



DBAP UPDATE

DBAP's Critical Success Factors Indicate That Opportunity is Still Knocking for Southeastern Dairy Managers

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The dairy business analysis program, DBAP, helps participating dairies progress towards goals by discussing their strengths, challenges, opportunities and threats. We're going to focus this discussion on challenges and opportunities that southeastern dairies have to operate more efficiently so as to promote greater profitability in the future. DBAP's critical success factors indicate that opportunity is still knocking for southeastern dairy managers.

When we look at DBAP data, especially across time, we find that there are a few critical success factors that explain the greatest amount of variation in profitability among dairies. We will discuss some of those major factors and the variability among dairies in those specific areas. The range expressed is the remaining opportunity for improved performance.

There are 31 critical success factors in our report. Eleven of them fall within the category of business structure. They relate to the size, scale and volume of the business, the level of resources or assets that were allocated to the business including debt capital. Another category is the production activity. Fifteen of the critical success factors measure the efficiency of productivity. The last four critical success factors relate to the third category of profitability. They indicate how well the business was structured and operated to generate some profit that enables the business to survive, grow and prosper, depending on the goals of the management. We don't have the time or space to discuss all 31 critical success factors, but we'll hit the highlights

Major Critical Success Factors of Business Structure

Total value of assets (cattle, equipment, buildings and land) on a per cow basis is one critical success factor. The DBAP average in 2001 was \$4,460, while the most profitable dairies averaged a bit less, \$4,252. The range expressed by the dairies was quite wide. The minimum was \$1,658. This dairy owner very much desires to add facilities to improve cow comfort. The dairy with the maximum, \$9,914 needs more cows.

Asset turnover ratio is total revenues divided by total assets. It measures how effectively we have invested in assets that generate revenues. The 2001 average was .88 and top dairies often get a 1:1 ratio. However, there was a lot of variation, from .18 to 2.37. A dairy with a low ratio needs to generate more revenues to better balance with high investment. Conversely, the very high 2.37 indicated an extremely high level of productivity from relatively few assets. Dairies that rank highest in asset turnover rate are generally those with higher allocation to cows relative to equipment, buildings and land. More specifically, some dairies have 40% of their total assets invested in cattle.

Average debt per cow of participating dairies in 2001 was \$1,394. The most profitable dairies averaged a little less, \$1,171. Note that the most profitable dairies do use credit. Becoming debt free

is quite often not a goal of a dairy that is committed to growth and improved efficiency. The fact that we have dairies with \$2,000-3,000 in debt per cow indicates their need for higher productivity to service that debt, especially with our highly variable milk prices.

Major Critical Success Factors of Production Activity

The DBAP average milk sold per cow was 17,898 in 2001 while the most profitable dairies sold 19,655 lbs. per cow during the year. The wide range, from 10,492 to 25,286, indicates that there remains much opportunity to improve productive efficiency on our dairies.

Labor efficiency may well increase in importance. The DBAP average for milk sold per FTE was .97 million lbs. The most profitable dairies were considerably higher at 1.36 million pounds. One dairy hit the extremely impressive 2 million pound level in 2001. Since labor is quite often the second or third greatest cost of dairying, gaining labor efficiency should be a focal point of management.

Total costs of production, including interest and depreciation, were \$17.03 per cwt. The most profitable dairies were \$2.53 lower, at \$14.50. The range was \$8.47, from \$13.28 to \$21.75. The total cost of producing milk is the best of the critical success factors in explaining variation in profitability among dairies. Cost control should be the most important focal point of a manager. What's your cost per cwt?

DBAP is an important opportunity for our dairy producers. Other Extension Service programs that are available include help in enterprise analysis, developing business plans and projections for alternative investment strategies. DBAP members have a significant advantage in taking advantage of these other opportunities.

On the next few pages are an example of a DBAP critical success factor, multi-year report. This report is of inordinate support to efforts to understand progress of a dairy business across time, towards goals. Shown is an example dairy (we never share numbers from a real dairy). It might reflect an average situation, except that there is no average or typical dairy business. All dairies are unique due to their goals, maturity, business structure, operating efficiencies and profitability. Please let DBAP help you make progress towards your goals.

Key Code: 999**Dairy Business Analysis Program****CRITICAL SUCCESS FACTORS, multi-year progress report****5/6/2002**

	1995	1996	1997	1998	1999	2000	2001
BUSINESS STRUCTURE							
Business Size							
Average number of cows	590	590	635	697	730	775	766
Average number of heifers	400	400	425	425	500	500	500
Milk sold (pounds)	9,177,450	8,850,000	10,512,425	11,747,935	12,596,150	13,601,250	13,064,130
Full time worker equivalents	15	14	14	14	14	14	13
Capital Efficiency							
Ending total assets / cow	\$4,500	\$4,450	\$ 4,450	\$ 4,300	\$ 4,025	\$ 3,950	\$ 3,960
Asset turnover ratio	0.58	0.67	0.67	0.77	0.81	0.80	0.89
Financial Summary							
Debt to equity ratio	0.91	0.82	0.91	0.91	0.90	0.88	0.79
Debt to asset ratio	0.48	0.45	0.48	0.48	0.47	0.47	0.44
Ending total liabilities / cow	\$2,150	\$2,000	\$ 2,125	\$ 2,050	\$ 1,910	\$ 1,850	\$ 1,750
Ending equity / cow	\$2,350	\$2,450	\$2,325	\$2,250	\$2,115	\$2,100	\$ 2,210
Year end total equity	\$1,386,500	\$1,445,500	\$1,476,375	\$1,568,250	\$1,543,950	\$1,627,500	\$ 1,692,860
PRODUCTION							
Production Efficiency							
Milk sold / cow (lbs)	15,555	15,000	16,555	16,855	17,255	17,550	17,055
Labor Efficiency							
Cows / worker	39	42	45	50	54	57	59
Milk sold / worker (million lbs)	611,830	632,143	750,888	839,138	933,048	1,007,500	1,004,933
Cost Control							
Personnel cost / cwt.	\$2.74	\$2.38	\$ 2.45	\$ 2.32	\$ 2.39	\$ 2.74	\$ 2.80
Purchased feed cost / cwt.	\$7.49	\$8.62	\$ 8.37	\$ 7.88	\$ 7.21	\$ 7.14	\$ 7.00
Crops cost / cwt.	\$0.25	\$0.24	\$ 0.33	\$ 0.26	\$ 0.27	\$ 0.21	\$ 0.20
Machinery cost / cwt.	\$0.78	\$0.70	\$ 0.86	\$ 0.83	\$ 0.84	\$ 0.81	\$ 0.80
Livestock cost / cwt.	\$1.93	\$2.51	\$ 2.44	\$ 1.52	\$ 1.53	\$ 1.70	\$ 1.70
Milk marketing cost / cwt.	\$1.19	\$0.94	\$ 1.06	\$ 1.02	\$ 1.03	\$ 1.07	\$ 1.00
Real estate cost / cwt.	\$0.48	\$0.44	\$ 0.50	\$ 0.61	\$ 0.61	\$ 0.52	\$ 0.50
Other overhead costs / cwt	\$1.64	\$1.22	\$ 1.39	\$ 0.78	\$ 1.30	\$ 1.42	\$ 1.20
Depreciation / cwt.	\$1.35	\$0.93	\$ 0.63	\$ 1.61	\$ 1.21	\$ 1.44	\$ 1.50
Total production cost / cwt.	\$17.85	\$17.98	\$18.03	\$16.83	\$16.39	\$17.05	\$16.70
Revenue Generation							
Milk price / cwt.	\$15.31	\$18.19	\$ 16.87	\$ 18.56	\$ 17.82	\$ 16.68	\$ 19.39
Total revenue / cwt.	\$16.81	\$19.93	\$ 18.02	\$ 19.59	\$ 18.96	\$18.03	\$ 20.69
Total revenue	\$1,542,729	\$1,763,805	\$1,894,339	\$2,301,420	\$2,388,230	\$2,452,305	\$2,702,968
PROFITABILITY							
Net farm income from operations	\$ (95,445)	\$ 172,575	\$ (1,051)	\$ 324,243	\$ 323,721	\$ 133,292	\$ 521,259
Net farm income operations /cwt	\$ (1.04)	\$ 1.95	\$ (0.01)	\$ 2.76	\$ 2.57	\$ 0.98	\$ 3.99
Rate of return on assets	-3.6%	6.6%	0.0%	10.8%	11.0%	4.4%	17.2%
Rate of return on equity	-6.9%	11.9%	-0.1%	20.7%	21.0%	8.2%	30.8%

Cost of Production (cwt)

