and an income of \$4,310, which contrasts with 74 cows and \$11,150 in income on the 33 largest farms.
- 3/ The larger number of cows on the high income farms results in a lower total investment (overhead) per cow. Still, it is interesting to note that the dairy cattle investment per cow was highest in the high income group, indicating a higher quality animal on these farms.
- 4/ Man equivalent is the number of full-time men working 10 hour days for 312 days per year. There is an important association between size measured in man equivalents and net farm income. The 33 smallest farms average 1.6 M.E. and a net income of \$4,959, while the 33 largest farms average 4.6 M.E. and \$8,959 in net income.
- 5/ The low dairy cattle investment per man on the low income farms indicates an underemployment of labor, stemming from a low number of cows per man.
- 6/ These acreages include only owned land and exclude land which is rented and double-cropped since this table is concerned only with investment in the farm business. Total crop acreages operated are given on page 8.

Farm Receipts

	Grade-A Dairy Farms			Manufacturing Milk	My Farm
	101 Farms	32 High Income Farms	32 Medium Income Farms	37 Low Income Farms	
<u>Receipts</u>					
Dairy products sold -					
gross.....	\$ 24,417	\$ 33,910	\$ 21,800	\$ 18,490	\$ 3,360
Dairy cattle sold....	2,987	3,560	2,280	3,110	1,200
Other livestock sold.	360	360	350	370	480
Crops sold.....	1,777	2,300	1,390	1,650	1,990
Miscellaneous.....	1,422	1,540	1,280	1,440	450
<b>TOTAL CASH RECEIPTS..</b>	<b>\$ 30,963</b>	<b>\$ 41,670</b>	<b>\$ 27,100</b>	<b>\$ 25,060</b>	<b>\$ 7,480</b>
Machinery sold.....	\$ 81	\$ 30	\$ 50	\$ 150	\$ 60
Bldgs., fences, land sold.....	30	30	10	50	0
Capital inv. increase	827	2,159	550	0	749
Operating inv. increase	904	1,856	355	541	222
<b>TOTAL FARM RECEIPTS..</b>	<b>\$ 32,805</b>	<b>\$ 45,745</b>	<b>\$ 28,065</b>	<b>\$ 25,801</b>	<b>\$ 8,511</b>
% total receipts - milk & dairy cattle sales	84	82	86	84	54
% total receipts - other livestock sales.....	1	1	1	1	6
% total receipts - crop sales.....	5	5	5	6	23
Cash receipts per dollar invest. <sup>1/</sup> .....	\$ 35	\$ .41	\$ .33	\$ .32	\$ .22
% total receipts in inv. increase <sup>2/</sup> .....	5	9	3	2	11

<sup>1/</sup> As would be expected, total farm receipts are higher on the high income farms. What is more important, however, is the receipts per dollar of investment, since this is a measure of how efficiently capital is being used. The high income group average 28% higher receipts per dollar invested over that of the low and medium income group.

<sup>2/</sup> A higher percentage of the receipts of the high income farms are increased inventories, an indication that they are continuing to grow.

Farm Expenses

Expenses

Hired labor.....	\$ 4,208	\$ 5,690	\$ 2,990	\$ 3,978	\$ 451	
Purchased feed.....	5,623	6,289	5,975	4,743	849	
Fertilizer.....	2,033	3,048	1,408	1,697	515	
Lime.....	145	205	81	149	33	
Other crop expense...	587	797	439	535	220	
Supplies.....	337	436	249	329	34	
Machine hire.....	170	128	255	133	134	
Mach. repair & maint.	1,429	1,742	1,082	1,459	439	
Gas and oil.....	1,160	1,440	923	1,124	276	
Improvement & maint..	406	500	311	408	59	
Vet. & med. ....	255	306	205	255	36	
Breeding expense.....	230	265	230	201	29	
Livestock expense....	403	406	359	438	51	
Milk marketing.....	1,829	2,198	1,658	1,658	355	
Taxes.....	406	499	341	382	141	
Misc. expenses <sup>1/</sup> .....	1,634	1,991	1,310	1,606	206	
<b>TOTAL CASH OPERATING</b>						
EXPENSES.....	\$ <u>20,855</u>	\$ <u>25,940</u>	\$ <u>17,816</u>	\$ <u>19,095</u>	\$ <u>3,828</u>	
Bldgs., fences & land						
purchased.....	\$ 948	\$ 1,054	\$ 934	\$ 868	\$ 224	
Mach. purchased.....	2,384	2,605	1,444	3,005	1,476	
Livestock purchased..	1,261	1,339	645	1,727	634	
Capital inv. decrease	0	0	0	83	0	
Operating inv. decrease	0	0	0	0	0	
Unpaid family labor..	532	588	364	629	400	
<b>TOTAL FARM EXPENSES...</b>	\$ 25,980	\$ 31,526	\$ 21,203	\$ 25,407	\$ 6,562	

<sup>1/</sup> Miscellaneous expenses include such items as rent (other than pasture), electricity, telephone, farm subscriptions, DHIA, and other unclassified business expenses.

Labor Income

	Grade-A Dairy Farms				Manufacturing Milk	My Farm
	101 Farms	32 High Income Farms	32 Medium Income Farms	37 Low Income Farms	8 Farms	
<u>Profit or Loss</u>						
Farm receipts.....	\$ 32,805	\$ 45,745	\$ 28,065	\$ 25,801	\$ 8,511	_____
Farm expenses.....	25,980	31,526	21,203	25,407	6,562	_____
NET FARM INCOME <sup>1/</sup> .....	<u>6,825</u>	<u>14,219</u>	<u>6,862</u>	<u>394</u>	<u>1,949</u>	_____
Average capital.....	87,320	102,080	83,370	77,970	33,840	_____
Interest @ 5%.....	4,366	5,104	4,169	3,898	1,692	_____
LABOR INCOME <sup>2/</sup> .....	2,459	9,115	2,693	-3,504	257	_____
Value farm products used in home.....	1,469	1,473	1,625	1,332	1,195	_____
LABOR EARNINGS <sup>3/</sup> .....	3,928	10,588	4,318	-2,172	1,452	_____
% return on invest. <sup>4/</sup> ..	5	11	5	-2	-1	_____
Net return per hour labor <sup>5/</sup> .....	.80	1.41	.84	.13	.21	_____

- 1/ Net farm income is the difference between receipts and expenses after an adjustment has been made for inventory changes. The \$13,825 difference between the high and low income group indicates the extent of variation between farms engaged in the same type of farming.
- 2/ Labor income is a measure of the actual return received by the farmer for his labor and management after a charge of 5% (interest) on the total investment has been deducted from the net farm income. Since the deduction for interest is larger for larger farms, labor income is more likely to be a figure which will fairly compare larger and smaller farms. The table above shows that the low income group would need to increase net farm income by \$3,500 before any return was received for labor and management.
- 3/ Labor earnings are computed by adding to labor income those farm benefits (such as housing, milk, meat, and garden produce) received by the farm family.
- 4/ Return on investment is a somewhat different look at the profit picture than that in labor income. All labor, including the operator's labor (computed at \$200 per month), is charged as an expense against the net farm income. The remaining net farm income is considered return to the investment and, when divided by the actual investment in dollars, gives the % return on investment. The low income group failed to achieve a level of return that could have been obtained in any sound investment or savings program.
- 5/ Net return per hour labor is calculated by adding back to net farm income all of the labor expenses, such as hired labor and unpaid family labor. This corrected net farm income is divided by the total hours of labor used on the farm during the year.

Farm Machinery Costs

	Grade-A Dairy Farms			Manufacturing Milk	My Farm
	101 Farms	32 High Income Farms	32 Medium Income Farms	8 Farms	
<u>Machinery Cost</u>					
Invest. in mach. & equipment.....	\$ 11,870	\$ 14,180	\$ 10,870	\$ 3,050	_____
Interest on invest. @ 5%.....	594	709	544	152	_____
Depreciation.....	2,744	3,152	1,914	1,084	_____
Gas and oil.....	1,160	1,440	923	276	_____
Mach. repair & maint.	1,429	1,742	1,082	439	_____
Mach. work hired.....	170	128	255	134	_____
GROSS MACH. COST.....	\$ 6,097	\$ 7,171	\$ 4,718	\$ 2,085	_____
½ custom work receipts	\$ 66	\$ 38	\$ 81	\$ 15	_____
NET MACH. COST <sup>1/</sup> .....	\$ 6,031	\$ 7,133	\$ 4,637	\$ 2,070	_____
Acres crops <sup>2/</sup> .....	120	158	89	46	_____
Net mach. cost per acre crops <sup>3/</sup> .....	\$ 50	\$ 45	\$ 52	\$ 45	_____
Mach. & equip. invest. per acre crops <sup>3/</sup> .....	99	90	122	66	_____
Man equivalents.....	2.9	3.5	2.3	1.7	_____
Net mach. cost per man equivalent.....	\$ 2,080	\$ 2,038	\$ 2,016	\$ 1,218	_____
Mach. & equip. invest. per man equivalent..	4,093	\$ 4,051	\$ 4,726	\$ 1,794	_____

Number cows.....	47	60	41	40	18	_____
Net mach. cost per cow.....	128	119	113	157	118	_____
Mach. & equip. invest. per cow.....	253	236	265	268	174	_____
Mach. repair as % invest. ....	12	12	10	14	14	_____
Mach. deprec. as % invest. ....	23	22	18	29	36	_____
Gross mach. cost as % gross receipts <sup>4/</sup> ....	19	16	17	25	24	_____

- 1/ Gross machinery costs are reduced by  $\frac{1}{2}$  of the custom work receipts to get a cost that may be fairly charged to the home farming operation. This figure includes both crop and livestock equipment costs, but does not include such items as housing, taxes, and insurance.
- 2/ The figures used for acres of crops in this table differ from the figures given in the table on page 3 because rented and double-cropped land are included here. There is an important association between size measured by crop acreage and farm profits. The largest farms average 208 acres of crops and \$8,512 in net income as opposed to 51 acres and \$5,145 income on the 33 smallest farms.
- 3/ The larger crop acreages operated by the high income farms together with careful investment in machinery result in lower costs and investments per acre on these farms.
- 4/ An important measure of how well machine costs are being controlled is the percentage of gross receipts to which they amount. It can be seen that machine costs alone cost the low income farmer 25¢ of every dollar or receipt.

Labor Costs

	Grade- A Dairy			Manufacturing Milk	My Farm
	101 Farms	32 High Income Farms	32 Medium Income Farms	37 Low Income Farms	
<u>Labor Cost</u>					
Operator's labor.....	\$ 2,378	\$ 2,663	\$ 2,363	\$ 2,144	\$ 2,300
Hired labor <sup>1/</sup> .....	4,208	5,690	2,990	3,978	451
Unpaid family labor..	532	588	364	629	400
GROSS LABOR COST.....	7,118	8,941	5,717	6,751	3,151
$\frac{1}{2}$ custom work receipts	66	38	81	76	15
NET LABOR COST <sup>2/</sup> .....	\$ <u>7,052</u>	\$ <u>8,903</u>	\$ <u>5,636</u>	\$ <u>6,675</u>	\$ <u>3,136</u>
Number cows.....	47	60	41	40	18
Net labor cost per cow \$	150	\$ 148	\$ 137	\$ 167	\$ 179
Man equivalent.....	2.9	3.5	2.3	2.8	1.7
Gross labor cost per man equivalent <sup>3/</sup> ....	\$ 2,454	\$ 2,555	\$ 2,486	\$ 2,411	\$ 1,854
Labor cost per hr. labor <sup>3/</sup> .....	\$ .79	\$ .82	\$ .80	\$ .77	\$ .59
Dairy cows per man <sup>4/</sup> ..	16	17	18	14	11
PMWU from crops <sup>5/</sup> .....	339	382	264	368	184
PMWU from livestock..	725	841	623	714	258
Total PMWU.....	<u>1,064</u>	<u>1,235</u>	<u>887</u>	<u>1,082</u>	<u>452</u>
% PMWU on crops.....	32	31	30	34	41
% PMWU on livestock..	68	68	70	66	57
Net labor cost per PMWU.....	\$ 7	\$ 7	\$ 6	\$ 6	\$ 7
PMWU per man.....	367	353	386	386	266
Acres crops.....	120	158	89	113	46
Acres crops per man..	41	45	39	40	27
Net labor cost per acre crops.....	\$ 59	\$ 56	\$ 63	\$ 59	\$ 68



- 1/ This figure often does not include all perquisites provided to labor, such as housing or farm products.
- 2/ Gross labor cost is reduced by  $\frac{1}{2}$  of the custom work receipts to obtain a net cost which may be more fairly applied to the home farming operation.
- 3/ Higher labor costs per man equivalent and per hour labor would indicate the greater ability of high income farms to pay better wages. Higher quality labor should result, although labor quality is difficult to measure statistically.
- 4/ Poorer labor efficiency is shown by the low income group, which maintained 3 to 4 fewer cows per man. The 33 farms with poorest labor efficiency average 12 cows per man and \$4,973 in net farm income, which contrasts with 23 cows per man and \$8,395 net income on the 33 most efficient farms.
- 5/ A productive man work unit (PMWU) is the amount of productive work accomplished by an average farm worker in one full day. The total PMWU measures the amount of work required to care for all crop and livestock enterprises on the farm. Size as measured by total PMWU is closely associated with net farm income. The 33 largest farms have a total of 1595 PMWU's and a net farm income of \$9,196, contrasted with the 33 smallest farms where total PMWU's average 553 and net farm income \$4,288.

Production Efficiency

	Grade-A Dairy			Manufacturing Milk	My Farm
	101 Farms	32 High Income Farms	32 Medium Income Farms	37 Low Income Farms	
<u>Livestock efficiency</u>					
Number cows.....	47	60	41	40	18
Man equivalents.....	2.9	3.5	2.3	2.8	1.7
Pounds milk sold.....	453,006	518,325	404,690	351,930	97,450
Value milk sold.....	\$ 24,417	\$ 33,910	\$ 21,800	\$ 18,490	\$ 3,360
Average fat test milk sold.....	3.6	3.8	3.6	3.3	4.3
Price per cwt. milk <sup>1/</sup>	\$ 5.39	\$ 5.48	\$ 5.39	\$ 5.25	\$ 3.45
Lbs. milk sold per cow <sup>2/</sup> .....	9,638	10,305	9,870	8,798	5,569
Value milk sold per cow <sup>2/</sup> .....	\$ 520	\$ 565	\$ 532	\$ 462	\$ 192
Lbs. milk sold per man <sup>3/</sup> .....	156,209	176,664	175,952	125,689	57,324
Value milk sold per man <sup>3/</sup> .....	\$ 8,420	\$ 9,689	\$ 9,478	\$ 6,604	\$ 1,976
% cow turnover <sup>4/</sup> .....	24	23	25	24	24

- 1/ The price per cwt. of milk is almost identical in all Grade-A groups when an allowance is made for differences in butterfat tests.
- 2/ Pounds of milk sold per cow and value of milk sold per cow are both higher on the high income farms. The 33 farms with lowest production average 7,529 lbs. of milk and have a net farm income of \$4,695. The 33 farms with highest production average 11,640 lbs. of milk per cow and \$10,288 in net income.
- 3/ Higher production per cow coupled with a higher number of cows per man results in a larger volume and value of milk sold per man on high income farms. The most efficient farms average 226,789 pounds per man with a net income of \$8,502. The least efficient 1/3 of the group average 104,433 pounds per man and a net income of \$3,013.
- 4/ The percent cow turnover is that fraction of the cow herd which was sold, butchered, or died during the year. A 25% cow turnover means that each cow averaged a 4-year life in the herd.

Crop Production

<u>Crop efficiency</u>						
Acres of crops <sup>1/</sup> .....	120	158	89	113	46	_____
Hay.....	52	62	48	48	21	_____
Corn grain.....	15	23	7	15	6	_____
Corn silage.....	24	31	18	23	5	_____
Small grain.....	22	33	14	18	11	_____
Tobacco.....	1.8	1.4	2.7	1.5	2.9	_____
Peanuts.....	.2	.3	0	.3	0	_____
Other.....	5	8	0	7	0	_____
Total animal units <sup>2/</sup> ..	74	90	65	68	40	_____
Acres crops per A.U..	1.6	1.8	1.4	1.7	1.2	_____
Acres pasture.....	118	138	108	111	76	_____
Animal units pastured	64	79	58	55	26	_____
Acres pasture per A.U. pastured <sup>3/</sup> .....	1.8	1.7	1.9	2.0	2.9	_____
Acres pasture per acre crops.....	1.0	1	1.2	1	1.7	_____
Crop index <sup>4/</sup> .....	138	147	134	135	131	_____
Fertilizer cost per acre crops <sup>4/</sup> ..... \$	14	\$ 15	\$ 13	\$ 13	\$ 10	_____
Fertilizer cost per acre pasture <sup>3/</sup> ..... \$	6	\$ 10	\$ 4	\$ 4	\$ 3	_____
Forage (hay) equiv. per A.U. pastured <sup>5/</sup> .....	4.3	4.7	4.1	4.2	2.9	_____

- <sup>1/</sup> Acres of crops used on this page include rented and double-cropped land.
- <sup>2/</sup> An animal unit is a measure of the total livestock on the farm, measured in cow equivalents.
- <sup>3/</sup> Increased use of fertilizer on pasture results in a reduced number of acres required per animal unit on high income farms. This allows a larger number of cows to be maintained on the farm's limited pasture acreage.
- <sup>4/</sup> Differences in crop yields between the groups are larger than would be expected from the small difference (\$2 per acre) in fertilizer used. High crop yields are the result of expert management practices during the entire production season of the crop. The crop index is closely associated with farm profits. The 33 lowest producing farms have an index of 106 and a net farm income of \$5,650. The 33 highest producing farms have an average index of 172 and a net farm income of \$8,091.
- <sup>5/</sup> Forage equivalent is made up of all forage produced on the farm, expressed on a hay equivalent basis. Pasture is not included, but each ton of silage is valued at 1/3 ton of hay.

Cost Control Yardsticks

	Grade-A Dairy Farms			Manufacturing Milk	My Farm
	101 Farms	32 High Income Farms	32 Medium Income Farms	8 Farms	
<u>Cost Control</u>					
% total receipts for purchased feed.....	17	14	21	10	_____
% total receipts for hired labor.....	13	12	11	5	_____
Labor cost per hr. labor.....	\$ .79	\$ .82	\$ .80	\$ .59	_____
Labor cost per PMWU..	7	7	6	7	_____
Vet. & med. per cow..	5	5	5	2	_____
Feed purchased per cow	120	105	146	49	_____
Total labor cost per cow.....	\$ 150	\$ 148	\$ 137	\$ 179	_____
% total invest. in mach. ....	13	14	13	9	_____
% total receipts for mach. cost.....	19	16	17	24	_____
Net mach. cost per acre crops.....	\$ 50	\$ 45	\$ 52	\$ 45	_____
Net mach. cost per cow	\$ 128	\$ 119	\$ 113	\$ 118	_____
Mach. deprec. as % gross mach. cost...	45	44	41	52	_____
Mach. repair as % gross costs.....	23	24	23	21	_____
Total farm expenses per cow <sup>1/</sup> .....	\$ 553	\$ 525	\$ 517	\$ 375	_____
% expenses are of receipts.....	79	69	76	77	_____

<sup>1/</sup> Failure to control farm expenses in almost every category is revealed by the high farm expenses per cow figure for the low income group. Although this group has lowest production per cow, it was unable to control costs. High costs per cow in the low income group cannot be blamed on the herd size since the middle income group has only one more cow in the herd, yet expenses per cow are \$118 lower.

## How Do You Stack Up?

Listed below you will find some of the factors associated with high farm profits. These factors measure both size and efficiency. The 10 figures listed for each one are in steps of "10 farm averages." For example, the first figure is the average of the top 10 farms in each category, the second figure the average of the second 10 farms. If your farm figure is closest to the top figure in the list, you are equal to the top 10% of the farms in this publication. If your farm figure is closest to the 5th or 6th figure in the list, you are about average in comparison with the farms in this study, and if your farm is closest to the 10th figure, you are equal to the lowest 10% of these farms.

The more factors you excel in, the greater are your chances for success! How well do you stack up?

Size Measurements		Efficiency Measurements	
<u>Number Cows</u>	<u>Man Equivalent</u>	<u>Milk Per Cow (lbs.)</u>	<u>Milk Per Man (lbs.)</u>
99	7.0	13,200	306,290
72	3.7	11,500	214,320
55	3.3	10,800	197,280
47	2.8	10,400	184,670
43	2.5	10,000	170,920
39	2.3	9,300	156,720
35	2.2	9,000	142,080
32	2.0	8,400	128,460
28	1.7	7,700	106,740
21	1.2	6,400	74,890
<u>Acres Crops</u>	<u>Total PMWU's</u>	<u>Crop Index</u>	<u>Cows Per Man</u>
298	2340	198	28
195	1470	170	22
159	1210	158	20
130	990	148	19
105	880	141	18
89	810	132	17
76	640	122	16
64	620	117	14
53	570	110	13
36	460	91	9



**ISSUED IN FURTHERANCE OF COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, ACTS OF MAY 8 AND JUNE 30, 1914, IN COOPERATION WITH THE U. S. DEPARTMENT OF AGRICULTURE. W. H. DAUGHTREY, DIRECTOR, AGRICULTURAL EXTENSION SERVICE, VIRGINIA POLYTECHNIC INSTITUTE, BLACKSBURG, VIRGINIA.**

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