Latest news and views from **March 2022**

The Dairy Group

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Milk price & costs heading for 40p?

Ian Powell, Managing Director

The deteriorating situation in Ukraine is bound to create further upward pressure on already high input costs. Whilst it is important to understand the wider economic environment, there are 3 key business areas that are within your control: milk income, cost of production & cash.

Milk income is related to the dairy market value, which has risen by 30% (8.9ppl) over the last year. UK production remains around 2% down on the previous year with small volumes of spot milk achieving 40 to 50ppl. The average UK milk price in December was 34.1ppl, up 12% on the previous year, so still some way behind the 30% increase in the market price. There have been a series of milk price increases over recent months with the Arla price increasing to 39ppl from 1/3/22 for our average milk quality of 4.25% and 3.35% protein.

Cost of production - With most accounts ending 31st March, now is a great opportunity to benchmark your technical performance and cost of production with our top 25% group. Our benchmarking provides 40 points of comparison to identify strengths and weaknesses to allow you to focus on the key areas for improvement & to quantify the potential benefit. The average cost of production in 2020/21 was 33.4ppl (including rent & finance). Our forecast for the year ending March 2022 is for the average cost to increase by 3.6ppl to 37.0ppl mainly due to increases in feed and forage costs, but not the full impact of the fertiliser cost increase which will hit the following year. Our forecast for the year to March 2023 is for the cost to rise to 39.2ppl, due to a further 10% increase in feed cost and +1ppl on the cost of fertiliser, which assumes some reduction in use. There is also the danger that where fertiliser use is substantially reduced, the impact on farm output could increase the cost of production even further.

Cash is king and having enough cash keeps you in control of your own business. Once you run out of cash you are effectively passing control to someone else – usually the bank. With the increasing cost of feed, fertiliser and power there is a real need to understand the cash needs of the business and the peak borrowing requirement. With the start of the financial year is a key opportunity to look at the forward cash flow and to identify the critical points. Some will say there is no point due to the uncertainty, whereas I would say it is essential. The forward cash flow will aid decision making with regard to time of sale, decisions on capital investment, machinery replacement and finance options.

In these challenging times it is imperative to understand costs and to have a clear view of your business going forward. Some funding is available to carry out a free business appraisal to look at cost of production and plan forward strategy.

Ian is responsible for our dairy cost database and MCi and works with clients across southern England. He can be contacted on 07831 617952.

EDITORIAL

Welcome to our newsletter which aims to update and inform on topical issues facing dairy farmers.

There are plenty of challenges ahead mainly relating to input costs, but also with the reduction in income from BPS and increasing compliance with the Farming Rules for Water and reducing the carbon footprint of milk production. The first article covers key business challenges within your control.

Producers can influence milk price by implementing measures to "exploit" their milk contract. Feeding for butterfat and protein is the topic of the second article.

The third article covers the relative merits of the 2 main land management schemes currently available: Mid-Tier (MT) and the Sustainable Farming Incentive (SFI).

The In Brief section covers a variety of topics including Inbreeding, Net Zero, Slurry Grants and Phosphates.

If you would like to discuss any of the topics featured in this newsletter further, please speak to your consultant or ring the office on 01823 444488.

Christine Pedersen

Feeding for Fat and Protein

Christine Pedersen, Principal Consultant

Year on year, national average butterfat and protein levels dip during Spring to bottom out in June or July and some producers suffer severe penalties when butterfat and protein levels fall below contract minimums. There are many factors that influence constituent levels, genetics and nutrition being the main ones. Selective breeding for fat and protein is obviously a long term strategy. In the short term, nutrition and feeding management are the main factors influencing milk composition; positive management changes can significantly alter butterfat and protein content. Rumen bacteria can take 10 – 14 days to adjust to significant diet changes so improvements are unlikely to be rapid which is why it is important to have a feeding strategy in place to prevent very low milk quality levels.

How to improve butterfat levels at grass? Increasing the intake of effective fibre (chopped hay or straw, grass or wholecrop silage) is an option but can be difficult due to practical constraints or a compromise between buffer and grazed grass intakes or accepting reduced milk yields. Grazing down to lower residuals (1500 kg/DM/ha) may be recommended as the lower part of the grass plant is higher fibre but there is a danger that production is compromised. The type, amount and presentation of any buffer feed needs careful consideration as does the timing of feeding. Be aware that by-products such as bread and brewer's grains can also depress butterfat. Consider also the amount and type of concentrate fed – high concentrate and high starch diets also contribute to butterfat depression and replacing high starch cereals with high digestible fibre ingredients such as sugar beet pulp and soya hulls can help. The inclusion of C16:0 fat supplements, rumen buffers and yeast show variable results, but may have a positive contribution in conjunction with other measures outlined.

Low dry matter intake (DMI) can affect fat and protein and increasing DMI can increase milk compositional quality. Heat stress (both temperature and humidity) has a significant impact on DMI and partly explains the seasonal milk quality trends of low summer and high winter constituents seen world-wide. Milk proteins tend to be less variable than butterfat but are an indicator of protein and energy supply if used in conjunction with milk urea results. If you establish that protein supply is adequate for the yield level (from milk quality data, ration formulation and dung consistency), low milk proteins may be as a result of break down of dietary protein to supply energy if energy supply is limiting, in which case rations need to be re-formulated to increase energy supply and mitigate the obvious effects on body condition, fertility and performance.

As we approach Spring it is a good time to review your milk supply contract coupled with historic herd performance data to develop a strategy to boost butterfat and protein levels.

Christine provides nutrition, dairy technical and business management advice to clients across southern England. She can be contacted on 07831 172940.

Environmental Scheme Opportunities

Naomi Read, Senior Dairy Business Consultant

The reduction in BPS over the 2021-2027 Agricultural Transition period directly reduces profitability for most dairy producers. The 3 year average Basic Payment rate is £232/ha which has provided significant revenue with little or no associated cost. As a result, a significant proportion of BPS has been converted to profit. Taking action to 'replace' this income is important and one area of focus should be on environmental and land management schemes.

There are 2 main land management schemes available to farmers in 2022: Countryside Stewardship **Mid-Tier (MT)** and the **Sustainable Farming Incentive (SFI)** (the first of three new Environmental Land Management Schemes - ELMS. A 2023 application for January 2024 start date will be the final opportunity to apply for MT so with only 2 years left to apply for MT, it is a good time to review both schemes as both are open for applications in 2022. However, we do not expect these schemes to match the £232/ha received through direct payments.

The MT scheme remains relatively unchanged from previous years and is a combination of land management and capital options although some option payment rates have changed. The application window closes 29 July 2022.

There are currently 3 standards available under SFI;

- arable and horticultural soils,
- improved grassland soils, and
- the moorland and rough grazing standard.

Each standard has an introductory and intermediate 'ambition' level with higher payments associated with the higher ambitions. The agreement holder has the option to further the ambition level throughout the life of their agreement. Future standards will be introduced between 2023 and 2025 and will include nutrient management, hedgerows, low and no input grassland, farmland biodiversity and on farm woodland. The 10 week application window is due to open in early 2022.

Both MT and SFI operate at land parcel level; you can enter into a MT and SFI agreement as long as the agreements do not overlap on land parcels. Therefore, if you are already in a MT agreement you are not excluded from applying for SFI in 2022. The table below summarises the pros and cons of each scheme and the likely payment rates:

	Pros	Cons	Payment rates
MT	• large suite of options which include land management, feature and boundary management and habitat creation • includes organic conversion and management options • capital grants available • attractive payment rates • 5-year agreement to secure an annual income up to 2028	• more complex scheme and application process • requirement for external support for some options • land management options are prescriptive • less compatible with more intensive farming practices • options focus on reducing inputs and taking areas out of production	Arable land management options; up to £640/ha for example • Winter bird food (£640/ha) • Brassica fodder crop (£100/ha) • Enhanced over-wintered stubble (£493/ha) • Whole cropped cereals (£554/ha) Grassland management options; up to £426/ha for example • Ryegrass seed-set as winter food for birds (£426/ha) • PG with very low inputs (£132/ha) • Legume and herb rich swards (£358/ha)
SFI	• quarterly revenue payments compared to an annual payment under MT • 3-year agreements with the option of an annual review offering greater flexibility • Ability to join at a low ambition level and increase management commitments • simple scheme with standards designed to fit in with existing farming practices • accessible for all eligible farmers	• Less attractive for organic farmers although organic standards are due to be included in 2025 • No capital options • Limited to 3 standards in year 1 • Lower payment rates	Arable & horticultural soils; • Introductory: £22/ha • Intermediate: £40/ha Improved Grassland soils; • Introductory: £28/ha • Intermediate: £58/ha

In addition to these schemes, there are grants under Countryside Stewardship which include wildlife offers, capital grants and woodland support grants. Defra and the Forestry Commission have also developed the England Woodland Creation Offer where you can apply for up to £10,000/ha for woodland created.

In summary, MT is a more complex scheme with highly prescriptive options but it does financially reward this level of management with more attractive payment rates. Agreements are also 5 years providing more financial security. SFI fits better with existing farming practices and it is a much simpler scheme with an easier application process; payment rates are comparatively lower. You can apply for MT and SFI in 2022. From 2025, SFI will be the only one of these two schemes available. Speak to your consultant to discuss the best fit for your farm.

Naomi is a dairy business management consultant based in Somerset. She can be contacted on 07768 701135.

News in brief.....

Inbreeding issues in Holstein cows - One of the biggest challenges that Holstein breeders are facing today is that of increasing levels of inbreeding. The ceiling figure of 6.25% has long been an accepted industry standard and many herds are already between 5.5% and 6% with the potential for unborn calves by popular bulls to tip this limit.

The problem is caused by genomics, with many bulls having grandparents that were only born four or five years ago, instead of 10 to 15 in progeny testing days. This means that many daughters in the herd are sired by bulls that are parents or grandparents of current service sires.

The industry advice to spread the risk of genomic sires by using a team of eight or ten bulls is compounding the problem by creating a pool of mixed bloodlines with most of them having Mogul or Supersire in the pedigree, often on both the sire and dam's side. This can create a headache for the breeder to sort out what is safe to use on which cows.

Using a breeding programme can help, if not eliminate, this problem and the Breeding Manager service from The Dairy Group can work with you to discuss the various options. These include pre-checking potential bull teams for inbreeding on your herd at cow level and investigating other alternatives such as outcross red and polled bulls, or cross-breeding options with different breeds.

Net Zero – the Trehane Fellowship project 'Delivering a Roadmap to Net Zero Profitably and Practically' is nearing completion. The Dairy Group consultant Richard Lane has led the project to investigate practical and profitable solutions to help UK dairy farmers achieve Net Zero. At a time when input prices are rising, it is important to recognise the best strategies to reduce exposure to input inflation and also have a positive impact on carbon emissions. Measures to improve productivity such as reduced age at first calving, mastitis rate and cull rate and improved fertility all play a part. The biggest gains can be made by improving milk yield from forage and increasing efficiency of artificial N fertiliser use, focusing on effective slurry/FYM utilisation. With increasing energy prices, the economics of renewable energy look more attractive.

A carbon audit is the best starting point to identify the areas of your business where the greatest financial gains can be made whilst reducing carbon emissions. More about this in the June newsletter.

Slurry Grants - Defra has recently announced plans to introduce a new slurry infrastructure theme, to offer under the Farming Investment Fund from Autumn 2022. This is still being developed but significant grant contributions towards covered slurry store construction projects, to enable farmers to get to 6 months storage capacity are proposed.

Slurry acidification has recently gained some interest as part of the current Farming Transformation Fund Improving Farm Productivity Grant. Slurry acidification is not common in UK dairy systems but is more common in pig systems. The aim of slurry acidification is to reduce harmful ammonia emissions. Cattle slurry has a pH of 7 at which point ammonia is released from the barn, storage and most significantly during spreading. By treating slurry with sulphuric acid to achieve pH 5.5, ammonia is converted to a more stable and plant available ammonium.

Slurry can be treated at several points in the cycle but the grant is only available for treating before slurry goes into store. All projects must buy acid storage, dosing equipment, mixing tank and pump or acidification infrastructure.

Applying acidified slurry with more available nitrogen can reduce the fertiliser cost, but this has to be weighed up against the capital investment, the operating costs of the system and the handling of acid. It is estimated that a 240 cow dairy installation would cost approximately £150,000 with potential grant of up to 40%. Like any major capital investment the cost benefit needs to be examined with and without grant.

Phosphates - There are environmental regulations and other incentives that aim to address diffuse water pollution from agriculture with a focus on reducing phosphate losses to the environment. The Farming Rules for Water (FRfW) regulate the application of organic and inorganic nutrients which should not exceed the crop requirement. These rules can limit the application of organic manures to land and are triggering issues with manure and slurry disposal and management. In addition, there are increasing pressures to understand and take measures to reduce Phosphate at a farm level.

To better understand the pressures your business is facing, ensure you have up-to-date soil analyses for all fields and complete a forward nutrient plan to assess field phosphate balances. You should also work with your consultant to undertake a farm phosphate balance taking into account all soil indices, livestock, phosphate bought onto the farm via feed, fertiliser and bedding and phosphate exported off the farm via milk, livestock and manure exports. This will help highlight areas to focus on.

The Future Farm Resilience Fund - consultants from The Dairy Group are delivering Defra funded 1:1 free business advice to farmers to help understand their cost of production, the implications of the agricultural transition and phasing out of BPS. Please contact the office for more information.

The Dairy Group consultants work across the UK providing a wide range of independent dairy technical and business advice. Please contact Karen or Anne in our admin team on 01823 444488 or visit our website for further information or to contact our consultants.

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