Latest news and views from *June 2019*

The Dairy Group

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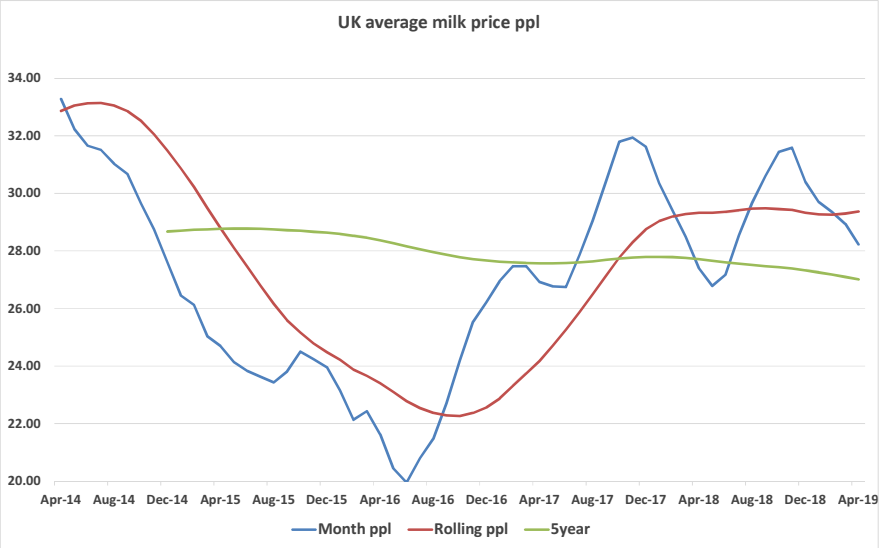
A more optimistic outlook for 2019?

Ian Powell, Managing Director

A recent AHDB report indicates an increase in global production in 2019 of just 0.3% due to low farmer margins in the Northern Hemisphere and drought conditions in the Southern Hemisphere. At the same time, global demand for dairy products is forecast to increase by 1.8%. In China, imports are soaring due to increased demand for dairy products whilst milk production is expected to fall by 1% in 2019.

UK production increased to 14.9 billion litres in the year to April 2019, but this growth is balanced by lower production in other parts of the world. Recent price moves have been downwards but we expect markets to firm as UK production declines towards the usual autumn trough. We are now seeing a more pronounced annual cycle to milk price, with lower prices in the Spring and higher prices in the Winter:



The UK rolling milk price has been very stable over the last 12 months at around 29.5p, whereas the 5-year rolling price has been slowly decreasing to just 27p in April 2019. This time period includes milk quotas ending in March 2015 and the dramatic impact on UK milk price. As we move further away from the price crash of June 2016, the 5-year rolling price will move towards the 29p level.

The increase in worldwide demand for dairy products looks set to outstrip any increase in supply which means producers should feel more optimistic about milk price as we move in to the autumn. Unfortunately, we cannot ignore the 31st October deadline for leaving the EU, which still has the potential to undermine UK dairy markets

EDITORIAL

Welcome to the June edition of our newsletter.

You will notice that weather features in many of the articles in this edition. Drought in the southern hemisphere has helped slow increases in global dairy production, the effects of which are covered in the first article.

The second article covers heat stress and some practical tips for producers to consider if and when temperatures start to increase. Rain, either too much or not enough of it is playing havoc with forage planning which is covered in the third article, as are some 'take-home' messages from dairy farming in Denmark.

The fourth article looks at the use of sexed semen in UK and how producers might use herd genetic reports to aid breeding decisions whilst in brief articles cover the transition from BPS to ELM, mid-tier countryside stewardship and PPI.

Christine Pedersen

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depending on whether we leave with or without a deal and what sort of trade deal can be negotiated with the USA. As individuals, there is little that producers can do to influence the dairy market which means, as usual, we have to focus on the things we can control and become ever more efficient!

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

Heat stress

Naomi Lee, Dairy Business Consultant

Sitting down to write this article, the weather is particularly wet and cold and heat stress is probably far from most UK dairy producer's thoughts. However, cows start to suffer from heat stress at lower temperatures than you might expect. Dairy cows maintain a body temperature of 38.8℃ (± 0.5℃) and are sensitive to factors such as air temperature, radiant temperature, air velocity and relative humidity. Often it is the combination of these factors that amplifies the effect of heat stress. There is also evidence that heat stress is most noticeable when it comes in short periods with no time for the cow to adapt to the rising temperatures.

The link between ambient temperature and relative humidity led to the development of the Temperature Humidity Index (THI). Typical humidity levels in the UK are between 60 – 90% during summer months so it's important to note that at these levels, cows can suffer from moderate heat stress at temperatures as low as 24℃ and severe heat stress at 28℃:

Temperature Humidity Index (THI)
Relative Humidity %

C	20	30	40	50	60	70	80	90	100
22	66	66	67	68	69	69	70	71	72
24	68	69	70	70	71	72	73	74	75
26	70	71	72	73	74	75	77	78	79
28	72	73	74	76	77	78	80	81	82
30	74	75	77	78	80	81	83	84	86
32	76	77	79	81	83	84	86	88	90
34	78	80	82	84	85	87	89	91	93
36	80	82	84	86	88	90	93	95	97
38	82	84	86	89	91	93	96	98	100
40	84	86	89	91	94	96	99	101	104

No heat stress
Moderate heat stress
Severe heat stress
Dead cows

Heat stressed cows become lethargic and inactive and will often stand with heads bowed and pant in an attempt to increase heat loss. They will also move closer together and stand in tightly packed groups with potential udder cleanliness and health consequences. The main effect of heat stress is reduced dry matter intake resulting in reduced milk production, milk quality and pregnancy rates. Here are some options to consider to minimise the possible impact of heat stress:

Provide shade for grazed cows - ensure there is sufficient shade where cattle are grazing. Where large fields have been subdivided, it may be necessary to alter the grazing rotation to provide shade or consider housing cattle during the hottest parts of the day in suitably designed / modified housing.

Ensure adequate ventilation for housed cows - Research shows that increasing airflow over cows by as little as 10 km/hour can reduce respiration rates in heat stressed animals by as much as 50%. Assess airflows within existing buildings (i.e. using a smoke cartridge) and make physical improvements such as opening up side inlet ventilation and ridge outlet ventilation and cutting back vegetation and foliage from around buildings.

The installation of fans and sprinkler systems are often promoted as the solution to a heat stress problem but are obviously not a quick solution to implement. In many cases there could be significant benefits from a mechanical

solution, but basic ventilation can often be considerably improved without the capital investment and increase in operating costs associated with the installation of fans or sprinkler systems.

Ensure adequate water is available at all times - water intakes can increase by 10–20% as temperatures rise and cows can drink in excess of 100 litres per day. Cows are unlikely to walk more than 250 metres to drink so it is essential that all fields and buildings are adequately supplied. An allowance of 10–15 cm of water trough space per cow is recommended. Under-supplying water at grazing will result in thirsty cows, binge drinking on water when they return to the farm which can have negative impacts on the freezing point depression of milk.

Make changes to feeding - increase the energy density of the diet by using high quality forages and feeding a higher proportion of concentrates to ensure the animal maintains her energy requirements at lower dry matter intakes. Rations should be reviewed and balanced correctly to avoid rumen health issues and digestive disorders. Increasing the frequency of feeding (am and pm) and changing feeding times can also be helpful in keeping feed fresh. Feeding 60% of the summer ration between 8.00pm and 8.00am will assist intakes.

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

Forage and Danish dairy farming

Christine Pedersen, Dairy Business Management Consultant

For some producers, 2019 is shaping up to be another challenging year for forage production. Many were able to take some early, super quality first cuts but lack of moisture slowed re-growth and excessive rainfall has delayed 2nd cut harvest. Whilst 2nd cuts might have bulked up, quality could be compromised and the rationing of grass silages to different groups of livestock this winter could need careful consideration. Forage quality can be assessed by sampling crops once crops have been ensiled for 4 weeks. Maize crops are also variable across the country with some crops challenged by insufficient moisture to germinate and others by too much rain.

If you are likely to be short of forage, it is better to understand the potential shortfall now so you can consider other options. A comprehensive forage plan to assess available forage for the next 12 - 15 months should take into account existing stocks of forage and potential cuts of grass silage, maize silage and wholecrop or other forages if applicable. Be realistic with yield expectations. Compare available forage with forage requirements for all stock including milking and dry cows and youngstock. Options to consider to fill any shortfall identified include taking some cereal crops for whole crop, sourcing other standing or conserved forages or forage alternatives. With harvest prices for feed wheat around £150/t puts the cost of wholecrop at £150/t DM when you take into account the loss of sales from the grain and straw and the costs of harvesting/ensiling. Anyone considering taking cereals for wholecrop should be aware that there is a fairly short window of opportunity to harvest at the ideal crop maturity stage. A crop that is destined to yield 10t/ha of grain will have higher feed value than a lower yielding crop as the majority of feed value is in the grain and not in the straw.

Herds in Denmark are typically intensive, high output herds (the average yield is over 10,000 litres/cow). I recently visited one of the highest yielding organic herds in Denmark – 200 cows averaging 14,000 litres (3x milking) at over 4% fat and 3.3% protein. Some key take-home messages for me from this farm were:

- Grazing can be successfully integrated into a high output system (these cows were grazing (as per organic rules) for a minimum of 6 hours per day),
- Do not compromise heifer growth rates – feed them to grow to calve at 22 – 24 months,
- Breed cows capable of high dry matter intakes (> 28 kg/head/day) and high production and feed them!
- Produce and feed lots of excellent quality forage (in this case, grass/clover leys (up to 4 cuts), wholecrop and maize silage, all irrigated, > 60% forage in the TMR) and carefully evaluate concentrate inputs,
- Keep the ration as consistent as possible – this farm is compact feeding TMR (and has been doing so for many years). Compact feeding is not that common in the UK at the moment – some herds have trialled it with varying degrees of success.

This farm is not alone in producing high levels of output in an organic system – several herds are producing over 11,000 litres per cow. I am organising a 2-day tour for UK dairy farmers to visit some of them this autumn which should be of interest to both organic and conventional producers. Please contact me for further details.

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

Sexed semen and genetic reports

Kevin Lane, Breeding Consultant

Sexed semen usage continues to increase in the industry and now accounts for around one third of all dairy semen, up from a quarter two years ago. Limited outlets for dairy bull calves has helped fuel the increase as has the reduction in price with many good bulls now available sexed at less than £25 a dose. The biggest reason is the improvement in sorting technique that has led to conception rates coming close to parity with conventional semen. My own thoughts are that the increase in genomic sires to around 70% of dairy semen sold has also helped, with many of these younger sires offered sexed.

Good fertility management is still critical to get the best results from sexed semen. From my own analysis, the herds that have better fertility management overall generally have a comparative figure for conception rates between sexed and conventional semen. Herds that are struggling with fertility (i.e. pregnancy rates below 20% or conception rates below 30%) often see a wider gap between sexed and conventional semen. A final point to make about using sexed semen (and producing heifer calves) is a study of 2.4 million lactations, which indicates that birth of a female calf can give a yield rise of 140kgs in comparison to a bull calf for the dam.

The same breeding goals must apply whether sexed or conventional semen is used, and apart from calving ease, the main selection criteria should always be adhered to. There are some online tools available for milk recorded herds to help identify herd strengths and weaknesses. NMR and CIS both offer useful herd data, with NMR's Herd Companion a mine of information. AHDB offer a full herd genetic report which shows your PTAs for the main production and fitness traits by lactation number, including youngstock groups. From this you can benchmark your herd against the national averages.

If you have concerns or need some help with your genetic planning, please contact The Dairy Group to discuss the Breeding Manager service.

Kevin has joined The Dairy Group as a specialist breeding consultant and can be contacted on 07770 923344

News in Brief.....

The Agriculture Bill (published Sept 2018) gives the government the power to transform agricultural policy and reform Direct Payments. Direct Payments in England will be gradually phased out between 2021 and 2027. All farms will see some reduction to their payments from the start of the transition, although those who receive the highest payments will see bigger reductions initially.

The new ELM (Environmental Land Management) system to replace BPS will be developed and trialled in 2019 – 21 with a pilot scheme from 2021 -24 to be ready for full operation from 2025. ELM will pay for 'public goods', such as better air & water quality, improved soil health, higher animal welfare standards, public access to the countryside and measures to reduce flooding. There is limited information regarding ELM available at present but it is unlikely that the loss of BPS income will be replaced by ELM income and businesses should anticipate a decline depending on their current level of engagement with Defra schemes such as Stewardship and CSF.

Mid-Tier Countryside Stewardship - the 2019 application window is open and all applications must be submitted by 31st July 2019. In order to apply this year, you must have requested an application pack by the 31st May. Major improvements have been made to the application process and our consultants can help anyone with an application pack develop a comprehensive application that can generate capital funding and a revenue income for the full 5-year agreement at the same time as delivering environmental outcomes.

Payment Protection Insurance (PPI) – the deadline for claims is **29th August 2019**. We have had some success in helping our clients with a claim for PPI. Ask your consultant for help before the deadline.

The Dairy Group consultants work across the UK providing a wide range of dairy business advice. Please contact our Head Office at Taunton or visit our website for further information or to contact our consultants:-

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