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Milk Manager NEWS

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Milk Manager NEWS

Milk Market Update

Dairy Commodity Markets

- Fonterra's latest on-line GDT auction (5th November) resulted in a 4.8% increase in the weighted average price across all products, reaching US $3,997/t. This follows a 0.3% drop at the previous auction in mid-October. All products on offer sold at higher average prices than the previous auction, except for lactose, which was down 6.1% to $843/t. The biggest rises were seen in butter and anhydrous milk fat, up 8.3% (to $6,990/t) and 4.6% (to $7,558/t) respectively. Full results are available at https://www.globaldairytrade.info/en/product-results/

- The UK wholesale market for dairy commodities has eased from the all-time highs seen for butter and cream in September. Prices are now in decline due to higher milk volumes in September, along with higher levels of fat in the milk. Increased production has come on the back of good grass growth and higher production from Autumn block calving herds.

Commodity	Oct 2024 £/t	Sep 2024 £/t	% Difference Monthly	Oct 2023 £/t	% Diff 2024-2023
Bulk Cream	3,096	3,147	-2	1,791	+73
Butter	6,500	6,730	-3	4,070	+60
SMP	2,090	2,150	-3	2,220	-6
Mild Cheddar	4,300	4,150	+4	3,290	+31

Source: AHDB Dairy - based on trade agreed from w/b 23rd Sep - 20th Oct 2024. Note prices for butter, SMP and mild cheddar are indicative of values achieved over the reporting period for spot trade (excludes contracted prices and forward sales). Bulk cream price is a weighted average price based on agreed spot trade and volumes traded.

- While supplies of butter and cream are still tight there is little product being traded forward given market uncertainty and buyers hope that prices will fall further. Butter stocks are tighter than cream, given that it is more cost-effective to sell cream than process it into butter. Tight butterfat supplies have also been seen in the EU and this has greatly impacted the global markets. While the EU milk supply usually increases seasonably in November and December, it is likely that butter availability will remain tight, partly driven by continuing demand for cheese. In addition, bluetongue infections continue to affect milk output in northwest Europe, although the duration and extent of its impact on milk supplies is difficult to predict, with several control measures in place and use of vaccines.

- The UK SMP price was also down for October, following the trend seen in global markets and expectations of higher milk volumes going forward, both domestically and abroad.

- Mild cheddar bucks the trend with a 4% increase in the average price for the month, and while cheese markets are usually slower to respond to market forces compared to butter or cream, futures cheese prices into next year for both Q1 and Q2 are down.

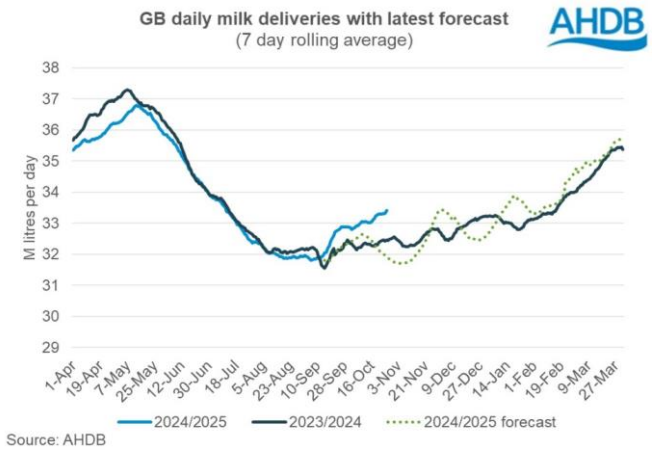
- With falling prices for butter and cream, it was no surprise that AMPE fell by 1.66ppl for October but MCVE continued to rise by 1.69ppl on the back of the positive movement in mild cheddar price. While the Milk Market Value indicator went up from 45.36ppl in September to 46.38ppl in October, the rise was less than it has been over the last five months. The average Defra farm-gate milk price for September was 43.06ppl, up 1.5ppl from August.

	Oct 2024 ppl	Sep 2024 ppl	Oct 2023 ppl	Net amount less 2.4ppl average haulage - Oct 2024 ppl
AMPE	45.49	47.15	34.53	43.09
MCVE	46.60	44.91	34.59	44.20

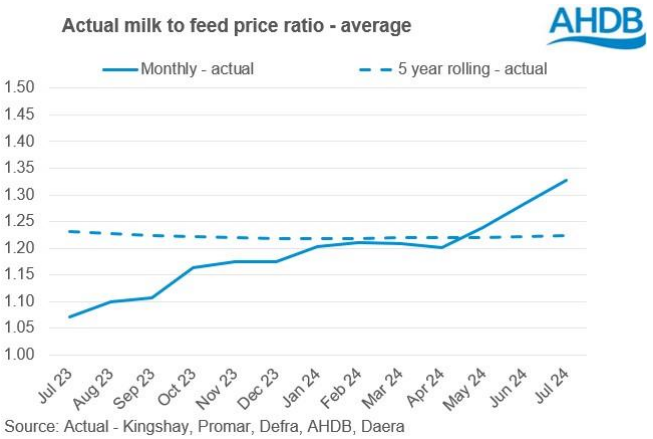
Source: AHDB Dairy

GB Milk Deliveries and Global Production

- Since mid-September, milk production has jumped on the back of more favourable grass growth and grazing conditions, and volumes are now well above this time last year. Daily deliveries for the w/e 26th October were 33.41 million litres, which is 0.4% more than the previous week and 2.9% higher than the same week last year (equating to an extra 950,000 litres/day). The recent AHDB milk forecasting forum estimates that GB production for the 2024/25 milk year will be 12.28blitres, just 0.3% less than the previous year.



- Given that milk prices are still rising, the milk price to feed price ratio is favourable, meaning there is more incentive to feed more concentrates to cows to stimulate milk production, which should return a financial benefit. The latest data from AHDB put the ratio for July at 1.33, with above 1.25 being classed as the expansion zone for milk volumes and when the ratio is between 1.15 and 1.25, milk production is predicted to be stable. Below 1.15 production is expected to contract as either low milk prices and/or high feed costs do not encourage higher feeding rates.



- Global milk deliveries for the six key exporting regions totalled 782mlitres/day for August which is just 0.1% down on the same month last year. Production in August was up in Australia (+2.9%), New Zealand (+9.0%) and the US (+0.4%), with declines seen in Argentina (-6.2%) the EU (-1.0%) and the UK (-0.1%). Argentina has been suffering with prolonged drought and this has greatly impacted forage supplies, hence the significantly lower output.
- At the end of August, Rabobank were predicting that milk production from the seven key regions (US, New Zealand, EU, Australia, Argentina, Uruguay and Brazil) would increase in the 2nd half of 2024, resulting in a 0.14% growth in milk for the whole of 2024, and a 0.65% increase in supply in 2025 over 2024 production. So far New Zealand have had a good start to their milk production year on the back of favourable conditions for grass growth. Small changes in supply can greatly impact market prices and if global commodities fall on the back of increasing supply, EU markets will also be affected, impacting our domestic market and farm-gate milk price.

Monthly Price Movements for November 2024

Commodity Produced	Company Contract	Price Change from Oct 2024	Standard Litre Price Nov 2024
Liquid & Cheese	**Arla Farmers UK**	*+2.53ppl liquid +2.63ppl manufacture*	45.72ppl liquid 47.65ppl manufacture
Cheese, Liquid & Brokered Milk	**First Milk**	*+1.25ppl manufacture*	43.85ppl manufacture
Cheese	**Fresh Milk Company (Lactalis)**	*+1.26ppl manufacture*	44.11ppl manufacture
Liquid & Manufacture	**Grahams**	*No change*	40.0ppl
Liquid & Manufacture	**Müller Direct**	*+1.00ppl*	42.25ppl (includes 1ppl direct premium. Does not include haulage charge)
Liquid & Manufacture	**Müller (Co-op)**	*+0.92ppl*	41.13ppl
Liquid & Manufacture	**Müller (Tesco)**	*-0.43ppl*	40.44ppl

Other News

- A study by the University of East Anglia has revealed that methane emissions from slurry stores may be as much as five times higher than previously thought. Measurements came from slurry lagoons on two Cornish dairy farms during 2022/23, where the lagoons were sealed with airtight covers and the methane captured. The actual emissions from the two farms were 145kg/cow/year and 198kg/cow/year

respectively, but the current official figure from the UK's National Inventory is just 38kg/cow/year. If that methane can be captured and converted into biogas (with the technology already existing), it could be worth £52,500 to the average-sized dairy farm.

- Dental health in cattle is perhaps a topic that doesn't cross many farmers minds. However, dental health has been brought to the forefront by Jillian Gordon, founder of Ovation Agriculture. This Edinburgh-based company is planning to manufacture a dental gag for cattle to aid treatment and prevent dental conditions that can significantly impact welfare and therefore productivity. In addition to manufacturing tools to carry out dental checks, the company will also deliver courses in dental knowledge and treatment management skills.

- Arla's recent survey of 472 members revealed worrying statistics on labour and recruitment. Over half of those surveyed said it was increasingly hard to recruit staff, with 86% of those with vacancies saying they had received very few or no candidates with the required skills. Wages are now 27% higher than pre-Covid levels and as a result, 8.5% have reduced milk output, 10.6% have cut cow numbers and almost 16% said they are thinking about quitting milk production (up from 12% last year).

- Recent cost of production data from The Dairy Group highlighted an 8.9ppl difference between the top 25% compared to the average dairy farm. For 2023/24 the cost of production was 45ppl with a loss of 0.6ppl, largely attributed to a drop in milk price of 5.3ppl. For the 2024/25 year, the cost of production is estimated at 44.2ppl, back 0.8ppl mainly due to lower feed costs. The forecast is for a small profit of 0.5ppl after family labour is accounted for.

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Cereals Update

UK Cereals Market Update and Global Impacts

AHDB have published the 2024/25 Early Balance Sheets for wheat and barley for the UK. Wheat production at 11.05Mt is down 21% on last year and despite the heaviest opening stocks for over 20 years, home produced availability for 2024/25 will be down 9% requiring an estimated import requirement of 2.63Mt.

A 3% and 7% increase in barley production against the five-year average in England and Scotland respectively, more than offsets declines in opening stocks and imports, therefore national availability of barley is expected to increase 1% to 8.49Mt. Domestic consumption on farm is anticipated to rise 8% as inclusion in rations looks more favourable to wheat given relative pricing. With human and industrial barley consumption set to fall 4%, net domestic consumption is forecast up 4% on 2023/24. UK malting barley demand is reported lower by 83KMt (4%) compared to last year and playing its part in stifling premiums.

Rapeseed, conversely, sees strong support despite poor crush margins, mostly driven by the fundamentals of supply and demand, and the expectation of lower global production this year into next is likely to keep prices supported.

Grain prices continue to be more limited by the lack of EU wheat competitiveness and poor barley export demand. Over the last four weeks the markets have drifted downward; Nov 24 London Feed Wheat Futures have lost £12/t and were priced in at £178.20/t, as at 5th November. Currently Scottish grains are trading at a local premium (Basis) £10-12/t above the London Wheat Futures.

While weather conditions have globally improved everywhere in the UK, EU, US, Russia, Brazil and Argentina, expectations of reduced Russian exports due to export restrictions and lower production this year could support prices in the longer term.

£ per tonne	**Ex-farm Nov '24**	**Jan '25**	**Apr '25**	**Nov '25**
Wheat	191	195	199	194
Feed barley	163	166	161	164
Malt. dist. barley	206	210	-	-
Oilseed rape	409	415	420	389
Feed beans	-	235	-	-

Source: United Oilseeds, Hectare and AHDB

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Should You Feed Silage to Weaned Calves?

There is a lot of debate around whether weaned dairy calves can be fed on a grass silage-based ration. Standard industry guidance for years has been to feed weaned calves on straw and concentrates until around six months of age before transitioning them to a silage-based ration. The reason for this is that the rumen is not fully developed until five to six months of age and is therefore not able to fully digest and utilise a fermented feed such as grass silage. However, many farmers do feed weaned calves on grass silage and seem to have no problem with it.

With high prices for straw, some farmers may be tempted to try and reduce straw requirements (and concentrate feed costs) and feed dairy calves on a silage-based ration earlier than normal. If so, there are a number of things to be aware of:

- Calves may not produce sufficient saliva to effectively buffer acidic rumen contents from the fermentation of silage and concentrates, especially where low fibre and wetter, more acidic silages are fed. More saliva will be produced by feeding straw as opposed to silage and so hay would be a good compromise between the two.

- Silage-based rations tend to be fed with less concentrates compared to a straw-based ration, therefore there will be more acetic acid produced in the rumen from silage fermentation. Acetic acid is less favourable for papillae development in the rumen wall and papillae are important to increase the surface area for nutrient absorption in the rumen.

- A higher concentrate diet (starch) drives more butyrate and propionate production in the rumen, aiding papillae development.

- Straw aids development and thickening of the muscular layer of the rumen wall and its “scratch factor” also helps normal papillae development.

- Calves will produce wetter faeces when fed on silage, meaning a wetter, dirtier environment with a greater coccidiosis risk.

Therefore a straw and concentrate based ration will be more favourable for faster rumen development, which in theory should aid better nutrient absorption and growth.

There is little scientific evidence regarding the use of grass silage for weaned dairy calves and effects on performance. However, if you are looking to move calves onto a silage-based diet earlier than normal, here are some tips:

1. Drier, less acidic silages are more favourable for intakes. Aim to feed silage that is over 30% dry matter. If a wetter, more acidic silage must be fed, consider feeding a rumen buffer.

2. Know the quality of the silage being fed. Get it analysed so your nutritionist can advise on the required protein content of the concentrate and recommended feeding rate to achieve the target growth rate.

3. Gradually introduce silage, while still providing straw and increase the silage inclusion over a period of 7-10 days to ensure gradual adaptation of the rumen bugs to the change in forage.

4. Concentrates - a lower protein concentrate will likely be required with silage compared to when feeding straw (depending on the silage analysis). Make sure the change in concentrate is also gradual and they are mixed for a few days, gradually increasing the proportion of the new concentrate.

5. Ensure calves have been fully weaned off milk for a minimum of two weeks before making any change to their diet and any change should be done gradually.

While often the best silage quality is kept for the milking herd, silage quality for calves also needs to be excellent and any silage with the presence of moulds should be avoided. Also, poorly fermented silages will be less palatable, reducing dry matter intake. Maximising dry matter intake of forage will be crucial to support high growth rates when feeding less concentrates compared to a straw-based system.

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A Recap on Winter Lameness Management: Prevention is Better than Cure

The estimated average cost of a case of lameness in dairy cows is £180. Whilst we are all aware of the risks and costs of cattle lameness, it can sometimes be easy to fall into the position of firefighting rather than fireproofing when winter work starts to get busy. Housing cattle can often be more labour intensive than grazing them and for farms that only house in the winter rather than year-round, it may have been a few months since lameness was at the forefront of management considerations. Planning for hoof health can help prevent the incidence of lameness, minimise yield losses, improve welfare and most importantly minimise the time you have to spend at the cattle crush over the winter months.

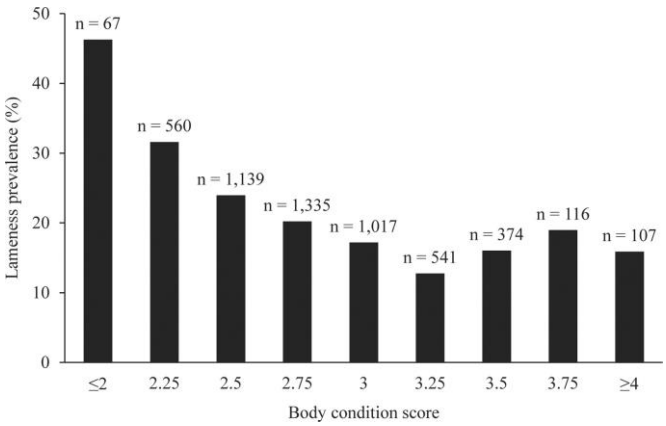
Managing the herd

When cattle are grazing, disease-related lameness (e.g. digital dermatitis) is generally less of a risk. However, even whilst the risk is lower it is still a good idea to run the herd through the footbath occasionally, especially in the weeks leading up to housing to ensure that the incidence of disease-causing bacteria coming into the shed are as low as possible. Foot bathing regularly to keep these bacterial populations down is important, not just for the milking herd but also for youngstock and dry cows. Make sure that you prepare the footbath with the correct concentration for your footbath product, as guidance can vary slightly between products and so switching products can sometimes catch you out. For larger herds it is also recommended that the footbath is replenished during the milking, so the efficacy of the footbath is the same for the last cow as it was for the first cow. The rule of thumb is 100 litres of footbath per 100 cow passes.

Routine hoof trimming to ensure the correct weight distribution across the hooves can help avoid lameness issues such as ulcers and white line disease. Hoof trimming should be undertaken at least once if not twice a year. Dry-off or just after dry-off is a popular time to trim to ensure that the cow is going into her next lactation on good feet. If doing a second trim as well, this is often done at around 100 days in milk. Routine mobility scoring of the cows can also help to identify issues early and minimise the severity and loss associated with lameness incidence.

Nutrition can also play a role in the management of lameness. Managing body condition is important as a low body condition score can lead to reduced thickness of the fat pad in the hoof which can increase the risk of claw horn lesions (see figure 1). Very high starch diets can also be problematic as it can cause acidosis in the rumen which can potentially lead to laminitis. Biotin and chelated zinc inclusion in a mineral supplement are proven to aid horn quality and reduce the risk of lameness.

Figure 1. Body condition score and incidence of lameness.



Source: Solano et al 2015, Journal of Dairy Science

Culling of repeat offenders is the last tool in the toolkit to ensure that any genetic predisposition to lameness is not retained within the gene pool, as well as just benefiting the herd through minimising the carrying of less productive and less efficient animals.

Managing the shed

Prolonged amounts of time stood in deep slurry can lead to softening of the claw horn and skin, so keeping the slurry depth to a minimum can help prevent the incidence of anatomical lameness as well as bacterial lameness. Assessing and addressing areas of broken concrete, uneven slats and pinch points where cows often slip and trip can also help prevent injuries occurring. Ensuring the cows have enough feed space can help avoid pushing, straining and twisting forces on the hooves which can cause injury. Using rubber matting in areas of high cattle traffic and areas that cattle have to turn tight corners like the exit from a parlour can

also help avoid injuries to the white line area and wear on the hooves.

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The Benefits of Good Ventilation

Many businesses have housed dairy cattle earlier this winter due to extended periods of wet weather, poached fields, limited grazing and variable (but often mild) temperatures. Protecting the herd from the elements shouldn't be the only consideration when it comes to housing. The airspace within a shed will have a significant impact on animal health and productivity.

There are three fundamental factors that should be controlled by ventilation within a shed to maintain ideal conditions for livestock:

1) Fresh air, that is as free from bacteria, dust and the gases produced by cattle as possible. Ammonia levels over 25ppm will aggravate mucous membranes and the respiratory tract, making the animals more vulnerable to respiratory diseases.

2) Excess moisture can harbour harmful viruses and bacteria, which can increase the risk of infection transmission and increase the prevalence of pneumonia and mastitis.

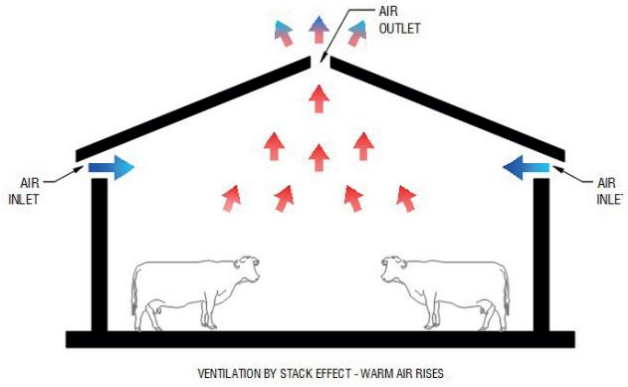
3) Draughts should be controlled by ventilation. Excessive air speeds around livestock will increase discomfort and the rate at which body heat is lost in cold weather. While adult cows are more tolerant of colder temperatures and higher than desired windspeeds in sheds, young calves will be more affected. In these colder months calves will use more energy to maintain their body temperature, directing energy away from growth and building their immune system. The lower critical temperature (LCT) is the temperature below which a calf requires extra energy to stay warm. A calf between 0 and 3 weeks of age has a LCT of 10-15°C (dependant on wind speed) and a calf over three weeks old has a LCT of 5-10°C. However, draughts (i.e. air speeds in excess of 0.2m/s) can produce a cooling effect on the calf causing the LCT to increase.

To maintain good growth rates in calves throughout the winter months the following could be adopted:

- Dry newborn calves to reduce heat loss.
- Use a max/min thermometer at calf height to monitor the shed temperature daily.
- Ensure the shed has good drainage to reduce dampness.
- Use calf jackets if the temperature drops below 15°C.
- Review milk feeding rates to ensure you are feeding sufficiently for your target growth rate.

A well-ventilated shed will allow fresh air to be pulled in and stale air to be pushed out whilst avoiding draughts. This movement of air is driven by thermal buoyancy, more commonly known as the 'stack effect'. The stack effect occurs when the heat generated by cattle warms the air, which causes the air to rise. The warm air that contains bacteria, dust and moisture escapes through the shed outlet. Fresh clean air is then drawn in through side wall inlets.

The stack effect – ventilation by thermal buoyancy.



Source: Farm Advisory Service

If there is insufficient outlet, the warm air will fail to escape the shed, cooling before falling back down onto bedding, increasing the moisture content and providing the ideal environment for bacteria to flourish. At a relative humidity of over 75%, viruses and bacteria are able to survive for sustained periods of time, increasing the spread of disease between animals.

If there is insufficient inlet, there won't be enough cool, fresh air drawn into the shed. Warm air will rise more slowly, giving it time to cool before reaching

the outlet, which allows pathogens and moisture to stay in the shed.

A cow requires 0.1m^2 of ridgeline outlet and growing cattle and calves require 0.04m^2 of outlet. The area of required inlet is double that of the outlet (0.2m^2/cow and 0.08m^2/calf). Very young, small calves will not generate enough body heat for the stack effect to work. Mechanical ventilation such as a fan and tube system would be more practical in a calf house.

An example of good ventilation with adequate inlets on either side of the building and a wide outlet in the ridge.

You can test how your sheds' ventilation stacks up by using a smoke bomb to observe how quickly the smoke escapes from the shed. If the air clears within 60 seconds, this will indicate there is adequate ventilation. If the smoke takes over 60 seconds to leave the shed this would signal that alterations could be made to improve airflow. A well-ventilated shed can help lower your bedding bill and increase productivity of livestock by up to 5%, which makes any investment in shed alteration seem worthwhile. For more information see the Technical Note on Cattle Housing and Ventilation by the Farm Advisory Service: https://www.fas.scot/downloads/technical-note-tn689-cattle-housing-ventilation/

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Winter Slurry Storage Contingency Planning

With the cows housed and the night's drawing in, we can be sure that the weather will also turn sooner rather than later. This winter will mark the last before the 22-week storage requirement comes into effect for those operating livestock on a slurry system. Therefore, now is a good time to take stock of where your business is in terms of storage and compliance - you'll likely not get a better chance to see your farm at its wettest and the window to act is closing.

Following the update to the Controlled Activities Regulations (CAR) to incorporate the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2003 (as amended) (SSAFO) a mandatory requirement has been enacted to provide a minimum of 22-weeks of effective slurry storage. This change is not exclusive to the dairy industry but farmers in the sector are most likely to be impacted. The table below provides an overview of the new requirement, setting out important context.

Aspect	Rationale
Minimum storage capacity	The new rule mandates that farms with cattle must have sufficient slurry storage to last for 22 weeks, a reduction from 26 weeks required under SSAFO. This is to ensure that farmers have enough capacity to store slurry during the times of the year when spreading it on fields is either not allowed or not advisable, e.g. during winter when prolonged wet weather increases the risk of run-off from fields.
Why 22 weeks	The 22-week requirement is based on ensuring that farmers can handle slurry in an environmentally responsible way, as well as aligning NVZ rules and CAR. It provides a buffer to avoid slurry applications at inappropriate times, especially during the closed period for slurry spreading within NVZs and when field conditions are inappropriate in other areas (typically the winter period). This duration has been calculated to ensure that farmers can store slurry safely during months when spreading would be harmful to both soil and water bodies due to waterlogged, frozen or snow-covered ground.
Impacts on water quality	The requirement is aimed at reducing the risk of nutrient run-off into nearby rivers, streams, and other water bodies. This is part of a broader strategy to reduce agricultural pollution, as slurry can be a major source of nitrate, phosphorus and faecal bacteria. With adequate storage, farmers can manage slurry better, spreading it only when

	conditions are suitable, rather than when storage facilities are full, which historically led to pollution incidents.
Impleme-ntation timeline	Farmers were given a four-year transition period to comply with these requirements. The Scottish Environmental Protection Agency and other Scottish Government agencies are working with farmers to support them in meeting this standard. However, those who fail to meet the requirement may face penalties, including fines or restrictions on their operations. All farms operating outside of a NVZ must comply with the minimum storage requirement by 1 January 2026.

So, what can you do? Well, cows will always produce slurry and as a general rule of thumb, the more milk, the more slurry. With that in mind, the easiest wins are often to be found in cutting down the amount of clean water that enters your stores.

Areas of concern	Why target?
Parlour	Standard figures suggest that the average farm uses between 18 - 35 litres of water/cow/day to wash the parlour. Any actions that can be taken to reduce use or recycle water ultimately means fewer litres of water being contaminated and requiring storage. Consider rainwater harvesting or if water used in plate coolers for example could be diverted to the parlour.
Steading	It might seem simple but making sure guttering and downpipes are intact and fully functional can go a long way in cutting down on water around the steading. Water that hits a roof is classed as clean until it mixes with slurry, so don't let it and you won't have to deal with it.
Stores	Concerns around the consistency of slurry and how easily it will spread if too thick are absolutely valid. However, where a business can cover their stores, this can provide excesses of effective storage and extend the storage capacity of existing towers and lagoons.

If in doubt, Farming and Water Scotland is available to provide support and advice, with a range of helpful and easy to understand guides and factsheets on topics ranging from slurry storage to RAMS mapping and ditch clearing to use of pesticides.

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Waterbeds – the Ultimate in Cow Comfort?

Ensuring good cow comfort is critical to welfare and productivity and a new type of lying surface is gaining momentum – waterbeds! First developed in Europe over 15 years ago, the first design had problems with poor drainage and insufficient cushioning for the cows' knees. Fast forward a few years and there are now various waterbeds on the market. The benefits reported include better cow comfort with longer lying times, fewer hock lesions and swollen hocks, higher milk production and they can even help to alleviate heat stress. What's not to like? The downside is that the cost is higher than rubber mats or mattresses, but with the proven benefits and greater payback in cow welfare and milk production, they could be money well spent.

Sand bedding is thought to be the gold standard when it comes to cow comfort and reducing somatic cell counts and mastitis. Research is however mixed regarding the incidence of hock lesions, knee injuries and somatic cell counts when comparing waterbeds to other lying surfaces. A study published the Journal of Dairy Science in 2007 (Fulwider et al.) produced favourable results for waterbeds. Twenty-nine farms with waterbeds were compared with rubber filled mattresses (38 farms), and sand bedding (27 farms), with cows scored for cleanliness, hock lesions and hock swellings on the front and back legs. The results are summarised in the following table:

Lying surface	**Hock lesions (hairless spots) %**	**Swollen hocks %**
Waterbed	25	3
Rubber filled mattress	72	17
Sand bedded	35	3

In terms of cleanliness, cows on sand tended to be slightly dirtier than those on mattresses or water beds. However there was no significant difference in somatic cell counts across the different lying surfaces. In this study, cows on waterbeds had the lowest cull rates and those on mattresses had the highest cull rates.

Waterbed cubicles can help reduce the incidence of hock lesions, as the bed is pliable and moves with the cow, so pressure points are eliminated when cows lie down. It is also easier for moisture on the

bed to drain away and movement of the surface helps dislodge dried-on manure. A further benefit is that the level of cushioning does not get worse over time, unlike rubber mats or mattresses.

When it comes to big differences in environmental temperature between summer and winter, waterbeds are unlikely to freeze, even when temperatures are below freezing. If they do freeze, there is no long-term impact on performance of the bed. There is also evidence to suggest these beds have a cooling effect on cows in hot temperatures, with their surface temperature being nearly 3°C cooler than sand, mattresses or manure solids bedding.

Other factors to consider when choosing a new lying surface include lifespan, bedding requirements/costs, labour and management to maintain cleanliness. Some waterbed manufacturers suggest a 15–20-year lifespan, with lower bedding material requirements.

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Dates for Your Diary

- 13th November - **Agriscot**. Royal Highland Centre, Ingliston, Edinburgh, EH28 8NB. Time: 09.00-17.30.

- 18th - 19th November - **Hannah Dairy Research Foundation Conference**. Moredun Research Institute, Pentlands Science Park, Bush Loan, Penicuik, EH26 0PZ. For more information and to register your interest please visit: https://www.journalofdairyresearch.org/next-generation-dairying-2024.html

- 20th November - **Farm Scale Renewables - the What, the Why, the How?** Mawmill Farm, Kinross, KY13 0LN. Time: 10.00-14.20. To book your place please visit: https://www.fas.scot/events/event/farm-scale-renewables-the-what-the-why-the-how-kinross/

- 26th November - **Milllands Farm - AHDB Strategic Dairy Farm Final Meeting**. Ayrshire Food Hub, Crossroads Roundabout, Hurlford, Kilmarnock, KA1 5JQ. Time: 18.30. To book your place please visit: https://commsahdborguk.ctml2.com/ahdblz//EventMgr_BookEvent1.aspx?eID=2057&_gl=1*m1aa1u*_ga*MjAyNDUwNDY3MC4xNzI3MTkyMTYz*_ga_SGVNLVJRVM*MTcyODMxNjAzNy42LjAuMTcyODMxNjAzNy42MC4wLjA.

- 27th November - **Grassland Roadshow Lanarkshire**. Radstone Hotel, Larkhall, ML9 2TZ. Time: 10.30-15.00. For more information and to book your place please visit: https://www.fas.scot/events/event/grassland-roadshow-lanarkshire/

- 7th December - **Black and White Sale**. Borderway Mart, Rosehill, Carlisle, CA1 2RS. Time: 11.00-18.00.

- 12th - 14th January - **Semex International Dairy Conference**. Radisson Blu Hotel, 301 Argyle Street, Glasgow, G2 8DL

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

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