

Financial Statements for Dairy Farm Management¹

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Management is using what you have to get what you want most. This definition concentrates on objectives, on "what you want." What you want "most" helps set priorities which keep managers' time devoted to important things. "Using what you have" conjures up a decision making procedure for using resources, the most important of which is management ability and time, followed closely by capital. Therefore it follows the financial management is used to help achieve objectives, to help identify priorities and to improve capital use by providing the limits within which decisions may be made. Financial management serves more as the governor on a car, rather than the steering wheel.

Production and marketing skills generate profitability directly, whereas financial management serves more to conserve that profit. So management time must be budgeted in order to generate profits, but there is good reason for professionals to expand their familiarity with financial management. Weaknesses in production and marketing skills are less easily identified than weaknesses in financial management. If the appropriate financial statements are available, then financial weaknesses are easy to spot. Having identified financial weaknesses, the concentration initially is on aligning debts with repayment capacity. Attention then turns back to what can be done in production and marketing in order to improve profitability.

Managers' personal preferences play a major role in setting objectives and priorities, and the size and organization of the dairy drives the daily implementation of decisions. But financial management tools are pretty well the same for mom

and pop dairies or dairies that milk in multiples of 1,000. Balance sheets are necessary to tell how much of the business is owned, how much collateral can secure additional borrowing, and, if push comes to shove, how far away bankruptcy is. Income statements show whether the business was profitable or not, and can be used to estimate debt servicing ability. Cash flow plans show how much and when money flows through the dairy, and helps test the feasibility of changes that might be made in the dairy.

In essence, balance sheets measure what there is to work with, income statements tell whether enough money is being made to accomplish objectives, and cash flow plans serve as a financial road map. Used well, they help keep a dairyman from borrowing more money than can be profitably used, repaid, and accomplish the overall objectives. In the current business climate, this is no small job, and many writers imply that whipping up the necessary documents will somehow make every dairy successful. Not so; good dairy management is what makes the profits. Financial management helps protect that profit and helps keep dairymen from digging a deeper financial hole. In a recent case, a moderate size dairy that had for years been financed by a top lender was foreclosed. Looking at the financial statements, that lender saw equity eroding, profits declining, and counseled the dairyman to sell out. The dairyman, an older gentleman, wanted to keep the dairy going to provide jobs for a son and a son-in-law. The dairyman ignored the reality shown by the financial statements, borrowed enough money from a different lender to pay out the first lender, and dairied until his equity was all gone. Had he heeded the warning, he could have bought modest homes for his children and

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still had enough left for an adequate retirement. He persisted, and neither he nor his family wound up with anything. On the positive side, successful dairymen have carefully monitored their financial progress and expanded only when they were financially able to make a major move.

BALANCE SHEET

Financial analysis is anchored on each end by the balance sheet. It gives a stop-action look at the financial situation at the beginning and end of the year. In between, income statements detail income and expenses. These are tied closely to the cash flow analysis, which monitors cash coming into the business and how it is used.

Where do the data come from? The oldest management truism is that good records are necessary, but too many people view records as a backward-looking tool intended only to help lenders and tax collectors. The real value in keeping records is in helping the manager:

- * set goals for the future
- * make the management decisions needed to achieve those goals, and
- * track financial progress toward those goals along the way.

The major hurdle in providing the example numbers came in assembling the scattered pieces of information into a form which permits analysis.

The balance sheet provided (Table 1) suffers somewhat from the lack of record keeping, in that an up-to-date asset ledger was not available. It is also not known which assets were pledged to secure what loans. The example balance sheet has both assets and liabilities broken into three classifications based on the length of life. The idea is to try and match loan repayment schedules to asset lifespans. In practice, most loans will mature somewhat before the underlying security is worn out.

The first thing that leaps out of the balance sheet is the terrible liquidity bind the dairyman is in. Current assets are less than \$9,000 against current liabilities of more than \$300,000. In an understatement, this calls for some debt restructuring. De facto restructuring has already been going on, but it has been going the wrong way. Current debts have

been accumulating, which account for most of the accounts payable of \$165,000. Too many of the other debts may have been grouped into the "current" portion of liabilities. Some of that debt may be on longer terms than shown here. If so, the payment expected in the coming year would be less.

The intermediate category includes cows and equipment, with estimated useful lives of 3 and 5 years respectively. Evaluating the worth of the cow herd is a difficult problem, one that can be deferred to another day. Equipment is easier to estimate useful lives, but appraisal of it can also be tricky. Values of used equipment have gone down significantly in value over the last three years because of the bind dairymen and other farmers are in. These values indicate a possibility of some collateral value remaining in cows and equipment (\$423,000 assets vs. \$126,168 liabilities). Whether or not lenders would consider this as additional loan support would depend on their own appraisals.

Speaking of collateral, lenders in general are much less disposed toward collateral lending than they were five years ago. Rapid decreases in the value of land, buildings and equipment (cows, too) have made them gunshy. They want to see loan applications supported by earnings, not collateral.

That point is made in the long-term asset category. The example shows almost \$300,000 more asset value than liabilities. Two points here: the first is how far the lender would be willing to go on collateral. This dairy is getting pretty tight (debt to equity of \$980,403 divided by assets of \$1,231,800 = .8). If assets were valued conservatively, and if there was strong profitability, and a strong price outlook, this might not worry too many lenders. But the second point is that most of the equity in this operation comes from land and buildings being valued at \$2,000 per acre. An appraisal at \$1,500 per acre would wipe out \$200,000 of that equity in one swoop.

Assets can be financed with borrowed money (debts or liabilities) or with equity capital or net worth. Total assets must balance with liabilities plus net worth, hence the name balance sheet. When net worth is gone, the business is operating completely on other people's money, and it is broke, so net worth measures the distance to bankruptcy. Year end balance sheets tell where the business

Table 1. Balance sheet -- a small north Florida dairy.

ASSETS	
CURRENT:	
Cash	\$800
Cash value Life Ins.	5,000
Feed inventory	3,000
Sub-Total	\$8,800
INTERMEDIATE:	
Mature Cows (278 @ \$900)	\$251,000
Heifers	
a) Bred (26 @ \$750)	19,500
b) Calves (25 @ \$100)	2,500
Dairy Equipment	50,000
Field Equipment	100,000
Sub-Total	\$423,000
LONG-TERM:	
Land, Facilities and Buildings	\$800,000
Total Assets	\$1,231,800
LIABILITIES	
CURRENT:	
Accounts payable	\$165,002
Current portion of other debt	141,303
Sub-Total	\$306,305
INTERMEDIATE:	
Cows (3 yrs)	34,750
Equipment (5 yrs)	126,168
Sub-Total	\$160,918
LONG-TERM:	
Land (20 yrs)	\$513,180
Total Liabilities	\$980,403
Net Worth	\$251,397

Table 2. Example dairy income statement.

INCOME:	
Milk Sold	\$643,175
Cull Cows	43,694
Calves Sold	12,500
TOTAL INCOME	\$699,369
EXPENSES:	
Accounting & Legal	\$4,980
Advertisement & Promotion	11,276
Breeding	4,800
Contract Labor	3,000
DHIA	2,952
Electric	11,100
Employee Rent	5,400
Feed	213,678
Fertilizer	5,600
Fill Dirt	1,200
Fuel	9,504
Hay	3,558
Insurance	19,044
Interest	87,435
Labor	69,600
Milk Hauling	20,197
Miscellaneous	7,200
Office Supplies	240
Phone	2,040
Repairs	26,376
Seed	2,400
Supplies	12,000
Taxes	10,800
Vet & Drugs	2,640
TOTAL EXPENSES	\$546,660
NET INCOME	\$152,709
Debt Payments	125,000
NET CASH	\$27,709

stands going into the next year. Another year, and another balance sheet tells the financial condition then. The difference between the two shows how much financial progress was made during the year. Income or earnings statements for the year will show how that progress was made.

INCOME STATEMENT

The classic income statement would show farm income and expenses divided into three sections: cash operating statement, adjustments for inventory changes, and adjustments for capital items. Table 2 is probably more a cash-flow statement than a true income statement. It contains no adjustments for inventories (principally feed and cows) or capital assets (purchases or depreciation). What is shown is a cash accounting statement of actual expenses and incomes.

Analysis of income statements is straightforward. First a preliminary look at profitability shows incomes greater than expenses but the debt load is very large. Looking at the debt payments -- which would normally be on a cash flow statement but not on an income statement -- shows that the dairy lacked the cash to cover its commitments. Clearly something must be done.

The income statement gives some places to look for improvements in operating efficiency. Big savings can only come from big ticket items. As expected, the biggest is feed. Interest is next and improvements there imply some debt replacement or restructuring. Labor and repairs are other relatively large expense items that might suggest a review of management practices in those areas. Milk hauling is one expense that needs to be increased.

BUDGETS

Budgets offer the best hope for providing some sort of comparative analysis. A budget shows an estimate of economic cost of facilities and equipment in addition to the income and expense data provided. Thus an individual could compare his costs and a crude estimate of profitability to a budget for his type operation. Budget information, or more precisely, budget projections, are a must before making some major change such as adding a silage operation. An example budget for a 500-cow dairy is given in Table 3.

SUMMARY

- * A series of financial statements is needed to measure progress.
- * Lenders need these documents to satisfy themselves about loan quality.
- * Managers need financial objectives and they need continually to measure progress toward them.
- * Measuring progress forced decisions. If equity is eroding, why? What can be done about it? What is the outlook? How many years of staying power are there before an effective shift is no longer possible?
- * Financial analysis can give identical answers to different dairymen who will make different decisions based on the data, depending on their objectives and what they think their alternatives really are.

Table 3. Example budget for 500 cow dairy, 15,000 lbs. RHA, twice daily milking, raising replacements, and purchasing silage.

	Unit	Quantity	Price \$	Total \$
Resources:				
Milk sales	cwt.	75,000	15.50	1,162,500
Cull cows	head	125	480.00	78,000
Bull calves	head	267	25.00	<u>20,025</u>
				\$1,260,525
Variable Costs:				
Feed				
1. Cow ration	ton	1,750	160.00	280,000
2. Heifer ration	ton	341.3	150.00	51,195
3. Silage	ton	8,000	35.00	280,000
Labor	dollar			153,000
Pasture maintenance	acre	280	50.00	14,000
Breeding	head	700	13.00	9,100
Vet and med.	head	500	34.50	17,625
Supplies	cow	500	45.59	22,795
Utilities	month	12	1500.00	18,000
Fuel and lube	month	12	793.00	9,512
Repairs	month	12	1708.00	20,500
Fees and dues	cow	500	9.00	4,500
Interest	dollar	880,239	.08	<u>70,419</u>
				\$950,646
Fixed costs:				
Interest on cattle	dollar	570,000	.12	68,400
DIRI on cow facilities	dollar	276,000	.105	29,044
DIRI on equipment	dollar	44,000	.17	7,480
DIRI on heifer equip.	dollar	30,000	.15	9,720
Interest on land	dollar	420,000	.10	<u>42,000</u>
				\$156,644
Return to risk and management				\$153,235