



IFAS EXTENSION

## Dairy Business Analysis Project: 2004 Financial Summary <sup>1</sup>

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R. Giesy, L. Ely, A. de Vries, B. Broaddus, C. Vann, and A. Bell<sup>2</sup>

### Introduction

The Dairy Business Analysis Project (DBAP) was initiated in 1996 by the University of Florida in an effort to measure and document the financial performance of Florida dairy farms using standardized accounting measures. The University of Georgia has been a formal collaborator since 1998. A committee of dairymen appointed by Southeast Milk, Inc. oversees the project and helps direct its course. The DBAP website is <http://dairy.ifas.ufl.edu/dbap>.

Financial data for the year 2004 were collected from participating dairy farms and screened for completeness and validity. Each dairy farm then received a benchmark report detailing its financial results compared to the average results for the other participants and the six dairy farms with the highest net farm income per cwt. This benchmark report is discussed with the dairy farms to identify challenges and opportunities for improvement.

This publication is a summary of the financial performance of the dairy farms that participated in 2004. It is intended for general use by dairy farmers,

the allied industry, and government and educational professionals.

### Data Collection and Accounting Methods

Dairy farms in Florida and Georgia were asked to participate in DBAP. Participants were not a random sample of all dairy farms in the two states. The financial performance results in this publication are therefore not necessarily representative of the results of all dairy farms in Florida and Georgia.

Most of the data were collected by extension agents when visiting dairy farms using a standardized data collection spreadsheet. Occasionally, data were sent in by the dairy farms. The financial data were either entered into the spreadsheet on the farm or mailed in on paper copies of the spreadsheet.

The accounting methods followed the recommendations made by the Farm Financial Standards Council. All revenues and expenses were accrual adjusted. Cash receipts and expenses were therefore adjusted for changes in inventory, prepaid expenses, accounts payable, and accounts receivable.

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  2. R. Giesy, Extension Agent IV; L. Ely, Professor, Department of Animal and Dairy Science, University of Georgia; A. de Vries, Assistant Professor, Department of Animal Sciences; B. Broaddus, Extension Agent I; C. Vann, Extension Agent II; A. Bell, Graduate Student; Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, 32611.

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Depreciation data were often taken from tax records. Asset valuation was based on market values if available, but the changes from January 1 to December 31 were kept small. Unpaid management was valued at \$50,000 per farm. Gain or loss on sale of purchased livestock resulted when livestock depreciation did not completely account for the gain or loss in the value of the purchased livestock during 2004. Appreciation resulted when machinery and building depreciation did not completely account for the gain or loss in the value of these capital assets during 2004. The bottom line of each dairy farm is its net farm income. Net farm income is the return to the owner and unpaid family members for their labor, management, and equity in the dairy farm. It is the total income available for owner's salary, new investments, taxes, and paying off principal.

All submitted data were carefully scrutinized and checked for completeness. The cash flow statement reconciles the net cash flow resulting from the reported operating, investing, and financing activities with the reported available cash on the January 1 and December 31 balance sheets. The equity statement reconciles the changes in equity through reported retained capital and valuation with the calculated equity on the balance sheets. The reconciliation attempts typically result in unresolved imbalances. Both cash flow imbalance and equity imbalance had to be less than 10% to be included in the summary results reported here.

All results in this publication are the simple averages of the statistics of the dairy farms with valid data. Every dairy farm has equal weight. For example, assume a 100-cow herd produced 1,700,000 lbs of milk (17,000 lbs / cow) and a 1,000-cow herd produced 19,000,000 lbs of milk (19,000 lbs / cow). Average milk yield per farm is  $(19,000,000 + 1,700,000) / 2 = 10,350,000$  lbs and average herd size is  $(100 + 1000) / 2 = 550$  cows. The weighted average milk yield per cow is  $10,350,000 / 550 = 18,818$  lbs / cow. The simple average milk yield per cow is  $(17,000 + 19,000) / 2 = 18,000$  lbs / cow.

Some definitions and calculation rules are as follows:

Asset turnover ratio = total revenues / average assets

Assets = value of assets on the balance sheet

Average assets = average of value of assets on January 1 and December 31

Average equity = average of value of equity on January 1 and December 31

Capital replacement and term debt repayment margin = NFIFO + depreciation + interest on term debt – net social security and income taxes – owner withdrawals – annual scheduled payments on term debt and capital leases.

Cash flow coverage ratio = (cash revenues – cash expenses) / current liabilities

Current assets = short-term assets that can be utilized within one year

Current liabilities = liabilities due within one year

Current ratio = current assets / current liabilities

Debt to asset ratio = liabilities / assets

Debt to equity ratio = liabilities / equity

Depreciation expense ratio = depreciation / total revenue

Equity = assets - liabilities

Equity to asset ratio = equity / assets

FTE = full time equivalent worker, on average 54 hours per week

Interest expense ratio = interest paid / total revenue

Liabilities = value of liabilities on the balance sheet

Net farm income = NFIFO + gain on sale of capital assets

NFIFO = net farm income from operations

NFIFO ratio = NFIFO / total revenue

Operating expense ratio = (total operating expenses – depreciation) / total revenue

Operating profit margin ratio = (NFIFO + interest paid – unpaid management) / total revenues

Rate of return on dairy assets = (NFIFO + interest paid – unpaid management) / average assets

Rate of return on equity = (NFIFO – unpaid management) / average equity

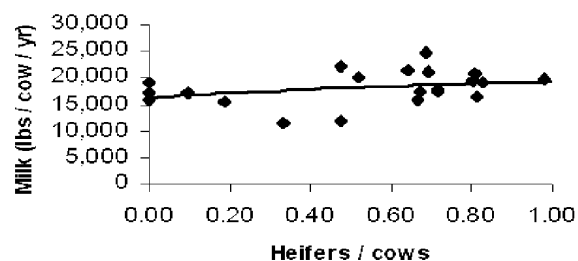
Std = standard deviation

Term debt and capital lease coverage ratio = (NFIFO + non dairy income + depreciation + interest paid on term debt – net social security and income taxes – owner withdrawals) / (annual scheduled payments on term debt and capital leases)

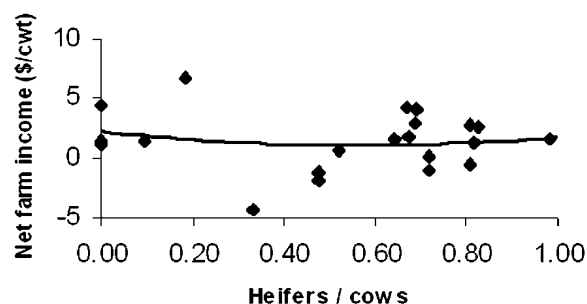
Working capital = current assets - current liabilities

## Results

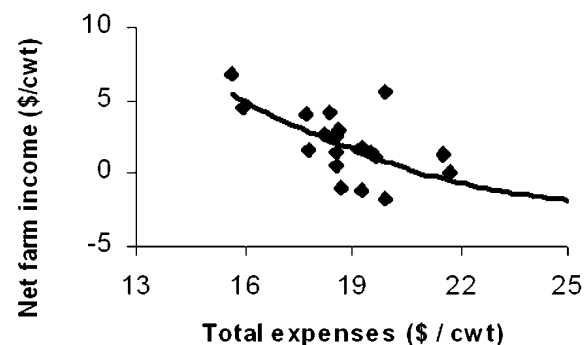
Summary results are presented in Tables 1.1 to 4.4 and Figures 1 to 5. Revenues and expenses may not add up due to rounding. In brief, twenty-two dairy farms were included in the summary results. Of these, 15 were located in Florida and 7 in Georgia. The average herd size of the participating dairies was 1170 cows and 585 heifers with 18,207 lbs. milk sold per cow. The average culling rate was 31%. The average milk price was \$18.98. Average total revenues were \$20.89 per cwt. milk sold. Total expenses averaged \$19.39 per cwt. sold. The largest items were purchased feed, \$8.13, and personnel costs, \$3.17. Net farm income from operations averaged \$1.50 per cwt. sold. Net farm income per cwt. was \$1.58.



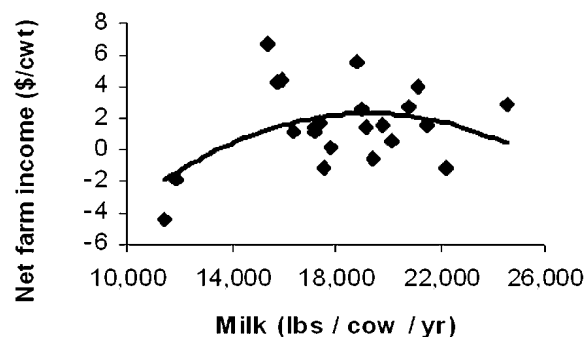
**Figure 1.** DBAP 2004 Summary - Milk production (lbs / cow / year) by heifers / cows.



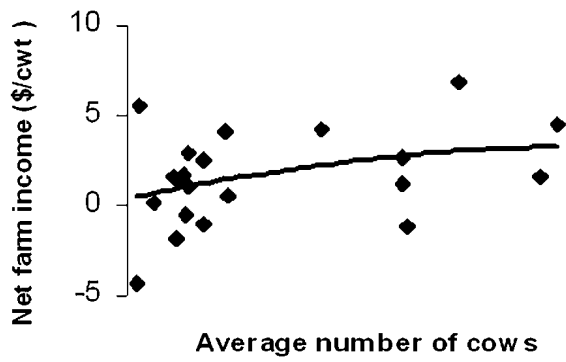
**Figure 2.** DBAP 2004 Summary - Net farm income (\$ / cwt) by heifers / cows.



**Figure 3.** DBAP 2004 Summary - Net farm income (\$ / cwt) by total expenses (\$ / cwt)



**Figure 4.** DBAP 2004 Summary - Net farm income (\$ / cwt) by milk yield (lbs / cow / year).



**Figure 5.** DBAP 2004 Summary - Net farm income per cwt (\$) by average number of cows. The x-axis is not displayed to avoid possible identification of dairy farms.

**Table 1.1.** DBAP 2004 Summary - Business size and production efficiency by state and overall average, median, and standard deviation.

Category	Overall			State Averages	
	Average	Median	Std <sup>1</sup>	Florida	Georgia
Number of farms	22	22	22	15	7
Business Size:					
• Average number of cows	1,170	576	1,125	1,373	735
• Average number of heifers	585	399	659	634	480
• Milk sold (million lbs)	21.64	11.61	21.17	24.66	15.15
• FTE <sup>2</sup> workers	20	11	18	23	14
• Acres of pasture + cultivated land	656	372	788	793	361
Production Efficiency:					
• Milk sold (lbs / cow / year)	18,207	18,304	3,111	17,273	20,210
• Cows / FTE worker	53	56	25	55	49
• Milk sold / FTE worker (million lbs)	0.97	1.02	0.45	0.96	0.98
• Cull rate	31%	30%	6%	30%	33%

<sup>1</sup> Standard deviation<sup>2</sup> Full-time equivalent**Table 1.2.** DBAP 2004 Summary - Revenues and expenses by state and overall average, median, and standard deviation (\$/cwt).

Category	Overall			State Averages	
	Average	Median	Std <sup>1</sup>	Florida	Georgia
Number of farms	22	22	22	15	7
Revenues:					
• Milk sold	18.98	18.99	1.01	19.06	18.81
• Raised, leased cow sales	0.64	0.53	1.14	0.51	0.92
• Heifer sales	0.33	0.24	0.60	0.27	0.45
• Gain on purchased livestock - Sales	0.02	0.00	0.68	(0.11)	0.30
• Other revenues	0.93	0.34	1.67	0.92	0.94
• Total revenues	20.89	20.80	2.02	20.65	21.41
Expenses:					
• Personnel	3.17	2.93	1.32	3.24	3.00
• Purchased feed	8.13	7.78	1.66	8.65	7.03
• Crops	0.26	0.09	0.34	0.25	0.30
• Machinery	1.07	0.99	0.71	1.11	1.00
• Livestock	1.87	1.77	0.99	1.88	1.84
• Milk marketing	1.13	1.13	0.25	1.05	1.29
• Buildings and land	0.80	0.62	0.71	0.62	1.18
• Interest	0.51	0.36	0.59	0.54	0.44
Depreciation:					
• Livestock	0.74	0.39	0.89	0.69	0.84
• Machinery	0.60	0.46	0.52	0.48	0.85
• Buildings	0.25	0.11	0.36	0.20	0.35
Other expenses	0.87	0.95	0.43	0.97	0.65
Total expenses	19.39	18.65	2.49	19.68	18.77
Net farm income from operations	1.50	1.52	2.46	0.97	2.64
Gain on sale of capital assets	0.08	0.00	0.26	0.07	0.11

**Table 1.3.** DBAP 2004 Summary - Financial performance by state and overall average, median, and standard deviation.

Category	Overall			State Averages	
	Average	Median	Std <sup>1</sup>	Florida	Georgia
Number of farms	22	22	22	15	7
Liquidity:					
• Current ratio	9.12	0.68	35.61	12.95	0.90
• Working capital (\$)	114,408	18,034	643,823	78,318	191,744
Solvency:					
• Debt to asset ratio	0.35	0.34	0.24	0.33	0.38
• Equity to asset ratio	0.65	0.66	0.24	0.67	0.62
• Debt to equity ratio <sup>2</sup>	(0.24)	0.50	3.84	0.62	(2.08)
Profitability:					
• Rate of return on assets	0.06	0.07	0.08	0.05	0.09
• Rate of return on equity	0.05	0.06	0.21	0.07	(0.00)
• Operating profit margin ratio	0.06	0.08	0.13	0.04	0.11
Financial efficiency:					
• Asset turnover rate	0.82	0.77	0.43	0.78	0.90
• Operating expense ratio	0.83	0.81	0.13	0.86	0.76
• Depreciation expense ratio	0.08	0.08	0.06	0.07	0.10
• Interest expense ratio	0.03	0.02	0.03	0.03	0.02
• NFIFO ratio <sup>3</sup>	0.07	0.08	0.11	0.04	0.12
Repayment capacity:					
• Cash flow coverage ratio	4.45	0.96	9.95	5.91	1.33
• Term debt coverage ratio <sup>4</sup>	0.27	1.73	8.19	(0.63)	2.21
• Capital replacement margin <sup>5</sup> (\$)	362,546	134,023	627,776	413,523	253,309

<sup>1</sup> Standard deviation<sup>4</sup> Term debt and capital lease coverage ratio.<sup>2</sup> One dairy farm had negative equity.<sup>5</sup> Capital replacement and term debt repayment margin.<sup>3</sup> Net farm income from operations ratio.**Table 1.4.** DBAP 2004 Summary - Balance sheet by state and overall average, median, and standard deviation (\$/cow).

Category	Overall			State Averages	
	Average	Median	Std <sup>1</sup>	Florida	Georgia
Number of farms	22	22	22	15	7
Balance sheet (January 1):					
• Current assets	317	275	190	332	284
• Total assets	6,486	4,811	5,558	5,676	8,224
• Current liabilities	470	489	321	449	515
• Total liabilities	1,645	1,428	1,210	1,549	1,853
• Equity	4,841	2,656	5,893	4,127	6,371
Balance sheet (December 31):					
• Current assets	383	295	258	346	462
• Total assets	6,700	5,041	5,632	5,972	8,260
• Current liabilities	426	414	347	476	317
• Total liabilities	1,641	1,432	1,165	1,606	1,715
• Equity	5,059	2,745	5,944	4,366	6,545

<sup>1</sup> Standard deviation

**Table 2.1.** DBAP 2004 Summary - Business size and production efficiency by average number of cows and milk per cow.

Category	Average number of cows			Milk yield (lbs / cow / year)		
	< 470	470 - 1000	> 1000	< 17,200	17,200- 19,500	> 19,500
Number of farms	7	8	7	7	8	7
Business Size:						
• Average number of cows	302	624	2,663	1,635	436	1,544
• Average number of heifers	141	387	1,255	536	261	1,003
• Milk sold (million lbs)	5.13	12.24	48.87	25.77	7.97	33.12
• FTE workers	5	15	42	24	10	29
• Acres of pasture + cultivated land	169	381	1,457	968	248	810
Production Efficiency:						
• Milk sold (lbs / cow / year)	16,600	19,543	18,289	14,864	18,293	21,453
• Cows / FTE worker	40	53	68	63	45	53
• Milk sold / FTE worker (million lbs)	0.67	1.01	1.21	0.96	0.82	1.14
• Cull rate	34%	29%	29%	27%	35%	29%

**Table 2.2.** DBAP 2004 Summary - Revenues and expenses by average number of cows and milk per cow (\$/cwt).

Category	Average number of cows			Milk yield (lbs / cow / year)		
	< 470	470 - 1000	> 1000	< 17,200	17,200 - 19,500	> 19,500
Number of farms	7	8	7	7	8	7
Revenues:						
• Milk sold	18.65	18.57	19.78	19.62	18.33	19.07
• Raised, leased cow sales	0.74	0.49	0.71	0.79	0.68	0.46
• Heifer sales	0.49	0.05	0.49	0.19	0.54	0.21
• Gain on purchased livestock - Sales	0.26	0.27	(0.50)	0.17	0.28	(0.42)
• Other revenues	0.79	1.58	0.31	0.33	1.78	0.54
• Total revenues	20.93	20.96	20.78	21.10	21.61	19.86
Expenses:						
• Personnel	3.57	3.29	2.62	3.19	3.73	2.50
• Purchased feed	9.19	7.57	7.71	8.16	8.76	7.39
• Crops	0.08	0.46	0.22	0.25	0.24	0.30
• Machinery	0.89	1.37	0.91	1.00	1.18	1.02
• Livestock	1.64	1.96	2.01	1.58	2.02	1.99
• Milk marketing	1.12	1.14	1.11	1.16	1.10	1.13
• Buildings and land	1.19	0.64	0.59	0.80	0.71	0.90
• Interest	0.74	0.38	0.41	0.67	0.37	0.50
Depreciation:						
• Livestock	0.59	0.61	1.05	1.08	0.67	0.49
• Machinery	0.54	0.88	0.35	0.62	0.53	0.67
• Buildings	0.03	0.39	0.31	0.06	0.13	0.56
Other expenses	0.81	0.95	0.83	0.93	0.83	0.85
Total expenses	20.39	19.64	18.12	19.50	20.27	18.28
Net farm income from operations	0.55	1.32	2.66	1.61	1.34	1.58
Gain on sale of capital assets	0.01	0.08	0.16	0.05	0.05	0.16

**Table 2.3.** DBAP 2004 Summary - Financial performance by average number of cows and milk per cow.

Category	Average number of cows			Milk yield (lbs / cow / year)		
	< 470	470 - 1000	> 1000	< 17,200	17,200 - 19,500	> 19,500
Number of farms	7	8	7	7	8	7
Liquidity:						
• Current ratio	0.30	21.72	3.53	3.08	21.36	1.17
• Working capital (\$)	(53,652)	(83,944)	509,157	433,393	(101,513)	42,191
Solvency:						
• Debt to asset ratio	0.33	0.33	0.37	0.33	0.35	0.36
• Equity to asset ratio	0.67	0.67	0.63	0.67	0.65	0.64
• Debt to equity ratio <sup>1</sup>	(2.17)	0.63	0.69	0.53	(1.71)	0.66
Profitability:						
• Rate of return on assets	0.01	0.06	0.12	0.08	0.04	0.07
• Rate of return on equity	(0.12)	0.08	0.18	0.12	(0.05)	0.08
• Operating profit margin ratio	(0.02)	0.06	0.14	0.05	0.04	0.09
Financial efficiency:						
• Asset turnover rate	0.69	0.84	0.92	0.88	0.75	0.84
• Operating expense ratio	0.89	0.83	0.77	0.81	0.86	0.81
• Depreciation expense ratio	0.06	0.09	0.08	0.08	0.07	0.09
• Interest expense ratio	0.04	0.02	0.02	0.03	0.02	0.03
• NFIFO ratio <sup>2</sup>	0.02	0.06	0.12	0.07	0.06	0.08
Repayment capacity:						
• Cash flow coverage ratio	0.46	6.07	6.59	6.25	5.77	1.15
• Term debt coverage ratio <sup>3</sup>	0.67	(1.41)	1.81	1.07	(3.16)	3.41
• Capital replacement margin <sup>4</sup> (\$)	27,515	123,352	970,941	729,345	56,329	345,709

<sup>1</sup> One dairy farm had negative equity.<sup>2</sup> Net farm income from operations ratio.<sup>3</sup> Term debt and capital lease coverage ratio.<sup>4</sup> Capital replacement and term debt repayment margin.**Table 2.4.** DBAP 2004 Summary - Balance sheet by average number of cows and milk per cow (\$/cow).

Category	Average number of cows			Milk yield (lbs / cow / year)		
	< 470	470 - 1000	> 1000	< 17,200	17,200 - 19,500	> 19,500
Number of farms	7	8	7	7	8	7
Balance sheet (January 1):						
• Current assets	177	347	422	232	253	474
• Total assets	8,485	6,606	4,350	4,574	8,835	5,714
• Current liabilities	323	683	375	313	446	656
• Total liabilities	1,462	1,632	1,843	1,534	1,284	2,170
• Equity	7,023	4,974	2,507	3,040	7,552	3,544
Balance sheet (December 31):						
• Current assets	210	437	495	280	281	604
• Total assets	8,299	7,172	4,562	4,807	9,044	5,915
• Current liabilities	344	562	351	270	435	570
• Total liabilities	1,375	1,741	1,792	1,515	1,336	2,116
• Equity	6,924	5,431	2,770	3,292	7,708	3,799



**Table 3.1.** DBAP 2004 Summary - Business size and production efficiency by net farm income per cwt and rate of return on assets.

Category	Net farm income (\$ / cwt)			Rate of return on assets (%)		
	< \$1.00	\$1.00 - \$2.60	> \$2.60	< 3%	3% - 10%	>10%
Number of farms	7	8	7	7	8	7
Business Size:						
• Average number of cows	731	1,095	1,696	621	770	2,176
• Average number of heifers	406	679	656	364	498	905
• Milk sold (million lbs)	14.45	20.88	29.69	12.22	14.09	39.68
• FTE workers	16	19	26	15	13	34
• Acres of pasture + cultivated land	626	428	946	649	457	891
Production Efficiency:						
• Milk sold (lbs / cow / year)	17,212	18,459	18,915	17,018	18,966	18,530
• Cows / FTE worker	47	54	58	43	52	65
• Milk sold / FTE worker (million lbs)	0.82	1.01	1.05	0.73	0.99	1.17
• Cull rate	29%	34%	29%	30%	32%	29%

**Table 3.2.** DBAP 2004 Summary - Revenues and expenses by net farm income per cwt and rate of return on assets (\$/cwt).

Category	Net farm income (\$ / cwt)			Rate of return on assets (%)		
	< \$1.00	\$1.00 - \$2.60	> \$2.60	< 3%	3% - 10%	>10%
Number of farms	7	8	7	7	8	7
Revenues:						
• Milk sold	18.62	19.02	19.30	18.33	18.96	19.66
• Raised, leased cow sales	0.18	0.69	1.04	0.76	0.66	0.50
• Heifer sales	0.03	0.35	0.60	0.32	0.31	0.35
• Gain on purchased livestock - Sales	(0.18)	0.35	(0.15)	(0.19)	0.23	(0.00)
• Other revenues	1.53	0.24	1.10	1.86	0.47	0.51
• Total revenues	20.18	20.65	21.89	21.08	20.63	21.02
Expenses:						
• Personnel	3.71	2.78	3.06	4.16	2.74	2.66
• Purchased feed	9.80	7.84	6.80	9.82	7.33	7.36
• Crops	0.22	0.15	0.44	0.21	0.28	0.29
• Machinery	1.31	0.92	1.01	1.26	0.97	1.00
• Livestock	1.88	2.02	1.70	1.87	2.14	1.57
• Milk marketing	1.02	1.19	1.16	1.05	1.09	1.24
• Buildings and land	0.63	1.02	0.71	0.74	1.12	0.48
• Interest	0.72	0.41	0.40	0.69	0.41	0.43
Depreciation:						
• Livestock	0.31	1.01	0.86	0.20	0.83	1.17
• Machinery	0.49	0.71	0.60	0.42	0.78	0.59
• Buildings	0.15	0.21	0.39	0.11	0.36	0.26
Other expenses	1.13	0.83	0.66	1.02	1.02	0.55
Total expenses	21.36	19.09	17.78	21.55	19.07	17.61
Net farm income from operations	(1.18)	1.57	4.11	(0.48)	1.56	3.41

**Table 3.3.** DBAP 2004 Summary - Financial performance by net farm income per cwt and rate of return on assets.

Category	Net farm income (\$ / cwt)			Rate of return on assets (%)		
	< \$1.00	\$1.00 -	> \$2.60	< 3%	3% -	>10%
		\$2.60			10%	
Number of farms	7	8	7	7	8	7
Liquidity:						
• Current ratio	24.35	0.62	3.60	24.29	0.71	3.55
• Working capital (\$)	(303,915)	(14,867)	680,475	(214,581)	(75,250)	660,150
Solvency:						
• Debt to asset ratio	0.29	0.42	0.32	0.23	0.34	0.48
• Equity to asset ratio	0.71	0.58	0.68	0.77	0.66	0.52
• Debt to equity ratio <sup>1</sup>	0.51	(1.59)	0.55	0.40	0.66	(1.92)
Profitability:						
• Rate of return on assets	(0.03)	0.08	0.13	(0.03)	0.07	0.15
• Rate of return on equity	(0.06)	0.01	0.20	(0.06)	0.08	0.12
• Operating profit margin ratio	(0.08)	0.07	0.18	(0.07)	0.07	0.17
Financial efficiency:						
• Asset turnover rate	0.58	1.17	0.66	0.42	1.01	1.00
• Operating expense ratio	0.97	0.81	0.71	0.96	0.81	0.72
• Depreciation expense ratio	0.05	0.09	0.09	0.04	0.09	0.10
• Interest expense ratio	0.04	0.02	0.02	0.04	0.02	0.02
• NFIFO ratio <sup>2</sup>	(0.06)	0.08	0.19	(0.03)	0.08	0.16
Repayment capacity:						
• Cash flow coverage ratio	5.77	1.22	6.84	5.73	1.28	6.80
• Term debt coverage ratio <sup>3</sup>	(3.76)	2.32	1.96	(4.99)	3.06	2.35
• Capital replacement margin <sup>4</sup> (\$)	(93,471)	356,021	826,020	(120,540)	249,815	974,468

<sup>1</sup> One dairy farm had negative equity.<sup>2</sup> Net farm income from operations ratio.<sup>3</sup> Term debt and capital lease coverage ratio.<sup>4</sup> Capital replacement and term debt repayment margin.**Table 3.4.** DBAP 2004 Summary - Balance sheet by net farm income per cwt and rate of return on assets (\$/cow).

Category	Net farm income (\$ / cwt)			Rate of return on assets (%)		
	< \$1.00	\$1.00 -	> \$2.60	< 3%	3% -	>10%
		\$2.60			10%	
Number of farms	7	8	7	7	8	7
Balance sheet (January 1):						
• Current assets	355	231	377	321	279	355
• Total assets	7,699	3,603	8,569	10,969	4,645	4,108
• Current liabilities	498	459	456	340	528	534
• Total liabilities	1,576	1,497	1,884	1,413	1,682	1,836
• Equity	6,123	2,106	6,685	9,556	2,964	2,271
Balance sheet (December 31):						
• Current assets	356	204	615	361	298	503
• Total assets	8,163	3,593	8,789	11,287	4,689	4,411
• Current liabilities	705	344	240	538	432	306
• Total liabilities	1,725	1,357	1,882	1,554	1,553	1,829
• Equity	6,438	2,236	6,907	9,733	3,137	2,583

**Table 4.1.** DBAP 2004 Summary - Business size and production efficiency by assets per cow and liabilities per cow.

Category	Assets (\$ / cow)			Liabilities (\$ / cow)		
	< \$3,700	\$3,700 - \$6,000	> \$6,000	< \$1,200	\$1,20 - \$2,000	> \$2,000
Number of farms	7	8	7	7	8	7
Business Size:						
• Average number of cows	1,676	1,197	634	723	1,751	954
• Average number of heifers	686	670	386	572	638	537
• Milk sold (million lbs)	30.24	21.40	13.30	13.05	30.65	19.91
• FTE workers	27	20	15	17	27	15
• Acres of pasture + cultivated land	593	664	709	494	812	639
Production Efficiency:						
• Milk sold (lbs / cow / year)	17,466	18,313	18,828	18,776	17,043	18,969
• Cows / FTE worker	64	55	41	46	65	48
• Milk sold / FTE worker (million lbs)	1.10	1.01	0.79	0.86	1.08	0.94
• Cull rate	31%	30%	31%	34%	27%	32%

**Table 4.2.** DBAP 2004 Summary - Revenues and expenses by assets per cow and liabilities per cow (\$/cwt).

Category	Assets (\$ / cow)			Liabilities (\$ / cow)		
	< \$3,700	\$3,700 - \$6,000	> \$6,000	< \$1,230	\$1,230 - \$2,000	> \$2,000
Number of farms	7	8	7	7	8	7
Revenues:						
• Milk sold	19.43	19.30	18.16	18.72	19.04	19.17
• Raised, leased cow sales	0.33	0.68	0.90	0.86	0.51	0.57
• Heifer sales	0.02	0.46	0.49	0.57	0.18	0.25
• Gain on purchased livestock - Sales	0.26	0.00	(0.19)	(0.05)	0.12	(0.02)
• Other revenues	0.19	0.52	2.12	2.00	0.47	0.38
• Total revenues	20.24	20.96	21.47	22.10	20.32	20.35
Expenses:						
• Personnel	2.82	2.67	4.08	3.76	2.79	3.01
• Purchased feed	8.06	7.28	9.18	8.52	7.94	7.97
• Crops	0.14	0.31	0.32	0.33	0.28	0.18
• Machinery	0.74	1.17	1.30	1.22	1.07	0.93
• Livestock	1.79	1.70	2.15	2.74	1.22	1.75
• Milk marketing	1.18	1.18	1.01	1.08	1.17	1.12
• Buildings and land	0.91	0.79	0.70	1.24	0.52	0.67
• Interest	0.40	0.44	0.68	0.09	0.38	1.07
Depreciation:						
• Livestock	1.20	0.81	0.20	0.17	1.06	0.94
• Machinery	0.80	0.55	0.46	0.29	0.72	0.78
• Buildings	0.15	0.28	0.31	0.08	0.16	0.51
Other expenses	0.80	0.83	0.99	1.06	0.66	0.91
Total expenses	18.99	18.02	21.37	20.57	17.96	19.85
Net farm income from operations	1.25	2.95	0.10	1.52	2.36	0.50
Gain on sale of capital assets	(0.06)	0.19	0.11	0.05	0.04	0.17

**Table 4.3.** DBAP 2004 Summary - Financial performance by assets per cow and liabilities per cow.

Category	Assets (\$ / cow)			Liabilities (\$ / cow)		
	< \$3,700	\$3,700 - \$6,000	> \$6,000	\$1,230 - \$2,000	\$1,230 - \$2,000	> \$2,000
Number of farms	7	8	7	7	8	7
Liquidity:						
• Current ratio	2.16	1.80	24.43	24.46	2.94	0.84
• Working capital (\$)	246,915	258,186	(182,415)	(21,955)	382,291	(55,379)
Solvency:						
• Debt to asset ratio	0.46	0.35	0.23	0.12	0.35	0.56
• Equity to asset ratio	0.54	0.65	0.77	0.88	0.65	0.44
• Debt to equity ratio <sup>1</sup>	(1.95)	0.69	0.40	0.18	0.58	(1.60)
Profitability:						
• Rate of return on assets	0.08	0.11	(0.01)	0.03	0.10	0.05
• Rate of return on equity	0.00	0.16	(0.04)	0.03	0.15	(0.06)
• Operating profit margin ratio	0.06	0.14	(0.04)	0.03	0.11	0.02
Financial efficiency:						
• Asset turnover rate	1.26	0.81	0.40	0.80	0.86	0.79
• Operating expense ratio	0.82	0.76	0.92	0.90	0.78	0.81
• Depreciation expense ratio	0.11	0.08	0.05	0.03	0.10	0.11
• Interest expense ratio	0.02	0.02	0.03	0.00	0.02	0.05
• NFIFO ratio <sup>2</sup>	0.06	0.14	(0.00)	0.07	0.11	0.02
Repayment capacity:						
• Cash flow coverage ratio	2.49	4.85	5.96	6.12	5.76	1.29
• Term debt coverage ratio <sup>3</sup>	2.72	2.41	(4.62)	(3.00)	1.75	1.86
• Capital replacement margin <sup>4</sup> (\$)	665,577	468,567	(61,652)	165,273	726,578	143,783

<sup>1</sup> One dairy farm had negative equity.<sup>2</sup> Net farm income from operations ratio.<sup>3</sup> Term debt and capital lease coverage ratio.<sup>4</sup> Capital replacement and term debt repayment margin.**Table 4.4.** DBAP 2004 Summary - Balance sheet by assets per cow and liabilities per cow (\$/cow).

Category	Assets (\$ / cow)			Liabilities (\$ / cow)		
	< \$3,700	\$3,700 - \$6,000	> \$6,000	< \$1,230	\$1,230 - \$2,000	> \$2,000
Number of farms	7	8	7	7	8	7
Balance sheet (January 1):						
• Current assets	257	336	354	277	322	351
• Total assets	2,918	4,721	12,073	9,201	4,215	6,367
• Current liabilities	555	484	370	296	574	527
• Total liabilities	1,425	1,663	1,845	428	1,415	3,126
• Equity	1,493	3,057	10,228	8,773	2,800	3,242
Balance sheet (December 31):						
• Current assets	323	382	445	348	416	381
• Total assets	2,953	4,933	12,467	9,422	4,487	6,508
• Current liabilities	465	281	552	334	400	546
• Total liabilities	1,295	1,682	1,940	434	1,510	2,997
• Equity	1,658	3,251	10,528	8,989	2,976	3,510