

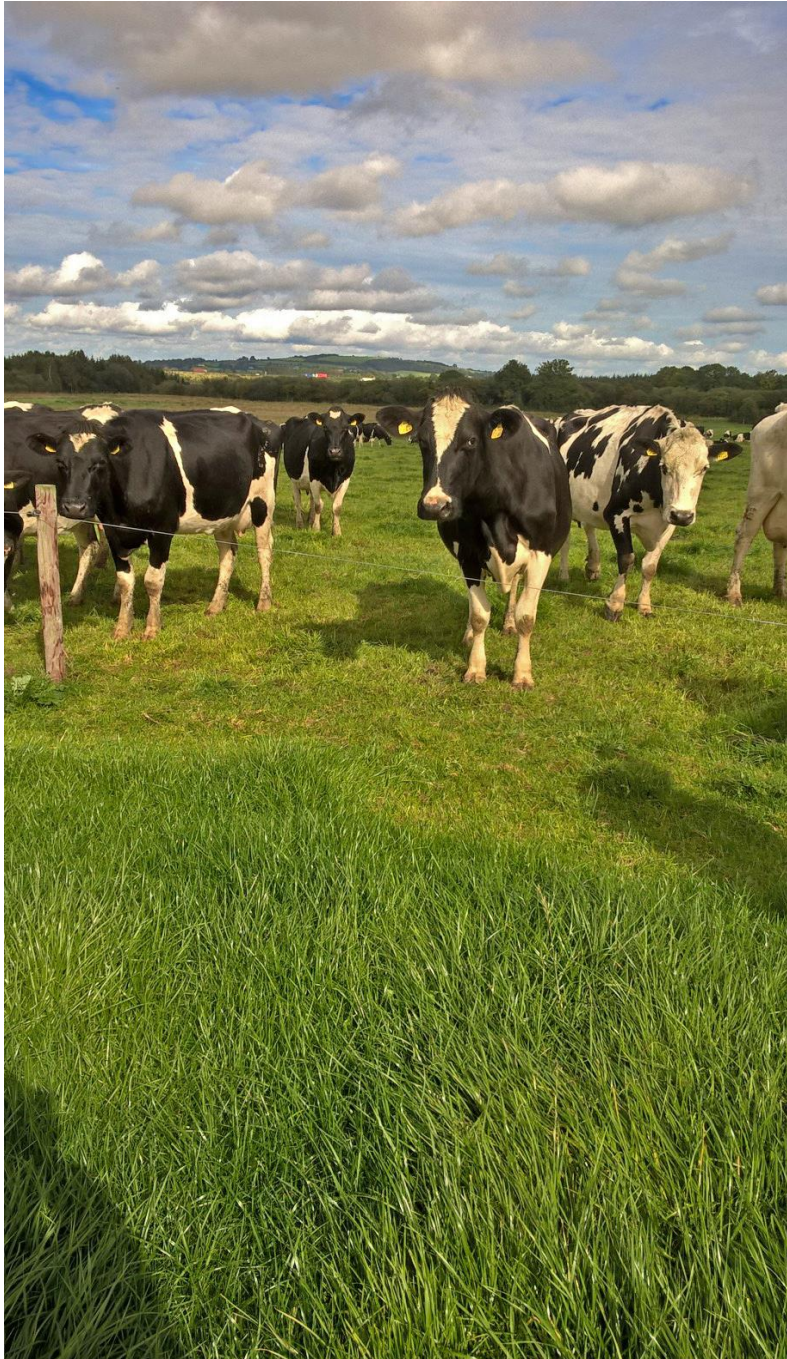
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Milk Manager NEWS



**Farm
Advisory
Service**

National Advice Hub
T: 0300 323 0161
E: advice@fas.scot
W: www.fas.scot



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Market Update

UK Wholesale Dairy Commodity Market

- Fonterra's recent online GDT auction (3rd October 2017) resulted in a decline of 0.24% in the weighted average price across all products, reaching US \$3,223/t (\$100 back on the last auction). Butter and skim milk powder (SMP) showed negative movements (-3.6% to \$5,837/t and -1.4% to \$1,895/t respectively). Buttermilk powder was the biggest mover at -10.3%. Only cheddar and rennet casein showed positive movement, with cheddar up 1.9% to \$4,109/t.
- The average UK prices for dairy commodities over the last month have shown little change from August. However, butter and cream have dropped latterly, partly to the Sterling increasing in value against the Euro. In early September, butter traded as high at £6,400/t but has since dropped back to £5,700/t. Cream supplies have improved and a drop in demand towards the end of September has seen recent trade at £2,720/t or less.

Commodity	Sep 2017 £/T	Aug 2017 £/T	% Difference Monthly	Sep 2016 £/T	% Diff 2016-2017
Bulk Cream	2,830	2,850	-1%	1,710	65
Butter	6,150	6,150	0%	3,550	73
SMP	1,525	1,550	-2%	1,670	-9

Source: AHDB Dairy - based on trade agreed from 1st to 27th September 2017. Note these are average prices indicating prices traded across the whole of the past month.

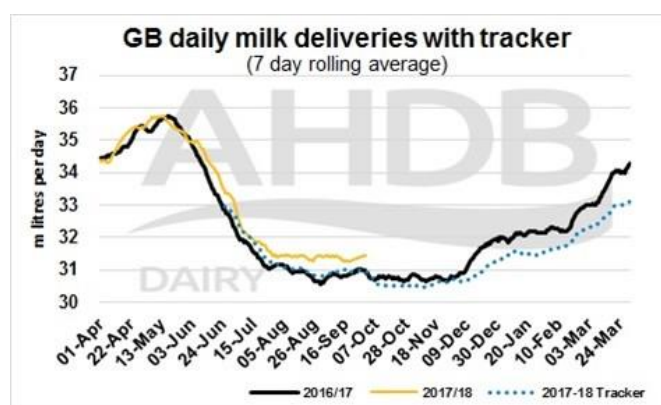
- Despite record prices for butter, processors may actually be better off making cheese due to the low value of SMP, a by-product of butter manufacture. Prices of SMP are predicted to fall as this years EU intervention buying scheme has expired and there is little demand for near-term sales.
- AMPE has fallen for the first time since April this year, by 0.2ppl. This is due to the fall in SMP by 2% and butter remaining at £6,150/t for September.
- MCVE also fell for the first time since March 2017. Despite mild cheddar increasing by £25/t from August, whey powder fell by 10%, with no change in the price of whey butter. This led to a 0.2ppl reduction in MCVE. There is still strong

demand for mild cheddar and stocks appear to be fairly well balanced.

	September 2017	August 2017	12 months previously	Net Amount less 2ppl Haulage – SEPT 17
AMPE	39.9ppl	40.1ppl	28.5ppl	37.9ppl
MCVE	38.5ppl	38.7ppl	32.4ppl	36.5ppl

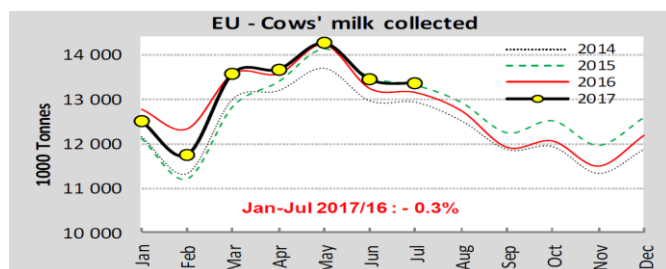
Source: AHDB Dairy

UK Milk Deliveries and Global Production



- UK milk deliveries over the last two months have remained well above deliveries for the same months last year. Deliveries have increased with a week-on-week rise of 0.2% for the week ending 30th September. Compared to the same week last year, deliveries are 1.5% higher, which equates to about an extra 500,000 litres/day.
- The forecasted UK production for September is 1110 million litres, which is 3% above the same month last year. October production is predicted at 1135 million litres (2.4% up on October 2016).
- Global supply is also on the increase with production up from the two biggest milk producing regions; the US and the EU, which are up 1.8% and 1.7% respectively for July (see EU milk collections in following graph). Despite lower production in New Zealand, these 3 key producers are expected to grow their milk supply by 2% until the end of 2017. It is thought that rising global GDP will help maintain market prices although further increases in butterfat production will likely help ease cream and butter values.

EU milk collections 2014-2017



Source: https://ec.europa.eu/agriculture/sites/agriculture/files/market-observatory/milk/pdf/dashboard-dairy_en.pdf

- According to Fonterra, New Zealand has had a disappointing start to the 2017-2018 milk production year. Production is down due to very wet weather, mainly in the south island. Although volume was up 7% in July, August collections dropped 2% to 93 million kg of solids and were 1.56% down on August 2016.
- The EU commission has stated it expects milk prices to remain firm in the coming months due to expansion of global trade. World dairy exports rose by 6% in July on a milk-equivalent basis. The biggest increase in imports came from China, with 27% growth, followed by a 12% expansion in imports to south-east Asia.

Monthly Price Movements for October 2017

Commodity Produced	Company Contract	Price Change	Standard Litre Price October 2017
Liquid & Cheese	Arla Farmers UK	+1.43ppl liquid +1.5ppl manufacture	31.04ppl Liquid, 32.30ppl Manufacture
Liquid & Cheese	Arla Direct	+1ppl liquid +1.04ppl manufacture	29ppl Liquid, 30.16ppl Manufacture
Liquid & Brokered Milk	First Milk Mainland Scotland	+1.1ppl	28.59ppl
Cheese	Fresh Milk Company (Lactalis)	+1ppl liquid +1.04ppl manufacture	28.5ppl liquid 29.51ppl manufacture
Liquid & Manufacture	Grahams	+1.0ppl	29.75ppl
Liquid & Manufacture	Müller Direct	+1.0ppl	30.00 ppl
Liquid & Manufacture	Müller (Co-op)	No change	28.41ppl
Liquid & Manufacture	Müller (Tesco)	No change	29.58ppl
Liquid, Powder & Brokered	Yew Tree Dairies	+1ppl from 15 th Oct	30.0ppl Standard A litre price

- Although further price rises this month have been recognised by the main Scottish milk buyers, the farm-gate price still remains a long way off the spot milk price of 40ppl, despite the current strength of dairy markets.
- Sainsbury's have increased their standard litre price for October by 0.24ppl to 28.21ppl (Müller suppliers) and 28.09ppl (Arla suppliers). Their new pricing model from October onwards gives a total cost of feed, fuel and fertiliser of 9.96ppl. Other variable costs accounted for 6.53ppl and overheads at 10.94ppl.
- Müller has announced further milk price increases for November:
 - Müller Direct Farmers +0.5ppl to 30.5ppl.
 - Müller Co-operative Dairy Group +0.98ppl to 29.39ppl.
- On the down side, Tesco SDG producers will see their November price reduced by 0.13ppl to 29.45ppl (Müller) and Arla suppliers will receive the same reduction, down to 29.2ppl for their standard liquid litre price. Promar's annual cost tracker for April 17 to March 18 has increased variable costs from 15.90ppl (review in June 2017) to 16.02ppl. Overhead costs were back slightly from 11.38ppl to 11.35ppl and depreciation increased to 2.07ppl from 1.9ppl. Feed, fuel and fertiliser increased the cost tracker by only 0.1ppl, bringing the cost of production to 29.45ppl. The previous quarter cost of production was 29.58ppl, hence the 0.13ppl drop.
- Good news for Lactalis producers who will receive the proposed 0.5ppl December increase a month early. Lactalis have brought the increase forward to reflect the continued strength in dairy markets, bringing the November standard liquid litre up to 29ppl and the standard manufacturing litre (up 0.52ppl) to 30.03ppl.
- In the organic sector, OMSCo, the UK's biggest organic dairy co-operative, has increased its October milk price by 1ppl. The average price for the co-op's 270 owner-members will be an average of 41.7ppl this winter, with a potential 0.25ppl bonus depending on somatic cell count.

lorna.macpherson@sac.co.uk, 07760 990901

Straights Update

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

£/T for 29t loads delivery + £7/t haulage to central belt	Oct 17	Nov 17 - Jan 18	Feb 18 - Apr 18	May18 - Sep 18
Proteins				
Hipro Soya	302	306	306	311
Rapeseed Meal	184	-	191	196
Wheat Distillers Pellets	180	181	182	184
Starch				
Wheat	152	154	157	159
Barley	124	126	130	132
Maize	173	Asa 170	172	178
Fibre				
Sugar Beet Pulp	179	179	156	160
Soya Hulls	POA	161	161	-

Source: Straights Direct and Cefetra on 11th October. 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

- The malting barley market within the EU is tight. However, the Scandinavian crop produced better yields and quality than other EU growers, meaning the situation has somewhat eased and there is currently a lack of buyers. Dry weather in Australia is increasing concerns about the supply of new crop, and with the lack of sellers, prices have increased.
- The US maize and soybean harvest are well underway but behind pace, with only 17% of the maize crop harvested compared to the 5-year average of 26% (as of 1st October). Soyabean harvest is fairing slightly better at 22% harvested, compared to the 5-year average of 26%. However, crop conditions are improving and the outlook is more optimistic. USDA reported that 63% of the maize crop was rated as "good" or excellent" condition, which was up on the previous week, although still 10 percentage points lower than last year at this time (reported 2nd October).
- Damage to the US soyabean crop by hurricanes has been reported near the Mississippi Delta, making it difficult to meet

quality specifications for exporting. It is also causing shipping delays out of the Gulf of Mexico, with waiting times for ships around 10 to 12 days, compared to the usual 5-day wait at this time of year. Low water levels in the Mississippi and slow navigation is delaying shipping and increasing the cost of hauling crops to gulf coast terminals. This will likely increase tightness in supply in the short-term towards the end of October, supporting soyabean meal and oil prices.

UK and Scottish News

- The Scottish harvest continues to drag on especially in the NE and SW with waterlogged soils hampering combining. Almost half of the Scottish spring barley crop was estimated remaining uncut in the week ending 29 September, with crop quality deteriorating and straw going unbaled and straw shortages becoming a serious concern.
- The Scottish Government have released their first estimate of 2017 Scottish cereal production which is expected to see output rise 12% to 3.1mt, if it can all be harvested. DEFRA estimate the UK wheat harvest will rise to 15.2mt (14.35mt in 2016) and the barley crop will increase to 7.4mt in 2017 (6.65mt in 2016). However, a sharp fall in opening stocks means that UK wheat availability in 2017 (production plus stocks) will fall but barley availability should rise.
- ADHB Cereals & Oilseeds have reported record yields for spring barley, oats and oilseed rape for Scotland (see below).

Crop	2017 Production	% Increase on 2016
Winter barley	371,000t	13
Spring barley	1,509,000t	16
Wheat	988,000t	7
Oats	217,000t	8
Oilseed rape	140,000t	38

Source: AHDB Cereals & Oilseeds

- Scotland expects a bigger barley crop + 255kt this year if it can all be harvested satisfactorily. However, the generally poorer quality of some of the barley crops this year, with higher nitrogen and screenings levels and poor germination, mean more will end up as feed.

The additional supply of feed barley in Scotland is contributing to currently lower prices. Prices for better quality feed barley should recover, buoyed by a rising global barley market with global barley stocks to use at the lowest level in 34 years.

- While production of oats is up on last year, quality is disappointing, with high screenings and discolouration a common theme in England. In Scotland, oat harvest has been delayed by wet weather and poor ground conditions. So far, reports are of poor quality and yields being lower than expected.
- Rapeseed prices have the potential to weaken further. The UK has a surplus of rapeseed and crushers are importing cheaper rapeseed. Current UK levels are about £10 away from being attractive for the export market and if Sterling continues to hold, domestic prices will likely drop.
- Availability of by-products and protein sources this winter is very poor and it is best to try and secure any available product now, rather than waiting until later. The following table gives a rough guide as to availability and prices delivered (will vary depending on area).

Product	Price/T Delivered	Comment
Bread Waste	N/A	Sold out
Biscuit meal	£155	-
Wheatfeed	£149	Little available on spot market
Pot Ale Syrup	£75-£80	Effectively sold out
Draff	£30-£40	Very hard to get
Barley Dark Grains	£180	Very hard to get
Peas	£165	Estimate – no serious trade established
Beans	£170	Roughly £25/t over wheat
Potatoes	£28	Hard to get. £15/t ex farm

julian.bell@sac.co.uk, 07795 302264
lorna.macpherson@sac.co.uk, 07760 990901

Forage Budgeting Before it's too Late!

The poor weather over the past few months has caused many farms to house stock earlier than anticipated. It has also hampered silage making efforts, resulting in some farms having lower forage stocks than usual. Going forward into winter it is essential to know you have enough forage to see the stock through until next spring.

Calculate how much silage there is for the winter. Having marks on a silage pit wall is a good way to assess how quickly a pit is being used. Next the pit needs to be measured to calculate the volume in cubic metres (length x width x height). Multiply this by the fresh weight density (from the table below) and then divide by the dry matter of the forage. This will give the total tonnes of dry matter in a pit.

Volume x Density/DM = Dry Matter Tonnes

Silage density (tonnes/m³)

DM%	Clamp Height			
	2.0	2.5	3.0	4.0
20	0.780	0.840	0.890	0.950
25	0.690	0.730	0.775	0.830
30	0.620	0.660	0.690	0.740
35	0.570	0.600	0.625	0.670
40+	0.520	0.550	0.570	0.610

Source:AHDB

For bales, weigh 5 bales. This can be done with weigh cell bars from a crush or in a mixer wagon. Take the average weight of bales and multiply this by the number of bales. Then divide by dry matter.

Average Bale Weight x Number of Bales/DM
 = Dry Matter Tonnes

Having silage analysed regularly is vital to know the dry matter of the silage. This allows rations to be altered to use the forage to meet requirements and performance targets for all stock. Add up the total silage required per day. Divide this by the total silage in the pits. This will give you the number of days of silage available. If this leaves a shortfall towards the usual turnout date there are a number of options to see you through:

- Cull poor performing cows to reduce feed demand.
- Increase concentrate in the diet if possible to reduce silage demand. This may also help drive up milk production (but keep a minimum 40% forage on a dry matter basis in the ration for rumen health).
- Sell beef cross calves younger.
- Look for by-products to feed (difficult to find now).
- Buy in forage.
- Be stricter with culling repeat breeders.
- Only keep the number of replacements required. If the herd is young and performing well, perhaps sell surplus in-calf heifers.
- Feed straw based diets to dry cows and heifers.

All of these options should be considered now. Leaving this until January only compounds the issue making the problem worse. If other farms are in the same boat it will also increase the cost of silage to be purchased. Buying in additional forage now may seem expensive, but will likely be more cost-effective than waiting well into the New Year, especially if it is a late spring.

2017 has had one of the wettest summers on record. The other two years with similar summers (1985 and 2012) both had late cold springs in the next year. Perhaps it is worth feed budgeting to allow for this? If you require help in calculating your feed budgets please contact your local SAC Consulting Office.






andrew.taylor@sac.co.uk, 01292 525036

Maximising Nutritional Value of Maize Silage

With the maize harvest just upon us, here are some key tips to maximise nutritional value of maize silage. Timing of harvest is crucial to make sure that the target dry matter and starch content of the plant is reached. Early harvesting may be desired in areas which are short of grass silage. However, there are two key reasons why early harvesting is not encouraged. Firstly, it will lead to a lower dry matter which increases the risk of nutrient losses through effluent, a lower pH and higher acid load, which may restrict intakes and performance. Secondly, yield per acre will be reduced, as will starch content. In wet conditions soil contamination may also be a risk.

Maize should be harvested when the grain is at the firm dough stage, where the grains are generally cheesy and no juice is present (see guide below). Grains at the top of the cob should be a soft cheese consistency, with grains near the base being firmer, with a hard cheese consistency. At this point the dry matter of the cob is about 50% which equates to the target of 30% dry matter of the whole plant. Feed value and digestibility is maximised when there is only the slightest drop of moisture present from squeezed grain and there is still some green leaf present on the plant.

Maize grain maturity and dry matter

Grain Maturity	Description	Cob DM (%)	Whole plant DM (%)
 Milk	<ul style="list-style-type: none">Grain immatureAvoid premature harvesting	10-15	< 20
 Soft Dough	<ul style="list-style-type: none">Grains become firmerHusks remain green	20-28	20-27
 Hard Dough	<ul style="list-style-type: none">Silage maturity reached at 'hard dough' stageReduced risk of clamp effluent	30-45	28-32
 Hard Ripe	<ul style="list-style-type: none">Grain at 'hard ripe' stageCrop ready for late cut silage or CCM	48-50	33-35
 Fully Ripe	<ul style="list-style-type: none">Grain fully maturedHusks died backReady for crimped maize or late cut CCM	65-70	36-45

Source: KWS UK Ltd.

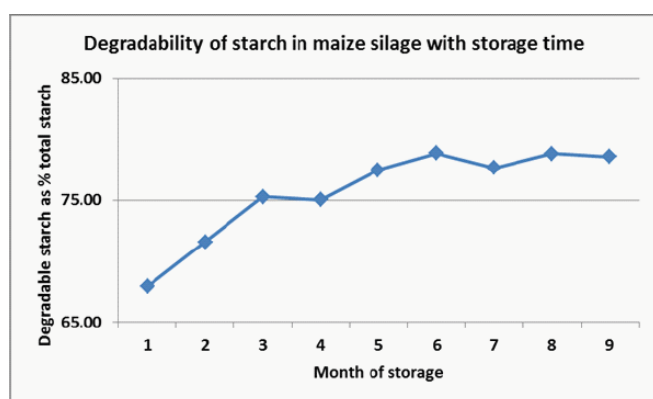
Chop length of maize silage is typically between 12-18mm but will depend on the dry matter and level of inclusion in the diet. If less than 30% dry matter, chop length should be closer to 20mm and over 35%, a shorter chop length will aid compaction in the clamp. The chop length can affect how well maize performs in the diet as well as how stable the clamp is.

Be aware that the recent wet weather can increase the risk of moulds and yeasts on the crop at time of ensiling, which means the crop can deteriorate faster once it is fed out. Mycotoxin risk will also be greater.

While maize at the correct harvest stage will ferment well within the clamp without the use of an additive (assuming good clamp management with rapid filling, good consolidation and sheeting), in certain situations an additive will help with higher dry matter crops (>35%), longer chop material (>20mm) and where the pit face is wide and susceptible to spoilage, particularly in warmer weather. Using a block cutter and crossing the face within a week will help reduce aerobic

spoilage. Judge how good consolidation is by trying to push your finger into the clamp face. If you can push your finger further than the depth of your fingernail, consolidation is not as good as it should be and air will be able to penetrate into the clamp, causing heating and nutritive losses.

Digestibility and starch content improves with time in the clamp as shown in the graph below. It is advised to wait at least one month before opening the clamp to ensure the pH and feed quality has stabilised. Achieving the target starch level of 30% means that the energy content of maize silage should be superior to most grass silages.



Source: http://farmnw.co.uk/factsheets/maize_management_feding_ensiling_and_harvesting

Whilst maize silage is a high energy forage and will encourage higher dry matter intakes when fed with grass silage, as opposed to a ration containing a single forage, it is very low in protein. Protein levels are typically 7 to 9% and so the higher level of inclusion in the diet, the more supplementary protein will be required.

Introduce maize silage slowly over a period of 5 to 10 days, starting with 1 to 2kg of dry matter and gradually increase over time. This allows time for the rumen microbes to adapt, allowing levels of starch digesting bacteria to increase and improve starch utilisation from the diet. Presence of these bacteria will be very low if cows have been fed only grass silage, where the rumen will contain high levels of cellulose (fibre) digesting bacteria. Including high levels of maize silage quickly can lead to digestive upsets and maize grain coming through in the dung.

The mineral content is relatively low compared to grass silage so make sure mineral supplementation is adequate. Calcium is half the

level typically found in grass silage and additional limestone may be required.

lorna.macpherson@sac.co.uk, 07760 990901

High Risk of Husk

Cattle lungworm has been a common diagnosis at SAC Consulting's Veterinary Centre at Dumfries recently as a cause of coughing, more severe respiratory disease, milk drop syndrome and death. Cases have been diagnosed in milking cows, mature bulls and grazing youngstock, with diagnoses made by both diagnostic testing and post mortem examination. Some points to note about husk in general:

- Lungworm is a potential problem on every dairy farm where cattle graze. The risks may be higher where cattle only get the opportunity to graze for short periods of time (e.g. dry cows) as their overall immunity might be less.
- Outbreaks are most frequent between the late summer and autumn, with peak incidence in August. The risk period can extend if weather conditions favour grazing later into the autumn.
- Disease is seen quite commonly in adult cattle with low levels of immunity, as a result of either long acting anthelmintics used in youngstock, or limited grazing in milking herds.
- Recently purchased animals can be at significant risk of husk, especially if their previous grazing history is not known.
- Diagnosis is usually made on the basis of clinical signs and history, and can be supported with laboratory testing for confirmation (by blood or dung test). Remember, cattle should not cough when outside grazing so any increased levels of coughing is of significance.
- Be aware of the risk of low grade lungworm infections pre-disposing to the common viral and bacterial pneumonias in growing cattle as they are housed this autumn.
- Some severe cases will not recover at all, with chronic suppurative (pus forming) pneumonia the end result. The following picture is a section of lung tissue from an animal that had been treated with anthelmintics but had not

responded to treatment. Remember that anthelmintics will kill the worms, but the animal has to get rid of the dead worms and this can take time with significant associated lung damage.

Lung tissue with severe lungworm infection



- Even if only a few animals show clinical signs, all animals in the group should be assumed to be infected and should be treated.
- After treatment, recovery times can be quite prolonged as a result of significant lung damage, an inability to clear dead worms from the bronchi and an associated hypersensitivity response causing coughing and laboured breathing.
- Lungworm is best prevented by vaccination prior to the first grazing season. The vaccine works by causing a controlled infection with irradiated live lungworm larvae. Prevention should be carried out by giving a vaccination course to youngstock, with the second dose targeted at least two weeks before turnout. Ensure that mixing of vaccinated and unvaccinated stock does not take place until at least two weeks after the second dose has been administered. This immunity will be maintained if calves are exposed to low levels of lungworm larvae during the grazing season.

colin.mason@sac.co.uk, 01387 267260

Mycotoxins: The Hidden Threat

Mycotoxins are often blamed for poor performance in the dairy herd when there is no obvious explanation. Often difficult to diagnose, symptoms

are vague and unspecific but their effects can fall into the following three categories:

- Impact on the digestive system, reducing available nutrients.
- Reproductive system effects.
- Immune suppression.

Mycotoxins are produced naturally by fungi and moulds in the field during crop growth, as well as during storage of cereals, feeds and forages. They can be present in the absence of moulds and the appearance of mouldy feed does not necessarily mean that mycotoxins are present. Hundreds have been identified and their presence in feedstuffs can only be confirmed through laboratory testing. The most common mycotoxins affecting dairy cows are detailed in the following table and fall into three categories of fungus: Penicillium, Aspergillus and Fusarium.

Key mycotoxins and their symptoms

Fungus	Color	Associated toxins	Symptoms
Penicillium	Blue-green	Ochratoxins, Citrinin, Patulin, PR toxin	Compromised rumen function, hemorrhaging in the digestive tract, immunosuppression and high somatic cell counts
Aspergillus	Yellow-green	Aflatoxins, Ochratoxins	Reduced feed intake, decreased milk production and weight gain, liver lesions and bleeding, reduced fertility, kidney damage, increased water intake, pulmonary edema
Fusarium	Pink-white	Zearalenone, DON, T-2 toxin, Fumonisin	Reduced feed intake and weight gain, reduced milk production, digestive disorders (feed refusal, diarrhea), acute hemorrhagic enteritis, reproductive failure, increased mortality

Source: Progressive Dairyman

Other commonly seen symptoms include: acidosis type symptoms, swollen hocks, lethargy, muscle tremors, bloody faeces, unsettled cows and generally poor performance.

Some mycotoxins can be deactivated in the rumen by certain bacteria and protozoa, making ruminants less susceptible to their effects compared to pigs and poultry. However, given the higher feed consumption of dairy cows and faster rates of passage through the rumen as milk production increases, high yielding cows may be more susceptible as rumen microbes have less time to detoxify mycotoxins. Dairy cows are also under higher metabolic stress compared to other ruminants, and so their natural detoxification mechanisms are not so effective.

Zearalenone (or ZON) is particularly dangerous as the rumen can convert 90% of it to alpha-zearalenol which is ten times more toxic. ZON has oestrogenic activity, interfering with conception, ovulation and embryo implantation and development. There are many clinical symptoms of ZON including abortions, prolonged oestrus, poor conception rates, swollen vulvas, vaginal secretions, reproductive tract infections, poor feed intake, reduced milk yield and diarrhoea.

Crop rotation is very important in prevention as the risk of mycotoxins forming in the field increases with monoculture and growing closely related crops year-on-year in the same field. Weather also plays a part, as very wet conditions at flowering and harvesting of maize silage can increase mycotoxin presence. High levels of DON and ZON can be found in both barley and wheat straw, especially if it has been baled damp.

Toxins can be produced from moulds in the silage pit until all the air is expelled and are more common with high dry matter silages, which are more difficult to compact. Even after sheeting the pit, mould can develop on the clamp surface and near where there are any air leaks. Discard any silage that has spoiled and do not feed it to livestock. Pay attention to clamp management to reduce secondary fermentation and spoilage. Silage inoculants can help, enabling a faster fermentation and drop in pH in the clamp. Mould growth is reduced with rapid production of lactic acid in the silage making process.

Good management of the feed trough is essential as moulds can grow when they are in contact with oxygen, activating dormant mould spores. This is why providing fresh feed daily and cleaning out the trough regularly to get rid of refusals is important.

If you suspect mycotoxins try using a mycotoxin binder. Make sure it is a broad spectrum binder, effective against a wide range of toxins and is scientifically proven. This can help reduce the symptoms and improvements in milk yield and dung consistency may be evident after one to two weeks. Avoid clay based binders as clay is not effective against *Penicillium* mycotoxins and binds vitamins and minerals, making them unavailable to the cow.

lorna.macpherson@sac.co.uk, 07760 990901

Crichton Royal Farm Update

Harvest has been in full swing at Crichton Royal Farm. The first lot of maize silage was harvested on the 5th October (early maturing, 1 cob varieties Lovely and Emmerson). Lovely yielded 31t/ha (12.4t/acre) at 36.5% dry matter and Emmerson yielded 29.5t/ha (11.8t/ha) at 34.5% dry matter. The later maturing Marco variety will be cut within the next two weeks. This is a 2 cob variety which is expected to yield 125% of the 1 cob varieties.

Beans were also combined on the 5th October with a decent yield of 6.95t/ha (2.8t/acre) at 77% dry matter. Whilst the beans provide a good source of home-grown protein and reduce the amount of bought in protein supplements for the Langhill cows on the Standard Energy Diet, the decision has been made not to grow beans next year. This is due to EFA changes which prohibit the use of any herbicides on nitrogen fixing crops. Home-grown protein is not a requirement of the Langhill systems work and the farm is more efficient growing cereals, which can be utilised as wholecrop or combined for grain and straw, the latter often having to be bought in at a high cost.

Beans being combined at Crichton Royal Farm



The multi-cut system was progressing nicely, with the 4th cut taken on the 20th August. However, due to adverse weather conditions, the 5th cut at Crichton has not been taken and is well past the desired stage of cutting for high quality silage. A 5th cut of 45ha was made into bales on the 18th September at Acrehead, with 348 rounds made in challenging conditions. Depending on weather conditions it may still be cut or grazed by youngstock. Despite this, farm manager Hugh McClymont is pleased with this system of multiple silage cuts, given the improvement in silage quality over the traditional 3-cut system, and believes it justifies the extra contracting costs. It has been more cost-effective with hourly charging as

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opposed to acreage charging. Silage pits are all full and although exact tonnage hasn't been calculated yet, considerably more grass has been cut for silage this year.

It has also been a very busy fortnight for visiting groups to the farm. At the end of September, 25 undergraduate students from Glasgow University spent the day digging holes and learning about soil texture and structure. They used the Visual Evaluation of Soil Structure (VESS) method along with bulk density to assess the compaction of the soil. A group of 3rd Year Degree students in Farm Business Management from Newcastle University also visited last week to learn about all aspects of dairy systems, including colostrum management. Lastly, the Mourne View and Drogheda Dairy Farmers Group from Co. Louth, Eire, were recently shown round the various facilities at Crichton Dairy Research and Innovation Centre by Hugh, who also organised visits to other dairy farms in SW Scotland whilst they were here.

Recent purchases for the farm include a hydraulic crush, which will enable staff to deal with lameness cases more efficiently and a pasteuriser for colostrum. It is hoped that this will improve calf health and reduce antimicrobial usage over time.

The farm was recently awarded the accolade of Youngstock Producer of the Year in the For Farmers Excellence in Farming Awards, being the 2017 Regional Finalist. Hugh gives the credit of this award to the farm's calf rearer, James Coupland. The farm will be put forward to the national awards in London in November.

lorna.macpherson@sac.co.uk, 07760 990901

Dates for your Diary

- 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.
- 25th October - **Calf to Calving - Minimising Stress to Maximise Return**. Glasgoforest, Kinellar, Aberdeenshire, AB21 0SH. Time: 10.45 - 14.30.
- 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/>
- 7th November – **Cultivating Soil Health Field Lab**. Fife. Time 13.30-16.00. Booking is essential. Free of charge to farmers, growers and land managers and £40 + VAT to others. For more information call Jane on 0131 666 2474.
- 15th November – **Agriscot**. Royal Highland Centre, Ingliston, Edinburgh, EH28 8NB.
- 17th - 19th November – **SAYFC Agri and Rural Affairs Conference**. Golden Lion Hotel, Stirling. Event Organiser SAYFC t: 0131 333 2445 penny@sayfc.org
- 27th- 28th November – **Aberdeen Christmas Classic**. Thainstone Agricultural Centre, Inverurie, AB51 5WU.
- 30th November – **Grass Matters Conference**. Dumfries. For more details contact Lyn White - Soil Association t: 07899 791748 lwhite@soilassociation.org
- 30th November – **Optimising Animal Health**. Auchmore Farm, Muir of Ord, Ross-shire, IV6 7XB. Time 10.30-15.00. Event Organiser SAC Consulting t: 01463 233 266 FBSInverness@sac.co.uk

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



Lorna MacPherson (Dairy Consultant)
SAC Consulting Office
Thainstone Agricultural Centre
Inverurie
Aberdeenshire
AB51 5WU
Email: lorna.macpherson@sac.co.uk
Tel: 01467 625385
Mobile: 07760 990901
Fax: 01467 620607



Csaba Adamik (Senior Dairy Consultant)
SAC Consulting Office
2 Technopole Centre
Bush Estate
Penicuik
Midlothian
EH26 0PJ
Email: csaba.adamik@sac.co.uk
Mobile: 07880 472661
Fax: 0131 603 7501

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