

WELCOME

How close are you to your supply chain?

You will know who your customer is, but do you work closely with them, understanding their requirements and how your business fits into their overall picture?

Increasingly successful businesses are developing interdependent relationships with their supply chain. This is certainly true in the dairy industry and is an issue we consider in this edition of Promar Matters.

We explore carbon footprinting. All too often this has been seen as a 'hoop to jump through' to meet the terms of the contract or an assurance scheme. But as Tom Gill explains, carbon footprinting can be a way to identify areas for business improvement whilst also building positive engagement with your key customer.

And we look at the importance of understanding cost of production rather than producing additional yield for additional yield's sake. If you are looking to increase production the two absolutes are to make sure your customer wants and can demand a good price for the additional production and that you can produce it cost effectively.

If your processor has no market for additional output, the inevitable consequence will be that price will come under pressure, reducing the ability to produce the litres cost effectively. A key component of your customer's ability to maximise the return on additional production is knowing when you will produce it, making accurate milk prediction an important consideration.

Working more closely with your customer could be a key component to making the best of improving milk prices.



James Dunn
Promar Managing Director

Does the size of your footprint matter?



Tom Gill
Head of Environment

Tom Gill, Head of Environment considers why it will pay to exploit the business benefits of understanding your carbon footprint.

Reducing greenhouse gas emissions continues to be a major objective for Governments across the globe. Greenhouse gases (GHG) include carbon dioxide, methane, nitrous oxide and ammonia. The UK's current

emissions are 514.2 million tonnes of CO₂e (MtCO₂e) and agriculture was responsible for 49.1 MtCO₂e) in 2014.

Addressing the sustainability of agriculture, and the food supply chain, is no longer optional. Delaying action could result in significant, long term problems for the security of food supply; increase the cost of food production; and erode consumer confidence in the food supply chain. In a post Brexit world, we know that UK agriculture and the food supply chain must better balance conflicting objectives of producing more food without compromising available, finite natural resources.

Why does this matter at farm level?

Increasingly retailers and the food supply chain are being required to understand the issues and needs of the environment and sustainability at farm level. One example is carbon footprinting, and this has, and will continue to become a much greater part of farm business management. The food and drink supply chain is requiring farmers to use this approach to demonstrate commitments to improve efficiency and increase profitability.

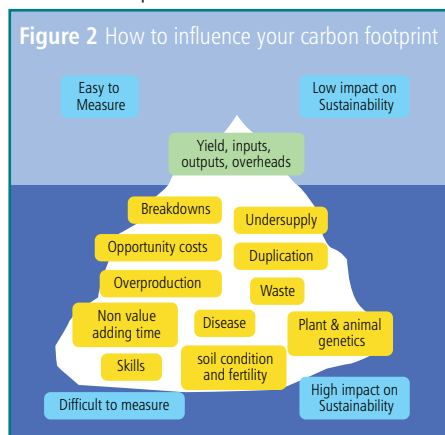
When you assess the GHG emissions produced in the supply chain of a primary product, such as milk, 80% of the emissions throughout the total supply network are produced on the farm. These emissions come from a variety of sources (see figure 1).

Where is the impact on your farm?

There is still too much emphasis on producing 'just a number' to 'tick the box'. Merely having the ability to calculate a carbon footprint for the products your business produces is not enough. Whilst this may meet the requirements of your supply chain at present, it won't help you implement actions to improve efficiency, reduce costs of production and demonstrate how your business is reducing greenhouse gas emissions.

Understanding your farm's carbon footprint, and how it tracks over time and compares to similar businesses, is an important and valuable tool for improving overall efficiency. This will include items like feed, fertiliser, fuel and energy use, as well as productivity per head or per hectare. Reducing your carbon footprint improves your business performance and when implemented correctly, can reduce costs of production and increase efficiency. Very often it is only a focus on increasing yield or reducing input costs which is assumed to have most impact on farm sustainability. In fact, as shown in figure 2 it is getting underneath the surface of your business which can influence a greater change effect on your farm and unlock value.

A common perception is that a focus on increased milk output per head will reduce the carbon footprint, but this is overly simplistic. In our experience there is no correlation between milk yield and carbon footprint.



For example, the carbon footprint would rise if a milk yield increase is achieved at a very high marginal feed rate.

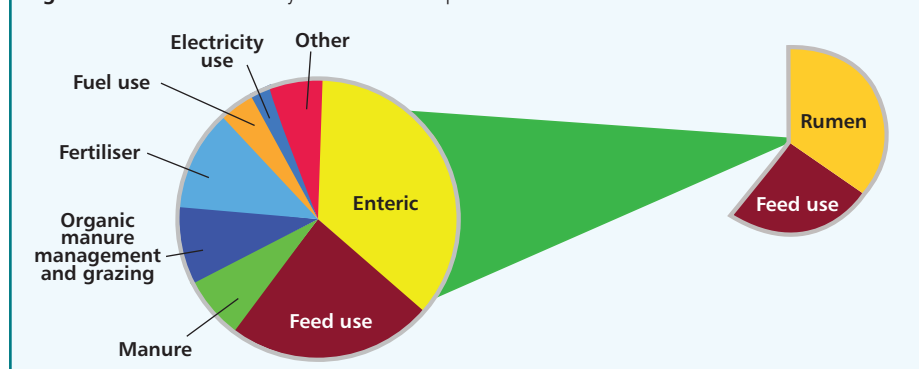
The key is to identify what you can do to increase efficiency in production without increasing GHG emissions at the same time. That is what will reduce your carbon footprint per litre of milk.

How can the footprint drive efficiency and action?

The approach we take is to deliver change and improvement by using data to drive effective change. This can enable you to understand the 'how' in some key management areas (see table). The key message is that increasing sustainability can reduce cost of production and therefore improve farm profitability. However, there is no silver bullet and solutions must be tailored to your farm business. It is necessary to gather the data and evidence and using this information to build a plan to have a 'high impact' on your business in a short, medium and long term approach. This should be a central component of your existing business plan and not be viewed as 'the icing on the cake'. This is the resilience plan for your farm and it should deliver greater realisable value than just knowing your carbon footprint result.

If you think Promar could help you with any of these issues, please contact - Tom Gill, on **07772 227985** or email Thomas.gill@genusplc.com

Figure 1 Breakdown of a dairy farm carbon footprint



Option to Change	Target GHG Savings	Target Financial Benefit (£)
Eliminate use of soya	5-8%	£3,500-4,000
Substitute by-product feeds for concentrates	1-2%	Variable?
Extend grazing season	0.5-1%	£3,500-4,500
Use more N fertiliser to grow more grass and reduce concentrate use	0.5-1%	£9,500-10,500
Reduce herd replacement rate	4-5%	£4,000-5,000
Reduce cow mortality	1-2%	£4,000-5,000
Reduce age at first calving	5-6%	£4,500-5,500
Reduce mastitis infections	2-4%	£11,000-£11,500
Increase milk sales by one litre/cow/day with no increase in concentrates	3-4%	£13,000-14,000

Do the sums before pushing for more production

Promar Consultant Andy Taylor suggests it is important to make sure increasing milk output will be economic.



Andy Taylor
Consultant

Since milk prices started to increase we have seen a closing of the milk output gap. At the end of February, UK weekly production was around 3.8% below last year, and the gap has been declining steadily from the peak of a 9% deficit in July and 8% in October.

Higher prices have acted as an incentive to look to produce more but recently this has happened when farmers have been faced with poorer quality grass silage this winter which will have affected overall production and put pressure on milk from forage. At the same time concentrate feed rates have risen, despite higher feed costs.

This raises the question of whether this milk has been produced cost-effectively and if it is sustainable? Data from MilkMinder suggest that while milk price has risen, margins have risen to a lesser extent.

The effect of the EU vote on exchange rates is having a significant impact on feed prices and this situation is unlikely to change in the foreseeable future. So while the milk price has improved, the milk price: feed price ratio has not recovered to the same extent and this is undermining the ability of higher prices to rebuild farm financial positions.

A good rule of thumb is that the milk price: feed price ratio needs to exceed 1.2:1 if farms are to cover their commitments.

MilkMinder data for the last year shows it has been averaging 1.16:1 but in November was 1.26:1 suggesting a positive position. But this can soon be eroded if either feed prices rise or feed rate increases to compensate for poorer quality forage.

Against this background of higher feed prices and feed rates I would advise producers to look closely at the economics before continuing to push for more yield, especially as the milk shortfall nationally contributed, in part, to the milk price recovery currently being witnessed. If output continues to grow there may be implications for future prices.

Andy Taylor can be contacted on 07772 22 7897 or at andy.taylor@genusplc.com

KEY QUESTIONS

1. Where is your milk going and does your processor actually want increased supply?

While many processors are chasing additional litres or higher milk quality, others will not want to handle, or may be unable to deal with, increased supplies. If your processor does not want more milk, why produce it especially if the economics of costs of production mean the additional litres are not sufficiently profitable?

2. What are your costs of production?

If extra yield comes on the back of increased concentrate usage and higher feed costs with a consequential rise in costs per litre then the wisdom of doing so should be challenged hard. In addition to a minimum milk price: feed price ratio of 1.2:1, look to target a minimum of 40% of all production from forage.

If these benchmarks aren't being achieved then it may be better to continue to focus on efficiency

of production, especially if with increased yield per cow there is a risk of other costs increasing which will impact any improvement in margins.

3. Is it worth increasing numbers?

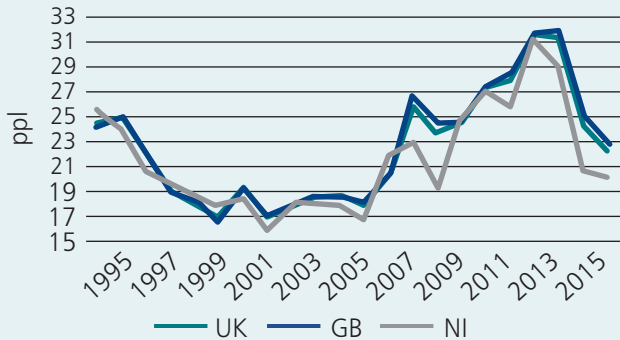
The other route to increase output is to carry more cows. However, with cow prices increasing again and a shortage of dairy heifers in the pipeline as a consequence of the significant swing to beef inseminations over the last two years, increasing output by running more cows may not be an option for some. Also, before committing to more cows, make sure the facilities are adequate as factors like reduced trough space and increased turn time could knock production across the whole herd.

Rising milk prices present an opportunity to rebuild herd margins and farm profits. What matters is how individual businesses exploit the better prices to improve the business cash position. Only produce it if the economics stack up.

MARKET INDICATORS

In each quarterly issue we will report key trends in major price movements influencing dairy farm profitability.

Milk prices

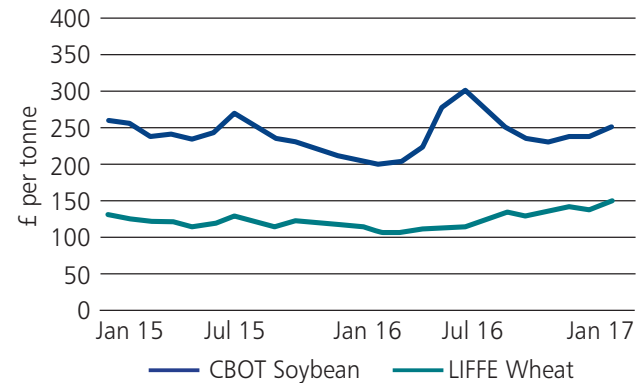


The average UK farmgate milk price increased for the fifth consecutive month in December. Despite this, prices still remain 13% lower than they were in December 2015. In 2016, as a whole, the average milk price in the UK was 20.5 ppl, 8% lower than it was in 2015.

Feed prices

The CBOT soybean futures price for 2017 is forecast at the equivalent of £286/t, 20% higher than 2016's actual yearly average. The LIFFE future wheat price average for 2017 is set to reach £144/t, 22% higher than 2016's actual average of £118/t.

Global LIFFE Wheat and CBOT Soybean Prices

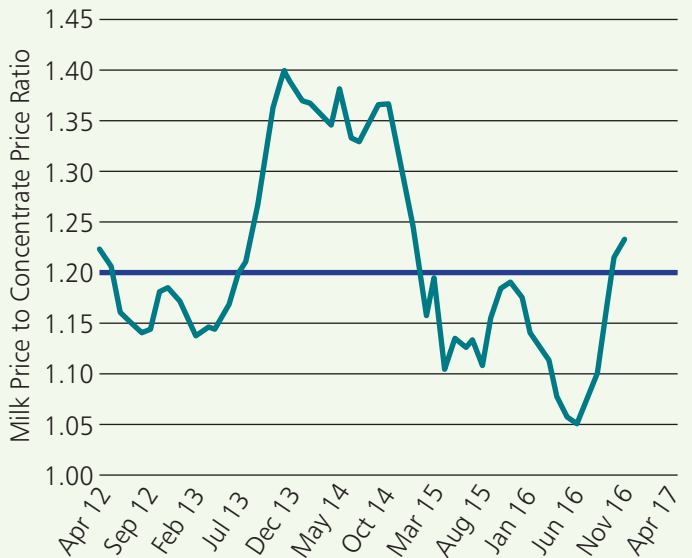


Milk price:feed price ratio

The milk price: feed price ratio is a good indicator of price relationships in dairy farming and recent research suggests that a ratio greater than 1: 1.2 is correlated with a farm's ability to service its commitments. The better the ratio, the stronger the businesses position.

The graph shows the trend over the last four years. Since April 2015 the ratio has been consistently below the threshold but has been rising since June and in the last month has exceeded the threshold again. With trends in milk and feed prices it will be important to keep a close eye on the ratio.

Milk Price to Concentrate Price Ratio UK



Exchange rates

The volatility in exchange rates is having a significant impact on farm prices and the downward trend continues. Anything priced in dollars or Euros has suffered as exchange rates have fallen.

Each 10 cent swing in the £:\$ rate will affect wheat prices by +/- £11/t. For soya the swing is +/- £22/t. When considering oil prices a 10 cent swing will impact the price of diesel at the pumps by +/- 3 pence per litre.

