Latest news and views from **December 2023**

The Dairy Group

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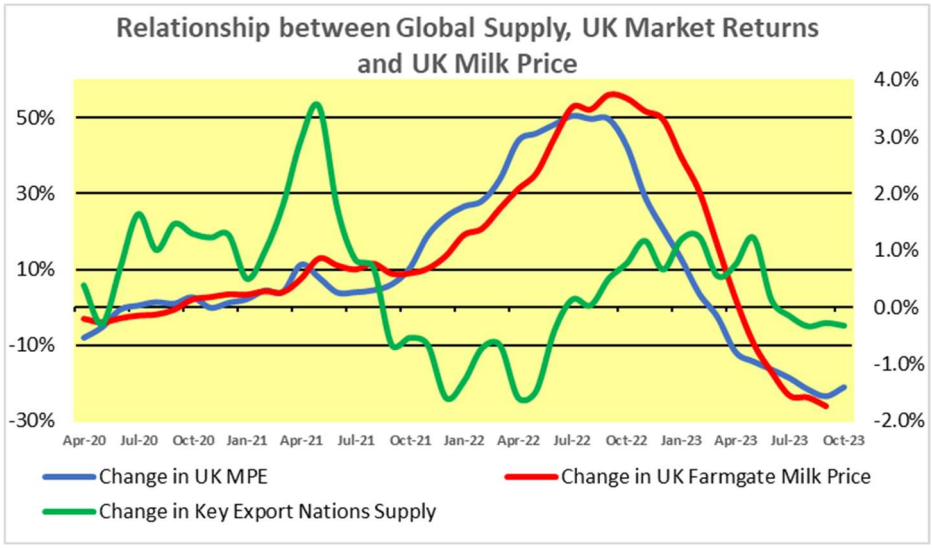
Milk and feed outlook

Christine Pedersen, Principal Consultant

The dramatic reduction in milk price since its peak in December 2022 continues to take its toll on cashflows. Domestic and global milk supply is in a period of contraction and markets have begun to respond which begs the question when will these 'green shoots of recovery' become higher farm gate milk prices?

The graph below shows the change in the milk supply of the key export nations (New Zealand, EU and USA plus the UK) against the change in the UK Milk Price Equivalent (UKMPE) and Farmgate Price. The supply has been between +1.5% and -1.5% for the last 2 years and the UKMPE and Farmgate Price responded to low global supply driven by commodity markets in Autumn 2022:



You can see from the graph there is a 2 month time lag between market returns (UKMPE) and the Farmgate price. Assuming the global contraction of milk supply continues as it is forecast to do, the farmgate price should begin to improve from January 2024.

EDITORIAL

Welcome to our December 2023 newsletter. By the time you read this I hope there will be positive news about farm gate milk prices. The outlook for milk and feed prices is covered in the 1st article.

The 2nd article covers carbon foot printing using a new module in MCi whilst the 3rd article covers our Robot Manager service to maximise robot performance and herd profitability.

This month's In Brief section covers a range of topics including Bactoscan control, Farming Rules for Water, Slurry Storage grant scheme, Countryside Stewardship Capital Grants and SFI 2023.

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

Best wishes for a very Happy Christmas and for 2024!

Christine Pedersen

The weather continues to wreak havoc on crops and feeds. Forage stocks have generally been replenished after exceptional growing conditions for grass this year, but the quality of forage is highly variable. Initial maize silage analysis results indicate that maize is lower energy, lower starch and higher fibre than the previous year. This explains why for many herds reverting to 'typical' levels of maize silage in diets this autumn has failed to illicit any significant yield response although butterfat and protein levels have naturally increased. For most, if not all milk contracts, more litres at lower constituent levels would be more profitable than fewer litres at higher milk constituent levels and rations can be revised to

increase starch and reduce fibre levels with that end result in mind. Monitor the results of any concentrate changes carefully to check that profitability is increasing rather than chasing milk yields.

The rain has delayed or prevented autumn drilling of grass reseeds and cereal crops in many parts of the country. Naturally this will have an effect on spring cropping plans which clients are advised to update and order seed as soon as possible. The potential future direction for cereal and oilseed prices depends on global markets which influence the domestic markets. The strengthening El Niño climate pattern could bring damaging extreme weather that will affect both global milk supply and milk price as well as crop yields and feed costs.

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

Your carbon footprint & MCi

Ian Powell, Managing Director

We now have a module in MCi which calculates your carbon footprint based on data which is already being recorded for regular dairy costings. Usually, the carbon footprint data is requested annually which means collecting all the data from scratch. The MCi emissions module allows you to collect the data as you go, most of which is already being collected each month. Our MCi emissions module is part of an Innovate UK REMEDY project working in conjunction with QMMS and Nottingham University. An example of the emissions for a typical dairy farm is shown below.

Total CO2 (GWP100/Tier 1)	**1,903,796**
Per Cow	12,204
Per Litre	1.41
Breakdown	
Total CO2 - Cow Sales	111,727
Total CO2 - Milk Production	1,792,069
Per Cow (Milk Production)	**11,488**
Per Litre (Milk Production)	**1.33**

The advantage of using MCi is the ability to report on the physical actual data for any time period, so that the data can be used for any emissions model.

One of the largest contributors to emissions is from purchased feed. Farmers should be asking their feed suppliers (blends and compounds) for the kg CO_2eq/tonne (including Land Use Change) for the products they are supplying, including delivery to farm. Our feed group suppliers provide this information and there is a wide range in values depending on the product used, from 490 kg CO_2eq/t for a high energy 18% compound compared to a high energy 24% compound at 910 kg CO_2eq/t, with soya being a key contributor to higher values.

From our work on Net Zero with The Trehane Trust we found that emissions reduction was also consistent with increased business profit. Every dairy business will need to get a better understanding about their current emissions and the opportunities for cost effective reductions. As usual the problem is having the data available to easily calculate emissions from a farm. The additional data (beyond routine dairy costings) is to record the use of fuel, electricity, bedding and fertiliser, which are easy to enter either monthly or when an invoice is received which can be allocated to a specific time period.

For more information contact the office on 01823 444488 or email enquiries@thedairygroup.co.uk.

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

Robot Manager

Jamie Radford, Dairy Consultant

We launched our Robot Manager service to help farmers interpret data and identify Key Performance Indicators (KPI's) to maximise robot performance and herd profitability. Milking robots generate a plethora of data and understanding it is crucial to making positive management decisions. The first part of the Robot Manager service is to review KPIs for robot and overall herd performance and discuss targets for each individual business to identify the areas that can be improved. KPI's we would specifically look at include:

- **Milkings/Cow/Day -** The target would be at least 3 milkings/day depending on whether cows graze.
- **Refusals** – Usually you would expect cows to make an average of 5 visits to the robot per day, three to be milked and two refusals. A high, or low number of refusals can indicate issues with diets.
- **Failures** – Failures waste robot time as they can take as long as a milking. The target is to be less than 5% of the total visits.
- **Rest feed % -** This is the amount of the dairy cake allocation that was not fed. It is important this is below 5% to ensure all cows are getting the concentrate they require.

Next, we will interrogate the data looking at: cow health metrics, nutrition parameters, milk quality & production (Milk flow, speed and dead milk time), visit behaviour, robot settings and breeding status. From this initial review an action plan is generated, highlighting the strengths and weaknesses, where improvements can be made and how they can be achieved within a realistic timescale.

As it is closely linked with profitability, feed efficiency is often an area to focus on. Due to the nature of robotic systems, it can be easy to overfeed concentrates; there is a fine balance between feeding sufficient concentrates to maintain visit levels and overfeeding which can result in cows gaining excess body condition and high feed rates. Low feed efficiency may be due to poor quality forage, low forage intakes, ration imbalances or incorrect feed table setup. Inadequate transition cow or youngstock management can also have a huge impact on early lactation performance in particular. Although Robot Manager is specifically designed to monitor milking robots, other aspects of the business need to be assessed including breeding, nutrition and forage management, as they all have a direct impact on the success of milking robots.

Once changes have been implemented it is crucial to regularly monitor performance to ensure that the targets set are being met. This can be done through on farm visits tailored to specific needs as well as regular online monitoring so that constant support can be provided between visits. MCi is our unique dairy costings programme which provides up to date key performance indicators, a robot league table, milk forecasting, forage stock management and emissions monitoring. This will highlight any changes in both the physical and financial performance of the herd.

Jamie provides dairy technical and business management advice to clients across Southwest England. He can be contacted on 07795 385497.

News in brief.....

Bactoscan control - During periods of lower milk prices, the importance of obtaining the maximum available hygiene bonuses increases. Whilst most clients sit comfortably and consistently in the top Bactoscan payment bands, some farms are struggling to maintain low bactoscans. Bactoscan issues can generally be attributed to three main areas:

1. Contamination within the udder (un-detected mastitis infections).
2. Contamination from outside the udder (poorly prepared teats and general soiling).
3. Contamination from the milk harvesting equipment (milk harvesting or cooling equipment).

Addressing a Bactoscan issue in an effective manner requires an understanding of the origin of the contamination. Taking a one-off bulk milk sample and requesting a full bacterial breakdown is an excellent first step. However, particularly in cases where the Bactoscan fluctuates daily, the day a sample is collected may coincide with a day when the Bactoscan level is acceptable. This can be avoided by taking daily sterile samples and storing them in a fridge. On the day that you receive a high Bactoscan result, you already have a sample from that consignment which can be sent for testing. This will help narrow the source of contamination and will give our Milk Quality Specialist valuable information to help address the problem.

Farming Rules for Water - The Farming Rules for Water apply to all farms in England and are in place to reduce diffuse water pollution from agriculture. As part of the regulations, farms must:

- assess the pollution risks associated with all applications of fertiliser and manure,
- have up-to-date soil analysis (within the last 5 years),
- complete a forward nutrient management plan for nitrogen (N), phosphorus (P) and potassium (K) on a field-by-field basis taking into account the soil nitrogen supply and P and K indices from soil analysis.

In practice, these rules prohibit the application of nutrients where a crop need cannot be demonstrated and for most crops this would apply to autumn and winter spreading. In turn, this requires farms producing organic manures, especially high readily available nitrogen slurries, to have 6 months storage capacity (September – February).

Speak to your consultant about strategies to comply with these regulations. Various grant funding opportunities exist including the Slurry Infrastructure Grant Scheme, Countryside Stewardship Capital Grant scheme and SFI option NUM1 (nutrient planning).

Slurry storage grant – Round 2 (England only) - The RPA have released the details of the Slurry Infrastructure grant (Round 2) and have increased the prioritisation areas using indicators for water and air quality data. Whilst the grant continues to be competitive, the RPA expects to fund more than double the number of projects compared to Round 1. The notable changes in round 2 are:

- inclusion of slurry separators as part of a wider project
- support for impermeable covers for existing, fit-for-purpose stores
- option to build in-situ cast concrete stores.
- option for landlords to underwrite grant funding agreements.

As per round 1, grant funding is available to replace, build additional and expand or cover existing slurry stores. Any new or expanded store must be fitted with an impermeable cover unless using a slurry bag or acidification. Grants between £25,000 - £250,000 can be applied for and grant funding ranges from £10.18/m^3 to £72.74/m^3 depending on store specification. Grant payments will be based on the reference cost contribution for the items or 50% of the actual invoice costs at claim stage, whichever is the lower amount.

The RPA is expecting a high number of applications in round 2 and unsuccessful projects in round 1 have been invited to apply before the main window opens later this month. Ask your consultant to review the new grant prioritisation areas and complete your slurry production and storage calculations.

Countryside Stewardship Capital Grants - The Countryside Stewardship Capital Grant scheme continues to be very popular with dairy businesses to assist with the funding of specific investments around the farm, land and farm buildings. There is no upper limit for Countryside Stewardship capital funding and 70 capital items available including:

- RP15: Concrete yard renewal: £33.64/m^2
- RP16: Rainwater goods: £11.55/m
- RP28: Roofing (including manure storage and livestock gathering areas, slurry stores, silage stores): £72.50/m^2

These (and other) options can help reduce slurry storage capacity requirements. Grants are also available for livestock and machinery hardcore tracks (RP4: £44.63/m), fencing (FG1: £6.34/m) and sheep netting (FG2: £7.47/m) among other things. Applications can be made online at any time. The agreements last 3 years and claims can be submitted at any time during the 3 year period. Catchment Sensitive Farming support is required for many of the infrastructure related items.

SFI 2023 - Applications for the Sustainable Farming Incentive 2023 (SFI 2023) are now being accepted and are proving to be a valuable additional income stream as Basic Payment Scheme payments continue to reduce. Typical, but by no means an exhaustive list of suitable actions for dairy businesses include:

SAM1: Soil management plans & Soil Organic Matter testing: £5.80/ha & £95/year	**HRW1:** Assess & record hedgerow condition: £3/100m
SAM2: Multi-species winter cover: £129/ha	**HRW2:** Manage hedgerows: £10/100m
SAM3: Herbal leys: £382/ha	**NUM1:** Nutrient Management plan & review: £589/year
IPM1: Assess integrated pest management & produce a plan: £989/year	**NUM2:** Legumes on improved grassland: £102/ha
IPM4: No use of insecticides on arable land: £45/ha	**LIG1:** Manage grassland with very low inputs: £151/ha

Applications can be made at any time (there is no deadline) with agreements typically starting the following month. Agreements are 3 years in length with declarations submitted annually. Payments are made on a quarterly basis.

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.

Email: enquiries@thedairygroup.co.uk

Website: www.thedairygroup.co.uk, **Dairy herd management: www.dairy-mci.com**

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