



GET FARM FINANCIALLY FIT

# Calculating the costs of dairy expansion

**James McDonnell** crunches the numbers for a farmer looking to expand his dairy herd to 80 cows

**A**FTER a fortnight that witnessed the price of milk suffer sharp falls, many dairy farmers will be looking at their own operations to see where they can cut costs and plan ahead to secure their future.

And with the warnings of a slack market over the next six-months, the best dairy farmers need to plan ahead.

In this article I will look at the experience of a south Tipperary farmer and how his farm has benefitted from financial planning.

Michael, who is married with three schoolgoing children, operates a mixed operation but for the purposes of this cost analysis we'll concentrate on the dairy enterprise.

Michael has never completed a financial farm plan before. He has started using the Teagasc Cost Control Planner recently to monitor cash flow. He has also used the Teagasc Profit Monitor with his adviser to analyse farm efficiency.

**The dairy enterprise**

Michael would like to grow the dairy enterprise, while maintaining the cattle and sheep enterprises at current levels.

Michael completed his first profit monitor in 2009. He would like to increase the size of the milking platform, but his neighbours are also milking, and the out farms will continue to be used for the sheep and beef enterprises.

Having looked at the farm performance in the table below we can then compare it to the Teagasc averages set out in the table below.

Michael's net margin per litre is below average, but not far off this figure. The figures show that Michael is doing an alright job, but there is room for improvement.

Variable costs on the farm have increased by almost 40pc in the last five years.

The target is to get this figure back to under 11c per litre. So where exactly can costs be cut on this farm? Feed, contractor and other nonspecific variable costs are the items to examine here. Every cost has to be analysed to improve efficiency.

In Michael's case the fertiliser cost is low. When we look behind the figures, we noted that very little was spent on Lime or P and K in recent years.

In a grass-based farming system, the soil needs to be looked after to maximise grass growth and reduce the feed bill.

When drawing up the farm plan, we will pose the following questions

- This is your performance; can you repeat this on a bigger scale?
- Can you improve efficiency of the business while growing the business?

**The plan**

Michael would like to milk 80 cows on the current block of land. He feels the land is capable of growing enough grass and he feels that he can handle this number of cows without the need to hire in extra labour. Facilities are reasonably good on farm.

A quote of €50,000 has been received to install a larger bulk tank and update the housing to meet the addition-



**GROWTH:** Good grass management is vital in dairy expansion and many farmers will need to increase their spending on fertiliser

al requirements. In the plan we have increased the size of the dairy herd to 80 cows, and also looked at increasing his efficiency levels.

The target is to reach the top 33pc of Teagasc Profit monitor in five years.

This will also involve increasing the value of the milk sold. Milk solids are higher than the average but there is room for improvement here also. A team of high EBI bulls will be used to improve the profitability of the enterprise.

Cash flow is the important item to watch. Many businesses run into the same problem, lack of cash flow when expanding.

If you are making a net profit of €700 per cow, well then milking an extra 25 cows in this case should generate €17,500 profit.

But the current account balance in this case drops by almost €6,500 in Michael's farm plan. Why?

The extra cows come from heifer calves not sold at €250 each. These calves are then reared and calved down two years later. It costs €1,100 to €1,300 to rear each animal.

Therefore we have €35,000 tied up in stock, which is not

milking but does add to the net profit.

The closing stock on the farm is worth more than the opening stock. This is taxable profit. We can claim 25pc stock relief on this, which is a help. But a number of other approaches can be considered. These include:

- Take out a loan and go and purchase the extra stock on the point of calving. These animals are now producing milk for sale to add cash back to the system
- Take out a short term loan to cover the rearing costs until the animals start milking, to even out the cash flow dip during the expansion phase.
- Match the rate of expansion to the level of cash flow surplus, which the farm generates each year.

**Forecasting**

The cash flow table summarises the cash and profit story for Michael. This is what is left for drawings, tax and any existing loans. There are many things that can go wrong, so it is best to be prepared in some way.

The loan options can help alleviate some of the problems.

In planning, we try to

imagine the worst case scenario by adjusting milk price and increasing cost inflation.

From the table below, we can see the impact of a price drop of 2c/l on cash and profit.

This is a helpful approach in times of milk price volatility as it helps give you a handle on the impact of price fluctuations on your finances.

*James McDonnell is a farm management specialist with*

## Teagasc eProfit Monitor

The Teagasc eProfit Monitor (ePM) is an online financial analysis tool available to all Teagasc clients. This is the tool we use to complete a 'fitness test'. Dairy farmers work with their Teagasc Dairy Adviser to gather the data required.

Once the data is entered and analysed, the adviser can produce a range of reports for each enterprise, dairy, replacements, cattle and tillage, or the overall farm.

If the farmer has carried out an ePM analysis on a yearly basis, multiple year reports tracking performance over a number of years can be generated.

In addition, if the farmer is a member of a discussion group, a group report can be produced allowing each individual farmer to benchmark their performance with other group members.

This publication will provide a range of benchmarks for both individual farmers and farmer groups to measure their performance against.

## The figures



Multiyear summary of Teagasc Profit Monitor results for Michael's farm (c/l)				
Year	Gross output	Variable costs	Fixed costs	Net profit
2009	23.5 cent per litre	11.5c/l	9.5c/l	2.5
2010	32.5	12.5	9	11
2011	36	15	8	13
2012	34	12.5	10	11.5
2013	40	16	10	14
2014	40	15	9	16

Multiyear summary of Teagasc Profit Monitor results (all farms)	
Year	Net Margin / litre
2009	4.84
2010	11.37
2011	15.22
2012	11.44
2013	15.34
2014	16.21

Summary Net profit and cash-flow after planned changes.					
	2015	2016	2017	2018	2019
Cash flow	+43,579	+36,959	+50,417	+58,337	+63,052
Net Profit	+56,679	+45,300	+55,490	+62,851	+68,017
-2c/l on Net Profit	-7652	-8380	-8950	-9430	-9430
-2c/l on Cash flow	-5433	-5950	-6355	-6695	-6695