Latest news and views from **February 2021**

The Dairy Group

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Outlook for milk and feed prices

Christine Pedersen, Principal Consultant

The short term outlook for milk supply, demand and therefore milk price is mixed. On the one hand, rising domestic production and post-Brexit trading difficulties may cause prices to ease back. However, higher prices on the continent have kick started exports with exporters still testing the waters as they get to grips with the paperwork involved. It's early days for lockdown 3.0 but so far, this latest Covid-19 lockdown seems to have had minimal impact on foodservice demand.

As we head towards the spring peak production months, the weather and potential impact on grass growth and turnout will further contribute to the risk of domestic milk price volatility. A large milk buyer has recently advised producers to "consider the economics of marginal litres, particularly with feed prices having risen significantly over the last few months." A timely reminder about the sensitivity of milk price to national and indeed global milk supply.

The monthly milk price:feed price ratio is at the lowest point since Spring 2019 and a tight global supply and demand picture for soya, maize and wheat means that spot and forward concentrate prices are likely to increase further. As we look towards the 2021 growing and harvest season, it is a good opportunity for producers to review the last 12 months technical performance and address any weaknesses in crop production (quantity and quality) and animal nutrition that have led to increased production costs. Given the high price of purchased feeds, focusing on growing and utilising high quality forage should be a key objective for any dairy business. The quantity and quality of grazing and grass silage harvested has a significant impact on the level of supplementation required and profitability.

Producers can influence milk price by examining the detail of their milk contracts and implementing measures to "exploit" that contract to maximise milk price. Constituent payments should give producers a clear signal what their buyer wants and offer an incentive for producing that. In the short term, nutrition and feeding management are the main factors influencing milk composition; positive management changes can quickly and significantly alter butterfat and protein content. Nationally, average butterfat and protein levels dip during Spring and early Summer and severe penalties can be imposed if butterfat and protein levels fall below contract minimums.

Formulating a cropping and feeding strategy now for the 12 months ahead gives you the greatest chance of weathering milk price and feed price volatility.

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

EDITORIAL

Welcome to our February 2021 newsletter. Covid-19 continues to affect us all and we hope all readers remain healthy.

The long-awaited conclusion of the EU-UK trade agreement has removed some of the uncertainty surrounding future milk prices but post-Brexit trading is not without challenges.

The first article this month looks at prospects for milk and feed prices and actions that dairy producers can take to mitigate price volatility.

The second article covers agricultural policy reform, particularly the impact on future BPS payments. Our third article covers cropping and developing a forage strategy whilst the fourth deals with the use of private water supplies in dairy production systems.

Countryside Stewardship and a reminder for those employing EU workers are included 'In Brief'.

As always, please contact us if you would like to know more about any of the topics featured.

Christine Pedersen

Agricultural policy reform

Susie Felix, Senior Dairy Business Consultant

On 1 January 2021 the agricultural transition period started. Direct Payments in England (Basic Payment Scheme) will be phased out over a seven-year period from 2021 to 2027. The government has announced the percentage reductions for the first four years of the transition with higher reductions applied to amounts in higher payment bands. Defra's current intention is for direct payments in the form of BPS to become delinked from 2024, in other words it will no longer be necessary to farm the land to receive the payments. Consultations regarding the introduction of delinked payments and a 'lump sum exit scheme' to help farmers who wish to retire, to do so, are expected in 2021.

Based on our interpretation of the available information and using our bespoke calculator, future annual payments until the final year of payments in 2027 for a typical, 225 cow, 152 ha specialist dairy unit are calculated as follows which indicates a 50% reduction by 2024:

UK Scheme Year								
2020	2021	2022	2023	2024	2025	2026	2027	2028
£35,449	£33,404	£28,087	£22,769	£17,452	£13,089	£8,726	£4,363	£0

Phasing out direct payments is one part of the transition. Existing agri-environment schemes will also be phased out although the Countryside Stewardship Scheme will be available for new applicants until 2024. A new approach called The Environmental Land Management Scheme (ELMS) will be introduced. ELMS will reward farmers and land managers for managing their land in a way that will deliver against key 25 Year Environment Plan goals. ELMS will be in three main components:

1. **Sustainable Farming Incentive:** Available from 2022, payments will be available for carrying out environmentally sustainable land management practices including crop and grassland management, livestock management, soil and nutrient management, efficient water use and biodiversity (this is not an exhaustive list).

2. **Local Nature Recovery.** Available from 2024 (after consultation), this aims to encourage collaboration between farmers to deliver local environmental priorities.

3. **Landscape Recovery**. Available from 2024 (after consultation), this component will be aimed at long term, land use change projects.

Summary:

UK agricultural policy reform will lead to change and opportunities.

Your Dairy Group consultant will help navigate the new schemes and take advantage of opportunities as they arise.

Details of other strands of the Agricultural Transition Plan have yet to be released including: Animal health and welfare pathway, grant support to maintain and improve productivity (equipment, technology and infrastructure grants, including slurry investment) and the innovation, research and development scheme

Susie specialises in farm business consultancy, working across the North West, West Midlands and North Wales. She can be contacted on 07471 035199

Are you growing enough forage energy?

Ian Powell, Managing Director

The profitability of your dairy system is directly linked to the amount of energy (and to a lesser extent protein) you can harvest from your farm, which will depend on the dry matter yield and energy content of what is grown. A key challenge is to grow the greatest amount of energy at the least cost. This means ensuring that soil structure is maintained, crops are supplied with sufficient nutrients and harvested at the optimum time. A good target for energy output is 110 GJ/ha (e.g.10tDM/ha @ 11MJ/kgDM = 110 GJ/ha).

There is also increasing value in home grown protein. A better way to look at forage is to view it in much the same way as arable crops and to consider the gross margin of growing different forages by applying a value to the quality of what is grown using the relative feed value. The table below is based on typical growing costs and the expected

energy and protein values for next autumn (rolled barley at £160/t and rapeseed meal at £230/t) and includes a land value (rent or opportunity cost) of £250/ha:

Crop Type	Grazed grass	Grass silage 3 cuts	Maize	Whole crop wheat	Lucerne (3 cuts)	Red clover (3 cuts)
Crop Life (years)	4	4	1	1	5	2
	£/ha	**£/ha**	**£/ha**	**£/ha**	**£/ha**	**£/ha**
Total Production Cost	**403**	**990**	**648**	**894**	**815**	**815**
Total Forage Cost	**474**	**1061**	**955**	**1084**	**885**	**899**
Tonnes DM utilised	8	10	11	10	9	9
Cost per tonne DM	**59**	**106**	**87**	**108**	**98**	**100**
Dry Matter %	18%	30%	33%	45%	30%	30%
Cost per tonne fresh	11	32	29	49	29	30
Feed value £/t DM	**189**	**169**	**150**	**141**	**162**	**168**
ME MJ/kg DM	12.0	11.5	11.5	10.5	9.3	10.6
Crude protein %	18	13	7.0	9.5	19.1	16
Forage value £/ha	**1512**	**1690**	**1650**	**1410**	**1458**	**1512**
Forage margin £/ha	**1038**	**629**	**695**	**326**	**573**	**613**

The highest forage gross margin is from grazed grass at £1,038/ha, followed by maize at £695/ha, with the multicut forages similar at around £600/ha. The lowest gross margin is wholecrop at just £326/ha due to the relatively high growing cost and lower feed value. On many farms, a combination of maize and grass leys remains the most cost effective option for conserved forage, particularly when you take into account the flexibility of grass leys for grazing and silage.

When considering maize varieties, we are interested in both energy yield and value for money. This table is based on the 2021 NIAB maize list and shows the crop yield at a value of £150/t of dry matter after the seed cost. Whilst the later maturing varieties give a higher crop value of over £2,500/ha after seed cost this has to be balanced against the benefits of earlier maturing varieties.

Variety	Maturity Group (MGA)	DM%	ME MJ/kg	ME Yield	DM Yield	£150.00	
				kMJ/ha	t/ha	DM value £/ha	ME Cost
						after seed cost	£/kMJ
Cito	**13**	**36.8**	12.0	**197**	**16.4**	**£2,273**	**£0.95**
Augustus	**11**	**35.8**	12.0	**199**	**16.7**	**£2,332**	**£0.87**
Prospect	**10**	**34.8**	12.0	**219**	**18.3**	**£2,556**	**£0.86**
Calvini	**10**	**34.8**	11.7	**214**	**18.2**	**£2,545**	**£0.86**
Pinnacle	**9**	**34.2**	11.9	**216**	**18.1**	**£2,533**	**£0.84**
Ambition	**9**	**34.2**	11.8	**213**	**18.1**	**£2,530**	**£0.87**

Recording home-grown forage yields and relating yields to crop quality (dry matter %, energy and protein) and the actual growing cost helps identify where improvements can be made and provides the basis of a forage strategy for the business.

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

Water supplies and milk quality

Ian Ohnstad, Milking Technology Specialist

As farms look to reduce input costs, water comes under the microscope. Whilst mains water quality should be of consistent quality, it can cost more than £1.60/m^3 which has led to increased interest in private water supplies (PWS). Unfortunately, the increased use of PWS has, in some cases led to problems with milk quality and udder health.

Where PWS come into contact with teats, udders and milk (via internal equipment surfaces), an annual risk assessment, including quality testing must be completed to ensure the water is potable (safe to drink or use for food preparation). However, there have been a number of instances recently where PWS have been introduced into the parlour cleaning operations, sometimes accidentally and this has led to a marked increase in the Bactoscan. Using

water which may be contaminated can lead to significant problems with both Bactoscans and mastitis infections. We are seeing an increased number of *Pseudomonas* isolates in bulk milk samples as a result of contaminated water. *Pseudomonas* mastitis infections can present with similar symptoms to acute *E.coli*.

The safest way to avoid this is to always use mains water for teat preparation and cleaning internal surfaces of milking equipment and storage vessels. Whilst the potential cost saving using a PWS may seem attractive, in reality the total volume of water required to clean a milking parlour and bulk tank is a relatively small contribution to the total water consumption on the farm. A farm with a 24-unit parlour milking twice daily and a 10,000-litre bulk tank will use around 2,000 litres of water per day compared to 300 cows each drinking around 100 litres. Using private water supplies for parlour wash down when many washdown systems consume water at more than 120 litres/min means significant savings can be made there.

If using a private water supply for teat preparation and cleaning internal surfaces cannot be avoided, frequent and regular testing is recommended as an integral part of your risk assessment. Collect the water sample as close to the point of use as possible, visually check the condition of any water storage vessels and ensure the lids are fully fitting. If there are any problems with the quality of the private water supply, it does not mean that it is un-usable. UV treatment and filters can be effective as can automatic dosing systems.

The link between water intake and milk production is well established. Many farmers report increased water intakes when a private water supply is treated as palatability improves, so regular evaluation of water quality is recommended to identify contaminants potentially influencing cow performance.

Summary:
Wherever possible, use mains water for areas where the water comes in contact with teats or the internal surface of a milking system. If there is no other option, test PWS regularly and treat as necessary to reduce the risk of milk quality and udder health problems.

Ian is an internationally recognised specialist in milking technology working throughout the UK and worldwide. He can be contacted on 07774 267900.

News in brief.....

Countryside Stewardship Capital Works Only Scheme – the final details of this scheme are yet to be confirmed by the RPA, but we understand this new scheme is likely to open for applications in February and close in late April/early May 2021, which means there will be a small window of opportunity to apply.

There will be three groups of items that can be applied for via this new scheme: water quality, air quality and boundary features. We understand that the amount that can be applied for in each group is £20,000, so potentially up to £60,000 could be applied for if applicants wanted items from each of the three groups. Catchment Sensitive Farming Officer approval will be required for the water quality items, which may only be available to those in high priority catchments but again, we are waiting for further clarification of eligibility.

Countryside Stewardship Mid-Tier agreements will be offered in 2021, 2022 and 2023 and DEFRA has previously reported that Countryside Stewardship will put farmers in the best possible position to join the ELM scheme. Details of the application window for 2021 have not yet been announced, but is expected to be February – July. There is likely to be a new cap on capital items in 5-year mid-tier agreements of £120,000 for water quality, £120,000 for air quality and £50,000 on boundary items.

EU Workers - Many dairy farms employ staff from outside the UK, the majority from EU. Freedom of movement between the UK and EU ended on 1st January 2021 and the rules have changed. There are different rules for EU, EEA or Swiss citizens and their family members who lived in the UK by 31 December 2020, and those arriving in the UK from 1 January 2021. More details and guidance can be found at www.gov.uk website.