

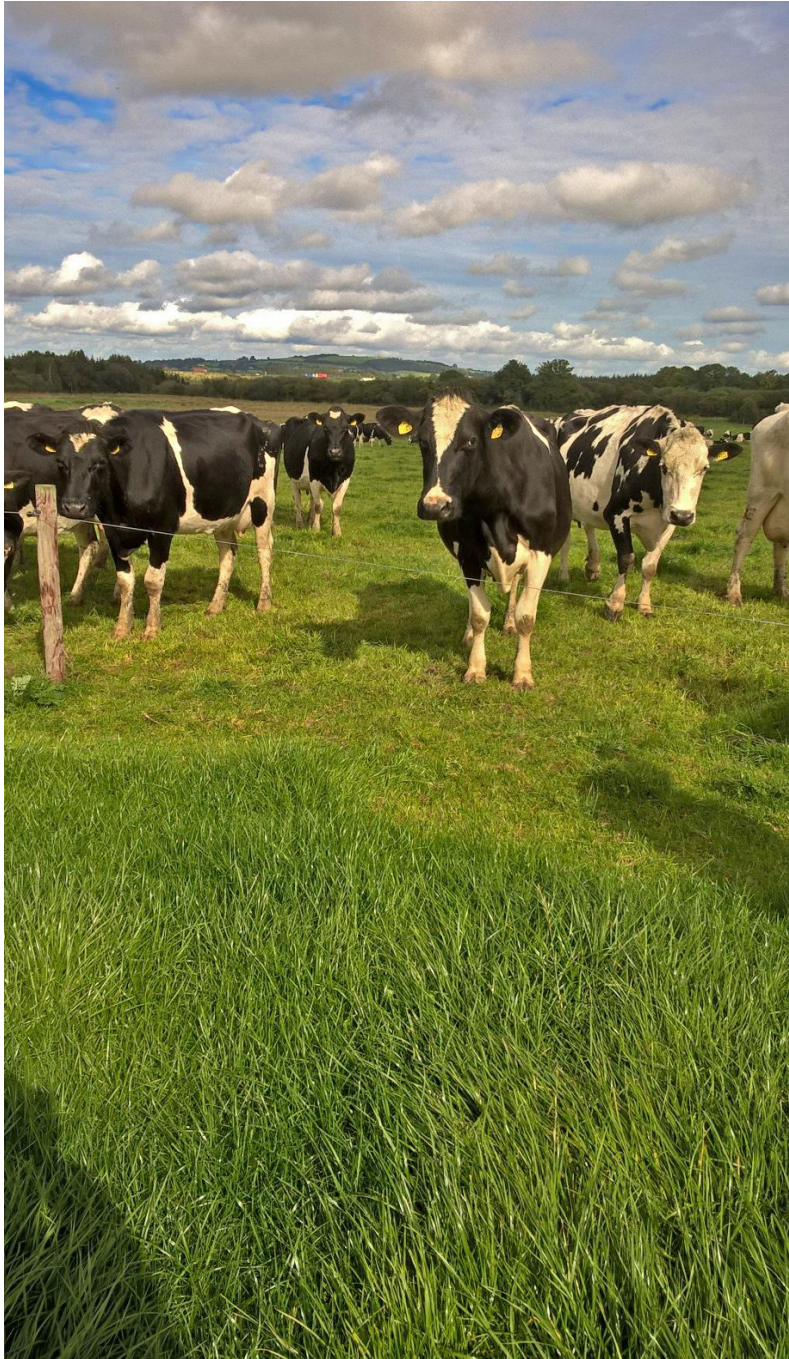
Issue 17 | September 2017

Milk Manager NEWS



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Lorna MacPherson	



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Market Update

UK Wholesale Dairy Commodity Market

- Fonterra's recent online GDT auction (5th September 2017) resulted in a small rise of 0.3% in the weighted average price across all products, reaching US \$3,323/t. Only butter milk powder, whole milk powder and skim milk powder showed negative movements (-10.1%, -1.6% and -1.2% respectively). Butter increased by 3.8% to \$5,954/t, as did Cheddar by 2.5% to \$4,118/t.
- It is likely that an auction for European dairy products will take place through a partnership formed between GDT and EEX (Europe Energy Exchange). The current GDT auction involves up to 80 countries with 520 buyers and a European auction, if given the go-ahead, will provide relevant pricing information and trends that are more applicable to UK farmers.
- In the UK the trend in butter continues, with price continuing to rise alongside further increases in cream and cheddar. Mild cheddar increased by £150/t from July to August. Supply of butter and cream remains tight and the butter shortage is not helped by increasing exports to the US, with consumers there preferring butter to margarine.

Commodity	Aug 2017 £/T	July 2017 £/T	% Difference Monthly	Aug 2016 £/T	% Diff 2016-2017
Bulk Cream	2,850	2,500	+14	1,470	+94
Butter	6,150	5,420	+13	3,250	+89
SMP	1,550	1,570	-1	1,570	-1

Source: AHDB Dairy - based on trade agreed from 1st-25th August 2017. Note these are average prices indicating prices traded across the whole of the past month.

- The unfavourable exchange rate continues to exert downward pressure on SMP price and despite the fall in SMP the 13% rise in butter contributed to a 3.4ppl increase in AMPE for the month of August. At 40.1ppl, AMPE is the highest recorded since these market indicators started in January 2010.
- The increase in cheddar, coupled with the 14% rise in whey butter resulted in MCVE increasing by 1.6ppl from July (4% rise). Milk fat is being increasingly used in cheese manufacture, and producers can get higher prices with cheese

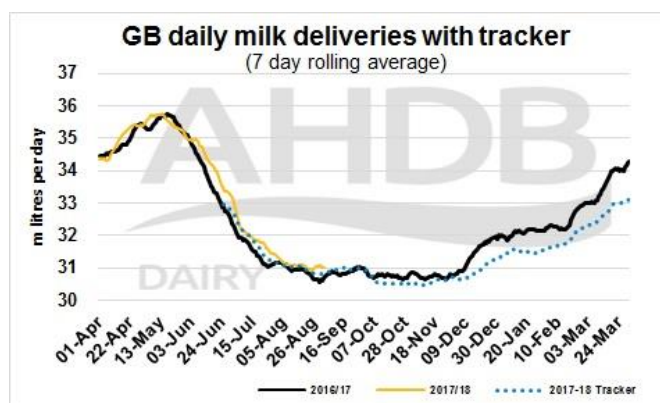
than with butter production, according to an EU official.

	August 2017	July 2017	12 months previously	Net Amount less 2ppl Haulage – AUG 17
AMPE	40.1ppl	36.7ppl	26.0ppl	38.1ppl
MCVE	38.7ppl	37.1ppl	28.0ppl	36.7ppl

Source: AHDB Dairy

- According to Peder Tuborgh, CEO of Arla, world milk stocks are very low and there is a huge shortfall in fat, cream and butter products in Europe. With increasing demand in the run-up to Christmas, it is thought that it will be impossible to meet the demand and this continues to significantly increase these commodity prices.

UK Milk Deliveries and Global Production



- As of the w/e 2nd September, UK milk deliveries have risen 0.1% from the previous week, and in comparison to the same week last year, are still 1.1% higher, equivalent to 300,000 litres/day.
- Milk production from the EU-28 was reported to be up 1.4% for June 2017 compared to the same month last year. This is equivalent to an extra 751 million litres. Continued growth is predicted on the back of higher prices. An EU Commissioner has been reported saying EU milk production is expected to be about 1 million tonnes higher this year compared to last.
- The spring season in New Zealand will have a strong influence on further price moves in the global market. They got off to a good start to the season with milk production in June 2017 up 21.2% on the previous year.

Milk Manager NEWS

Monthly Price Movements for September 2017

Farmgate milk price rose by on average 1.0ppl for September, as shown in the following table. More price rises are expected for October, given the continuing shortage of butter and cream. Cream income to a liquid processor is now estimated to be worth 16.66ppl compared to almost half that at 8.6ppl 12 months ago (AHDB Dairy).

Commodity Produced	Company Contract	Price Change	Standard Litre Price for September 2017
Liquid & Cheese	Arla Farmers UK	+0.79ppl liquid +0.81ppl manufacture	29.61ppl Liquid, 30.79ppl Manufacture
Liquid & Cheese	Arla Direct	+1ppl liquid +1.04ppl manufacture	28ppl Liquid, 29.12ppl Manufacture
Liquid & Brokered Milk	First Milk Mainland Scotland	+1.1ppl	27.49ppl
Cheese	Fresh Milk Company (Lactalis)	No change	27.5ppl
Liquid & Manufacture	Grahams	+1.0ppl	28.75ppl
Liquid & Manufacture	Muller non-aligned	+1.31ppl	29.00 ppl
Liquid & Manufacture	Muller (Co-op)	No change	28.41ppl
Liquid & Manufacture	Muller (Tesco)	No change	29.58ppl
Liquid, Powder & Brokered	Yew Tree Dairies	No change	29.0ppl Standard A litre price

- Lactalis have recently announced a 1ppl increase in its October milk price, followed by 0.5ppl in December. This takes the October price to 28.5ppl for its liquid standard litre. At the end of 2016, the company offered its producers the stability of a minimum guaranteed price of 27.5ppl for the whole of 2017. These announced rises are the first since January this year and come on the back of strengthening markets.
- Good news from Morrisons for Arla dairy farmers. Their Milk for Farmers range, which makes a 10ppl premium, will now be distributed among its 300 British farmers and not to its 12,700 European dairy famers. However, this requires producers to adhere to higher welfare requirements, with a select group having to

graze their cows for a minimum 120 days/year. For the 50 dairy farmers that meet the grazing requirement, they will receive an additional 1.19ppl (of which 0.23ppl is the grazing supplement and 0.96ppl is the extra welfare requirements which includes mobility scoring). The remaining 250 farmers will receive an additional 0.96ppl to meet the higher welfare requirements which are over and above those set by Arlagaarden.

- Irish Co-op Glanbia is the first in the world to offer a 5-year fixed-price milk contract. Producers can lock anywhere between 10 to 100% of their milk at 31 eurocents/litres (28ppl), based on 3.6% butterfat and 3.3% protein. A "Feed Adjustor" valued at between 2 to 3 c/l is also available for producers signing up to the dairy feed element of Glanbia's Milk and Feed Loyalty Scheme. This is based on an optional €30/t loyalty bonus on concentrate feed bought from Gain Animal Nutrition.
- More long-term milk price contracts are emerging since Yew Tree Dairies initiated a milk price based on milk futures back in 2016. Muller's offering for its direct milk suppliers is the option to lock in 25% of their milk supply for 12 months. Devon-based Crediton Dairy has also recently announced a two year fixed price of 28ppl for either 10% or 20% of monthly production from 1st October. There is increasing interest in these contracts, taking away some of the volatility and unpredictability in milk price going forward. For producers thinking of fixing a volume of milk at a certain price, it is crucial to know your cost of production, as well as being able to lock in prices for key inputs (particularly purchased feeds).
- Congratulations to The Island Smokery company based in Orkney, which now has its butter served at the At.mosphere restaurant, situated at the top of the world's highest restaurant, the Burj Khalifa in Dubai. The company also produces smoked Orkney Cheese which is already exported to the US. This is a significant achievement for a small island business which was only established in 2005.

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Straights Update

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

£/T for 29t loads delivery + £7/t haulage	Sep 17	Oct 17	Nov 17 - Apr 18	May 18 - Sep 18
Proteins				
Hipro Soya	295	296	297	304
Rapeseed Meal	189	189	195.50	203
EU Wheat Distillers	180	180	182	184
Starch				
Wheat	146	147	151	May-Jul 157 Aug-Sep 152
Barley	125	127	131	May-Jul 137 Aug-Sep 132
Maize	172	173	171	-
Fibre				
Sugar Beet Pulp – imported	189	190	156	-
Soya Hulls	143	143	145	140

Source: Straights Direct on 11th September. 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

- Weather conditions across the Midwest US are favourable with ideal crop development conditions for both the wheat and maize crop, with less severe heat and plenty of moisture. As of the end of August, US wheat exports were running at 12% ahead year-on-year. However, since Hurricane Harvey's devastation, traders are keeping a close eye on its impact on exports, with the Gulf of Mexico accounting for 25% of the US's total wheat exports.
- The European wheat market is coming under pressure with falling prices due to little export demand, a firm euro and crop estimates increasing in Russia (their grain harvest is expected to reach 130mT). Since early July, MATIF is now about €30/t lower.
- Overall global cereal output and stocks including wheat and feed grains are expected to fall slightly, due to lower barley and maize output which may lend support to feed grain

prices later in the season when harvest price pressure passes.

- Hot, dry weather in Canada and Australia has supported global rapemeal prices, with concern that potential output will be greatly reduced from these key exporting countries.

UK and Scottish News

- UK wheat prices are down £2-3/t in last month on the back of lower global values as crop estimates rise, offset in the UK by a weak pound. Rising wheat crop estimates from Russia, in particular, are making global wheat export markets very competitive this autumn which is weighing on prices.
- The Scottish cereal harvest is late and being held up by rain. Winter barley and oilseed rape yields were generally good and early results from wheat and spring barley indicates relatively good yields there as well. However, much remains to be cut, especially in the north but also parts of the south. The spring malting barley crop remains vulnerable to the continued forecast rain. So far most samples are making malting with specification on skinning being widened to ensure intake at maltings. Demand for malting barley in Scotland this year is expected to be strong to rebuild low stocks and meet rising distilling demand. This is likely to limit the quantity of barley available for feed in Scotland this year, unless some malting quality is lost or barley yields are above average which is unknown at this stage.
- Malting barley elsewhere in the UK has been affected by high nitrogen, particularly in the variety Propino, which accounted for the largest market share of spring barley this year, compared to Planet, a popular high yielding variety. However, availability of malting barley from other EU countries (particularly Scandinavia and France which have had better harvest results) means that EU shipment specifications will not be relaxed.
- Fertiliser prices are rising, with stocks of ammonium nitrate very limited across Europe. It will likely be into November before any large quantities become available for shipment. Currently the price for AN in the UK is about 15% below that in the rest of Europe, so there is scope for an increase. It may be worth booking

product at current price, rather than waiting for it to drop. Demand is also starting to grow for phosphate and potash and prices rose in the last week of August, and it is thought that further price rises will be seen.

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Setting up Swards for Spring 2018

Autumn is the start of the pasture management calendar. Grazing management at this time will influence spring grass quality and growth. Use this opportunity to clean up the sward and set up the spring feed wedge.

In the rotation rounds prior to shutting up, extend the rotation length as grass growth slows. The length of the rotation depends on how long it takes for grass to put up a new leaf. Generally aim for 35 to 40 days in mid-September and 45 days in October. The target is to graze at the 2.5 to 3 leaf stage for optimum utilisation and future productivity.

Shutting off the land in order that it will be grazed again in the spring will create the feed wedge ready for turn out. Shut up the fields behind a 60 day rotation; grazing 60% of the grazing platform in the first 30 days and the remaining 40% in the second 30 days. The pre-graze covers in this last 40% might be around 3500 kg DM/ha, but as the growth is slowing, there will be less accumulation of dead and stem material.

As the grass recovery period is long, target grazing to 1500 kg DM/ha or 4 cm residual to clean the base of the sward. Any new regrowth will weather frost and snow better than old growth. Some farmers apply salt (applied at 50kg/acre) to improve palatability and achieve this residual. The farm average cover by housing should be around 2,000kg DM/ha.

Nitrogen application may be useful to help build covers for the final rotation, especially if grass availability is looking below budget. The general recommendation is to apply 30kg N/ha but for those in NVZ's this must be done before 15th September. This would also be the advised cut off date to minimise any N losses.

In wet weather, consider on-off grazing. Cows can gain most of their grazing requirement (95%) in two three-hour blocks. Therefore allocate their grazing over two periods of three hours (or shorter, if cows are full) to reduce the impact of poaching on wet ground. It will take between three to four hours for cows to eat 5kg DM of grass). Turn the cows out hungry; they will graze hard and walk about less, reducing pasture damage. Alternatively, you can graze the herd during the day and house at night with restricted silage access and concentrates if necessary.

Grazing sheep is another option to tidy up the sward. Ideally, they would be rotationally grazed too over a 100 day rotation to allow recovery time for the primary turn out fields. Be careful not to over graze with sheep. If set stocked, they should be off the farm by February or earlier for those with early turn out dates.

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Planning Ahead for Winter Feeding

As the days are shortening and grass quality and availability are declining, start planning now for housing and winter feeding. Housing represents a big change in the diet from fresh grass and buffer feed to all conserved forage and perhaps a higher concentrate intake. Making dietary changes more gradual will help cows and rumen microbes adapt. Allow up to three weeks to monitor the full effect of any changes. During this period, feed conversion may not be the most efficient, leading to nutrient loss and potentially a fall in production. This may mean gradually increasing the quantity of buffer feed as grass availability declines and paddocks are shut off for the winter. The more gradual you make this transition, the more productive your cows are likely to be.

While the forage in your buffer ration is really designed as a carrier for concentrates, so as to minimise substitution of grass, ensure the buffer ration does not pose an acidosis risk. It is likely that lame cows will prefer to eat the buffer ration, rather than move around more to graze.

Forage stocks can be assessed using the following table. This requires knowing the dry matter of your silage, so if the pit is not open, get a core sample analysed. This will also provide an idea of silage

quality so that rations can be formulated in advance and then adjusted when a decent face sample can be taken for analysis. Calculate the volume of forage by measuring the width, length and height of the clamp, calculate volume in pit and multiply by the density.

Example calculation:

A pit is 40m long by 20m wide by 2.5m high, with silage at a DM of 30%.

Therefore the density = 660kg/m³.

Silage (tonnes of fresh weight) = 40 x 20 x 2.5 x 660 = 1,320,000kg or 1320T of silage.

Silage tonnes of dry matter = 1320t x (30/100) = 396t.

Silage density guide (kg/m3)

Silage Dry Matter (%)	Clamp Height (m)			
	2.0	2.5	3.0	4.0
20	780	840	890	950
25	690	730	775	830
30	620	660	690	740
35	570	600	625	670
40+	520	550	570	610

Source: AHDB Dairy

If forage stocks are insufficient to cover your winter feeding period, start planning now for alternative feeds to help spin out forage stocks. You can therefore spread your forage use across the winter period and are more likely to keep a consistent diet as well as a consistent supply of milk to your buyer.

Where silage cuts vary greatly in quality, being able to feed out of more than one pit is a big advantage. For example, feeding both high D value, leafy 1st cut alongside more mature stemmier 2nd cut makes more sense as opposed to moving the herd from one cut to the other mid season. Feeding out of different pits also allows more targeted use of forage to different groups and months for the best return.

Consult your nutritionist to plan concentrate quality and quantity required. High energy concentrates should be fed and balanced according to forage quality to provide starch, digestible fibre, adequate

sugars and protein sources to provide a balance of both rumen degradable and undegradable protein sources. Concentrate make up is especially important where silages have poor intake characteristics such as low intake potential (<85), low dry matter (<18%) or low pH (<3.8). This can lead to decreased forage to concentrate ratios and inefficient feed conversion through acidosis. The quality of your silage will determine concentrate level required to achieve your target yield (as illustrated in the following tables):

Silage feed value categories

	Poor	Average	Good
Silage intake potential	80	90	100
Dry matter (%)	17	20	25
ME (MJ/kg DM)	9.0	10.5	11.5
Crude protein (% DM)	9	13	15

Concentrate feed level (kg fresh weight)

Cow Performance		Silage Feed Value		
Herd Yield (litres)	Peak Yield (litres)	Poor	Average	Good
4500	23	8.0	6.0	2.0
5500	27	9.5	7.0	3.0
6500	31	11.5	9.5	6.0
7500	35	12.5	10.5	7.0
8500	38	14.0	12.5	9.0
9500	42	16.5	15.0	12.0
10500	45	18.5	17.0	14.0

Source: CAFRE

For example, a 6500 litre cow will have an approximate peak yield of 31 litres and will require a concentrate feeding level of 9.5kg of concentrates with average quality silage in early lactation. Concentrate feeding greater than 0.4kg/litre can indicate overfeeding unless the herd contains a high proportion of early lactation cows.

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Silage Quality 2017

Dairy silage quality results so far for 1st cut samples analysed by SAC Consulting's Analytical Services Department are detailed below and compared against 2016 dairy silages.

SAC 1st cut dairy silage analyses for 2017

Nutrient	Average		Minimum		Maximum	
	2017	2016	2017	2016	2017	2016
Dry Matter g/kg DM	275	323	194	162	401	559
ME MJ/kg DM	11.3	11.1	9.9	9.3	12.3	12.3
Protein g/kg DM	126	119	96	69	148	168
D Value %	70.7	74.0	62.1	58.2	77.0	77.0
NDF g/kg DM	468	448	359	347	567	573
Ash g/kg DM	81.9	83.1	63.0	62.0	100	101
pH	4.3	4.3	4.0	3.5	4.7	5.3

Overall 1st cut silages are slightly wetter this year, down from around 323g/kg DM or 32.3% to 27.5%, reflecting challenging weather conditions early in June. However, nutritional quality is slightly better with energy levels on average up 0.2 to 11.3MJ/kg DM. Protein content is also marginally higher, up from 119g/kg DM to 126g/kg DM.

Note that this analysis is based on only 21 1st cut samples so far this year, compared to 171 samples from 2017 (based on multiple cuts).

Recent results from Trouw Nutrition, reported by AHDB Dairy, confirm a similar trend from Trouw's 2000 samples analysed so far (not specific to dairy silages), with both ME and crude protein levels higher in 2017 compared to the last three years (average ME was 11.1MJ/kg DM and crude protein 15%). They thought that this improvement was down to slightly earlier cutting dates and the slow rate of grass growth in May 2016. Increasing practice of multi-cut silage systems will also be contributing to improved silage quality this year.

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Colostrum – Part 4: Pasteurisation and Storage

Colostrum cleanliness has a big impact on calf health and performance. Dirty colostrum

contaminated with bacteria is a major concern, as bacterial growth will reduce the absorption of antibodies through the gut wall of the new-born calf. The pathogens *Salmonella*, *E. Coli* and *Mycoplasma* are the most commonly found bacteria in contaminated colostrum. Their presence is mainly the result of poor hygiene while collecting colostrum, and not refrigerating colostrum immediately after collection.

Laboratory measures for determining colostrum cleanliness are the Total Plate Count (TPC), which should be below 100,000cfu/ml and the Total Coliform Count (TCC) which should be below 10,000cfu/ml. This is not practical to measure and monitor in an on-farm situation, but to help to understand these values, even a little dirt in colostrum can produce higher numbers than those described above if the sample is tested in a laboratory.

A national study from the US (Morrill et al. 2012) showed 43% of samples taken from 67 herds across the country failed to meet the requirement for clean colostrum, as either TPC or TCC was higher than described above. To avoid this happening, follow the best advice: properly clean and disinfect udder before milking; milk into a clean, disinfected bucket; always discard dirty, contaminated colostrum; refrigerate or freeze excess colostrum immediately.

Proliferation of bacteria in stored colostrum is one of the biggest pitfalls on many farms. It is common to see colostrum stored in a bucket in the tank room, usually uncovered, and here bacteria can double every 20 minutes in warm weather. Colostrum must be placed in the refrigerator after it is harvested (labelled with collection date, cow number and BRIX refractometer reading) and should be used within 24 hours. Any excess colostrum can be frozen (again clearly labelled), ideally in large, zip-lock plastic bags with a large surface area for easier and quicker thawing. Colostrum must be thawed at temperatures below 60°C to avoid damage to antibodies. Always rotate colostrum stock in both the refrigerator and freezer, using the oldest colostrum first. Colostrum can be frozen for up to 12 months without any significant deterioration in quality.

Heat treating or pasteurising colostrum is another management tool to reduce pathogen exposure to calves. Pasteurisation of colostrum is not the

same as sterilisation. It will significantly reduce pathogen numbers, but will not kill 100% of the bacteria.

The most common pasteurisation methods are the High Temperature – Short Time (HTST) or Continuous Flow Pasteurisers, the Ultraviolet Radiation Pasteurisers and the Batch Pasteurisers. The summary table below highlights the main differences between these systems:

	Continuous Flow	Ultraviolet Radiation	Batch
Method	High temperature/ Short time	UV light passed through column of milk	Lower temperature/ Longer time
Temperature/ length	72°C x 15 seconds	1.5 – 2 hours/batch	63°C x 30 minutes
Capacity	1 to 40 gallons per minute	50, 100 or 150 gallon batches	10 – 150 gallon batches
Cleaning	Automated CIP wash system	Automated CIP wash system	Manual wash
Cost	+++ very high	++ high	+ medium
Other details	Unacceptable thickening of colostrum	Emerging research suggests poorer efficacy in killing bacteria	Includes agitator

Continuous Flow Pasteurisers have a very high rate of success of eliminating pathogens (even Johne's causing *Mycoplasma*) and used to be popular in the US. However, research has shown 25 to 32% loss of IgG in colostrum after pasteurisation, as well as lower serum levels in calves (McMartin et al. 2006, Godden et al. 2006). Also the lack of agitation during pasteurisation leads to thickening of the colostrum, which makes administration more difficult.

Ultraviolet Radiation Pasteurisers have intermediate ability to inactivate 'regular' bugs like *E. coli*, *S. aureus*, environmental *Streptococcus* species, but it has poorer efficacy than heat pasteurisers. Their biggest problem is that they denature 43 to 50% of IgG in colostrum.

Batch Pasteurisers are thought to be the best bet, as they significantly reduce or eliminate the most

common pathogens. Thanks to their built-in agitators, colostrum is continuously mixed during the process, and the more gentle lower operating temperature does not affect colostrum IgG content. Their initial cost is also much lower than the two other systems. As an additional benefit, some types of pasteuriser can be used as a water bath to thaw frozen colostrum.

Using pasteurised unsalable whole milk is also attractive financially, but there are downsides too i.e. inconsistent nutrient composition, inadequate milk supply and possible recontamination of pasteurised milk during storage, transport and feeding. Perhaps most importantly, pasteurisation does not inactivate antibiotics in milk, which can negatively affect the developing beneficial bacterial population within the gut of the calf.

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- Morrill et al., 2012. Nationwide evaluation of quality and composition of colostrum on dairy farms in the United States. *Journal of Dairy Science*, 95(7): 3997-4005.
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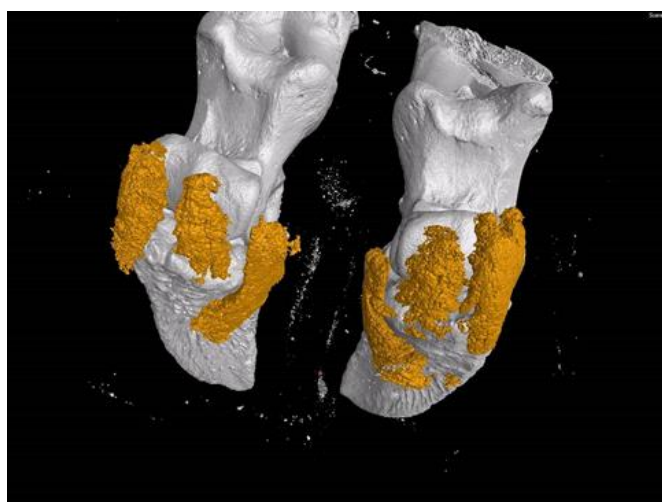
Lameness Work at Crichton: New Information to an Old Problem

The long running experiment of the Langhill herd has provided a rich longitudinal data set that has enabled the investigation of risk factors for both repeated lameness events and the first lifetime lameness event. Whereas previous papers have described low body condition score (BCS) as a risk factor for future lameness, this is the first study to identify fine thresholds of individual BCS as predictors for mild and severe lameness (Randall et al, 2015).

Cows in extended periods of negative energy balance mobilise body tissue reserves to meet energy requirements. This can have a detrimental

effect on health as the cows mobilise the body energy reserves (lipids) from everywhere in the body. The digital cushion in the hoof is not spared in this. By combining the performance records of when the cows were alive at the Crichton, and CT and x-ray scans of the feet after retrieval from the abattoir, the research team from SRUC and the University of Nottingham has been able to not only quantify, but also visualise the relationship between BCS and the digital cushion and hence the risk of lameness.

CT scan of cows feet showing the digital cushion or “fat pads”



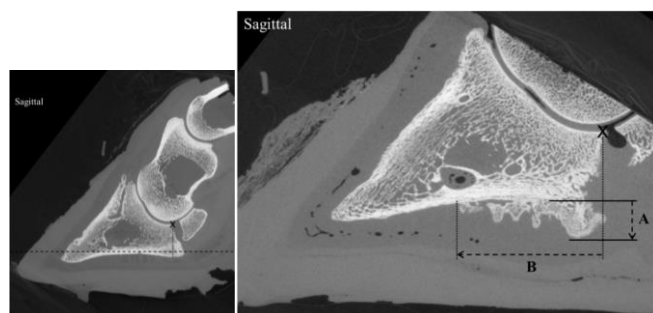
Source: Jon Huxley, University of Nottingham

Cows with BCS <2 were at greatest risk of future mild or severe lameness, including first lifetime lameness events in second or higher lactation dairy cows, and long-term repeated lameness events in all parities. The results suggest that maintaining BCS ≥ 2.5 is optimal for reducing the risk of a lameness event. This study also provides evidence that low body weight (independent of BCS), and age at first calving over 24 months are important factors for long-term risk of repeated lameness events. Other factors associated with an increased risk of lameness included higher parity, BCS loss in the first month post-calving, higher milk yield 16 weeks previously and time from occurrence of previous lameness events (Randall et al., 2016).

Furthermore, this work also showed that in cases where lameness had been chronic, there were extra bone-like developments on the pedal bone. The scans showed that cows that had been lame more frequently from claw horn lesions, had

greater bone-like developments (see right hand scan below). These bone developments are irreversible and can lead to a never ending cycle of lameness in the cow. In order to stop irreparable anatomical damage within the foot, early identification of claw horn lesions and effective treatment are critical (Newsome et al., 2016).

Sagittal view of the pedal bone in a healthy cow (left) and bone-like developments in a chronically lame cow (right) from x-ray scans



Source: Jon Huxley, University of Nottingham

This work is an example of the importance of detailed performance recording in research herds in order to generate information that can be useful in commercial herds. The work has been lead by the University of Nottingham and is also AHDB Dairy funded as part of the animal health and welfare research partnership.

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- Randall et al., 2015. Low body condition predisposes cattle to lameness: An 8-year study of one dairy herd. *Journal of Dairy Science* 98: 3766-3777
- Randall et al., 2016. Lameness in Dairy Heifers; impacts of hoof lesions present around first calving on future lameness, milk yield and culling risk. *Preventive Veterinary Medicine* 133: 52-63
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Preliminary Forecast, Liver South Fluke West Scotland 2017

The information below compares 2012 and 2017 rainfall data by area for the May to July period. 2012 was selected for comparison as a baseline 'wet year'.

- The Scotland West area has seen more wet days than in 2012.
- The Dumfries, England North West and North Wales figures are slightly drier than in 2012.

May to July rainfall data 2012 and 2017

	Wet days \geq 1mm rain 2012 (Total rainfall ml)			Wet days \geq 1mm rain 2017 (Total rainfall ml)		
	May	June	July	May	June	July
Dumfries SRUC Crichton	9 (70)	17 (172)	19 (128)	7 (49)	15 (163)	14 (121)
Scotland West*	10.5 (82)	15.9 (176)	18.6 (158)	11.3 (71)	18.7 (189)	18.9 (150)
England NW/N Wales*	9.7 (78)	18 (205)	18.3 (142)	9.6 (60)	14.9 (143)	17.7 (133)

* Met. Office regions. See:

www.metoffice.gov.uk/climate/uk/summaries/datasets

In 2012 it continued to rain throughout August and September. The first half of August 2017 has been pretty damp so a dry autumn would be helpful.

Galba truncatula (the mud snail and host of liver fluke larvae) numbers at SRUC Barony Campus are lower than in August 2016 possibly reflecting the unusually dry winter. However, outbreaks of disease can occur at low snail densities so not too much weight should be given to this. **Overall the data points towards a high risk of liver fluke this autumn.**

For more detailed information a Technical Note providing up-to-date information for both vets and farmers can be downloaded from the link below:

http://www.sruc.ac.uk/downloads/file/3135/tn677_treatment_and_control_of_liver_fluke

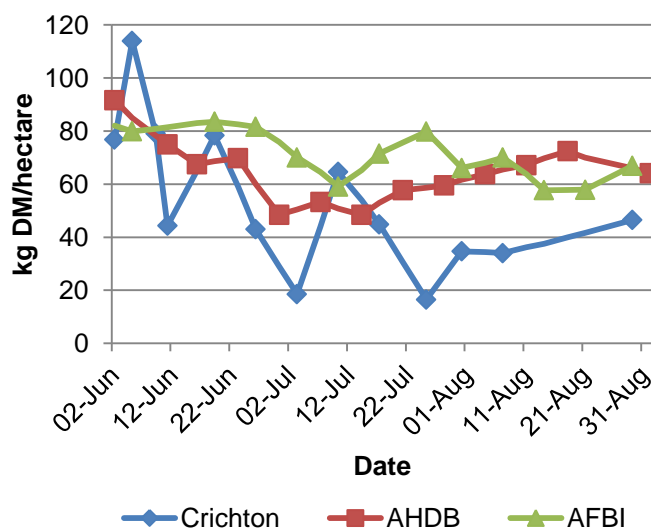
heather.stevenson@sac.co.uk, 01387 267260

Grass Growth

Grass growth has remained relatively stable over the last 2 months from the 12 dairy farms in Northern Ireland (AFBI) and 12 dairy farms spread throughout the UK recorded by AHDB Dairy. Grass growth at Crichton has tailed off considerably, but note this data is not representative as measurements are taken from only four fields at Crichton.

As of the end of August, AHDB Dairy were reporting an averaging protein content of 21% and an ME of 11.9MJ/kg DM, which seems excellent for the time of year. However, ME is running slightly below that of the 2010 to 2016 average and protein content is very similar to the previous 6 year average. AFBI reported grass values of only 16.9% protein and an average ME of only 11MJ/kg DM, with quality being below average due to recent heavy rainfall.

UK Grass Growth



Dry matter can vary widely at this time of year from around 10 to 20%. Bear this in mind when buffer feeding and adjust quantities accordingly. Targeting 10kg of dry matter intake from grass on a wet day at 12% dry matter, means cows have to consume 83kg of grass on a fresh weight basis. At 20% dry matter, a fresh intake of only 50kg is required. Depending on how long cows have access to grass and taking into account declining day length, it is likely target intakes will not be achieved on very wet days.

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Milk Manager NEWS

Dates for your Diary

- 13th September - **UK Dairy Day**. International Centre, Telford, Shropshire, TF3 4JH.
- 26th September - **Dumfries and Galloway Dairy Women Network**. Laurie Arms, 11-13 Main Street, Haugh of Urr, Castle Douglas, DG7 3YA. For more information please contact Tracey Roan – 07919 278471 or Teresa Dougall @ NFUS on 07718 425053.
- 3rd October - **AHDB Calf to Calving: Who's Made the Grade?** Glasgow. Venue and time TBC.
- 4th October - **Open Afternoon SRUC Aberdeen Campus**. SRUC Aberdeen Campus, Ferguson Building, Craibstone Estate, Aberdeen, AB21 9YA. Time: 13.30 - 16.00.
- 6th October - **Managing Mastitis**. SRUC Barony Campus, Parkgate, Dumfries, DG1 3NE. Event Organiser SRUC Barony, t: 01387 242918 baronytrainingservices@sruc.ac.uk
- 18th October - **Precision Farming Event**. Newark Showground, Lincoln Road, Newark-on-Trent, Nottinghamshire, NG24 2NY.
- 22 - 24th October - **Stirling Bull Sales**. Stirling Agricultural Centre, Stirling, FK9 4RN.
- 24th October - **Calf to Calving - Minimising Stress to Maximise Return**. Glasgoforest, Kinellar, Aberdeenshire, AB21 0SH.
- 28th - 29th October - **Scottish Ploughing Championships**. Bilbo Farm, Mintlaw, Aberdeenshire, AB43 8QR.
- 29th October - 3rd November - **IDF World Dairy Summit**. Belfast. Event Organiser <http://idfwds2017.com/>

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



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Funded by the Scottish Government and EU as part of the SRDP Farm Advisory Service.