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Milk Manager NEWS

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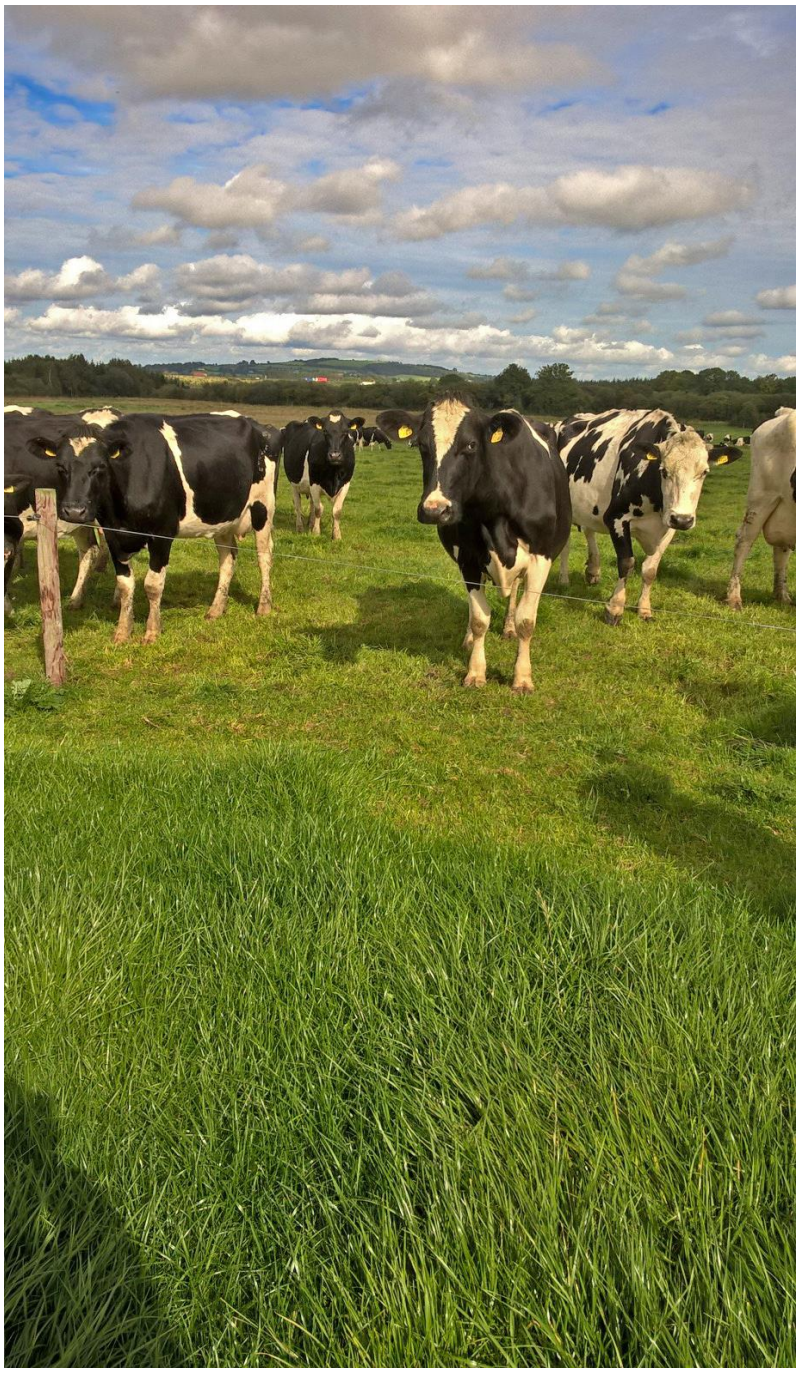

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Lorna MacPherson

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Milk Manager NEWS

Market Update

UK Wholesale Dairy Commodity Market

- Fonterra's recent online GDT auction (6th June 2017) showed an increase of 0.6% in the weighted average price across all products reaching US $3,395/t. The previous auction on the 16th May showed a 3.2% increase. Cheddar, skim milk powder and butter milk powder were the biggest movers, increasing 14.5% (to $4,285/t), 7.9% (to $2,156/t) and 5.8% (to $2,092/t) respectively.

Commodity	May 2017 £/T	April 2017 £/T	% Difference Monthly	May 2016 £/T	% Diff 2016-2017
Bulk Cream	1,960	1,730	+13	860	+128
Butter	4,300	3,725	+15	2,025	+112
SMP	1,550	1,500	+3	1,250	+24

Source: AHDB Dairy - based on trade agreed from 1st-25th May 2017

- Fats continue to show the biggest change in dairy commodities, with demand outstripping supply. Further rises in butter and cream throughout May were unexpected due to the EU milk flush, but this was lower than predicted and stock availability was limited. UK prices also firmed as Sterling weakened against the Euro, from 1.185 on 1st May to 1.152 on 30th May.

- Cheese prices across the EU have been rising throughout May for most varieties. Mild cheddar is also rising now after a few months of decline, with the May price on average £100/t higher than April. Stocks are continuing to build but most of this is already sold.

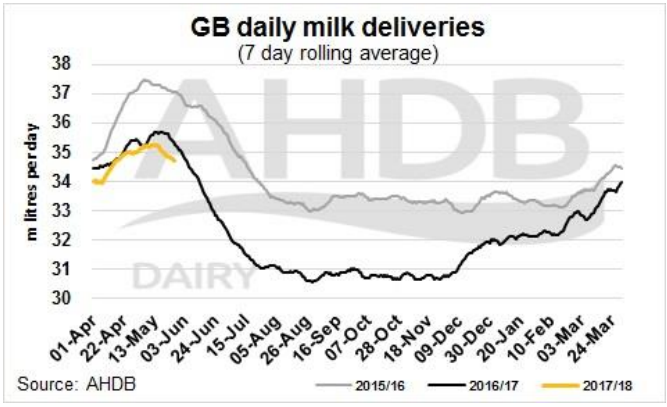
- May showed significant increases in both AMPE and MCVE. AMPE rose by 3.3ppl on the back of butter price achieving £4,300/t, a 15% increase from April. SMP also increased by 3% to £1,550/t. MCVE also showed positive movement, due to mild cheddar price firming, with whey butter and whey powder also increasing by 17% and 3% respectively.

	May 2017	April 2017	12 months previously	*Net Amount less 2ppl Haulage – MAY 17*
AMPE	31.0ppl	27.70ppl	16.80ppl	*29.0ppl*
MCVE	33.0ppl	31.80ppl	16.60ppl	*31.0ppl*

Source: AHDB Dairy

- For the first time in nearly a year, the UK has placed 1,132t of SMP into intervention stores, bringing the total in store up to 356,000t. So far this year 6,554t has been placed in store, with only 40t being sold out of storage by the European Commission since December 2016. On a more positive note, there appears to be more demand for fresh product, so it is likely that there will be less going into storage. SMP prices are starting to increase to around £86/t above intervention level and are forecasted to increase in the second half of the year.

UK and EU Milk Deliveries



- UK deliveries have started to fall slightly and are now 1.5% below the same week last year (week ending 27th May). There has been a week on week fall of 0.7% over the last week, which equates to 500,000 litres.

- Milk output from EU-28 is rising faster than predicted. The output in March was just below 1% up on the previous month. The growth prediction for the 2nd half of 2017 is expected to be 2%, resulting in a total increase of around 1% for 2017. The budgeted forecast increase was only 0.6% for the year.

Monthly Price Movements for June 2017

Processors are either standing on previous month's milk price or are disappointingly showing a small reduction of up to 0.5ppl for the month of June, as shown in the table below. The spot price is at 30ppl (as of 6th June) and the UK Milk Futures Equivalent price increased 8ppl in May to 35.39ppl for September delivery (realistic farm-gate price would be 3 to 4ppl less).

Commodity Produced	Company/ Contract	Price Change	Standard Litre Price for June 2017
Liquid & Cheese	**Arla Farmers UK**	*-0.4ppl*	26.65ppl Liquid, 27.73ppl Manufacturing
Liquid & Cheese	**Arla Direct**	*No change*	25ppl Liquid 26ppl Manufacturing
Liquid & Brokered Milk	**First Milk Mainland Scotland**	*-0.35ppl*	25.49ppl A price 24-25ppl B price
Cheese	**Fresh Milk Company (Lactalis)**	*No change*	28.47ppl Level profile price 29.05ppl
Liquid & Manufacturing	**Grahams**	*-0.5ppl*	26.25ppl
Liquid & Manufacturing	**Muller (standard)**	*-0.5ppl (from 9th June)*	26.19 ppl
Liquid & Manufacturing	**Muller (Co-op)**	*No change*	27.91ppl
Liquid & Manufacturing	**Muller (Tesco)**	*No change*	29.37ppl
Liquid, Powder & Brokered	Yew Tree Dairies	No change	27.5ppl Standard A litre price

- The April retailers supplement for Muller non-aligned suppliers is 0.276ppl, which is back from 0.296ppl for March and 0.74ppl in February.

- First Milk have reduced their June A price for all their pools with Scottish Mainland seeing a reduction of 0.35ppl and Campbeltown by 0.28ppl, bringing their price back to 25.46ppl. However, there has been a positive move in their B price due to upward price movements in short-term markets. The B price for May was confirmed at 23ppl and for June will be between 24-25ppl, with the actual price to be confirmed after the month end. The July B price has been confirmed as a minimum of 25ppl.

- According to Ian Potter Associates website (on 12th May), it was thought that the bottom of the market had been reached in terms of farmgate prices, now that the spring flush is past. The feeling was that the industry could be "cautiously optimistic" about milk prices for the second half of 2017. Currently AMPE and MCVE are sitting at 31.0ppl and 33.0ppl respectively for May, and on this basis, NFU Scotland suggest that a farmgate price of at least 28ppl should be achieved. However, there have been several milk price cuts for June as shown in the table and Dairy Crest have announced a cut of 1ppl for June and a further 1ppl for July, which appears difficult to justify, given the strong demand and current prices for butter and cream.

- Muller has lost their contract with Morrisons to supply liquid milk and as of March 2018, all its own-brand liquid milk will be supplied by Arla Foods for the next three years. Morrisons have stated this move will help grow its offering of local milk and are looking to work more closely with their farm suppliers to help develop sustainability and higher animal welfare standards. Currently, both Arla and Muller supply Morrison's with its own-brand milk, the contribution from Muller is around 140 million litres.

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Straights Update

Straights prices for delivery in artic loads as of early June are as follows (varies depending on location):

£/T for 29t loads delivery + £7/t haulage	Jun 17	Jul 17	Aug-Oct 17	Nov 17-Apr 18
Proteins				
Hipro Soya	283	283	287	293
Rapeseed Meal	176	176	167	177
EU Wheat Distillers	172	172	172	174
Starch				
Wheat	151	151	145	126
Barley	132	132	122	149
Maize	171	171	175	Asa170
Fibre				
Sugar Beet Pulp – imported	177	179	179	155
Soya Hulls	127	127	127	129

Source: Straights Direct on 8th June. Barley and wheat prices are based on delivery to central belt. For North-East, deduct £5/t for wheat. Courtesy of Julian Bell, Senior Rural Business Consultant, SAC Consulting. Prices do not include seller's margin.

Global News

- There are global record stocks of soyabeans, on the back of bumper yields and better than expected crops in Brazil and Argentina. This is partly responsible for the fall in EU rapeseed futures prices during the last week of May. Planting of the US oilseed rape crop is in line with the 5-year average so there is little reason for rapemeal prices to firm. The market continues to look bearish as Australian rapeseed crop arrives in Europe and imports are arriving just as EU farmers are harvesting their own crop.

- As of the end of May soyabean futures were at a 13 month low, partly due to reduced demand from China. China is the world's largest importer of soyabeans but its imports of US soyabeans has decreased significantly as cheaper South American supplies are anticipated due to the good harvest and building of stocks.

- Prolonged rainfall over several weeks in the US's wheat and corn producing states has reduced first cut wheat yields and protein levels. Texas and Oklahoma have been particularly affected. However, the effect of weather on maize planting and crop development may have more of an influence on the grain markets. Despite flooding and re-drilling in some areas, the maize crop is currently at 91% of plantings, which is in line with the average pace. USDA estimates that 4 million acres less of maize will be drilled this year, with production lowered by 27 million tonnes.

- The USDA has forecast that world grains stocks may decline (modestly) for the first time in five years. So far no serious global weather problems have emerged and several previous concerns have eased through the arrival of rain in Europe and better weather in the US and Canada. Despite a slight tightening of stocks, the overall picture is of another well supplied global market unless a severe crop problem emerges somewhere important in the next four to six weeks.

UK and Scottish News

- The effect of politics on currency has helped maintain domestic rapeseed meal prices compared to the Matif euro-based rapeseed futures. However, it is likely that the bearish situation for global oilseeds will put domestic rapeseed prices under pressure as harvest approaches and if the pound strengthens, prices will fall further.

- UK barley sowings are dominated by spring sowings and this crop is potentially more at risk from the previously dry spring, and EU malting barley prices have risen as a result. It is likely that some yield potential has been lost, though the extent of this remains to be seen. There has been little news of affected crops on the continent and the EU is still on track to produce 60 million tonnes of malting barley. Malting premiums could come under pressure due to the increased area of spring barley in England, assuming the UK and EU have no problems with quality.

- In the UK, current expectations are for a relatively tight new wheat crop due to a smallish crop (lower sowings and dry spring) and robust demand (bio-ethanol, feed and milling). As a consequence new crop wheat prices have moved to a relatively narrow discount to French wheat. This means that any further tightening of the domestic UK wheat supply will have relatively little effect on prices (as we are already close to import parity). Any significant shifts in price, if they occur, are more likely to come from the world market or currency fluctuations.

- Barley is trading at roughly £125/t ex farm and processed and delivered £145/t, making maize gluten look very good value for money. Gluten is 20% protein on a fresh weight basis and 12.75MJ of ME/kg DM and is in the region of £25/t greater than the ex farm barley price (based on bulk tipped loads to the Angus area). Wheatfeed is also a good buy. Although relatively low energy at only 11.5MJ of ME/kg DM compared to barley at just over 13MJ of ME/kg DM, it contains 16% protein on a fresh weight basis and good digestible fibre, making intensive beef rations a little safer, when used to spin out barley stocks. It could be in the

region of £20/t cheaper than buying in bruised barley (depending on location).

- Sugar beet pulp is currently trading in the region of £185-£195/t delivered, making soya hulls a cost-effective alternative at around £40/t cheaper. Although soya hulls are marginally lower in energy and do not contain as much sugar compared to beet pulp, they are an alternative to help support butterfats at grass or in buffer rations with added molasses to make up the sugar content. Beet pulp is predicted to be cheaper this coming winter (in the £160's) due to large crops forecasted.
- Pot ale syrup is more available with less demand during the summer months, with cattle now out to grass. In the North East it is trading around £70-£72/T and expected to rise for the coming winter.

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Milk Fever Risk at Grass

The risk of both clinical and subclinical hypocalcaemia or milk fever can be higher in the summer months. Three possible reasons for this are:

- If transition cows are at grass then they have the potential to gain body condition. Cows calving with a condition score greater than 3.5 have lower dry matter intakes and reduced appetites post-calving, which can increase the risk of metabolic diseases.
- Fresh grass is likely to be too high in both calcium and potassium. Excesses of these minerals interfere with the hormonal mechanisms that stimulate the release of calcium from bone to help meet the demand at the onset of lactation.
- For housed transition cows dry matter intakes can be compromised in warmer weather either because of heat stress or because of an increased risk of heating and secondary fermentation of the ration at the feed face.

Results from a three year trial run by James Husband at EBVC suggested that 57% of cows were experiencing hypocalcaemia post calving.

- A large proportion of these were subclinical cases, only detected by blood sampling.
- Sub clinical hypocalcaemia is a significant risk factor for retained foetal membranes, metritis and endometritis.
- The only way to know if subclinical milk fever is an issue is to blood sample fresh calved cows within 24 hours of calving. If blood calcium levels are below 2 mmol/litre in the first 24 hours after calving, then subclinical milk fever is occurring.
- Clinical milk fever tends to occur once blood calcium levels are above 2 mmol/litre.

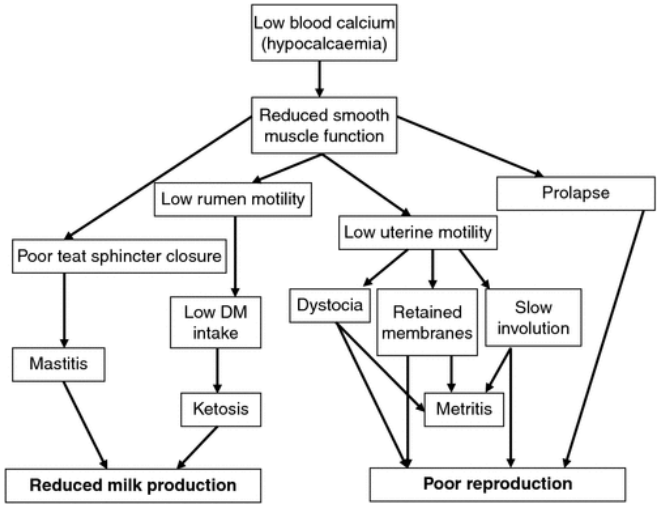
Another element of investigation into hypocalcaemia and transition cow health issues (apart from considering forage analysis and diet composition etc.) is to assess transition cow daily dry matter intakes which should be around 12kg DM/cow/day.

It is relatively easy to weigh out the daily feed and then weigh the refusal the following day, noting the number of cows in the group to calculate the average fresh weight intake per cow. If you know the dry matter percentage of the ration, which should be available from your nutritionist and based on recent forage analysis, you can calculate the dry matter intake. Alternatively you can use the microwave oven method for determining the dry matter of the ration (see following link). http://www.nutritech.co.nz/wp-content/uploads/Assessing_Dry_Matter_Content.pdf).

The SAC Vet Lab at Dumfries has been involved in assessing dry matter intakes on farms using this method and daily dry matter intake results have ranged from 8 to 13kg DM/cow/day. Incorporating blood testing and dry matter analysis of the ration into ongoing herd monitoring programmes can be a useful addition to herd health planning protocols.

Even if there are very few or no clinical signs of milk fever, it is possible that sub-clinical milk fever exists and it is estimated that for every clinical case, there could be three to six subclinical cases. These may present themselves through other problems, such as retained foetal membranes, metritis, displaced abomasum or mastitis after calving (see following diagram).

Possible consequences of milk fever (subclinical and clinical)



Source: Roche et al 2013. Animal Production Science 53(6): 1000.

Dry cows at grass are best managed on restricted grazing with another source of fresh, palatable forage available to maximise rumen fill and appetite. If more than 4cm of grass is available and stocking rates are in the region of three to four cows/acre, straw will suffice in the early part of the dry period. During periods of high grass growth, allowing cows access to early regrowth will increase the milk fever risk as the first leaf is low in magnesium and high in potassium. If dry cows are kept on a bare paddock with no grass, feed low energy forages, such as wholecrop or mature grass silage (no more than 10ME if possible) or hay, along with straw depending on forage quality. Forage should be provided fresh on a daily basis to encourage intakes. High dry matter forages fed outside in summer will be more susceptible to heating and spoilage and affect palatability and intakes.

The best possible advice to minimise transition diseases is to house cows for the last three weeks of the dry period and have them on a consistent transition ration with 2 to 3kg of concentrate to prepare rumen microbes for the milking ration. Ensure mineral supply is appropriately balanced according to the forage being fed and if in doubt, have it analysed for mineral content.

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Colostrum – Part 1: The Essence of Success in Calf Rearing

We all hear, read and attended meetings about the importance of colostrum, colostrum feeding and colostrum quality. We also try our best on farms, to get it right and give the best possible start to baby calves. But sometimes, even when everything is done “by the book”, the wheels fall off and things go wrong. And unfortunately, there are still areas where colostrum is neglected.

During the next three editions of Milk Manager News, we will provide a summary about everything you need to know and keep in mind about colostrum and colostrum management. In this first part, we will cover the basics and importance around colostrum; followed by in part 2, a practical guide on how much, how soon and what quality of colostrum should be fed. In the final part we will discuss the ways you can monitor, measure and improve colostrum quality.

Colostrum is the milk secreted by the freshly calved cow, within the first 24 hours from calving. Yes, it is milk, but it is very different from whole milk. It looks different, smells different and flows differently and is really like a special essence that cannot be compared to regular milk produced by the cow during other days of her lactation.

After 24 hours post-calving colostrum changes very quickly. It starts to look and become more like regular milk: it changes colour, smell and becomes thinner and is not like the “liquid gold” it used to be. This is what we call transition milk and it is produced by the cow between 24 to 72 hours after calving.

But let’s go back to colostrum. Why it is so different from transition milk or regular milk? Firstly, it has much higher solids content (i.e. protein and fat levels) than transition milk or regular milk. Secondly and most importantly, it contains *immunoglobulins,* and contains them at a much higher level than in those transition milk or regular milk (see following table)

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Composition of bovine colostrum and transition milk

	First milking	Second milking	Third milking	Regular milk
Solids (%)	23.9	17.9	14.1	12.9
Protein (%)	14.0	8.4	5.1	3.1
Casein (%)	4.8	4.3	3.8	2.5
IgG (g/L)	48	25	15	0.6
Fat (%)	6.7	5.4	3.9	3.5
Lactose (%)	2.7	3.9	4.4	5.5

Source: Foley and Otterby, 1978, J. of Dairy Science 61:1033.

We can all understand why higher protein and fat is advantageous (i.e. it will provide more energy for the calf to get up and running as quickly as possible), but what about immunoglobulins? What are they and why do we talk about them so much?

Immunoglobulins are actually proteins, which are large in size and therefore cannot be transferred through the placenta to the foetus via the blood stream during pregnancy. They have vital roles in protecting the newborn calf and one of them is to identify and destroy pathogens that are attacking cells in the animal. That is why we also call them antibodies and often use the Ig abbreviation, when referring to them.

There are three major types of immunoglobulins or Ig's in cows' colostrum; IgG, IgA and IgM. The majority of Ig's are IgG (about 80%) and the amount of IgA and IgM is less (about 10% each). All three types are important and have different major roles: IgG is responsible for recognising and destroying pathogens. IgA attaches to the lining of the gut and protects it from pathogens that can cause intestinal diseases. IgM protects the calf from bacteria that enter the bloodstream and cause blood poisoning.

Ig's are present in very high concentrations in colostrum, but decline rapidly in transition milk and only traces can be found in regular milk. By the third milking, IgG concentration is only a third of that found right after calving!

As calves are born without active immunity, we have to "give" that immunity to them. The only way to protect them from pathogens is to provide them with high quality colostrum containing high levels of Ig's. The newborn calf will have its own immune system fully functioning at about three weeks of age. Until then, the calf relies on passive immunity that is received through Ig's in colostrum.

Read more about colostrum feeding management in the July edition.

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Behavioural Responses to Heat Stress

The recent warm spell of weather may have been welcomed by farmers but perhaps not so much by cows housed indoors through the summer months. Cows prefer cooler temperatures, with their thermal comfort zone ranging from -15°C to 25°C. Once temperatures exceed 25°C, they will adapt their behaviour to minimise heat production and increase heat loss. It is not only temperature that determines whether cows experience heat stress, humidity also plays a role, and heat stress can be experienced at lower temperatures, if humidity is high.

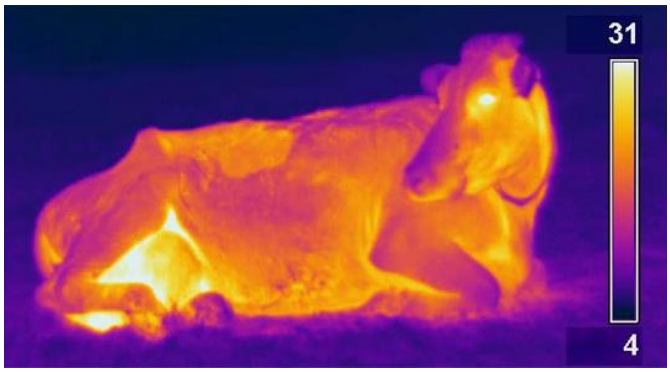
With heat stress, intakes may drop and cows will tend to sort their ration more, favouring concentrates over forages, as forages produce more heat from fermentation in the rumen. This can increase the risk of acidosis, which is further compounded by a reduction in both saliva and sodium bicarbonate production which buffers the rumen. Consequently, a fall in butterfat may also be seen, as well as a reduction in milk yield as feed intake drops. Research from SRUC has shown that butterfats can drop from 3.85 to 3.48% and proteins from 3.27 to 3.19% when the temperature humidity index rises by just 10 points.

Feed intake drops within one day after the initiation of heat stress and the maximum reduction in yield tends to occur 48 hours after the onset of heat stress. As well as the obvious reduction in feed intake and milk yield, fertility may also be reduced. Increased risk of health problems may be evident, such as higher cell counts and mastitis rates, metritis, ketosis and milk fever in transition cows.

Cows respond to heat stress by increasing heat loss through evaporation by panting, drooling and increasing subcutaneous blood flow. Other behavioural signs are also evident. Whether under grazing conditions or housed, cows will stand longer and spend less time lying down as temperature increases. The photo below shows that a significant amount of heat is lost from the underside of the cow. Therefore standing in

warmer conditions is an adaptive behavioural response to increase the skin surface area exposed to airflow, thereby increasing heat loss. If heat stress is prolonged, this increase in standing time will increase the risk of lameness.

Infrared image of a dairy cow lying down at night. The scale represents temperature in F where 4 = -15℃ and 31 = -1℃.



Source: http://www.thecattlesite.com/articles/2404/behavioural-responses-to-heat-stress/

If you are concerned about heat stress in your herd and it is practical to do so, monitor rectal temperatures. If more than seven out of ten cows have a rectal temperature greater than 103°F, the cows are likely under heat stress. Also monitor respiration rates. If they are greater than 80 breaths per minute on at least seven out of ten cows, they are likely experiencing significant heat stress.

There are several steps you can take to alleviate the risk and impact of heat stress:

1. Increase nutrient concentration in the ration to compensate for a reduction in dry matter intake. Avoid long, stemmy forages if possible as these will be selected out of the mix in favour of smaller sized feed particles. Take measures to reduce sorting such as using liquid feeds or even water in high dry matter rations.

2. Cows will eat more when it is cooler at night so alter the times fresh feed is provided, i.e. provide 60% of the ration between 8pm and 8am when temperatures are cooler.

3. Water is critical and intakes may increase by 10 to 20%. Ensure water provision is sufficient so at least 10% of the herd can drink at any one time and provide a minimum of 10cm available drinking space per cow.

4. Cows may lose more electrolytes through sweat, so review mineral requirements. At the very least provide free access rock salt to increase sodium intakes, which will further encourage water intakes.

5. Reduce stocking density in buildings.

6. Improve ventilation/air flow if possible by removing some wooden boarding panels, open up side inlet ventilation and/or ridge outlet ventilation. High humidity levels will be more common in older buildings with lower roofs and poorer ventilation.

7. If possible have grazing cows in fields that provide some shade and increase water trough access. Consider grazing cows at night and house them through the day.

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Animal Welfare: Promoting Positives as well as Avoiding Negatives

Much of the current legislation and assessment schemes in animal welfare, and the research to support it, has been focussed on the negative aspects of animal welfare, such as the avoidance of disease, pain and stress. This has been very important, as it has allowed standards to be set and levels of welfare to be raised overall. In fact, it has been so successful that we can now also think about what would promote good welfare, or what has been termed 'positive welfare' and how farmers could be rewarded for providing for it. This is because the welfare or well-being of any animal is not only about the absence of negative experiences, it is also about positive experiences. The starting point for this line of thinking was the Farm Animal Welfare Council's (FAWC) scale that went from 'a life not worth living' (poor welfare) through 'a life worth living' to a 'Good Life'. Some consumers are willing to pay for enhanced standards of animal welfare. It is likely that some farmers are already providing animals with the opportunity and resources for a good life to meet

these opportunities but these efforts are not being recognised.

It is well recognised that cows need good quality feed in appropriate quantities, clean, dry and comfortable lying areas, and good disease management and good handling. But in addition to this, what would provide cows with positive experiences? Most people would recognise that cows lying ruminating on a sunny day or scratching their faces on a brush appear to be experiencing positive emotions or 'happy'. But what else provides for positive welfare? Some work needs to be done to allow this to happen. We also need to be able to measure the level of welfare being provided, if we want to be able to be certain that a resource actually is providing for positive welfare.

To address these questions, in September 2016, researchers at SRUC and the University of Bristol started a project on Positive Welfare, funded by the Scottish Government. As very little work has been done in this area, a collaborative approach with farmers has been used. The first step was to attend farmer meetings and events to ask farmers what aspects of housing and management provided their animals with positive experiences. The responses are grouped into the following main categories:

Category label	Aspects included
Enrichment (Nutrition)	Diverse grazing: grass/clover/mixes of grass species outdoors. Variety of feed types indoors: different silages or feeds (robotic feeding systems may make this more feasible in the future). Use of licks and other supplements could be offered.
Enrichment (housing)	Brushes or tyres for grooming.
Lying	Provision of excellent bedding and state-of-the art cubicles or lying areas; lying area design that allows cows to orientate towards/away from others; lying areas that allow cows to lie in any position.
Thermal comfort	Provision of shade and shelter outdoors.
Space	Access to outdoors and/or to grass; dedicated loafing or lounging areas indoors.
Social	Stable social groups so cows can form stable social bonds; introducing cows into new management groups in pairs or small groups. Keeping calves with calves until weaning.
Promoting choice	Robotic milking as it allows cows to move to be milked when they choose; access to loafing areas or outdoors access for housed cows.

In terms of measures that could be used to determine whether cows are experiencing good welfare, the participants of these meetings suggested that we could look at the overall demeanour of the cow, as contented cows look relaxed, particularly in the face and ears. Cows should be alert and curious if humans approach, but should not be alarmed or fearful. Achieving good lying and rumination times, and providing good quality feed are important.

These factors were suggested as possible resources provided to promote positive welfare. It is understood that some may be relatively easy to provide, such as brushes, or pasture access for farms already using a grazing system, but some options are not available to all farmers. Some research is necessary to determine whether access to these resources does show a quantifiable increase in welfare and well-being in dairy cattle. There also needs to be some scientific validation before aspects of 'positive welfare' can be included in documents such as codes of practice and welfare assessment scheme protocols. This is a starting point and more discussion is needed with consumers, milk buyers, welfare assessment scheme owners and farmers to determine if and how this could be taken further. If you have any comments or suggestions, please e-mail Marie Haskell.

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What's Happening at SRUC Barony Campus Dairy Herd?

The Holstein-Friesian dairy herd at SRUC Barony Campus currently consists of 224 cows, split into three groups of milking cows. A high yielder group which is being housed throughout the summer months, a low yielder group which has access to grass for two windows (12 hours in total) and a group of 55 cows milked through a Fullwood Merlin robot, which was installed ten years ago. Robot cows have access to a loafing area for two hours through the day. The herd currently averages 32 litres/day (see table below).

Milk yield and quality at Barony dairy herd

Group	Days in Milk	Average Yield (litres)	Fat %	Protein %	Bacto-scan	SCC x000
Highs	88	37.5	4.02	3.26	20	166
Lows	204	26.4				
Robot	173	31.4	3.85	3.10	25	84

First cut silage was taken on the 30th and 31st May and wilted for 24 hours. Conditions were good and the 250 acres yielded between 10-11t/acre. Analysis of fresh grass at the time of cutting was 23.6% dry matter, 12.6ME and 19.2% protein. Whilst only ten miles from Crichton, the land is much later for grass and cropping, with silage normally being at least two weeks later at Barony, compared to Crichton. Silage is also later due to sheep being on silage ground until 1st March. Three cuts are normally taken, with the first two cuts being pitted and the 3rd cut baled. Seventy-three acres of spring wheat (Granary) have also been sown to make fermented wholecrop for the dairy herd, along with 52 acres of winter barley (KWS Tower).

Youngstock are growing consistently well, averaging 0.8kg growth/day from birth until calving. Heifers are calving down at 23-24 months and Farm Manager Paul Kelly puts some of this success down to keeping heifers inside throughout the summer until they are in calf. This has allowed consistent growth on heifers in their first year and has helped reduced the age at first calving by three months, compared to when heifers went out to grass during their first summer.

Despite much of the milking herd and youngstock being housed during the summer, there is plenty of silage left over. Therefore, store cattle have been purchased (Limousin cross steers) to help use up silage. Twenty two store cattle were bought at auction averaging 420kg at £920/head and 39 were sourced internally at 469kg and £1050/head from SRUC's suckler unit at the Bush Estate. They will not be grazed but instead housed on an intensive ration of silage, barley and protein concentrate to finish as quickly as possible.

The dairy herd supplies its milk to Arla and as of April this year must now dry off 10% of the herd without antibiotics. Paul has been practicing selective dry cow therapy now since August 2016 and is currently drying off around 14% of cows without antibiotics. These cows must have cell counts between 50,000-120,000 in the last three recordings and no cases of clinical mastitis throughout their lactation. The feeling is that this practice has not helped mastitis rates and closer attention must be paid to the length of dry period, with cows having a dry period longer than six weeks getting antibiotics at drying off, regardless of whether their cell count and mastitis history meets their selection criteria.

The dairy herd is looking to start 3x a day milking shortly for both the high and low yielder groups. Find out in the August issue how successful this has been.

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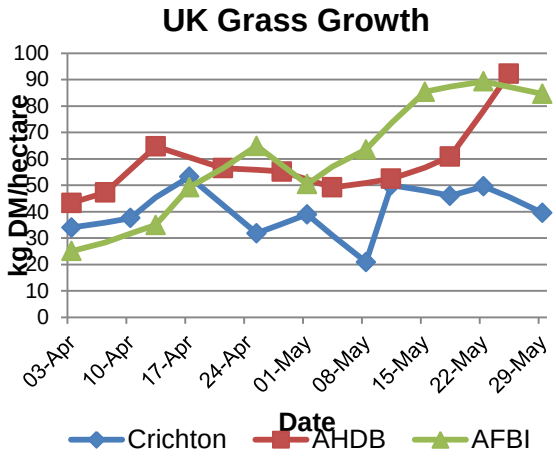
Grass Growth

Grass growth mid May was severely hampered by the exceptional dry spell and grass effectively stopped growing in many parts of the country. However, recovery was quick after some much needed rain and according to AHDB grass monitor farms, daily growth rose by 31.5kg DM/ha from 19th to 26th May. Huge variation in grass growth exists across the UK with a difference of almost 68kgDM/ha between the highest and lowest growth rates recorded.



As growth rates are still increasing, keep a close eye on grass cover across the farm to ensure that cows are grazing paddocks no more than 3000kg DM/ha. Paddocks with greater cover should be taken out for silage, otherwise the quality will fall and potentially affect milk yield as well as

decrease grass utilisation. It is more difficult to maintain grass quality as it enters its reproductive phase and ME values fall. Achieving the correct residual is also more of a challenge. Consider pre-mowing as an effective management tool to help improve grass quality in later rounds. If the farm is in an excess of grass, paddocks taken out of the rotation should be cut as close to their targeting grazing date as possible to prevent slow regrowth and deficits later in the season.

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Dates for your Diary

- 13th June – **Calf Rearing Conference**. The Fenwick Hotel, Fenwick, Kilmarnock, KA3 6AU. Time 10.00-15.00. To book your place contact Mole Valley Feed Line on 01260 279539.

- 14th June – **Improving Rumen Health in the Dairy Herd.** Harbro Ltd, Birkhill Commercial Park, Lanark, ML11 0NJ. Time 10.00. To reserve your place contact marketing@harbro.co.uk or call 01888 545215.

- 14th-15th June – **Cereals Event**. Boothby Graffoe, Lincolnshire.

- 14th-15th June - **Total Dairy Seminar 2017**. Keele University, Staffordshire. Event organiser: Total Dairy t: 01768 877094 info@totaldairy.com

- 14th-16th June – **ICAR Conference 2017**. Edinburgh International Conference Centre, Edinburgh, EH3 8EE.

- 22nd-25th June – **Royal Highland Show**. Ingliston, Edinburgh, EH28 8NB.

- 4th July – **National Dairy Open Day**. Moorepark, Fermoy, Ireland. For more information contact Teagasc t: +353 59 917 0200, info@teagasc.ie, https://www.teagasc.ie/

- 16th-20th July – **11th European Conference on Precision Agriculture**. John McIntyre Centre, Pollock Halls, Edinburgh. Contact Event Organiser for more information: info@ecpa2017.com, https://ecpa.delegate-everything.co.uk/

- 25th July – **Calf to Calving – Lameness – A disease of cows that start with your heifers?** Glasgoforest, Kinellar, Aberdeenshire, AB21 0SH. Time 10.45. To book your place contact Sharon Lauder t: 07876 706391 sharon.lauder@ahdb.org.uk

- 22nd-23rd August – **Cattle Foot Trimming Course**. SRUC Barony Campus, Parkgate, Dumfries, DG1 3NE. Contact team training 01387 242918 or kyra.redpath@sruc.ac.uk

For any further enquiries regarding the information in this newsletter please contact:

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