

# BUSINESS Clinic

In the next in our series on dairy financial performance, we explore trends in dairy margins and consider prospects looking forward with Promar.

## National viewpoint: Looking back in order to look forwards

**W**ith decisions soon to be made about winter feeding strategies, Promar's Emma Thompson takes a look at the performance of the average Milkfinder farm and raises some key questions looking forward.

She says: "Over the last 12 months, the average Milkfinder herd has held herd size and increased yields per cow by about 300 litres with 120 more litres from forage.

"The strategy has been to continue to increase output. To some extent, the excellent spring has offset the impact of poor forage stocks last winter. Feed prices have eaten into

**“Careful planning now will ensure the maximum value is derived from those silage clamps**

EMMA THOMPSON



Emma Thompson

margins per litre, but margin per cow has been maintained.

"Looking at the top 20% of herds, herd size has been reduced and yield per cow has been static, but an extra 300 litres have come from forage, allowing a reduction in feed rate per litre which has helped offset the rise in feed costs.

"Overall margins per cow and per litre have crept up due to the strategy of cost control as opposed to more output.

"So what are the prospects for this winter and how will this affect decision making? All indications point to the prediction that most farmers can look forward to a winter with improved silages stocks and better quality forage, so the skill will be deciding how best

to exploit this potential that is already on farm.

"In simple terms, an additional 1kg of dry matter [DM] intake from forage will produce an extra two litres, allowing a chance to push for production, or to instead use the extra milk from forage to cut purchased feed use.

"That 1kg DM from forage will save about 1kg freshweight of concentrates, worth 24.6p to the average Milkfinder farmer. Either way, there is a real chance to push margins.

"As ever, there is no simple answer, as it will depend on farm circumstances.

"Take a close look at feed prices and what they might mean for the concentrate proportion of the diet."

### Uncertainty

"With a fair amount of uncertainty around at present, it will be important to reflect this in plans and budgets.

"Then consider your milk contract. How might your milk buyer respond to changing market forces? If prices are going to be squeezed and feed prices edge up, will extra litres be profitable?

"Careful planning now will ensure the maximum value is derived from those silage clamps."



Oliver Williams

»When everything is moving so quickly, it is important to draw breath, look where we are and plan ahead. The last few years have been a period of rapid evolution, but hopefully we can now look to build on all we have done.

In the last 12 months, we have made some fundamental changes to our system, making short-term comparisons difficult. But looking at rolling 12-month Milkfinder results tells a positive story.

We are carrying 40 more cows, almost a 10% increase. We have put 1,000 litres on our rolling yield, which now sits at almost 10,700 litres per cow.

We have reduced feed rate per litre from 0.42kg/litre to 0.38kg/litre and managed to trim 0.15ppl off our feed costs. Together, we have been able to increase margin per litre, per cow and for the whole herd.

Numerous factors have helped with this and will be

### Fairy's Lodge Farm facts

- ▶▶ 465 cows
- ▶▶ All year-round calved and housed
- ▶▶ Milked three times-a-day
- ▶▶ Average yield per cow of 10,685 litres
- ▶▶ Concentrate feed rate of 0.38kg/litre

Oliver Williams, a Northamptonshire producer and Promar client, outlines the key challenges facing his business and what action he is taking in conjunction with his Promar consultant.

## Farmer viewpoint: Time to take stock

our foundation moving forward. We have been able to cull more heavily as more heifers have been entering the herd, allowing us to get rid of the inevitable under-performers which come with significant expansion.

As well as increasing herd output, this will allow us to reduce herd replacement costs, which is an ongoing drain on profits.

Fertility has greatly improved, helping reduce lactation length and we will really start to see the benefits over the next 12 months.

### Transition

With more cows calving, we need to make sure they enter the herd having transitioned well, so we have changed from cubicles to straw yards for our fresh group. To reduce stress, we only move cows between groups once a week.

By changing cow groupings to reduce standing times, we have increased the time they can eat and this has resulted in a 1kg dry matter intake increase, which is helping improve feed efficiency and margins.

Finally, we have moved to making our own silage, putting us in much better control of silage quality, which is vital if we want

to maintain efficiency. As we sit, we have higher quality silage than last year and, thanks to a better spring and summer, quantities are up too.

But it has not all been a bed of roses. In August, we ran out of maize and had to switch to wholecrop. We have lost a litre per cow per day and do not expect to recover this until we can feed this year's maize.

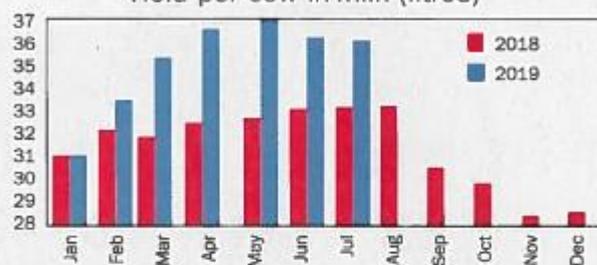
We have had some staff changes with increased pressure on the remaining team. It has brought into focus the importance of continuity of people and the value of keeping staff happy.

We need to build on improvements to ensure they deliver. Thanks to sexed semen, we can look forward to 150 heifers entering the herd before the end of the year. And more cows will be calving too, so we will continue to focus on getting them transitioning well, ready to produce high yields, getting back in-calf quickly and avoiding the metabolic consequences of poor transition.

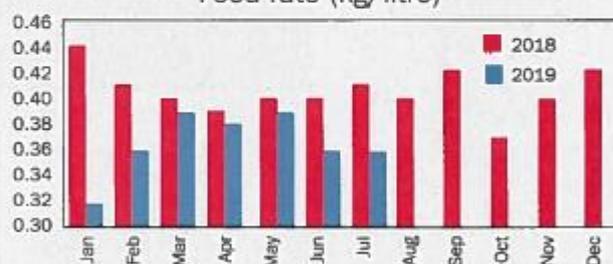
We must also continue to drive dry matter intakes. There is no point investing in the kit to make better silage if we then fail to get as much as possible into cows

### Key performance data at Fairy's Lodge Farm

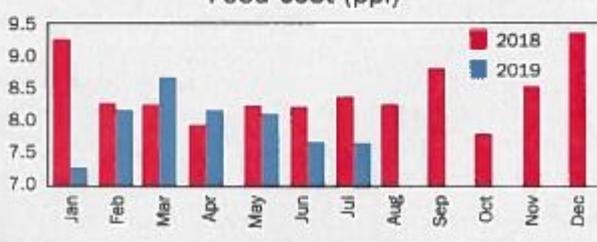
Yield per cow in-milk (litres)



Feed rate (kg/litre)



Feed cost (ppl)



SOURCE: Promar Milkfinder

and as much milk as possible out of forage. We produce more than 20% of all milk from forage, and

we need to increase this to help insulate us from volatility in milk and feed commodity markets.

## Cheshire farmer wins annual Promar award



John Cottle from Church Farm Dairies, Sealand near Chester has been announced as the 2019 Promar Milkminster Manager of the Year.

John runs a herd of 168 cows averaging 9,540 litres at 4.04% fat and 3.45% protein with an impressive 5,689 litres from forage—60% of all production. He has been achieving this level of production from forage for 15 years. The winter system is based on high quality maize silage and grazed fodder beet with very little grass silage. In the summer, grazing is supplemented by maize silage.

"John has developed a simple system which suits his business and has then focussed on driving production from forage," comments his Promar consultant Andrew Hawkins. "He is achieving excellent margins of £1,985 per cow."

• *Pictured are John Cottle (left) receiving the Milkminster trophy from his Promar consultant Andrew Hawkins*

# Manage soils to sequester carbon **and cut emissions**

The importance of reseeding leys has been drilled into producers for the past few years. But as producers come under increasing pressure to reduce GHG emissions, that advice requires a more considered approach. We spoke to two leading dairy scientists to find out more.

TEXT RACHAËL PORTER



**R**eseeding exposes the top soil to the atmosphere and carbon, in the form of carbon dioxide, will be released into the atmosphere. However, reseeding is essential to maintain grassland quality and productivity. The environmental impact could be reduced, though, if we can take advantage of grass varieties and ley mixtures that can reduce GHG emissions, or more specifically methane, from the rumen. This can help to reduce dairying's carbon footprint (CFP).

So how are producers meant to interpret these conflicting messages on farm? "Well, for a start, producers should focus, first and foremost, on managing the soil. And that will, of course, be beneficial to grassland productivity – be it for grazing or silage," says Promar's Tom Gill. He's urging producers to go a step beyond the standard pH and soil nutrient testing that agronomists have been advocating for decades. "That's vital for healthy soils and crops. But think of it as a sink for carbon."

### Lock away

Grassland has the capacity to store or sequester as much carbon as woodland, hedgerows and other natural green spaces. Organic farms sequester (or lock away) around 560kg of carbon per hectare per year. And all dairy units have the potential to improve the soil carbon indices of their soil year on year.

To do this, the carbon needs to stay in the soil – this minimises emissions. "Conventional tillage, or ploughing, releases GHG from the soil, so zero or minimal tillage is the



Tom Gill:

**"Think of the soil as a sponge and how you can make it more absorbent"**

key here – or overseeding where possible," says Mr Gill.

Using minimal cultivations – or min-till – it yet to be adopted by much of the arable sector. Estimates are that just 30% of arable producers operate a min-till policy.

"We encourage dairy producers to consider grass as a crop and adopt a more 'arable' approach and now we want them to go further and think about the soil in more depth.

"But if producers want to reduce their GHG emissions then the soil is good place to start. But, soil management is only part of the picture.

"What's grown on that soil, how it's grazed or cut, how it's fertilised and how the manure that's spread on the land is stored and applied all has an impact on the overall business' CFP. That's why every unit is unique and that's why there's no one-size-fits-all when it comes to reduce GHG emissions.

The soil, can indeed, sequester significant amounts of carbon.

"Think of it as a sponge and think about how you can make it more absorbent and able to hold on to not only the carbon but also other nutrients that are essential to grass growth."



# Focus on costs for maximum margin, dairy farmers told

## THE NUMBERS

**45%**

Proportion of dairy businesses that have lost net worth in the past 12 months

**£63**

Additional cost a cow spent by high-output farms on labour, compared with the most-efficient businesses

**£69**

Additional cost a cow spent by high-output farms on machinery compared with the most-efficient businesses

By Andrew Meredith

Feed costs have not fallen sufficiently to pull dairy farmers back into profit-making territory this year, with producers forecast to make average losses of 1p/litre, analysts have warned.

Though milk production costs are predicted to fall by nearly 1p/litre this year, as good harvests have allowed dairy producers to buy less feed at a reduced cost, they will still be losing money, said Kite analyst Edward Lott.

The average net cost of production is set to be 29.1p/litre in the year ending March 2020, down from 30.03p/litre the previous year, according to Kite benchmarking figures.

The figure includes both variable and fixed costs, and allows for rent, finance and family labour, but also includes subsidy income.

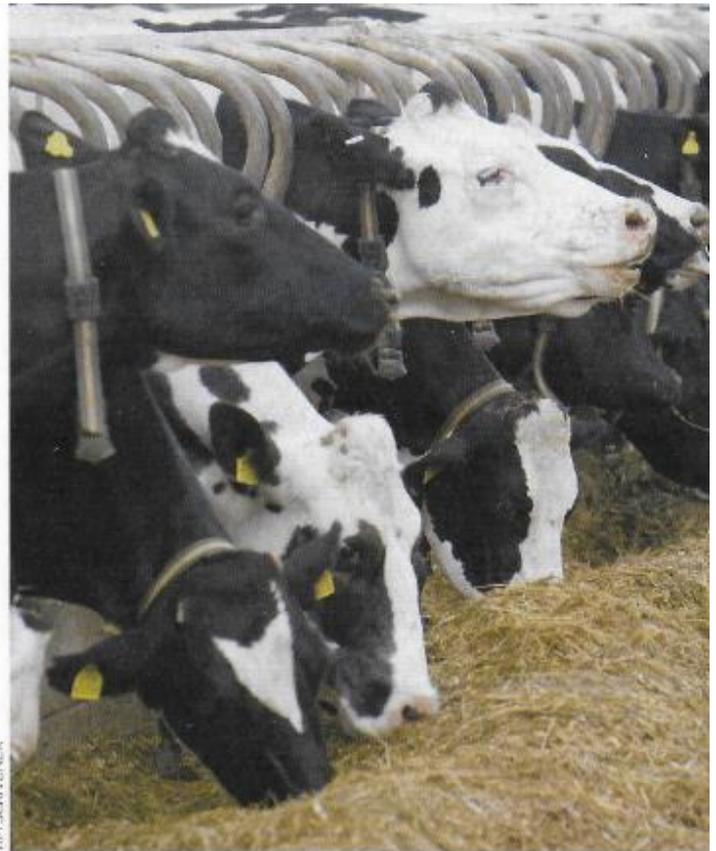
A decline in the milk price from some processors, as well as a fall in income from cull cow and calf sales, have held back producers from recovering financially, said Mr Lott.

There have also been increased costs brought about by the continued weakness of the pound.

### Speak to banks early

Farmers who feel they will need additional financial support to get through the costly winter season need to rapidly gain an accurate idea of their costs and speak to their bank as early as possible, Mr Lott advised, as many are not as eager to lend as they were in the past.

"Efficiency at cow level is absolutely key," he said. "Output of milk per farm will still



TIM SCRIVENER

## ONLINE

Get the latest dairy advice and information online by visiting [www.fwi.co.uk/dairy](http://www.fwi.co.uk/dairy)

inevitably grow as the industry restructures, but environmental pressures mean we need to make sure every cow place is being maximised."

The outlook comes after a challenging year for the sector, as nearly half of dairy farm businesses shrunk in value and the gulf widened between the best-managed enterprises and the rest, according to new research from dairy consultancy business Promar International.

### Focus on profit of each cow

Rather than increasing herd size, farmers should focus on improving the profitability of each cow to remedy this, said Promar consultant Neil Adams.

"We have some farmers who are doing phenomenally well, and some farmers who are doing phenomenally poorly," said Mr Adams.

"It is management, more than anything, that determines the difference between top and bottom."

Some 45% of milk producers saw a fall in the net worth of their business in the financial year ending March 2019, after rising feed and energy costs outstripped improvements in milk prices and production.

"The milk price is not going to save you. If you can't make it work at these prices, you really need to have a sit down and figure out how you are going to make it work," he said.

### Best still making money

The farmers who best managed to keep costs down still made significant profits and grew their net worth, despite the challenging year.

"For many years, there has been a trend and

## PROMAR - HIGH EFFICIENCY BEATS HIGH YIELD ON COSTS

(p/litre)	High yield	High efficiency	Variation
Bought feed	11.5	8.44	3.1
Forage	0.92	1.12	-0.2
Replacement cost	0	0	0
Other variables	5.03	4.31	0.7
Total variable costs	17.45	13.87	3.6
Labour	4.45	4.97	-0.5
Power and machinery	4.96	5.58	-0.6
Administration	0.83	1.2	-0.4
Property	2.07	2.38	-0.3
Rent and finance	1.5	1.61	-0.1
Total overhead costs	13.81	15.74	-1.9
Total costs	31.26	29.61	1.7



More milk production may not lead to more profit, say analysts

## MOVES IN THE MILK MARKET

### First Milk

First Milk is holding its December milk prices at 27p/litre for liquid and 27.9p/litre for manufacturing, including its member premium.

Short-term market uncertainty had been removed as the risk of a no-deal Brexit has reduced in the short term, said Jim Baird, farmer director and vice-chairman.

The company also recently announced it is to close its Campbeltown Creamery on the Mull of Kintyre, after a farmer bid to buy the operation failed to raise enough cash.

The group of 29 suppliers had aimed to buy the facility using a levy on their milk and donations, but they were not able to raise the £50,000 from crowdfunding in time.

Milk will still be collected from farms under existing contract terms.

### International markets

Dairy commodity prices have risen in recent weeks, buoyed by strong global demand, said INTL FCStone senior commodity analyst Peter Meehan.

There have been eight increases in the European butter quotation in the past 11 weeks, pushing it to its highest level since July.

Mr Meehan said the skimmed milk powder quotation has seen nine consecutive weeks of increases to climb to its highest level since August 2015, after strong Chinese demand helped support prices.

ambition to produce more – more cows and more milk per cow, with an increased reliance on purchased feeds. But our analysis starkly shows this is not necessarily correlating with improved profitability.

“When we compared the top 25% of farms ranked on milk yield with the top 25% ranked on total variable costs, we found the profit a cow on the highest-yielding farms was lagging significantly behind the high cost-efficiency farms,” said Mr Adams.

High-output herds produced 30% more a cow than high-efficiency herds – with a milk yield of 10,684 litres a cow rather than 8,330

litres a cow – but their feed rate was 24% more, they had 21% higher variable costs and paid 13% extra in overheads (see “High efficiency farms beat high yielders on costs”).

This meant profit a cow was 70% higher on the most-efficient farms.

While this had been exacerbated by the high costs of 2018, Promar analysis showed this is a trend going back a number of years.

Farmers should be paying attention to overheads as well as feed costs, said Mr Adams, with high-output farms spending an extra £63 a cow on labour and £69 a cow on machinery, compared with those on the most-efficient farms.

## NEWS IN BRIEF

### BPS 2019 rates confirmed

The 2019 Basic Payment Scheme (BPS) cash rates have been confirmed by the Rural Payments Agency. Payments will reach bank accounts from 1 December.

BPS, greening and the young farmer payment will continue to operate for the 2020 scheme year.

The exchange rate for this year's payments is €1 = £0.89092.

The 2019 rate, including the greening element, will be:

- Non-SDA (severely disadvantaged areas) land: £232.84/ha
- SDA land: £231.15/ha
- Moorland: £63.42/ha

### UK red meat exports up and imports down

UK exports of beef and lamb rose significantly during the first two-thirds of 2019, with imports falling, according to analysis by Quality Meat Scotland.

HMRC statistics show exports of fresh and frozen beef increased by 18% from January to August this year, with sheepmeat exports up 20% year-on-year.

A favourable exchange rate and tough trading conditions in the domestic marketplace accounted for the increase.

The volume of beef imported between January and August 2019 was 11% lower than during the same period in 2018, while sheepmeat imports fell 18%.

### Proposals to drop planning consent for Scots developments

Mandatory planning permission could be removed for certain types of development in Scotland as part of plans to tackle rural depopulation.

The Scottish government is consulting on whether to expand permitted development rights, which remove the need to apply for planning permission, across 16 development types.

Under the plans, small-scale developments, such as the conversion of farm buildings to deliver more rural homes, could automatically be given the go ahead.

The development of larger operational farm buildings, including sheds and polytunnels, and developments that help address climate change could also be exempted.

# Liquid milk sector - warning bells ring loud and clear

**T**he lethal combination of retail pricing policies, an oversupplied market and wafer-thin margins all round is making for a very uncertain future for milk producers supplying liquid processors.

It's not a new risk, but we make no apology for returning to the subject, as it feels as though things are hotting up in this important sector.

The administration of Tomlinson's Dairies was a very harsh blow and many producers remain dangerously out of pocket from the effect of losing six weeks' milk income.

Muller's review of its Scottish supply base, resulting in 14 farmers being given notice that their milk is no longer required, is the most recent development.

The 14 appear to have little prospect of finding another milk buyer, except with very hefty haulage costs. For Muller's remaining 216 Scottish supplier farms, new transport charges will slice a hefty chunk off their milk cheques.

The rationalisation and closure of processor sites across the UK continues, and there are rumours of further mergers, hopefully bringing better financial stability, but also reducing the number of buyers.

One recent casualty is the long-established Campbeltown Creamery on Mull, home of Mull of Kintyre Cheddar.

After First Milk announced its closure, the 29 farmers supplying the creamery launched a fundraiser to help them buy the site. However, the funding did not materialise and so, after almost 100 years of cheese production, it will close.

Meanwhile, Promar's results show that 45% of milk producers saw their net worth fall in the financial year ending March 2019, after rising feed and energy costs offset improvements in milk price and output.

Better-performing businesses took on the most new debt, using it to invest, while poorer performers were using debt to survive.

Under this type of pressure, producer numbers continue to fall, with the AHDB's latest review putting the number in England and Wales at 8,820 – a drop of 30-35 since February this year.

As the Promar figures show, some of those remaining are expanding. As processor sites close and some leave the liquid sector, their risk grows larger in terms of milk prices, margins and the financial security of buyers.

Alongside the cost/price squeeze, the challenge of recruiting and retaining good people also grows, as do the demands of regulation and climate challenge, and the new requirements it will impose on milk production.

Output continues to grow, with the latest figures showing April to end of August UK milk production at 6,946m litres – up 2.9% on the same period last year.

One consolation is that Brexit is less of a risk for the liquid sector than for the cheese and organic markets.

However, these have both been hit hard by the imposition of a 25% import tax by the US, in retaliation for state subsidies to aircraft manufacturers in several EU countries. The recent rise in sterling's value has also made their job more difficult.

Fresh liquid milk consumption still accounts for about 50% of farmgate output. Consumption is declining, albeit slowly, but consumer trends can change incredibly fast – witness the proliferation of alternatives to the real thing over the past couple of years.

Milk is the highest-value commodity at farmgate level, worth £4.5bn in 2018 and double the value of the UK's entire wheat crop.

Its high nutritional value must be reflected in the retail price tag and in the food service sector.

# Dairy profits hit by high costs

## ►► Rise in price of feed and labour

By Cedric Porter

AN increase in the milk price was wiped out by much higher costs last year, according to the latest Promar farm business accounts.

Meanwhile, the gap between top and bottom producers is ever-widening, with those who focused on efficiency seeing profits 70 per cent higher than those who concentrated on yields.

Promar and its predecessors have been measuring dairy farm performance for 50 years.

The latest figures (largely for the year ending March 2019) are based on 520 herds with an average of 240 cows producing an average of 9,079 litres of milk per cow, 2.4 per cent more than in 2017/18.

Those farmers welcomed a 2.9 per cent increase in average milk prices, but this was wiped out by a

5.6 per cent increase in total costs, with feed and forage costs higher as a result of the 2018 drought.

As a result, average farm profit dropped £30,000 to £73,000.

### Detail

According to Promar managing director Neil Adams, attention to detail, high herd health, efficient systems and quality forage helped

the top 25 per cent reduce total costs by 28.2 per cent and deliver 9.6 per cent more milk per cow than the bottom quarter.

The largest single performance difference was not in feed spend, but in labour costs, with the best spending £136 less on staff per cow than the worst.

While those with the most efficient performance in comparison

to their variable costs may have delivered 28.3 per cent less milk per cow than the highest yielding, they spent 36.9 per cent less on bought-in feed.

"Feed costs may be lower this year, but then so is the milk price," said Mr Adams.

"That makes competitiveness even more important and that only comes with good management."

## PROMAR FARM BUSINESS ACCOUNTS 2019 (PENNY PER LITRE)

	2019	% diff.	2018	Top 25%	% diff.	Bottom 25%	High yield	% diff.	High efficiency
Bought feed	11.17	11.9	9.98	9.86	-14.3	11.5	11.5	36.9	8.4
Forage	1.06	24.7	0.85	1.03	-25.9	1.39	0.92	-17.9	1.12
<b>Total variable costs</b>	<b>17.2</b>	<b>8.1</b>	<b>15.91</b>	<b>15.31</b>	<b>-17</b>	<b>18.44</b>	<b>17.45</b>	<b>25.8</b>	<b>13.87</b>
Labour	4.58	4.1	4.4	3.71	-34.5	5.66	4.45	-10.5	4.97
Power and machinery	5.36	3.1	5.2	4.66	-24.2	6.15	4.96	-11.1	5.58
<b>Overhead costs</b>	<b>14.89</b>	<b>2.9</b>	<b>14.47</b>	<b>12.52</b>	<b>-28.2</b>	<b>17.43</b>	<b>13.82</b>	<b>-12.3</b>	<b>15.75</b>
Total costs	32.08	5.6	30.38	27.83	-22.4	35.86	31.26	5.5	29.62
Milk price	30.47	2.9	29.62						
Yield (litres/cow)	9,079	2.4	8,864	9,102	9.6	8,308	10,684	28.2	8,330
Feed (kg/cow)	3,355	1.9	3,294	3,209	1.5	3,161	4,162	59.2	2,614

# Improved efficiency key to profit

**FORGET increasing milk yields and overall production – dairy farmers need to concentrate more on improving levels of efficiency if they want to boost profit margins.**

That was the stark warning from Neil Adams, managing director of consultants Promar International, who said end of year figures to the year March 31, 2019 highlight one of the most challenging results for dairy producers despite milk prices rising 3% on the previous 12 months, yields increasing 2.4% per cow and herd size up 1.2%.

As a result, he said average profits from the firm's 500 dairy farms on their Farm Business Accounts fell from £103,000 in 2018 to £73,000 in the year to March 2019, mostly on the back of increased feed prices.

However, there was a 240% difference in profit between the top and bottom farms with those at the forefront showing better cost control management in all areas.

"While milk prices rose 3%, most other price movements worked against dairy profits with energy up 14-20% and feed prices up 9% coupled with increased usage due to the poor forage season," he said.

"Barren cow prices fell while calf prices were broadly unchanged on the year.

"Income per cow was 5% higher for the year to March 2019 as milk yields rose by 2.4% on average and herd size increased 1.2%, but total feed costs increased by 11.9%, variable costs rose 8% overall which combined with a 2.8% increase in overheads,

resulted in profit per cow falling by 13.2%," added Mr Adams.

Worse still, he said that net worth, which is the true measure of farm sustainability fell for almost half (45%) of the farms in the sample which included six from North of the Border.

In contrast, the top farms ranked on operating profit boasted 13% higher output per cow, with amazingly, an 8% lower feed rate, 17% lower variable costs and 28% lower overheads.

To remain competitive and sustainable, generating sufficient profit to increase net worth, he says farmers must focus on efficiency of production, not just scale of operations.

"For many years there has been a trend and ambition to produce more – more



**TRENDS**  
By Patsy Hunter

cows, more milk per cow with an increased reliance on purchased feeds, but our analysis starkly shows that this is not necessarily correlating with improved profitability.

"While some businesses have done very well by increasing scale and output, success is not guaranteed.

Comparing the top 25% of farms ranked on milk yield with the top 25% ranked on total variable costs, it was found that the profit per cow on the highest yielding farms was lagging significantly behind the high cost efficiency farms.

Furthermore, while the



INCREASING MILK yields and or herd sizes does not necessarily equate to higher profits

high output herds boasted 30% higher output per cow, their feed rate was significantly higher at 24% more. They also had 21% higher variable costs and 13% higher overheads.

Across the board the higher yield farms were carrying on average, higher costs resulting in a 62% lower profit per cow.

"The vital message is that it is not what you produce, but how you produce it. On average, higher efficiency will be more important for sustainable businesses than high output," said Mr Adams.

He added however, that it is insufficient to just focus on feed efficiency, although it is a key area all costs need to be reviewed and understood.

For example, producers should pay as much attention

to labour and power and machinery costs. On a per litre basis, both labour and feed costs account for a quarter of the difference in operating profit between the top and bottom farms, so there are efficiencies to be realised in both areas, said Mr Adams.

Looking further ahead, he said pumping more milk into the tank is not the way forward.

"High output does not necessarily translate into higher profits although there are some high output farms out there that are making a lot of money.

"With net worth falling on 45% of our farms against 39% the previous year, farmers should look at this as a fork in the road, so you have to find out what works for your

business. Find new levels of inspiration and make more efficient use of forages to ease the pain.

"The amount of money some farms were losing was embarrassing. You can't keep on making such losses – you have to be competitive which has nothing to do with the colour of cow you're milking or your soil type. Good management is the difference between the good the bad and the ugly," said Mr Adams adding that producers should be continually, planning, forecasting and budgeting.

"Businesses need to challenge the status quo, identify a clear strategy and focus on doing everything well, leaving no stone unturned in the quest for greater efficiency."

## Incomes slip to 2014/15 levels

INCREASED feed and machinery costs along with challenging weather conditions have contributed to a decline in the profitability across the red meat and dairy sectors with incomes the lowest seen since 2014/15 in some areas.

Going by the most recent set of accounts for Farm Business Incomes in England, farm incomes are the lowest since 2015/16 on lowland grazing units with less favoured areas (LFA) down to 2014/15 levels.

The figures from Defra also point to grazing livestock farms having seen the biggest drops in average farm business incomes, with lowland areas falling 39% and less favoured (LFA) areas dropping 42% compared to the previous year. During 2018/19 lowland grazing livestock

farm incomes averaged £12,500, with grazing livestock units in less favoured areas bringing in £15,500.

Average BPS payments across all farming sectors levelled at £27,300 per farm, meaning a larger proportion of farms would not have been profitable without these subsidies. Over the year, LFA grazing livestock farms were shown to be more reliant on such payments and agri-environment subsidies than lowland farms. Based on agricultural output earnings alone, livestock grazing farms would on average make a loss.

Agri-environment schemes accounted for 66% (£10,300) of total farm income for grazing livestock farms in LFA areas.

The biggest factor affecting both

lowland and LFA farm incomes were rising machinery and feed costs, with the 5% increase in agricultural output on lowland farms only marginally helping to offset these cost increases.

In contrast, agricultural output for LFA farms decreased year-on-year by 5%, which only exacerbated the reduction in year-on year average farm incomes further.

Income from diversification for grazing livestock farms in lowland areas increased by 14% as many farms look to new revenue channels. LFA farms also increased the amount of income generated through diversification.

In contrast, average farm business incomes for the pig industry have remained relatively stable for 2018/19 with a 1% reduction overall.

Year-on-year growth in pig output has been offset by rises in on-farm costs and in particular feed costs. Fixed costs also increased for pig farms, with increases in property, labour and machinery costs.

Variable costs rose by around 40%, however output has also increased at a similar rate so the impact of this has only been negligible.

The size of the sample group for the average farm income for pigs is very small so it is hard to reliably break down the relevant costs. The Defra report does comment on the fact that the data may also be slightly inaccurate as the farms that were part of both this year and last year's data have seen a more sizeable decrease in income levels than the 1% stated.

# BUSINESS Clinic

In the next in our series on dairy financial performance, we explore the need for close monitoring to make the most of this winter's forages with Promar.

## National viewpoint: Will silage in the clamp result in cash in the bank?

**A**cross the country dairy farms have got excellent cuts of grass silage and maize is coming off well, although the wet weather is disrupting harvest in some parts of the country.

Promar's Emma Thompson says more silage in the clamp is no guarantee of higher margins and the possibility to improve the bank position.

"Milkfinder data consistently shows that the key driver to higher margins is not how much forage is made but how well it is utilised, driving intakes and trusting in the forage to deliver increased production. Yet all too often we see intakes restricted and increased levels of

supplementation which hold margins back," she says.

"Carefully planning and conscientious monitoring will help ensure forage delivers this winter."

### Starting point

Mrs Thompson says the starting point must be a realistic assessment of how much forage is available, and then formulating a diet which encourages high forage intakes. She strongly advises regular silage analysis, certainly once a month, so the diet can be fine tuned to take account of changes in forage quality.

"Set a target yield and a target feed rate per litre. Together these can be used to calculate your average purchased feed

costs per litre and this will allow you to keep a close eye on both physical and financial performance and react accordingly.

"If cows fail to milk as expected then both feed rate and feed costs will increase. This may indicate a whole range of issues. It might be that silage isn't performing as expected, it could indicate problems with rumen health or that there are physical issues restricting intakes like feed trough space, extended times away from feed or feed not being pushed up enough.

"If feed cost per litre is higher but cows are performing as expected, check on the cost of all ingredients in the diet and challenge if they are needed. In some cases, it is possible to simplify the diet and reduce costs while maintaining production. Price volatility could be a bigger issue this winter."

### Marginal litres

"And do not be seduced into pushing for marginal litres. Be realistic about what they might cost and what the real margin will be," Mrs Thompson adds.

"Setting clear targets and then regular monitoring will help make sure that the extra forage in the clamp does push margins and provide a good return on investment."



Oliver Williams

»This year we took the decision to move away from using a contractor and to instead make all our own forages. While we won't get a full picture on the costs per tonne produced and any financial saving until we get our Promar Farm Business Accounts, we are beginning to understand the practical benefits.

Now we have hit our target herd size, our next objective is to improve margins and key to this will be milk from forage. We are currently producing around 2,500 litres from forage per cow and I am still aiming for 4,000.

Last winter knocked us back as quantities were down and running out of maize for the last couple of months has pulled back milk yields, but I am confident that making our own forages has impacted on both quantity and quality, although we have been helped by a better forage season too.

### Fairy's Lodge Farm facts

- ▶▶ 465 cows
- ▶▶ All-year-round calved and housed
- ▶▶ Milked three times-a-day
- ▶▶ Average yield per cow of 10,685 litres
- ▶▶ Concentrate feed rate of 0.38kg/litre

“In some cases, it is possible to simplify the diet and reduce costs while maintaining production



Emma Thompson

EMMA THOMPSON

Oliver Williams, a Northamptonshire producer and Promar client outlines the key challenges facing his business and what action he is taking in conjunction with his Promar consultant, Emma Thompson.

## Farmer viewpoint: Is the experiment working?

Grass silage has always been variable as we are cutting a mix of new seeds and older, more established swards. By making our own silage we can cut based on the state of specific swards rather than harvesting all in one go. I am sure this will help reduce the variability within cuts.

### Multi-cut

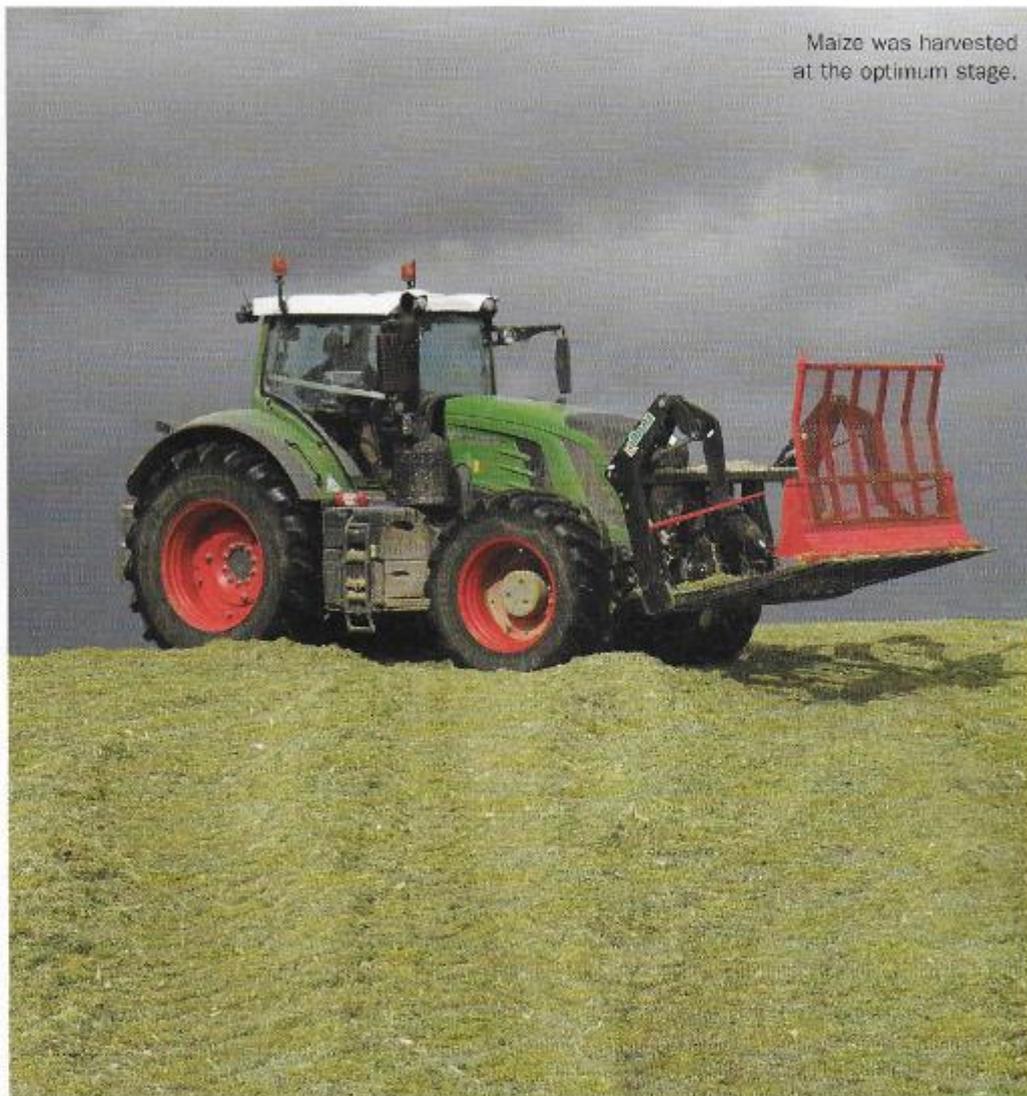
We have also moved to a multicut system to help improve quality, something that would not have been straightforward with a contractor. We took four cuts by the end of August and despite harvesting the same area as in 2018, we have 20% more in the clamp.

One saving I can attribute to moving away from contractors is better use of slurry and a big saving in fertiliser. When everything was cut in one go it was impossible to get round with slurry soon enough. As we have tended to cut smaller areas this year, we have got slurry on sooner.

As a result, everything from first cut has had no bagged fertiliser, saving us around £7,500 in reduced nitrogen costs. Because the slurry contains moisture, the nitrogen got to the roots quicker, and in addition to this we are adding P and K and improving soil health.

Although grass will only make up about 35% of the forage portion of the diet, having a higher quality, more consistent feed will make a big difference.

Maize is another crop that has benefited from the move away from contractors. We grow about 300 acres of maize, with a lot of it on rented ground. The furthest



Maize was harvested at the optimum stage.

fields are 12 miles away from the farm, and as such we had a range of soil types to contend with.

### Harvest

Our first fields were fit to harvest 10 days earlier than the majority of the crop. Had we relied on a contractor we would have had to settle for either the majority cut too soon, or more likely the earlier fields going over.

As it is, we have harvested

each crop at the optimum stage, have produced a better quality feed and have also been able to introduce some maize into the diet sooner which will help reverse the decline in yields.

Driving performance is about attention to detail and fine margins. Although we have to be honest about the cost comparison when the figures are available, I am happy so far that the decision to move to making our own silage

is paying off because we will be going into the winter with more consistent and better quality forage. Hopefully this will lead to reduced feed costs per litre and stronger margins.

If we achieve this added to the fertiliser savings, and if the cost per tonne harvested is no more than when we used contractors, then the experiment will have been a success.

# Dairy efficiency, not yield, is key to profitability

The latest results from Promar International's Farm Business Accounts (FBA) service show that the year to March 31st 2019 was a challenging one for UK milk producers. The figures show that production efficiency on farm is more important than milk yield alone.

"While milk prices rose 3%, most other price movements worked against dairy profits with energy up 14-20% and feed prices up 9% – coupled with increased feed usage due to the poor forage season," comments Promar managing director Neil Adams. "Barren cow prices fell, while calf prices were broadly unchanged.

"Yield per cow rose by 2.4% on average, while herd size increased 1.2%. Compared to the year to March 2018, income per cow was 5% higher but total feed costs increased by 11.9%. Variable costs rose by 8% overall which, combined with a 2.8% increase in overheads, resulted in profit per cow falling by 13.2%.

"Combining these factors, the average profit for the 500 matched farms in our sample fell from £103,000 in 2018 to £73,000 in the year to March 2019. Net worth, which is the true measure of

farm sustainability, was lower for 45% of the farms in the sample."

Mr Adams emphasises that there was a vast range in performance, with a 240% difference in profit per cow between the top and bottom farms, principally due to superior cost control in all areas of the business. The top farms, ranked on operating profit, had 13% higher output per cow, an 8% lower feed rate, 17% lower variable costs and 28% lower overheads.

## ■ EFFICIENCY

To remain competitive and sustainable, which means generating sufficient profit to increase their net worth, farmers and their advisers must focus on the efficiency of production, not just scale of operations, Mr Adams warns.

"For many years there has been a trend and ambition to produce more – more cows, more milk per cow and an increased reliance on purchased feeds. But, our analysis starkly shows that this is not necessarily correlating with improved profitability. While some businesses have done very well by increasing scale and output, success is not guaranteed.

"When we compared the top 25% of farms ranked on milk yield with the top 25% ranked on total variable costs, we found that the profit per cow on the highest yield farms were lagging significant behind the high cost efficiency farms.

"While the high output herds had 30% higher output per cow, their feed rate was 24% higher, they had 21% higher variable costs and 13% higher overheads. Across the board the higher yield farms were carrying on average, higher costs resulting in a 62% lower profit per cow.

"It is insufficient just to focus on feed efficiency – although this is a key area, all costs need to be reviewed and understood. On a per litre basis, both labour and feed costs account for a quarter of the difference in operating profit between the top and bottom farms, so there are efficiencies to be realised in both areas.

"The vital message is that it is not what you produce, but how you produce it," Mr Adams concludes. "On average, higher efficiency will be more important for sustainable businesses than high output." ■

# Profits down as costs soar

The 2018/19 milk year was a challenging one for dairy producers confirm the latest data analysis of over 500 farms from Promar's Farm Business Accounts.

The average cost of production was 30.4p for the year end March 31st, 2018. But this increased to just over 32p for the same period ending March 2019. Feed costs increased by 12%—mainly due to the 2018 summer drought—with variable costs increasing by 8% and overheads up 2.8%. However, output per cow was 5% higher, thus mitigating against some of the cost increases.

Promar calculates that the average milk price in 2018 was 29.62p (0.78p less than the cost of production (COP)), while for the 2019 period it was 30.46p (1.5p less than COP). As a result, profit per cow fell by 13.2% in 2019 compared with 2018. The average profit for the 500 farms—before an allowance for family labour—fell

## Financial highlights year ending March 2019

Pence per litre	Top 25%	Bottom 25%	Difference
Bought in feed	9.86	11.50	-1.6
Forage	1.03	1.39	-0.4
Replacement costs	2.48	3.29	-0.8
Other variable	1.94	2.26	-0.3
<b>Total variable costs</b>	<b>15.51</b>	<b>18.44</b>	<b>-3.1</b>
Labour	3.71	5.66	-2.0
Power & machinery	4.66	6.15	-1.5
Administration	0.93	1.27	-0.3
Property	1.77	2.69	-0.9
Rent & finance	1.45	1.66	-0.2
<b>Total overhead costs</b>	<b>12.52</b>	<b>17.43</b>	<b>-4.9</b>
<b>Total costs</b>	<b>27.83</b>	<b>35.86</b>	<b>-8.0</b>

from £103,000 in 2018 to £73,000 in the year to March 2019.

But focusing on the average masks many ills—not least the widening gap between the best and the rest. The top 25% of producers had an output of 9,100 litres per cow, with the bottom 25%

producing 8,300 litres. On a total cost basis the difference between the two groups is now over 8ppl, with variable costs accounting for 3ppl, and overhead costs nearly 5p higher. All in all the top 25% of farmers have a break-even price of 27.83p, the bottom 25% had one just short of 36p (see table above).

"The best producers are much more efficient all round," says Neil Adams, managing director of Promar International. "But driving milk output is not the magic bullet for improved dairy profits. A closer focus on production efficiency than solely yield is required."

Profit per cow on the highest yielding farms lagged significantly behind the most efficient high yielding farms. The high output herds had an output per cow some 30% higher than the high efficiency

farms, at nearly 10,700 litres per cow compared with 8,330 litres. The feed rate was also 24% more, and they had 21% higher variable costs and 13% higher overheads (see table below). Across the board the higher yielding farms were carrying higher costs resulting in a 62% lower profit per cow.

"The vital message is that it is not what you produce, but how you produce it. On average, higher efficiency will be more important for sustainable businesses than high output."

Net worth, which Promar uses as a measure of farm sustainability, fell for 45% of the farms in the sample. On a balance sheet basis the top farms increased debt by 10% but they still managed to increase their net worth by 8% to around £6,150 per cow. The worst farms increased debt levels by just 2.5% but their net worth fell 8% to £5,350.

"The data paints a sobering picture of the overall state of farms in the UK," notes Mr Adams. "There are some phenomenally good farms and some phenomenally badly performing ones. The bottom quarter of farms are really struggling."

"Farms have to be competitive to increase Net Worth. And that means not solely focusing on production or feed efficiency. Farmers need to challenge the status quo, set a steady course, build commitment from the team, focus on doing things well and be prepared to initiate change," he concludes.

## Financial highlights—production systems

Pence per litre	High yield	High efficiency	Difference
Bought in feed	11.50	8.44	3.1
Forage	0.92	1.12	-0.2
Replacement costs	0.00	0.00	-
Other variable	5.03	4.31	0.7
<b>Total variable costs</b>	<b>17.45</b>	<b>13.87</b>	<b>3.6</b>
Labour	4.45	4.97	-0.5
Power & machinery	4.96	5.58	-0.6
Administration	0.83	1.20	-0.4
Property	2.07	2.38	-0.3
Rent & finance	1.50	1.61	-0.1
<b>Total overhead costs</b>	<b>13.82</b>	<b>15.75</b>	<b>-1.9</b>
<b>Total costs</b>	<b>31.26</b>	<b>29.62</b>	<b>1.6</b>



# System switch improves efficiency

During the past three years the management system at one Gloucestershire-based unit has been totally re-engineered, moving from all-year-round to block calving. We spoke to the farm manager to find out more about the reasons behind the change.

TEXT PHIL EADES

**W**hen Andrew Eastabrook took over as farm manager at Hartpury University and Hartpury College, in January 2017, the herd was averaging around 10,000 litres on an all year-round calving and housed system. And, on paper, this appeared to be a successful herd. But, looking beyond the headlines, Andrew could see that yield was dependent on a high-input, high-cost system with a feed rate of

around 0.4kg per litre. "We were feeding large amounts of concentrates at the expense of forage," he explains. "While we were producing plenty of forage, it wasn't being fully utilised. The system was also impacting on herd health with lameness and mastitis issues, as well as a higher than desirable incidence of displaced abomasum."

He adds that there were also calf disease problems, predominantly due to the buildings being occupied all year round, with no chance for a break. "I was also concerned that an all-year-round calving herd didn't dovetail effectively with the other enterprises on our mixed farm", says Andrew.

He had worked on block calving units before and he likes the focus it allows. "With a tight block, everyone can concentrate on calving, then on breeding cows or other tasks, while releasing staff as required for forage making, lambing, or harvest as required."

"Grass growth also tends to tail off here in the summer and early autumn, and an all-year-round calving system was making it difficult to graze cows. So, we made the decision to move to tight autumn-block calving set up."

## Forage intakes

Now, two years later, the cows are calving in a 12-week block between August and October, feed rate has reduced to 0.3kg per litre, forage intakes have increased from 8kg DM/cow/day to more than 14kg DM/day, and milk from forage is 4,000 litres per cow. That's a fivefold increase, up from 800 litres.

Andrew says that three major elements were essential for the effective change of system. The first was to tighten calvings into the block. The initial stage was to consider the herd on a cow-by-cow basis. "Around 15%

Caroline Groves:  
**"A clear plan  
and attention to detail  
have contributed  
to the herd's success"**



## COMPANY PROFILE

Name	: Andrew Eastabrook
Location	: Hartpury University and Hartpury College, Gloucestershire
Herd size	: 260 cows, plus 150 followers
Average yield	: 9,127 litres of milk, at 3.98% fat and 3.37% protein



of the herd tested as 'red' for Johne's disease, so these cows left the herd. Cows that already calved in the block timeframe were put back in calf, while cows that calved in the three months prior to the target block were allowed to milk on so they calved in the block."

Cows with no chance of 'going around' but were good quality cows were put in calf for spring and sold as fresh calvers to generate a cash flow.

Heifers were all served to calve in the block, which meant that some were calving for the first time at just 21 months old. The oldest calved at 26 months old. This strict approach was followed for two years and, in 2018, 170 cows calved in the block. This year the entire herd calved during the 12-week period. The target is a block of 280 calvings in 12 weeks in 2020.

### Tipping point

Andrew explains that the second element was to progressively drive down concentrate use and increase forage intakes. "We started by reducing concentrate intakes by between 0.5kg/day and 1 kg/day and boosting forage dry matter to compensate while watching milk yields closely. We saw no change in yields, despite the concentrate reduction, so the exercise was repeated until we got to the tipping point when milk yields started to be adversely affected.

"Today we're feeding 6.25kg of blend per cow – down from more than 12kg. We're happy at this level, but we will monitor milk price and reduce it further if producing marginal litres is uneconomic."

For practical reasons, all housed cows are fed the same ration. Late-lactation cows can be grazed without supplementation and Andrew simply lets them go dry with a reduced risk of being over-conditioned.

The third element behind the switch to block calving has been to improve forage quality and consistency. This meant changing to an opticut system and increasing the

hectares of maize grown. Andrew has worked closely with Promar's Caroline Groves and she says that a clear plan and attention to detail have contributed to the herd's success.

"The move to block calving has improved efficiency. Andrew has set metrics to allow him to monitor progress and keep the plan on track. From a high-cost system, he is now producing more than 9,000 litres and feed costs per litre are 11% below the average."

Milk from forage is 50% higher than the average. "And in 2018, despite the dry summer, the herd increased yield by 2% while cutting purchased feeds by 23%. With these figures it's no surprise that they were awarded the southern-area region title, and were national runners up, in this year's Milkfinder Manager competition."

Looking forward, Andrew says the focus is to maintain the tight calving pattern. All cows and heifers are now fitted with heat detection eartags and the target is to serve all cows within 80 days of calving. He wants to improve herd health and has made a good start, with Johne's levels now down to below 1%. Block calving has improved calf health because calf housing can be cleaned, disinfected and rested for several months.

Andrew also wants to improve breeding and push the herd into the top 10% for genetic merit. He also wants to breed robust cows and is focussing on milk constituents, ease and speed of milking, calving ease, and fertility.

"An efficient herd is a key part of our role as an education centre and block calving has helped improve the practical experience for our students," he says. "We need to demonstrate high quality management and the herd is a key part of the farm at Hartpury, which will soon be opening an Agri-Tech Centre," he adds. "This centre will demonstrate new technology and monitor its impact on productivity and profitability, giving industry a chance to see technology in action on a commercial farm before making investment decisions." |

# BUSINESS Clinic

In the next in our series on dairy farm financial performance, Tim Harper, head of data at Promar, looks at the important correlation between feed rate per litre and profit.

## National viewpoint: Take a closer look at feed rate per litre

Anyone who subscribes to a dairy costing service will be very familiar with both concentrate feed rate and purchased feed costs per litre, and Tim Harper suggests these numbers deserve closer attention than certainly yield per cow when identifying key drivers of profit.

Using the latest data from more than 500 farms recorded using Promar's Farm Business Accounts Service which reconciles all financial transactions to the bank, costs in all internal transfers and reconciles all feed use, he says there is a real link between feed rate, and the efficient use of purchased feed, and profit.

The table below compares the performance to March 2019 of the 25% of farms with the lowest and highest feed rates.

"The farms with the lowest feed rate are producing 1,703 fewer litres per cow on aver-



Tim Harper

age but are using 2,234kg less concentrate in comparison to farms with the highest feed rates (1.3kg/l for the additional litres). And they are making £122 per cow greater profit – some farms in this sample are still producing over 10,000l/cow despite the lower feed rate," he says.

"The milk price is very similar between the two groups and the feed price per tonne was comparable. The difference is due to using feed more efficiently, and this crosses over into general cost efficiency."

He advises taking a close look

at feed rate and challenging the system to find ways to improve feed efficiency and economy. For example this may include things like the following.

Before feeding additional concentrates, do the sums to check whether the additional litres produced will be profitable, but be realistic around both the figures and risks.

Avoid introducing additional complexity into the system with the associated costs and risks that it can bring.

### Targets

Set target milk yields and target winter feed rates.

Minimise wastage from the silage in the clamps to ensure the maximum proportion is fed.

Monitor silage stocks and re-sample at least monthly, and monitor actual feed rates through daily spot checks.

While feed rate is not the only driver of profit, it should be high on the list of ones to investigate.



Oliver Williams

» Last month I mentioned that, having run out of maize, we had to add wholecrop to the diet and yields had fallen back a little. That said, we were still about two litres per cow per day ahead of last year, and now that maize is back in the diet I am hopeful we will see yields rebound.

Some might challenge accepting a fall in yield, but to me it was an easy decision to make. If I had increased concentrates to boost the energy this would have meant replacing forage. One of my key metrics is purchased feed cost per litre which would inevitably have risen if I chased yield by displacing forage to allow more concentrates, especially as we were still on a more expensive blend ahead of the better winter prices we have negotiated.

In addition, while I can expect yields to improve when replacing wholecrop

### Fairy's Lodge Farm facts

- » 465 cows
- » All-year-round calved and housed
- » Milked three times-a-day
- » Average yield per cow of 10,685 litres
- » Concentrate feed rate of 0.38kg/litre

### Performance to March 2019

	25% of farms with lowest feed rate/litre	25% of farms with highest feed rate/litre	Difference (high minus low)
Feed rate (kg/litre)	0.264	0.448	0.184
Conc use/cow (kg)	2,110	4,344	2,234
Milk yield (litre)	7,984	9,686	1,703
Profit per cow (£)	289	167	-122

Source: Promar

Oliver Williams, a Northamptonshire producer and Promar client, outlines the key challenges facing his business and what action he is taking in conjunction with Promar consultant Emma Thompson.

## Farmer viewpoint: Good transition underpins everything

with maize, what would happen if I added maize and cut back on blend. To me this was an unnecessary risk. So, we will get maize back in the diet and hopefully see yields increase, and getting cows transitioning well will help here.

### Transition

We have always focused on transition management and were fortunate in being able to set up a good transition area when we established the unit. As such we have never had significant transition issues. That said, we will never be complacent as we need cows to transition well, especially as we now have a settled herd and the improved fertility since we moved to RMS means we need cows ready to re-breed.

We operate a 45-day dry period and we dry cows off and move them to a far-off dry group every Tuesday, which is our cow movements day. Currently the far-off dries are straw bedded so we routinely dry tube every cow as we had previously seen



Every cow gets a rehydration supplement immediately post-calving.

problems with E.coli. We will be putting in 40-60 cubicles next spring and once the far-off cows are off straw, we will move to selective dry cow therapy.

In-calf heifers are brought into this group in advance of calving.

Cows move to the close-up group three weeks before calving and are straw bedded. The diet for both groups is broadly the same. We produce the same base mix but add extra protein

to the close-up cows.

We let cows calve in the close-up housing as I am against calving pens. We find cows will find a quiet place where they are comfortable, and we can separate them off with gates and let them get on with it.

### Post-calving

Immediately post-calving they get access to the milking diet and every cow gets a rehydration

supplement as we think this is a vital part of fresh cow management.

For the first five to six milkings, the cows are moved into another straw yard and are just milked twice-a-day with milk kept out of the tank. They then move into a fresh group and are milked three times a day. They stay in this group until ready to move into the high yielders, based on how settled they are and on there being space in the highs.

This approach is delivering the results. By 14 days post-calving cows are averaging 35 litres, peaking at around 70 days at 58 litres. As we operate a 50-day VWP we are looking to serve cows at peak and are achieving a 67% heat detection rate.

Our approach may seem complicated but if we get cows in the herd quickly with minimal transition problems, we are well set for a more profitable lactation with cows performing well with low feed costs per litre.

## SPOTLIGHT EMMA THOMPSON

Promar has released its Farm Business Account results, which demonstrate the effects of last year's drought, high concentrate prices and the fact high yields may not be the be all and end all to profitability. Peter Hollinshead speaks to Promar's information and data insight manager Emma Thompson.

# Higher feed prices take toll on margins

**Y**our figures show profit has fallen by what is quite a dramatic figure of 13.2% per cow in 2018-19 compared to the previous year, and as milk price did not change dramatically, what was eroding margins?

The biggest contribution to the erosion of margin is higher feed costs, both concentrate and purchased roughages.

These eroded the margin per cow by £109 as a result of a £20/tonne increase in concentrate prices, alongside a small increase in usage, and roughages rose from £94 to £124/cow.

Most people will recall 2018-19 included last year's dry summer when people were fearful they would be short of winter silage. The figures for 2018-19 show higher yields and higher cake usage, with 9,079 litres against 8,864 litres in 2017-18, and 3,355kg/cow against 3,294kg the previous year. This works out at an extra 215 litres from

the extra 61kg cake. Surely at that rate those marginal litres would be profitable, or was that increase in feed cost so great as to nullify that advantage?

Yes, that £20/t increase in concentrates equates to a £66 increase between the two years per cow, and as I say the purchased roughage figure also increased. So although the marginal milk increase would appear profitable, the total feed cost increases did counteract that.

The bought-in feed figure increased from 9.98ppl in 2017-18 to 11.17ppl in 2018-19, yet the forage cost also rose from 0.86ppl to 1.06ppl in 2018-19. Most people would regard grass and silage as their main forages and their production costs would not change by a big lot year-to-year would they? So why is that forage figure as high as it is?

You must remember we had a relatively cool spring then the drought, and people increased grass area by three hectares and the maize area also rose by 3ha in our sample.

This contributed to the forage costs increase, and additionally we saw higher fertiliser, seed and spray prices as well.

So even if all forage was produced on-farm it was going to be more expensive simply because they had more land set aside to it?

Yes, people either rented more ground because of the drought or took some of the cereals they would have been growing for concentrate into wholecrop wheat, for example.

But some would have been using silage stocks and would simply end the winter with either empty clamps or lower stocks, and that would not have been accounted for in these figures, would it?

Yes, it is purely driven by input costs of that forage, and I would expect it to continue being higher this year owing to people trying to rebuild silage reserves, but any change in forage valuations is reflected in the total forage costs.

In essence, variable and overhead costs were up from 30.38ppl in 2017-18 to 32.08ppl in 2018-19 (1.3ppl), so was this sufficient to be responsible, virtually exclusively, for the 13.2% fall in profit?

Yes.

Ok, let's move on to looking at differences in the 2018-19 figures comparing top quartile and bottom quartile on an operating profit per cow basis. You would expect to see the top group showing better financial figures as that is the basis of their selection, but the difference was a staggering 2.4 times (8ppl) greater profit from the top quartile. Did the magnitude of the figure surprise you at all?

### About the results

»The results cover virtually the same 520 farms from year-to-year, with most accounts following the milk year, but for the sake of convenience, this interview will refer to the 2017-18 figures and the 2018-19 figures.



Emma Thompson



Figures show profit has fallen quite dramatically by 13.2%/cow in 2018-19 compared to the previous year.

The difference between the top and bottom is always surprising and I think it is not just circumstances within the year which cause them to be there. I think those bottom farms have questions to answer about the sustainability of their businesses.

**We have seen cereal prices coming down this year, which will presumably affect compound prices, and if the high price of bought-in feed was a major driver to eroding margins last year, will we see them improve this year?**

There should be a benefit from that, but it will be taken into consideration in cost of production liquid contracts.

**One characteristic of the top quartile was that variable costs were 17% lower and**

**overhead costs 28% lower, but the really intriguing thing is that output per cow was 13% higher and feed rate 8% lower at 0.38kg/cow. Can you tell me whether top performers were geographically on the less droughty farms, or does it reflect better quality silage being made on the top farms?**

Geographically, there was no one particular area reflected in these figures, but the top performers have attention to detail across the board from their purchasing ability to their ability to make quality silage. In any particular year we see a slight differential across the country with the north having a slightly higher cost of production than the south west, for example.

**Let's look at variable costs. The top quartile spent 9.86ppl on bought-in feed and the bottom**

**11.5ppl, but other things, such as replacement costs, were 2.48ppl for the top vs. 3.29ppl for lower performers. Why was this?**

One of the main differences is the selling of cull cows, and top performers manage to sell a higher proportion of cull cows for more money than the bottom 25%. The bottom 25% have a higher death rate of animals leaving the farm for zero money, and TB will skew figures a little depending on compensation rates around the country.

**On the overheads costs front, the top quartile showed 12.52ppl and the bottom 17.43ppl. Where was the main difference here?**

Predominantly on power and machinery costs, and labour.

**Plant and machinery was 4.66ppl for the top quartile**

**and 6.15ppl for the bottom. What was going on here, as we had been told by many consultants throughout the year to cut machinery costs, and machinery spend for tax saving reasons would not apply, would it?**

The main drivers for the increase in machinery costs were repairs and contracting charges.

**Were repairs and contracting charges a lot greater for the bottom quartile?**

Yes, machinery repair costs for the top quartile were £86/cow compared to the bottom quartile where it was £112/cow, and for contracting the top quartile showed £78/cow and the bottom £179/cow.

**You then analysed the figures by taking the high yielders and compared them to the**

high efficiency group selected by variable costs per litre.

What you found was that although output per cow was 26% higher from the high yielding group, feed rate at 0.39kg/litre was 24% higher, variable costs 25% higher and overhead costs 12% higher. All of this had the effect of slashing profit by 70% per cow. This would seem a big figure, especially when total costs for high yielders was 31.26ppl and 29.62ppl for the high efficiency group, which was only a 1.6ppl difference.

The higher yielding group appears to 'purchase' milk, for want of a better description, and it could be it needed a higher output to pay for all the fixed charges or finance charges, so is starting to chase turnover, but at a cost.

These higher yielding herds were far more exposed to the rise in concentrate price in the year, which left them vulnerable, and if they were committed to a high input high output system, they could do very little to mitigate the effect of the higher concentrate prices.

**Did you do any analysis to determine whether any particular group received a higher milk price than the rest? Were the ones with better margins, for example, on supermarket contracts?**

No, they weren't. Effectively, the milk price across the board only varied by 0.85ppl. It was about maximising the contract by hitting all the requirements to gain the higher prices. The top quartile achieved a price on average of 30.85ppl against the average for 2018-19 of 30.47ppl.

**Let's move on to look at the overall effect on the business. Top farms increased debt by 10% and bottom farms by 2.5%, yet top farms' net worth increased by 8% and bottom farms' net worth decreased**

**by 8%. Are the bottom farms borrowing to pay off already incurred debt as it is not increasing their asset value?**

It appears they are, yes. It appears they have taken on debt in this year not to increase their asset but probably simply to tread water. Meanwhile, top farms have been able to use debt to invest in the business for the future.

**Is that sustainable?**

It really depends on the individual business. If it is a one-off occurrence then it could potentially be sustainable, but if it is a year-on-year trend, sustainability could be questionable.

**You see the net worth of virtually half the farms (45%) fell and was a higher figure than the year before (39%), so it is somewhat worrying that rather big figures occur in the two years. Effectively, indebtedness is increasing as asset value is decreasing on these farms. So should this be sounding alarm bells for the industry?**

Certainly for those producers where it is a trend it should start alarm bells ringing, and closer investigation of accounts is required for those farms.

**“It appears [bottom farms] have taken on debt in this year not to increase their asset but probably simply to tread water**

EMMA THOMPSON

**It would appear your costed farms are continuing to increase their borrowings. Do you know what the figure is per cow place currently?**

Yes, the average debt per cow currently stands at £2,912.

**Is the figure going up or down?**

Up. That was a £200/cow increase from last year to this.

**Would you expect that to increase this next year?**

On the law of averages, yes.

**Do you have an opinion as to whether that is a good or bad thing?**

Again, it will depend on individual businesses.

Not every business will have debt, whereas some will have a lot. If Mr Average is increasing by £200/cow, then there will be some people putting on £600-£700/cow debt.

**So effectively that increased debt is a worry and if there is a downturn in milk price in the future, the servicing of the increased debt could be too much for some farms?**

Yes, cash will become the limiting factor, not necessarily the amount of debt per cow, but the ability to service the debt. If interest charges were to increase, vulnerability would also increase.

**Looking ahead, what message do you have for producers who want a long-term future in milk.**

**Is the eternal demand to be more efficient?**

Yes, becoming more efficient is a driver to greater profitability, but that is not necessarily just cutting concentrate usage. If you look at top farms, they are better across the board on everything, not just one area, and they are more efficient. Yes, feed is a particularly high cost



on-farm, but certainly labour and power and machinery are the second highest costs.

**The industry faces potential turmoil, not just with Brexit but the phasing out of the Basic Payment Scheme, yet according to Andersons' predictions two years hence, the business margin will be 1.9ppl, of which the BPS element would be 1.8ppl, meaning the profit is the Basic Payment. How do you see the future for dairying?**

The Government has announced provisionally the rate at which the subsidy system will change, and there will be greater emphasis on delivering goods for public benefit. However, because of the industry's intensive nature, it is probably going to be more difficult to move towards that delivery of public goods.

The other area is that of increasing legislation around clean air and slurry



Emma Thompson says one of the main differences between overhead costs for the top and bottom quartiles was for power and machinery costs.

management. There will be a question as to the degree to which the Government is willing to fund the capital expenditure some dairy farmers will need to undertake.

**What do you think will be the milk price in the future, especially if we are to be subject to lower import tariffs on cheese and such like?**

I think the dilemma is by sector. The fresh liquid sector should, in theory, be the least vulnerable to Brexit, due to the difficulty and cost of transporting liquid milk.

The dilemma for liquid is very low margins in the processing sector, which is bringing huge pressures. Hopefully, the liquid sector will be able to get over these problems, but nevertheless, it will provide pressures for farmers supplying that sector in the short-term.

In terms of other sectors, there will be greater

vulnerability in terms of supplying milk into cheese, for example, and I expect there will be challenges as Brexit takes effect.

**Finally, are you optimistic about the future for the industry?**

We do have high consumption of all dairy products by British consumers, although there is some negativity in some sectors around the vegan movement etc.

Provided there are domestic consumers who wish to buy the product we are producing, there has got to be a good future for those dairy farmers able to produce that product cheaply while meeting public requirements.

Hopefully we can go beyond that and explore export markets, and when things have settled down over Brexit, our dairy farmers may be able to find processors who can access markets to produce products for sale overseas.

# Unlocking the potential in your business

**I**ncreasing price volatility, ongoing regulatory and assurance requirements and the vagaries of the political climate could all prove a perfect storm for those seeking to build successful dairy businesses.

This is according to **Neil Adams, managing director of Promar**. In spite of this, he believes dairy producers can thrive by implementing a clear strategy and he suggests there are enormous opportunities for farmers willing to rise to the challenge.

He says: "Dairy farming is like a jigsaw where the pieces are the market, a farm's working assets, livestock, its land resource and the environment. They only get fitted together properly if the key individuals who lead, work and support the farm collaborate to achieve coherence.

"It is all about unlocking

potential. Have a look at the current state of your business in detail and ask yourself these four questions:

- What will my milk market want in the future?
- How should I organise my system of farming to best meet that demand?
- How do I manage myself and my team to optimise the potential of the market and my system?
- How do I ensure we retain the trust and confidence of society at large?"

Mr Adams says for many, expansion has been the key strategy for survival but he cautions this will not be appropriate in every situation, especially if external influences are likely to make this approach more difficult.

"We are already seeing processors in the liquid sector taking steps to halt unbridled expansion. Irrespective of our future trading relationship with the EU, we will need to meet certain environmental



Dairy farming is like a jigsaw, where all the pieces only fit together properly with good leadership and collaboration, says Neil Adams.

and welfare standards which are likely to become more demanding," he says.

Mr Adams is very optimistic about the future of UK dairying and believes there are many opportunities for those farmers who are willing to grasp them.

He says: "The UK is unique because our dairy industry is so diverse, and farmers make it work on their farm by adopting a variety of different systems, whether it is all year round calving within an entirely housed unit or grazing based spring calving. The theme underlying all these successful businesses is management ability and leadership.

"It is tempting to think there is one magic bullet which is missing, but this is rarely the case. The really successful businesses are managed by people who are meticulous about everything they do."

He describes business expansion as 'a good thing' as long as farmers manage the risks associated with this growth.

He says: "Growing is one thing but growing profitability is another. The ambition associated with growing a business is what gets many people out of bed in the morning, but it also keeps them awake at night.

"Establishing the right work/life balance is very important and having the right people around who are as committed as you are is critical."

## Money matters

**Euryn Jones, interim head of agriculture with HSBC UK**, says a commercial approach with a 'strong focus on generating profit and cash' is fundamental to any successful dairying business.

"Price volatility is an inherent characteristic of agricultural commodities so it is vital to make a farming business as resilient as possible. Profit defines all successful dairy businesses and the figures show the top quartile to be 1.8 times as profitable as the bottom quartile."

He adds: "In most cases the factor which



**The theme underlying all these successful businesses is management ability and leadership**

NEIL ADAMS

drives performance is management. We urge dairy farmers we work with to calculate and be clear about their break even milk price. What price do they need to receive for their milk to cover all their costs?

"We encourage our clients to plan ahead, draw up budgets and monitor their actual financial outturn against their budget. They need to understand the variance between budgeted and actual figures and appreciate the causes so they can act upon them," Mr Jones says.

HSBC UK takes into account a number of factors which any business would need to be

mindful of when looking to borrow money.

These might include:

- The calibre of person who will borrow the money
- Affordability – can the person afford the loan?
- Equity
- Security – what the bank can recover from collateral if it goes wrong

He believes there are several performance indicators which are a good guide as to whether a dairy business is successful.

Mr Jones says: "Feed costs per litre usually reflect excellent forage production and utilisation. The ability to manage fertility is a major driver of profitability in all



## Understanding the market is critical and we advise farmers to be aware of the clauses in their milk contract

EURYN JONES



systems. And controlling fixed costs such as power, machinery and labour is another variable which influences profitability.

"There is no one system which is better than another and I see people succeeding

with a whole range of approaches. Understanding the market is critical and we advise farmers to be aware of the clauses in their milk contract so they avoid the penalties and achieve bonuses wherever possible."

## Cow health – The cornerstone of profitable dairying

■ IMPROVING cow health and welfare is likely to be at the top of the list of priorities for every progressive dairy farmer.

Jonathan Statham, a partner with the Bishopton Veterinary Group and chief executive of RAFT solutions, describes it as an 'ongoing team approach' with vets as an integral member of the farm team.

He says: "We have to consider what a sustainable dairy enterprise looks like in terms of cow health, fertility, nutrition, welfare and environmental impact

and focus on root causes and prevention.

"The health issues a farmer faces broadly fall into two separate categories. The first is single agent infectious disease such as BVD, Johne's, IBR and TB. These can affect all herds, irrespective of how well managed they are.

"The second category is multi-factorial management disease including calf pneumonia, mastitis and lameness. These diseases are complex, farm specific and usually require a range of herd health changes to deliver improvement.

"In order to tackle either type of disease, the first stage is always to establish the health status of the herd by testing and measuring current performance and levels of disease. Secondly, if the disease(s) is present in significant levels, the next stage is to make a plan for

control which may mean eradication or for management diseases, dramatically reducing the level of incidence."

### Balance

Mr Statham says tackling disease relies on understanding the balance between immunity in the herd and the scale of the disease challenge.

"Examine the specifics of the farm system and look for patterns of disease. What are the things which compromise cow immunity? It may be several factors including stocking rate, building design or management of transition period nutrition.

"Some of these may require capital investment, but luckily there are often many things a farmer can do which cost relatively little. For example, herd health training for staff in relation to procedures such as the milking routine can make a

significant difference to the incidence of mastitis," Mr Statham adds.

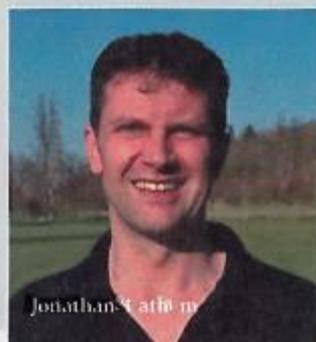
Technology offers the dairy farmer considerable scope for improving the early detection of disease in herds.

He says: "Precision livestock farming techniques, such as activity monitors, can provide an early alert to health problems and can enable farmers to target cows rather than relying on blanket group treatment."



## Precision livestock farming techniques, such as activity monitors, can provide an early alert to health problems

JONATHAN STATHAM



Jonathan Statham

# Joined up approach can help build positive supply chain partnerships

**T**here continues to be a small but persistent over-supply of milk which arises because of the continued expansion of most units, despite some producers leaving the industry.

Matt Sheehan, principal consultant with Promar, says this imbalance suggests the supply chain is not as joined up as it needs to be.

"Production plans on-farm are sometimes disconnected from market needs. Market signals do not filter through effectively, leaving the current milk price as often the only tool to influence production plans," he says.

"The industry also has to acknowledge external influences and adapt accordingly. There are those who oppose and challenge dairy production and who are influential, especially the millennial generation, many of

whom are turning away from dairy." Mr Sheehan says.

Despite this, he remains optimistic, suggesting farmers who are willing to engage with their buyer can look to a bright future.

He explains there are a number of well-established supply chain relationships and schemes which are effectively transmitting market signals and developing longer-term, more strategic decision making to ensure consumer needs and pressures are met.

## Opportunities

He believes there are opportunities for more progressive farmers to exploit these positive partnerships.

He says: "A farmer who is willing to engage with the supply chain, both upstream and downstream and who understands what the market wants, can be more successful.

Mr Sheehan believes there

are broadly four different groups of farmers in terms of how they respond and interact with their milk buyers.

He says: "The first group of farmers do not engage with their milk buyer or wish to understand their customers. They simply want to get on and farm.

"Many have already exited from the dairy sector and will continue to do so, as ignoring the pressures of the market no longer works."

He says the existence of this first group probably reflects the culture and practice of the dairy industry historically, where the farmer was so remote from the market for his product. He says this approach is no longer tenable.

"The second approach is where producers are reluctant to do any more than they have to. They are unwilling to change and adapt reluctantly to a shifting market. This type

of attitude still persists with some, but will not pay dividends in the future.

"The third way of thinking is farmers who adopt a responsible approach to their contract, aiming to at least achieve all the standards expected of them. They probably use an adviser to help them move forward and embrace technology as far as they can.

"Finally, you have the pioneers who take a proactive approach and try to keep one step ahead of the market, thinking more widely about what their customer and consumers will want in the future.

"These farmers are often members of discussion groups, they benchmark their own data, seek outside advice and different opinions and will engage regularly and positively with their processor and secondary customer. They display an open mind set in relation to potential changes and future demands.

Mr Sheehan believes the four categories define a model which represents the increasing maturity of the sector.

"It is inevitable that over time, this last group will come to dominate the marketplace as the industry becomes more demanding. Farmers will need to adhere to higher standards across their business, whether it is cow welfare, people management or environmental improvement, as well as coping with increasing commercial pressures.



Matt Sheehan

“  
A farmer who is willing to engage with the supply chain, both upstream and downstream and who understands what the market wants, can be more successful

MATT SHEEHAN

"Meeting these demands will be best achieved by working with supply chain partners and finding common, shared, solutions. It will also provide the producers and the wider industry with a very positive story to tell.

Maintaining clear lines of communication with a milk buyer is essential, Mr Sheehan says, pointing to the example of how many farmers fail to inform their buyer when they plan to increase production.

## Communication

He says: "Many farmers significantly increase their milk output but do not even think to tell their buyer.

"There has to be a dialogue because very often there is an assumption the milk will just find a home and the price received will stay the same. This is against a background of an absence of an immediate market for the milk or additional costs being incurred elsewhere in the supply chain.

He urges producers to invite their buyers to the farm to open the dialogue. Asking them what they are looking for from suppliers in the next one to five years is a good starting point for the discussion.

"Ask the supplier what you need to do to become a supplier of choice in the future and how you can best work together in the future.

"This conversation is likely to flush out a range of issues from changing milk quality standards, milk production requirements, future welfare and environmental expectations and reactions to likely policy changes. All of these will help a producer to stay one step ahead and establish a positive on-going relationship with the buyer."

## The Farmer's View



Michael Oakes

**M**ichael Oakes is the chairman of the NFU dairy board and a tenant farmer on the outskirts of Birmingham. He runs a closed herd of 180 pedigree Holsteins selling milk to Arla and he is striving to improve relationships between farmers, processors and end users.

"The UK is lagging behind the rest of Europe on milk price and the industry has had to cope with several years of very tight margins and massively increased costs. As farmers, we need to focus on the things we have control of, but investing to produce more from less is very difficult when the milk cheque does not pay all the bills," Mr Oakes acknowledges.

Mr Oakes says the processing market is changing and where the milk is produced and the quality is becoming more important.

"The cost of transporting milk to market is a significant factor and there may come a time where dairy farmers

who are a long way from the processing factory have to face difficult choices. We are already seeing this happen where producers are located a long way from the market."

It is not all doom and gloom, however, and Mr Oakes believes there is still scope to increase domestic consumption of dairy products, as the UK is still only 80 per cent self-sufficient.

## Potential

"There is potential to increase UK sales of milk and dairy products but it is a very competitive market. There are also opportunities to export globally and some UK companies are telling us they can make a higher margin by exporting quality products such as artisan cheeses to the United States than they can selling them at home.

"If we are to make the most of these markets there needs to be a constructive partnership between farmers, processors and Government to invest in and foster these relationships."

Despite all the criticism,

Mr Oakes believes the industry can put forward a strong argument in its favour, whether it is animal welfare or the environment and climate change.

He says: "We have a fantastic story to tell about UK dairy production. We are at the forefront of reducing antibiotic use. We have made a commitment that as an industry, we will reach net zero emissions by 2040 and this presents a significant opportunity.

"We have to communicate the message that our dairy farms are grass-based systems and grass leys are very effective at sequestering carbon and feeding it back into the soil. We are very much part of the climate change solution."



**As farmers, we need to focus on the things we have control of**

MICHAEL OAKES

