

Dairy Business Analysis Project: 2007 Financial Summary ¹

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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. The DBAP Web site is <http://dairy.ifas.ufl.edu/dbap>.



Financial data for the year 2007 were collected from 21 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 participants to identify challenges and opportunities for improvement.

This publication is a summary of the financial performance of the 21 dairy farms that participated in 2007. It is intended for general use by dairy farmers, the allied industry, government, and educational professionals.

Data Collection and Accounting Methods

Dairy producers in Florida and Georgia were given the opportunity 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 average 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 producers. The financial data were either entered into the spreadsheet on the farm or mailed in on paper copies of the spreadsheet.

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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. 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 2007. Appreciation resulted when machinery and building depreciation did not completely account for the gain or loss in the value of these capital assets during 2007. 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 1000-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 for 2007 are presented in Tables 1.1 to 4.4 and Figures 1 to 5. Each category in Tables 2.1 to 4.4 is divided into three levels based on the lowest 7, middle 7, and highest 7 farms for that category. Therefore, the lowest 7 farms in one category may be different from the lowest 7 farms in another category. Revenues and expenses may not add up due to rounding.

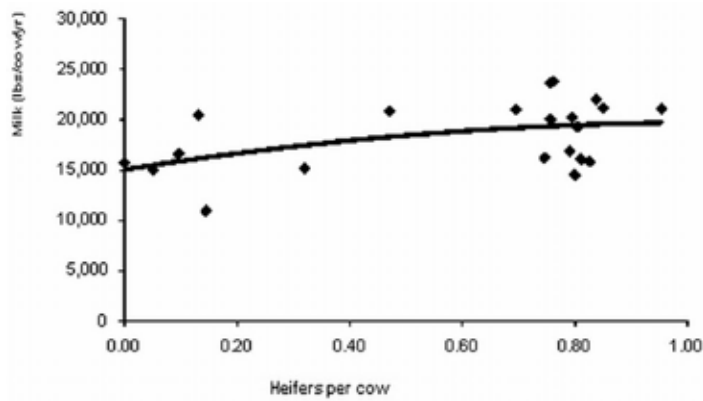


Figure 1. DBAP 2007 Summary – Milk production (lbs / cow / year) by heifers per cow

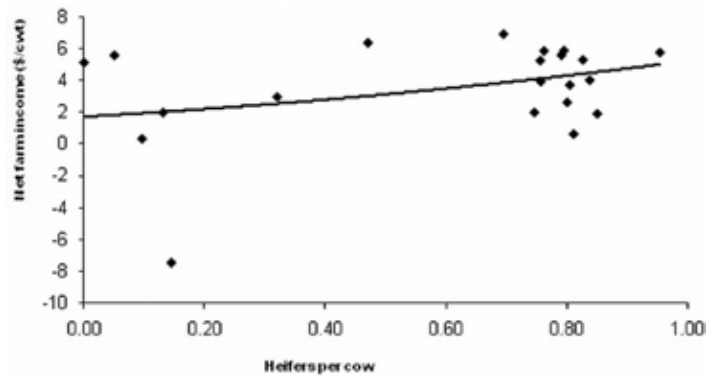


Figure 2. DBAP 2007 Summary - Net farm income (\$ / cwt) by heifers per cow

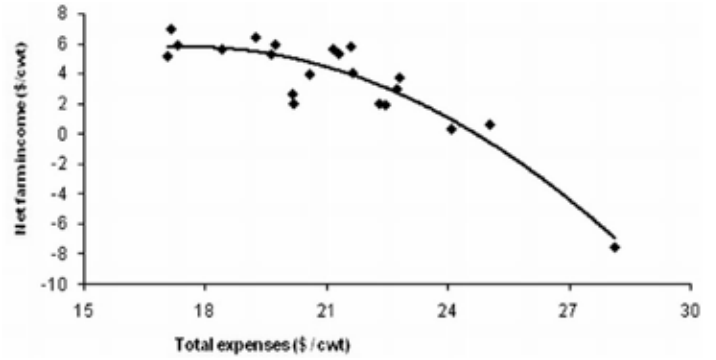


Figure 3. DBAP 2007 Summary - Net farm income (\$ / cwt) by total expenses (\$ / cwt)

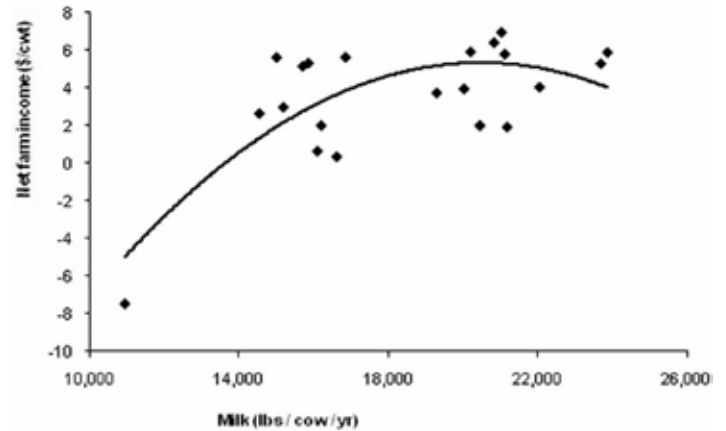


Figure 4. DBAP 2007 Summary - Net farm income (\$ / cwt) by milk yield (lbs / cow / year)



Figure 5. DBAP 2007 Summary - Net farm income per cwt (\$) by average number of cows. The x-axis is not displayed to avoid possible identification of dairy farms

In brief, 21 dairy farms were included in the summary results. Of these, 16 were located in Florida and 5 in Georgia. The average herd size of the participating dairies was 1399 cows and 708 heifers with 18,410 lbs. milk sold per cow. The average culling rate was 35%. The average milk price was \$22.59. Average total revenues were \$14.67 per cwt. milk sold. Total expenses averaged \$21.09 per cwt.

sold. The largest items were purchased feed, \$9.20, and personnel costs, \$3.57 per cwt. sold. Net farm income from operations averaged \$3.58 per cwt. sold. Net farm income per cwt. was \$3.57. These results indicate a marked increase in average profitability compared to 2006.

Table 1.1. DBAP 2007 Summary - Business size and production efficiency by state and overall average, median, and standard deviation.

Category	Overall			State Averages	
	Average	Median	Std ¹	Florida	Georgia
Number of farms	21	21	21	16	5
Business Size:					
Number of cows	1,399	755	1,298	1,601	751
Number of heifers	708	475	772	738	613
Milk sold (million lbs)	25.73	18.01	24.07	28.59	16.57
FTE ² workers	22	15	20	24	17
Acres of pasture + cultivated land	781	431	691	869	500
Production Efficiency:					
Milk sold (lbs / cow / year)	18,410	19,290	3,403	17,455	21,464
Cows / FTE worker	59	50	30	65	39
Milk sold (million lbs)/ FTE worker	1.06	0.96	0.49	1.12	0.84
Cull rate	35%	34%	12%	36%	33%
¹ Standard deviation					
² Full-time equivalent					

Table 1.2. DBAP 2007 Summary - Revenues and expenses by state and overall average, median, and standard deviation (\$/cwt).

Category	Overall			State Averages	
	Average	Median	Std ¹	Florida	Georgia
Number of farms	21	21	21	16	5
Revenues:					
Milk sold	22.59	22.40	1.27	22.77	22.03
Raised, leased cow sales	1.18	0.70	1.80	1.25	0.98
Heifer sales	0.18	0.27	1.55	0.01	0.73
Gain on purchased livestock Sales	(0.27)	(0.07)	0.55	(0.32)	(0.10)
Other revenues	0.98	1.08	1.49	0.73	1.79
Total revenues	24.67	24.55	1.75	24.43	25.42
Expenses:					
Personnel	3.57	3.45	1.57	3.51	3.77
Purchased feed	9.20	9.31	2.00	9.56	8.03
Crops	0.59	0.45	0.62	0.61	0.52
Machinery	1.13	0.93	0.63	1.19	0.94
Livestock	1.62	1.54	0.66	1.61	1.64
Milk marketing	1.14	1.18	0.37	1.04	1.44
Buildings and land	0.60	0.53	0.51	0.65	0.46
Interest	0.62	0.62	0.54	0.53	0.92
Depreciation:					
Livestock	0.84	0.46	0.84	0.90	0.67
Machinery	0.45	0.41	0.32	0.43	0.52
Buildings	0.36	0.31	0.31	0.36	0.37
Other expenses	0.97	0.93	0.41	1.01	0.82
Total expenses	21.09	21.17	2.70	21.40	20.11
Net farm income from operations	3.58	4.06	3.22	3.04	5.31
Gain on sale of capital assets	(0.01)	0.00	0.43	(0.01)	(0.02)
Net farm income	3.57	4.06	3.19	3.03	5.29
¹ Standard deviation					

Table 1.3. DBAP 2007 Summary - Financial performance by state and overall average, median, and standard deviation.

Category	Overall			State Averages	
	Average	Median	Std ¹	Florida	Georgia
Number of farms	21	21	21	16	5
Liquidity:					
Current ratio	14.16	0.98	43.80	2.02	52.98
Working capital (\$)	369,244	110,056	866,026	290,001	622,821
Solvency:					
Debt to asset ratio	0.29	0.26	0.21	0.27	0.34
Equity to asset ratio	0.71	0.74	0.21	0.73	0.66
Debt to equity ratio	0.60	0.35	0.70	0.55	0.74
Profitability:					
Rate of return on assets	0.15	0.17	0.18	0.16	0.14
Rate of return on equity	0.26	0.19	0.51	0.27	0.22
Operating profit margin ratio	0.13	0.16	0.20	0.10	0.21
Financial efficiency:					
Asset turnover rate	0.86	0.81	0.57	0.93	0.65
Operating expense ratio	0.77	0.76	0.14	0.79	0.69
Depreciation expense ratio	0.07	0.07	0.04	0.07	0.06
Interest expense ratio	0.03	0.02	0.02	0.02	0.04
NFIFO ratio ²	0.14	0.16	0.14	0.12	0.21
Repayment capacity:					
Cash flow coverage ratio	20.18	0.86	55.72	4.63	69.94
Term debt coverage ratio ³	3.63	1.48	4.71	4.42	1.09
Capital replacement margin ⁴ (\$)	704,737	569,504	877,533	840,219	271,194

¹ Standard deviation
² Net farm income from operations ratio³ Term debt and capital lease coverage ratio⁴ Capital replacement and term debt repayment margin

Table 1.4. DBAP 2007 Summary - Balance sheet by state and overall average, median, and standard deviation (\$/cow).

Category	Overall			State Averages	
	Average	Median	Std ¹	Florida	Georgia
Number of farms	21	21	21	16	5
Balance sheet (January 1):					
Current assets	378	305	300	309	599
Total assets	6,821	5,597	4,575	5,807	10,064
Current liabilities	638	502	557	511	1,044
Total liabilities	1,704	1,509	1,090	1,448	2,525
Equity	5,116	3,924	4,700	4,359	7,538
Balance sheet (December 31):					
Current assets	741	663	558	602	1,183
Total assets	7,366	5,452	4,509	6,176	11,176
Current liabilities	487	310	449	497	458
Total liabilities	1,762	1,413	1,227	1,518	2,544
Equity	5,604	4,149	4,710	4,658	8,631

¹ Standard deviation

Table 2.1. DBAP 2007 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)		
	< 600	600-1800	> 1800	< 16,100	16,100-20,600	> 20,600
Number of farms	7	7	7	7	7	7
Business Size:						
Average number of cows	253	1,028	2,914	2,027	687	1,482
Average number of heifers	150	757	1,217	609	432	1,084
Milk sold (million lbs)	4.69	19.29	53.20	31.45	12.56	33.18
FTE workers	6	18	43	26	12	30
Acres of pasture + cultivated land	328	498	1,517	1,337	400	606
Production Efficiency:						
Milk sold (lbs / cow / year)	17,647	19,258	18,325	14,757	18,515	21,957
Cows / FTE worker	37	59	79	71	57	48
Milk sold (million lbs)/ FTE worker	0.66	1.11	1.40	1.08	1.05	1.05
Cull rate	33%	36%	38%	35%	37%	34%

Table 2.2. DBAP 2007 Summary - Revenues and expenses by average number of cows and milk per cow (\$/cwt).

Category	Average number of cows			Milk yield (lbs / cow / year)		
	< 600	600-1800	> 1800	< 16,100	16,100-20,600	> 20,600
Number of farms	7	7	7	7	7	7
Revenues:						
Milk sold	22.15	22.50	23.13	23.15	22.83	21.79
Raised, leased cow sales	1.84	0.97	0.74	1.87	0.68	1.00
Heifer sales	(0.01)	0.05	0.50	(0.58)	0.43	0.69
Gain on purchased livestock Sales	(0.24)	(0.22)	(0.35)	(0.36)	(0.21)	(0.23)
Other revenues	0.63	1.11	1.21	0.12	1.01	1.82
Total revenues	24.37	24.41	25.23	24.20	24.73	25.08
Expenses:						
Personnel	3.74	3.61	3.37	3.60	3.57	3.55
Purchased feed	9.80	8.69	9.09	10.05	9.16	8.38
Crops	0.72	0.75	0.30	0.55	0.73	0.50
Machinery	1.08	1.55	0.75	1.09	1.34	0.96
Livestock	1.66	1.68	1.51	1.62	1.69	1.53
Milk marketing	1.14	1.01	1.26	1.14	0.99	1.27
Buildings and land	0.32	0.84	0.65	0.44	0.48	0.89
Interest	0.84	0.44	0.59	0.60	0.64	0.63
Depreciation:						
Livestock	0.83	0.63	1.06	0.90	1.12	0.50
Machinery	0.55	0.54	0.27	0.48	0.39	0.49
Buildings	0.34	0.45	0.30	0.46	0.31	0.32
Other expenses	1.06	0.98	0.86	0.92	1.15	0.84
Total expenses	22.08	21.18	20.01	21.84	21.56	19.87
Net farm income from operations	2.29	3.23	5.22	2.36	3.17	5.21
Gain on sale of capital assets	(0.01)	0.21	(0.23)	(0.23)	0.21	(0.01)
Net farm income	2.28	3.43	4.98	2.13	3.37	5.20

Table 2.3. DBAP 2007 Summary - Financial performance by average number of cows and milk per cow.

Category	Average number of cows			Milk yield (lbs / cow / year)		
	< 600	600-1800	> 1800	< 16,100	16,100-20,600	> 20,600
Number of farms	7	7	7	7	7	7
Liquidity:						
Current ratio	10.42	28.82	3.23	2.93	1.28	38.26
Working capital (\$)	(2,854)	11,103	1,099,484	445,025	(45,488)	708,196
Solvency:						
Debt to asset ratio	0.33	0.22	0.32	0.23	0.31	0.32
Equity to asset ratio	0.67	0.78	0.68	0.77	0.69	0.68
Debt to equity ratio	0.78	0.29	0.72	0.36	0.74	0.69
Profitability:						
Rate of return on assets	0.07	0.11	0.28	0.09	0.13	0.23
Rate of return on equity	0.09	0.12	0.56	0.12	0.16	0.50
Operating profit margin ratio	0.02	0.14	0.23	0.04	0.13	0.21
Financial efficiency:						
Asset turnover rate	0.67	0.77	1.14	0.62	0.90	1.07
Operating expense ratio	0.81	0.78	0.70	0.81	0.77	0.71
Depreciation expense ratio	0.07	0.07	0.07	0.08	0.07	0.05
Interest expense ratio	0.03	0.02	0.02	0.03	0.03	0.03
NFIFO ratio ¹	0.08	0.13	0.21	0.09	0.13	0.21
Repayment capacity:						
Cash flow coverage ratio	16.38	37.24	6.93	6.95	3.40	50.20
Term debt coverage ratio ²	1.92	2.46	6.50	3.99	3.85	3.04
Capital replacement margin ³ (\$)	81,027	466,374	1,566,809	794,787	443,402	876,021

¹ Net farm income from operations ratio
² Term debt and capital lease coverage ratio³ Capital replacement and term debt repayment margin

Table 2.4. DBAP 2007 Summary - Balance sheet by average number of cows and milk per cow (\$/cow).

Category	Average number of cows			Milk yield (lbs / cow / year)		
	< 600	600-1800	> 1800	< 16,100	16,100-20,600	> 20,600
Number of farms	7	7	7	7	7	7
Balance sheet (January 1):						
Current assets	335	278	520	380	278	476
Total assets	9,152	6,577	4,733	7,164	5,665	7,633
Current liabilities	664	605	645	528	683	704
Total liabilities	2,156	1,643	1,314	1,631	1,799	1,684
Equity	6,996	4,934	3,419	5,534	3,866	5,949
Balance sheet (December 31):						
Current assets	781	408	1,033	663	431	1,127
Total assets	9,887	6,579	5,632	7,185	5,854	9,059
Current liabilities	525	314	623	447	541	475
Total liabilities	2,339	1,315	1,632	1,592	1,640	2,054
Equity	7,548	5,264	4,000	5,593	4,215	7,005

Table 3.1. DBAP 2007 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 (%)		
	< \$2.80	\$2.80 - \$5.50	> \$5.50	< 5.0%	5.0% - 18.0%	> 18.0%
Number of farms	7	7	7	7	7	7
Business Size:						
Average number of cows	699	2,348	1,148	773	889	2,534
Average number of heifers	451	1,164	509	350	721	1,053
Milk sold (million lbs)	12.56	43.66	20.97	12.60	18.75	45.84
FTE workers	14	36	17	12	19	36
Acres of pasture + cultivated land	371	1,237	735	577	435	1,331
Production Efficiency:						
Milk sold (lbs / cow / year)	16,569	18,824	19,836	16,416	20,539	18,275
Cows / FTE worker	46	70	60	51	48	77
Milk sold (million lbs)/ FTE worker	0.77	1.24	1.16	0.82	0.98	1.37
Cull rate	40%	37%	30%	38%	35%	33%

Table 3.2. DBAP 2007 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 (%)		
	< \$2.80	\$2.80 - \$5.50	> \$5.50	< 5.0%	5.0% - 18.0%	> 18.0%
Number of farms	7	7	7	7	7	7
Revenues:						
Milk sold	22.23	22.98	22.55	22.71	21.83	23.23
Raised, leased cow sales	2.16	1.02	0.37	1.84	1.30	0.40
Heifer sales	(0.41)	0.34	0.61	(0.30)	0.26	0.57
Gain on purchased livestock sales	(0.53)	(0.22)	(0.05)	(0.55)	(0.08)	(0.17)
Other revenues	0.05	1.14	1.76	0.44	1.33	1.19
Total revenues	23.50	25.26	25.25	24.14	24.65	25.22
Expenses:						
Personnel	3.75	3.30	3.67	4.18	3.25	3.29
Purchased feed	10.70	9.39	7.50	10.50	8.49	8.59
Crops	0.49	0.62	0.67	0.52	0.56	0.70
Machinery	1.27	0.94	1.18	0.99	1.21	1.18
Livestock	1.57	1.63	1.64	1.91	1.59	1.35
Milk marketing	0.98	1.19	1.24	1.02	1.36	1.03
Buildings and land	0.66	0.53	0.62	0.56	0.66	0.58
Interest	0.66	0.59	0.61	0.60	0.80	0.47
Depreciation:						
Livestock	0.90	0.97	0.66	0.85	0.70	0.98
Machinery	0.60	0.38	0.38	0.52	0.54	0.30
Buildings	0.46	0.35	0.27	0.48	0.38	0.23
Other expenses	1.15	0.95	0.81	1.01	0.96	0.94
Total expenses	23.20	20.83	19.24	23.14	20.50	19.64
Net farm income from operations	0.30	4.43	6.01	1.00	4.15	5.58
Gain on sale of capital assets	(0.00)	(0.07)	0.03	(0.01)	0.21	(0.23)
Net farm income	0.30	4.36	6.04	0.99	4.36	5.35

Table 3.3. DBAP 2007 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 (%)		
	< \$2.80	\$2.80 - \$5.50	> \$5.50	< 5.0%	5.0% - 18.0%	> 18.0%
Number of farms	7	7	7	7	7	7
Liquidity:						
Current ratio	1.04	1.81	39.62	1.80	38.28	2.39
Working capital (\$)	(133,023)	1,006,023	234,733	52,792	379,274	675,667
Solvency:						
Debt to asset ratio	0.31	0.29	0.27	0.23	0.35	0.29
Equity to asset ratio	0.69	0.71	0.73	0.77	0.65	0.71
Debt to equity ratio	0.61	0.62	0.56	0.49	0.68	0.63
Profitability:						
Rate of return on assets	0.02	0.18	0.25	0.01	0.14	0.31
Rate of return on equity	0.00	0.27	0.50	(0.01)	0.20	0.59
Operating profit margin ratio	(0.04)	0.19	0.24	(0.03)	0.18	0.23
Financial efficiency:						
Asset turnover rate	0.64	0.96	0.99	0.45	0.84	1.30
Operating expense ratio	0.88	0.73	0.68	0.87	0.73	0.70
Depreciation expense ratio	0.08	0.07	0.05	0.08	0.07	0.06
Interest expense ratio	0.03	0.02	0.02	0.03	0.03	0.02
NFIFO ratio ¹	0.01	0.18	0.24	0.03	0.17	0.22
Repayment capacity:						
Cash flow coverage ratio	2.43	1.74	56.38	3.42	50.81	6.32
Term debt coverage ratio ²	0.91	7.72	2.25	2.40	2.21	6.28
Capital replacement margin ³ (\$)	125,181	1,111,505	877,524	282,830	207,067	1,624,313
¹ Net farm income from operations ratio						
² Term debt and capital lease coverage ratio ³ Capital replacement and term debt repayment margin						

Table 3.4. DBAP 2007 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 (%)		
	< \$2.80	\$2.80 - \$5.50	> \$5.50	< 5.0%	5.0% - 18.0%	> 18.0%
Number of farms	7	7	7	7	7	7
Balance sheet (January 1):						
Current assets	242	565	326	260	484	390
Total assets	7,442	5,222	7,798	10,734	6,140	3,588
Current liabilities	444	1,020	451	322	1,037	556
Total liabilities	1,981	1,704	1,428	1,719	2,343	1,052
Equity	5,461	3,519	6,369	9,015	3,797	2,536
Balance sheet (December 31):						
Current assets	478	998	746	651	792	779
Total assets	7,530	5,689	8,879	10,874	6,862	4,363
Current liabilities	558	678	227	422	505	535
Total liabilities	2,064	1,592	1,630	1,758	2,303	1,225
Equity	5,465	4,097	7,250	9,116	4,559	3,138

Table 4.1. DBAP 2007 Summary - Business size and production efficiency by assets per cow and liabilities per cow.

Category	Assets (\$ / cow)			Liabilities (\$ / cow)		
	< \$4,700	\$4,700-\$8,000	> \$8,000	< \$1,200	\$1,200-\$2,300	> \$2,300
Number of farms	7	7	7	7	7	7
Business Size:						
Average number of cows	1,404	2,197	595	1,791	1,125	1,280
Average number of heifers	692	1,192	241	950	736	439
Milk sold (million lbs)	24.86	41.68	10.65	32.80	20.92	23.47
FTE workers	25	33	9	32	18	17
Acres of pasture + cultivated land	918	940	485	1,219	462	662
Production Efficiency:						
Milk sold (lbs / cow / year)	18,394	18,680	18,156	18,720	17,501	19,009
Cows / FTE worker	54	74	47	58	58	60
Milk sold (million lbs)/ FTE worker	1.00	1.32	0.85	1.04	1.05	1.08
Cull rate	33%	37%	37%	34%	34%	38%

Table 4.2. DBAP 2007 Summary - Revenues and expenses by assets per cow and liabilities per cow (\$/cwt).

Category	Assets (\$ / cow)			Liabilities (\$ / cow)		
	< \$4,700	\$4,700-\$8,000	> \$8,000	< \$1,200	\$1,200-\$2,300	> \$2,300
Number of farms	7	7	7	7	7	7
Revenues:						
Milk sold	22.88	22.79	22.11	23.29	22.58	21.90
Raised, leased cow sales	0.69	0.94	1.92	0.72	1.00	1.82
Heifer sales	0.87	(0.01)	(0.32)	0.00	0.75	(0.21)
Gain on purchased livestock Sales	(0.14)	(0.17)	(0.50)	(0.08)	(0.37)	(0.35)
Other revenues	1.12	1.28	0.54	1.66	0.29	1.00
Total revenues	25.42	24.84	23.75	25.61	24.25	24.16
Expenses:						
Personnel	3.54	3.42	3.76	4.33	3.98	2.40
Purchased feed	9.42	9.35	8.81	8.80	9.95	8.84
Crops	0.64	0.51	0.63	0.78	0.52	0.48
Machinery	1.15	1.18	1.05	0.99	1.37	1.03
Livestock	1.14	1.81	1.89	1.93	1.57	1.35
Milk marketing	1.05	1.18	1.18	1.05	1.04	1.32
Buildings and land	0.74	0.54	0.52	0.61	0.86	0.33
Interest	0.62	0.67	0.57	0.23	0.38	1.26
Depreciation:						
Livestock	1.22	0.61	0.69	0.51	0.76	1.26
Machinery	0.38	0.39	0.60	0.26	0.52	0.58
Buildings	0.19	0.46	0.44	0.21	0.53	0.34
Other expenses	1.18	0.82	0.91	0.88	1.17	0.86
Total expenses	21.28	20.95	21.05	20.58	22.65	20.04
Net farm income from operations	4.14	3.89	2.70	5.03	1.59	4.12
Gain on sale of capital assets	(0.23)	0.21	(0.01)	(0.03)	(0.00)	(0.00)
Net farm income	3.91	4.10	2.69	4.99	1.59	4.12

Table 4.3. DBAP 2007 Summary - Financial performance by assets per cow and liabilities per cow.

Category	Assets (\$ / cow)			Liabilities (\$ / cow)		
	< \$4,700	\$4,700-\$8,000	> \$8,000	< \$1,200	\$1,200-\$2,300	> \$2,300
Number of farms	7	7	7	7	7	7
Liquidity:						
Current ratio	2.09	1.23	39.15	3.21	0.93	38.33
Working capital (\$)	287,239	549,984	270,509	913,547	(200,063)	394,249
Solvency:						
Debt to asset ratio	0.40	0.29	0.18	0.12	0.29	0.46
Equity to asset ratio	0.60	0.71	0.82	0.88	0.71	0.54
Debt to equity ratio	1.08	0.47	0.24	0.15	0.60	1.04
Profitability:						
Rate of return on assets	0.26	0.15	0.04	0.18	0.15	0.13
Rate of return on equity	0.53	0.21	0.04	0.21	0.38	0.19
Operating profit margin ratio	0.17	0.18	0.03	0.19	0.02	0.18
Financial efficiency:						
Asset turnover rate	1.36	0.85	0.38	0.89	0.99	0.71
Operating expense ratio	0.74	0.76	0.80	0.76	0.86	0.69
Depreciation expense ratio	0.07	0.06	0.08	0.04	0.08	0.09
Interest expense ratio	0.02	0.03	0.02	0.01	0.01	0.05
NFIFO ratio ¹	0.16	0.16	0.10	0.20	0.05	0.17
Repayment capacity:						
Cash flow coverage ratio	5.90	1.53	53.12	7.54	2.72	50.29
Term debt coverage ratio ²	2.93	5.96	1.99	6.01	1.90	2.97
Capital replacement margin ³ (\$)	828,676	1,007,330	278,204	1,197,609	588,770	327,831
¹ Net farm income from operations ratio						
² Term debt and capital lease coverage ratio ³ Capital replacement and term debt repayment margin						

Table 4.4. DBAP 2007 Summary - Balance sheet by assets per cow and liabilities per cow (\$/cow).

Category	Assets (\$ / cow)			Liabilities (\$ / cow)		
	< \$4,700	\$4,700-\$8,000	> \$8,000	< \$1,200	\$1,200-\$2,300	> \$2,300
Number of farms	7	7	7	7	7	7
Balance sheet (January 1):						
Current assets	270	535	328	343	148	643
Total assets	3,220	5,249	11,993	7,423	6,303	6,736
Current liabilities	543	878	494	392	415	1,107
Total liabilities	1,302	1,866	1,945	753	1,356	3,004
Equity	1,918	3,383	10,048	6,670	4,947	3,732
Balance sheet (December 31):						
Current assets	566	883	773	765	311	1,146
Total assets	4,008	5,632	12,459	7,830	6,531	7,737
Current liabilities	559	716	187	210	471	781
Total liabilities	1,670	1,689	1,927	579	1,541	3,166
Equity	2,338	3,943	10,532	7,251	4,990	4,571