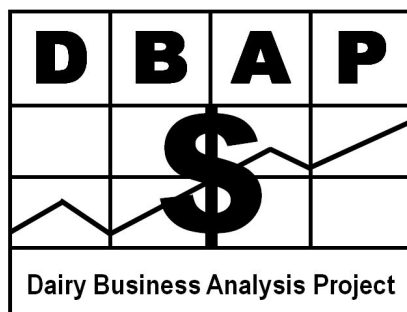


Dairy Business Analysis Project: 2008 Financial Summary¹

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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 website is <http://dairy.ifas.ufl.edu/dbap>.



Financial data for the year 2008 were collected from 14 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 14 dairy farms that participated in 2008. 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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1. This document is AN249, one of a series of the Department of Animal Sciences, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Original publication date August 2010. Visit the EDIS Web Site at <http://edis.ifas.ufl.edu>.
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The accounting methods followed the recommendations made by the Farm Financial Standards Council (Farm Financial Standards Council, 1997. Financial Guidelines for Agricultural Producers). 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 2008. Appreciation resulted when machinery and building depreciation did not completely account for the gain or loss in the value of these capital assets during 2008. 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 = FIFO + 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 + nondairy 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 2008 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 5, middle 4, and highest 5 farms for that category. Therefore, the lowest 5 farms in one category may be different from the lowest 5 farms in another category. Revenues and expenses may not add up due to rounding.

In brief, 14 dairy farms were included in the summary results. Of these, 11 were located in Florida and 3 in Georgia. The average herd size of the participating dairies was 1584 cows and 834 heifers with 17,588 lbs. milk sold per cow. The average culling rate was 33%. The average milk income was \$23.16. Average total revenues were \$25.48 per cwt. milk sold. Total expenses averaged \$24.54 per cwt. sold. The largest items were purchased feed, \$11.21, and personnel costs, \$3.92 per cwt. sold. Net farm income from operations averaged \$0.94 per cwt. sold.

Net farm income per cwt. was \$0.95. These results indicate a marked decrease in average profitability compared to 2007.

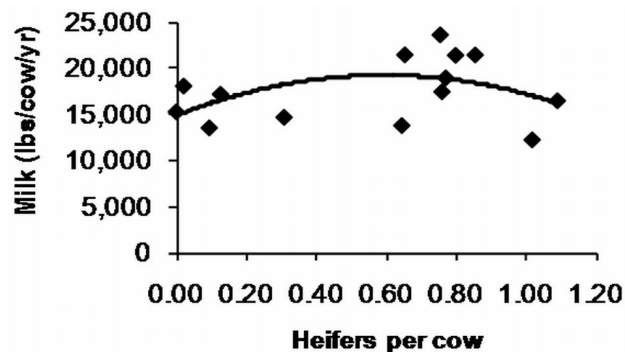


Figure 1. DBAP 2008 Summary—Milk production (lbs/cow/year) by heifers per cow.

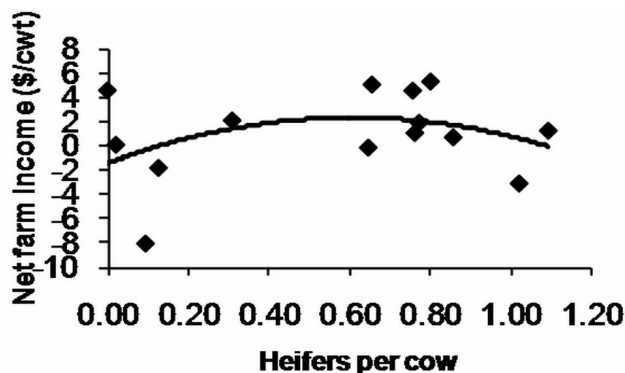


Figure 2. DBAP 2008 Summary—Net farm income (\$/cwt) by heifers per cow.

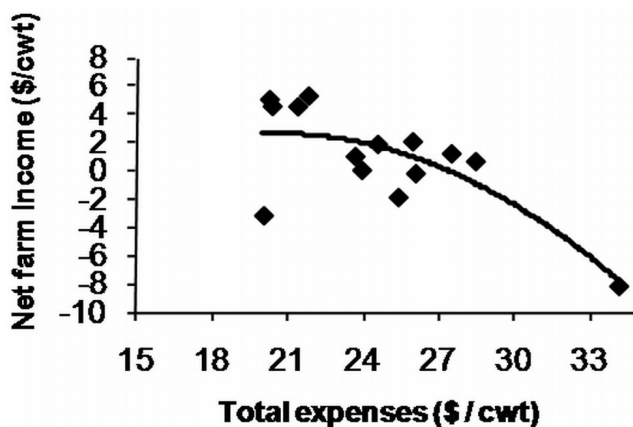


Figure 3. DBAP 2008 Summary—Net farm income (\$/cwt) by total expenses (\$/cwt).

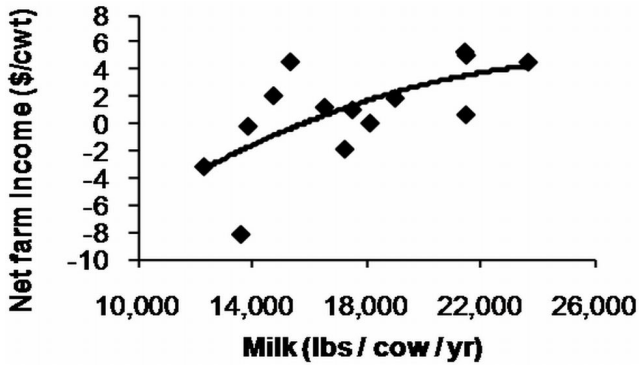


Figure 4. DBAP 2008 Summary—Net farm income (\$/cwt) by milk yield (lbs/cow/year).

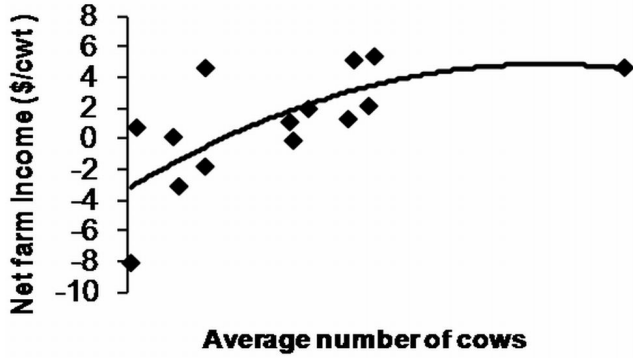


Figure 5. DBAP 2008 Summary—Net farm income per cwt (\$) by average number of cows. The x-axis is not displayed to avoid possible identification of dairy farms.

Table 1.1. DBAP 2008 Summary—Business size and production efficiency by state and overall average, median, and standard deviation.

Category	Average	Overall		State Averages	
		Median	Std ¹	Florida	Georgia
Number of farms	14	14	14	11	3
Business Size:					
Number of cows	1,584	1,648	1,296	1,709	1,125
Number of heifers	834	673	787	819	890
Milk sold (million lbs)	27.59	25.77	21.61	28.37	24.73
FTE ² workers	22	22	14	22	23
Acres of pasture + cultivated land	810	663	641	853	653
Production Efficiency:					
Milk sold (lbs/cow/year)	17,588	17,364	3,484	16,328	22,208
Cows/FTE worker	64	57	35	71	42
Milk sold (million lbs)/FTE worker	1.12	1.05	0.56	1.16	0.94
Cull rate	33%	31%	11%	34%	30%

¹Standard deviation²Full-time equivalent

Table 1.2. DBAP 2008 Summary—Revenues and expenses by state and overall average, median, and standard deviation (\$/cwt).

Category	Average	Overall		State Averages	
		Median	Std ¹	Florida	Georgia
Number of farms	14	14	14	11	3
Revenues:					
Milk sold	23.16	23.37	2.34	23.28	22.69
Raised, leased cow sales	0.45	0.29	1.27	0.29	1.04
Heifer sales	0.46	0.47	0.78	0.57	0.08
Gain on purchased livestock	0.29	0.00	0.87	0.33	0.13
Sales					
Other revenues	1.13	0.70	1.70	0.50	3.43
Total revenues	25.48	25.94	2.97	24.97	27.37
Expenses:					
Personnel	3.92	3.44	1.64	3.67	4.84
Purchased feed	11.21	11.27	2.35	11.61	9.75
Crops	0.63	0.64	0.53	0.61	0.69
Machinery	1.22	1.07	0.75	1.20	1.28
Livestock	1.86	1.78	0.75	1.91	1.67
Milk marketing	1.27	1.31	0.31	1.27	1.29
Buildings and land	0.70	0.54	0.64	0.57	1.20
Interest	0.43	0.42	0.38	0.43	0.45
Depreciation:					
Livestock	1.10	0.61	1.16	1.37	0.09
Machinery	0.58	0.46	0.59	0.48	0.96
Buildings	0.43	0.21	0.56	0.47	0.26
Other expenses	1.20	1.14	0.47	1.14	1.41
Total expenses	24.54	24.25	3.89	24.72	23.88
Net farm income from operations	0.94	1.15	3.67	0.25	3.49
Gain on sale of capital assets	0.01	0.00	0.04	0.00	0.05
Net farm income	0.95	1.15	3.66	0.25	3.54

¹Standard deviation

Table 1.3. DBAP 2008 Summary—Financial performance by state and overall average, median, and standard deviation.

Category	Average	Overall		State Averages	
		Median	Std ¹	Florida	Georgia
Number of farms	14	14	14	11	3
Liquidity:					
Current ratio	14.16	0.98	43.80	2.32	77.31
Working capital (\$)	369,244	110,056	866,026	186,491	1,436,494
Solvency:					
Debt to asset ratio	0.29	0.26	0.21	0.27	0.20
Equity to asset ratio	0.71	0.74	0.21	0.73	0.80
Debt to equity ratio	0.60	0.35	0.70	0.51	0.31
Profitability:					
Rate of return on assets	0.15	0.17	0.18	0.04	0.09
Rate of return on equity	0.26	0.19	0.51	0.07	0.13
Operating profit margin ratio	0.13	0.16	0.20	(0.01)	0.12
Financial efficiency:					
Asset turnover rate	0.86	0.81	0.57	0.80	0.58
Operating expense ratio	0.77	0.76	0.14	0.89	0.80
Depreciation expense ratio	0.07	0.07	0.04	0.09	0.05
Interest expense ratio	0.03	0.02	0.02	0.02	0.02
NFIFO ratio ²	0.14	0.16	0.14	0.00	0.13
Repayment capacity:					
Cash flow coverage ratio	20.18	0.86	55.72	1.39	79.02
Term debt coverage ratio ³	3.63	1.48	4.71	4.41	1.37
Capital replacement margin ⁴ (\$)	704,737	569,504	877,533	587,223	215,537

¹Standard deviation²Net farm income from operations ratio³Term debt and capital lease coverage ratio⁴Capital replacement and term debt repayment margin

Table 1.4. DBAP 2008 Summary—Balance sheet by state and overall average, median, and standard deviation (\$/cow).

Category	Average	Overall Median	Std ¹	State Averages	
				Florida	Georgia
Number of farms	14	14	14	11	3
Balance sheet (January 1):					
Current assets	670	489	595	512	1,248
Total assets	7,685	5,354	5,049	6,304	12,749
Current liabilities	539	416	542	488	724
Total liabilities	1,428	1,149	1,218	1,287	1,948
Equity	6,256	4,132	5,613	5,017	10,801
Balance sheet (December 31):					
Current assets	625	369	611	453	1,256
Total assets	7,567	5,452	5,127	6,339	12,069
Current liabilities	466	314	373	497	353
Total liabilities	1,324	1,349	943	1,264	1,543
Equity	6,243	4,147	5,608	5,075	10,526

¹Standard deviation**Table 2.1.** DBAP 2008 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)		
	< 790	790– 2000	> 2000	< 16,000	16,000– 19,000	> 19,000
Number of farms	5	4	5	5	4	5
Business Size:						
Average number of cows	392	1,476	2,862	1,923	1,276	1,491
Average number of heifers	150	1,079	1,323	473	940	1,111
Milk sold (million lbs)	6.37	26.21	49.93	28.33	21.81	31.48
FTE workers	8	23	36	20	21	26
Acres of pasture + cultivated land	376	810	1,245	1,018	723	672
Production Efficiency:						
Milk sold (lbs/cow/year)	16,541	18,501	17,905	13,948	17,342	21,425
Cows/FTE worker	41	67	86	76	65	52
Milk sold (million lbs)/FTE worker	0.67	1.22	1.48	1.10	1.13	1.12
Cull rate	41%	25%	31%	35%	34%	29%

Table 2.2. DBAP 2008 Summary—Revenues and expenses by average number of cows and milk per cow (\$/cwt).

Category	Average number of cows			Milk yield (lbs/cow/year)		
	< 790	790-2000	> 2000	< 16,000	16,000-19,000	> 19,000
Number of farms	5	4	5	5	4	5
Revenues:						
Milk sold	21.50	23.94	24.18	22.30	24.30	23.09
Raised, leased cow sales	(0.64)	1.29	0.87	0.25	0.30	0.76
Heifer sales	0.74	0.33	0.28	0.89	0.01	0.40
Gain on purchased livestock	0.51	(0.16)	0.41	0.44	0.01	0.35
Sales						
Other revenues	1.76	0.37	1.11	0.48	0.63	2.18
Total revenues	23.89	25.77	26.85	24.37	25.25	26.79
Expenses:						
Personnel	4.90	3.64	3.16	3.95	3.86	3.94
Purchased feed	12.02	9.85	11.50	12.24	10.93	10.42
Crops	0.65	1.13	0.20	0.47	0.74	0.69
Machinery	0.97	2.14	0.73	1.14	1.31	1.22
Livestock	1.89	2.04	1.68	2.04	2.04	1.54
Milk marketing	1.36	0.98	1.41	1.33	1.30	1.19
Buildings and land	0.82	0.48	0.76	0.48	0.43	1.14
Interest	0.29	0.57	0.46	0.32	0.51	0.48
Depreciation:						
Livestock	1.27	0.22	1.62	1.28	1.73	0.41
Machinery	0.44	0.90	0.47	0.52	0.41	0.78
Buildings	0.23	0.75	0.36	0.42	0.65	0.25
Other expenses	1.56	1.21	0.82	1.13	1.22	1.25
Total expenses	26.39	23.92	23.18	25.32	25.12	23.30
Net farm income from operations	(2.51)	1.85	3.67	(0.95)	0.13	3.49
Gain on sale of capital assets	0.03	(0.00)	0.00	0.00	0.00	0.03
Net farm income	(2.48)	1.84	3.67	(0.95)	0.13	3.52

Table 2.3. DBAP 2008 Summary—Financial performance by average number of cows and milk per cow.

Category	Average number of cows			Milk yield (lbs/cow/year)		
	< 790	790-2000	> 2000	< 16,000	16,000-19,000	> 19,000
Number of farms	5	4	5	5	4	5
Liquidity:						
Current ratio	0.29	57.85	4.91	0.86	4.86	46.73
Working capital (\$)	(120,837)	8,441	1,386,260	154,072	369,615	822,413
Solvency:						
Debt to asset ratio	0.23	0.27	0.27	0.21	0.30	0.26
Equity to asset ratio	0.77	0.73	0.73	0.79	0.70	0.74
Debt to equity ratio	0.54	0.38	0.47	0.33	0.70	0.43
Profitability:						
Rate of return on assets	(0.06)	0.07	0.15	(0.01)	0.02	0.14
Rate of return on equity	(0.09)	0.06	0.26	(0.01)	(0.01)	0.24
Operating profit margin ratio	(0.18)	0.09	0.15	(0.10)	0.01	0.13
Financial efficiency:						
Asset turnover rate	0.50	0.87	0.90	0.63	0.80	0.83
Operating expense ratio	1.02	0.83	0.75	0.95	0.86	0.79
Depreciation expense ratio	0.08	0.07	0.09	0.08	0.11	0.06
Interest expense ratio	0.01	0.02	0.02	0.01	0.02	0.02
NFIFO ratio ¹	(0.11)	0.07	0.14	(0.05)	0.00	0.13
Repayment capacity:						
Cash flow coverage ratio	(0.08)	59.81	2.70	0.43	2.86	47.74
Term debt coverage ratio ²	(0.42)	1.50	9.74	6.57	2.42	2.02
Capital replacement margin ³ (\$)	4,934	376,220	1,115,304	241,544	562,731	729,485

¹Net farm income from operations ratio²Term debt and capital lease coverage ratio³Capital replacement and term debt repayment margin

Table 2.4. DBAP 2008 Summary—Balance sheet by average number of cows and milk per cow (\$/cow).

Category	Average number of cows			Milk yield (lbs/cow/year)		
	< 790	790-2000	> 2000	< 16,000	16,000-19,000	> 19,000
Number of farms	5	4	5	5	4	5
Balance sheet (January 1):						
Current assets	352	442	1,171	380	278	476
Total assets	10,761	5,824	6,097	7,164	5,665	7,633
Current liabilities	283	387	916	528	683	704
Total liabilities	1,046	1,399	1,835	1,631	1,799	1,684
Equity	9,715	4,426	4,262	5,534	3,866	5,949
Balance sheet (December 31):						
Current assets	232	434	1,171	663	431	1,127
Total assets	10,804	5,633	5,876	7,185	5,854	9,059
Current liabilities	428	287	648	447	541	475
Total liabilities	1,171	1,371	1,438	1,592	1,640	2,054
Equity	9,632	4,261	4,438	5,593	4,215	7,005

Table 3.1. DBAP 2008 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 (%)		
	< \$0.50	\$0.50–\$2.00	> \$2.00	< 2.0%	2.0%–6.0%	> 6.0%
Number of farms	5	4	5	5	4	5
Business Size:						
Average number of cows	703	1,441	2,579	630	1,682	2,460
Average number of heifers	346	1,286	961	363	1,101	1,092
Milk sold (million lbs)	10.50	25.47	46.39	9.25	27.29	46.18
FTE workers	13	25	30	12	24	31
Acres of pasture + cultivated land	424	1,006	1,040	414	1,069	1,000
Production Efficiency:						
Milk sold (lbs/cow/year)	15,009	18,627	19,336	15,683	16,716	20,191
Cows/FTE worker	48	56	87	42	73	80
Milk sold (million lbs)/FTE worker	0.74	1.02	1.57	0.63	1.22	1.52
Cull rate	38%	31%	29%	40%	31%	27%

Table 3.2. DBAP 2008 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 (%)		
	< \$0.50	\$0.50–\$2.00	> \$2.00	< 2.0%	2.0%–6.0%	> 6.0%
Number of farms	5	4	5	5	4	5
Revenues:						
Milk sold	21.92	24.28	23.49	21.72	24.41	23.59
Raised, leased cow sales	(0.24)	0.52	1.08	(0.18)	0.91	0.70
Heifer sales	0.67	0.28	0.40	0.84	(0.04)	0.48
Gain on purchased livestock	0.50	(0.02)	0.32	0.34	0.27	0.25
Sales						
Other revenues	0.41	2.18	1.01	1.54	0.83	0.96
Total revenues	23.27	27.24	26.30	24.27	26.38	25.98
Expenses:						
Personnel	4.24	4.94	2.78	5.26	3.74	2.72
Purchased feed	12.25	10.73	10.57	11.92	11.08	10.61
Crops	0.66	0.92	0.36	0.76	0.52	0.59
Machinery	1.23	1.76	0.77	1.38	1.31	0.98
Livestock	1.84	2.35	1.49	2.05	2.42	1.22
Milk marketing	1.31	1.10	1.36	1.26	1.35	1.21
Buildings and land	0.40	1.14	0.65	0.88	0.48	0.70
Interest	0.42	0.30	0.55	0.18	0.57	0.58
Depreciation:						
Livestock	1.35	0.35	1.44	0.81	1.54	1.03
Machinery	0.49	0.47	0.77	0.45	0.47	0.80
Buildings	0.31	0.67	0.35	0.29	0.77	0.29
Other expenses	1.41	1.34	0.87	1.58	1.01	0.96
Total expenses	25.92	26.05	21.96	26.82	25.26	21.68
Net farm income from operations	(2.65)	1.19	4.34	(2.55)	1.12	4.30
Gain on sale of capital assets	0.00	0.04	(0.00)	0.03	0.00	(0.00)
Net farm income	(2.65)	1.23	4.34	(2.52)	1.12	4.30

Table 3.3. DBAP 2008 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 (%)		
	< \$0.50	\$0.50–\$2.00	> \$2.00	< 2.0%	2.0%–6.0%	> 6.0%
Number of farms	5	4	5	5	4	5
Liquidity:						
Current ratio	0.38	4.78	47.29	0.29	5.31	46.95
Working capital (\$)	(186,891)	365,907	1,166,342	(132,712)	621,193	907,934
Solvency:						
Debt to asset ratio	0.30	0.13	0.30	0.17	0.26	0.34
Equity to asset ratio	0.70	0.87	0.70	0.83	0.74	0.66
Debt to equity ratio	0.67	0.17	0.51	0.24	0.65	0.56
Profitability:						
Rate of return on assets	(0.05)	0.04	0.17	(0.06)	0.04	0.17
Rate of return on equity	(0.09)	0.04	0.28	(0.08)	0.01	0.29
Operating profit margin ratio	(0.17)	0.03	0.18	(0.19)	0.05	0.18
Financial efficiency:						
Asset turnover rate	0.66	0.76	0.83	0.53	0.80	0.94
Operating expense ratio	1.01	0.89	0.71	1.04	0.83	0.73
Depreciation expense ratio	0.09	0.06	0.10	0.06	0.11	0.08
Interest expense ratio	0.02	0.01	0.02	0.01	0.02	0.02
NFIFO ratio ¹	(0.12)	0.04	0.17	(0.11)	0.04	0.17
Repayment capacity:						
Cash flow coverage ratio	0.05	2.59	48.34	(0.08)	3.13	48.03
Term debt coverage ratio ²	(0.39)	1.46	9.74	(0.73)	8.02	4.84
Capital replacement margin ³ (\$)	(79,257)	628,305	997,827	(91,885)	770,626	896,598

¹Net farm income from operations ratio²Term debt and capital lease coverage ratio³Capital replacement and term debt repayment margin

Table 3.4. DBAP 2008 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 (%)		
	< \$0.50	\$0.50–\$2.00	> \$2.00	< 2.0%	2.0%–6.0%	> 6.0%
Number of farms	5	4	5	5	4	5
Balance sheet (January 1):						
Current assets	308	457	1,203	231	613	1,155
Total assets	7,144	9,088	7,103	10,399	6,224	6,139
Current liabilities	346	185	1,015	179	350	1,049
Total liabilities	1,256	630	2,239	571	1,284	2,401
Equity	5,887	8,458	4,864	9,828	4,940	3,737
Balance sheet (December 31):						
Current assets	180	449	1,211	181	511	1,161
Total assets	7,340	8,885	6,738	10,580	5,862	5,917
Current liabilities	483	230	639	317	362	699
Total liabilities	1,408	705	1,734	845	1,229	1,879
Equity	5,932	8,180	5,004	9,735	4,633	4,039

Table 4.1. DBAP 2008 Summary—Business size and production efficiency by assets per cow and liabilities per cow.

Category	Assets (\$/cow)			Liabilities (\$/cow)		
	< \$4,750	\$4,750–\$8,000	> \$8,000	< \$1,000	\$1,000–\$1,700	> \$1,700
Number of farms	5	4	5	5	4	5
Business Size:						
Average number of cows	1,429	2,717	832	1,063	1,475	2,192
Average number of heifers	1,104	1,154	309	759	954	814
Milk sold (million lbs)	24.68	47.96	14.21	16.33	24.91	41.00
FTE workers	24	32	12	18	22	27
Acres of pasture + cultivated land	715	1,194	599	947	670	785
Production Efficiency:						
Milk sold (lbs/cow/year)	16,452	18,318	18,141	15,721	16,890	20,015
Cows/FTE worker	58	91	50	46	68	79
Milk sold (million lbs)/FTE worker	0.98	1.58	0.88	0.70	1.16	1.50
Cull rate	28%	26%	42%	39%	31%	28%

Table 4.2. DBAP 2008 Summary—Revenues and expenses by assets per cow and liabilities per cow (\$/cwt).

Category	Assets (\$/cow)			Liabilities (\$/cow)		
	< \$4,750	\$4,750– \$8,000	> \$8,000	< \$1,000	\$1,000– \$1,700	> \$1,700
Number of farms	5	4	5	5	4	5
Revenues:						
Milk sold	22.52	24.07	23.06	22.22	24.11	23.33
Raised, leased cow sales	0.35	0.75	0.31	(0.10)	0.96	0.59
Heifer sales	0.10	0.48	0.81	0.75	0.48	0.16
Gain on purchased livestock	0.58	(0.37)	0.51	0.73	(0.42)	0.40
Sales						
Other revenues	0.63	0.90	1.81	2.13	0.04	1.00
Total revenues	24.18	25.83	26.51	25.74	25.16	25.49
Expenses:						
Personnel	3.54	3.03	5.00	5.17	3.95	2.63
Purchased feed	11.09	10.74	11.73	12.24	10.73	10.58
Crops	0.55	0.65	0.68	0.55	1.07	0.35
Machinery	1.30	1.39	1.00	1.06	1.97	0.77
Livestock	1.64	1.59	2.29	2.45	2.07	1.11
Milk marketing	1.28	1.05	1.43	1.47	0.94	1.33
Buildings and land	0.76	0.45	0.85	1.05	0.47	0.54
Interest	0.56	0.63	0.14	0.10	0.44	0.75
Depreciation:						
Livestock	1.19	0.86	1.19	0.80	0.88	1.56
Machinery	0.39	0.45	0.88	0.56	0.39	0.76
Buildings	0.14	0.85	0.37	0.33	0.79	0.23
Other expenses	1.11	0.92	1.51	1.44	1.21	0.94
Total expenses	23.56	22.60	27.07	27.22	24.92	21.55
Net farm income from operations	0.62	3.23	(0.56)	(1.48)	0.24	3.93
Gain on sale of capital assets	0.00	0.00	0.03	0.03	(0.00)	(0.00)
Net farm income	0.62	3.23	(0.53)	(1.45)	0.24	3.93

Table 4.3. DBAP 2008 Summary—Financial performance by assets per cow and liabilities per cow.

Category	Assets (\$/cow)			Liabilities (\$/cow)		
	< \$4,750	\$4,750– \$8,000	> \$8,000	< \$1,000	\$1,000– \$1,700	> \$1,700
Number of farms	5	4	5	5	4	5
Liquidity:						
Current ratio	4.02	1.13	46.56	4.14	0.53	46.92
Working capital (\$)	293,611	795,782	341,940	533,662	(259,431)	946,060
Solvency:						
Debt to asset ratio	0.36	0.32	0.09	0.06	0.27	0.43
Equity to asset ratio	0.64	0.68	0.91	0.94	0.73	0.57
Debt to equity ratio	0.81	0.50	0.11	0.08	0.39	0.93
Profitability:						
Rate of return on assets	0.06	0.12	(0.01)	(0.04)	0.03	0.17
Rate of return on equity	0.10	0.16	(0.00)	(0.05)	0.01	0.27
Operating profit margin ratio	0.02	0.14	(0.09)	(0.15)	0.02	0.17
Financial efficiency:						
Asset turnover rate	1.04	0.82	0.40	0.51	0.80	0.95
Operating expense ratio	0.90	0.77	0.92	1.01	0.89	0.72
Depreciation expense ratio	0.07	0.09	0.09	0.06	0.08	0.10
Interest expense ratio	0.02	0.02	0.01	0.00	0.02	0.03
NFIFO ratio ¹	0.01	0.12	(0.02)	(0.07)	0.01	0.15
Repayment capacity:						
Cash flow coverage ratio	2.06	1.16	47.47	1.62	0.96	48.07
Term debt coverage ratio ²	(0.51)	6.01	6.22	3.72	2.59	4.73
Capital replacement margin ³ (\$)	623,996	558,611	350,329	388,463	277,350	810,871

¹Net farm income from operations ratio²Term debt and capital lease coverage ratio³Capital replacement and term debt repayment margin

Table 4.4. DBAP 2008 Summary—Balance sheet by assets per cow and liabilities per cow (\$/cow).

Category	Assets (\$/cow)			Liabilities (\$/cow)		
	< \$4,750	\$4,750– \$8,000	> \$8,000	< \$1,000	\$1,000– \$1,700	> \$1,700
Number of farms	5	4	5	5	4	5
Balance sheet (January 1):						
Current assets	581	1,030	471	431	255	1,241
Total assets	3,861	5,757	13,051	10,358	6,377	6,057
Current liabilities	532	979	193	170	286	1,110
Total liabilities	1,522	2,106	793	248	1,185	2,804
Equity	2,339	3,651	12,258	10,111	5,192	3,254
Balance sheet (December 31):						
Current assets	496	999	455	423	200	1,167
Total assets	3,689	5,740	12,905	10,732	5,959	5,688
Current liabilities	542	746	167	260	365	754
Total liabilities	1,333	1,886	865	323	1,472	2,206
Equity	2,356	3,855	12,040	10,409	4,487	3,481