Measuring business health

Technical Note B07

Summary

To measure the health of your business it is important to calculate indicators across all areas of your business and compare your results with targets or possibly regional averages. This will identify which areas of your business need attention.

The golden rule of business is to maintain liquidity, i.e. paying your debts as they fall due.

Maintaining equity percentage and net worth is another priority especially in times of financial stress caused by climatic events.

Profitability ratios measure the ability of the business manager to generate a satisfactory profit. These ratios are typically a good indicator of management's overall effectiveness in producing milk from the land and stock. Profitability indicators include return on assets managed, return on equity and dairy operating profit per cow.

When examining a business efficiency indicators are often the starting point in an analysis. However, it is recommended that the emphasis should be on the first three business traits. Efficiency indicators show how well business resources are being used. They include production per cow, litres per labour unit and feed related costs per litre.

When calculating the profitability of a dairy farm business, it is important to define the difference between cash flow and profit.

The annual QDAS report shows the cash flow and profit results for Queensland dairy farms. It reports on regional production systems as well as state wide averages. QDAS reports, information on how to get involved in QDAS and a spreadsheet to calculate your own solvency, profitability and efficiency indicators can all be found at www.dairyinfo.biz.

Where to start

To measure the health of your business it is important to calculate indicators across all areas of your business and compare your results with targets or possibly regional averages. This will identify which areas of your business need attention. A good place to start is by reviewing the four business traits of liquidity, solvency, profitability and efficiency.

Liquidity

The golden rule of business is to maintain liquidity, i.e. paying your debts as they fall due. This ensures you maintain your credit rating with financiers and suppliers.

Generally this implies that each month all accounts are paid. This can be from monthly milk sales, cattle sales or from an overdraft facility. A longer term view accepted by many farmers is that the debt owed should be no larger than the value of plant and stock, i.e. items that can be traded quickly. On an average dairy this would be about 25% of the total asset value.

One indicator of liquidity is the percentage of milk income spent on debt repayments. A target is less than 20% of gross milk income.

To remain liquid, occasionally a farmer may need to access emergency sources of funds, shown below.

Normal source of funds

- Normal milk income and cull sales
- Overdraft and credit cards
- Off farm income

Emergency funds

- Forced cattle sales and asset sales
- Increased overdraft and credit card limits
- Centerlink payments

Solvency

Maintaining equity percentage and net worth is another priority especially in times of financial stress caused by climatic events. The question to be answered is - How far are you prepared to let your net worth decrease, without a major strategic decision being implemented?

The example below shows what happens to net worth and equity percentages when an overdraft increases by $50,000 (say caused by increased purchased feed due to drought). It also examines what happens when this is compounded by a decrease in asset values.

	Before drought	More debt & the same asset value	More debt & decreased asset value
Asset value	1,000,000	1,000,000	900,000
Debt	200,000	250,000	250,000
Net worth	800,000	750,000	650,000
Equity%	80%	75%	72%

Equity%

Lenders see an increased risk associated with borrowing as this percentage figure falls below a predetermined or agreed figure. To assess the risk potential it is important to look at both the debt and the business cash flow.

Calculation

((Assets – Liabilities) / Assets) *100

Profitability

Profitability ratios measure the ability of the business manager to generate a satisfactory profit. These ratios are typically a good indicator of management's overall effectiveness in producing milk from the land and stock.

Return on assets managed

This measures the profit generating capacity of the total assets managed by the business. It measures the farm's effectiveness in using the available total assets (owned, financed and leased).

Calculation

(Dairy operating profit / Total assets managed) * 100

Return on equity

This measures the return on the owner's investment in the business. Interest costs, land lease and rent are deducted from the operating profit to make the calculation. It takes the investor's point of view and can be a good way to encourage further investment in a business; it also allows a comparison to be made with the returns available from external investments.

Calculation

(Net farm income / Equity) * 100

Dairy operating profit per cow

This calculation highlights the amount of profit retained after all expenses are paid except debt servicing and taxation payments. It is a measure of the effectiveness of operations to generate and retain profits from revenues.

Calculation

Dairy operating profit / Number of cows

Efficiency

When examining a business efficiency indicators are often the starting point in an analysis. However, it is recommended that the emphasis should be on the first three business traits. Efficiency indicators show how well business resources are being used.

Production per cow

This is the engine room of dairy production. Production per cow reflects the efficiency of a feeding system.

Calculation

Litres of milk sold / Number of cows

Litres per labour unit

As margins reduce, technology may be used to gain efficiency. The number of cows milked per labour unit will impact on profitability.

Calculation

Litres of milk sold / Number of labour units (paid + unpaid)

Feed related cost per litre

Feed related costs include purchased feeds as well as the costs of home grown feed.

Calculation

Total of all feed related costs / Litres of milk sold

Cash flow and profit

When calculating the profitability of a dairy farm business, it is important to define the difference between cash flow and profit.

Cash flow

Cash flow analysis is a record of all cash inflows and outflows during a year. A list of the inflows and outflows can be seen below.

Profit

Profit analysis is the record of farm income, operating costs and finance costs. It includes non-cash allowances for inventory changes, depreciation and imputed (unpaid) labour.

The table below shows the categories of income and expenditure that are included in a cash flow analysis and a profit analysis. The categories in green are only used in the cash analysis. The categories in blue are only included in the profit analysis or recorded in different sections of the two analyses.

Cash flow Analysis	Profit Analysis
Milk receipts	Milk receipts
Cattle sales	Cattle sales less cattle purchases
	Change in cattle inventories
Other farm receipts	Other farm receipts
	Change in feed inventories
=Total farm receipts	**=Total Gross Farm Income**
Variable costs	Variable costs
Administration	Administration
Repairs & maintenance	Repairs & maintenance
Paid labour	Paid labour
	Depreciation
	Imputed labour
=Farm working expenses	**=Total operating costs**
=Operating cash surplus *(Total farm receipts less farm working expenses)*	**=Dairy operating profit** *(Total gross farm income less total operating costs)*
Interest costs	Interest costs
Lease of land & water	Lease of land & water
Principal payments	**=Net farm income**
Cattle purchases	
Other capital purchases	
Personal costs / drawings	
Personal income	
Non farm cash receipts	
Capital inflows	
=Total cash income less costs	

Further information

Contact the DAFF Customer Service Centre by
Phone 13 25 23, or
Email callweb@daff.qld.gov.au

More technical notes can be found at:
www.dairyinfo.biz

QDAS

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