

Issue 50

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Milk Manager NEWS



**Farm
Advisory
Service**

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Market Update

UK Wholesale Dairy Commodity Market

- Fonterra's latest on-line GDT auction (6th September) resulted in a 4.9% rise in the weighted average price across all products, reaching US \$4,007/t. This is the first price rise since the 21st of June, with five out of the six products on offer returning positive price movements since the last auction. Butter milk powder bucked the trend with the price down 5.1% to \$3,537/t. The biggest increases were seen in anhydrous milk fat (+13.9% to \$5,677/t) and whole milk powder (+5.1% to \$3,610/t). Full results are available at <https://www.globaldairytrade.info/en/product-results/>
- Lower UK wholesale prices of dairy commodities were partly down to lower demand during the summer holiday period and all commodities were slightly back on their average price compared to the July reporting period.

| Commodity | Aug 2022 £/T | Jul 2022 £/T | % Difference Monthly | Aug 2021 £/T | % Diff 2022- 2021 |
|--------------|-----------------|-----------------|-------------------------|-----------------|-------------------------|
| Bulk Cream | £2,774 | £2,850 | -3 | £1,563 | +77 |
| Butter | £5,850 | £5,940 | -2 | £3,290 | +78 |
| SMP | £2,990 | £3,290 | -9 | £2,130 | +40 |
| Mild Cheddar | £4,700 | £4,740 | -1 | £3,000 | +57 |

Source: AHDB Dairy - based on trade agreed from 25th July - 19th Aug 2022. 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.

- With better returns for cheddar, more milk was diverted from butter and powder production to cheese, helping keep butter supplies tight. SMP prices also fell due to lower global demand. The cheddar price only dropped on average by £40/t, with tight stocks, lower milk volumes and cheese manufacturers having increased the milk price to their farmers all helping to limit the drop in cheddar price.
- Defra put the UK average farm-gate milk price at 45.57pppl for July, up 2.45pppl from June and 50% higher than July 2021. The volume for July was 1,238 million litres, which was 2.7% less than the previous month and 0.9% lower than July 2021.

- The market indicators AMPE and MCVE both show a drop in price for August. AMPE reduced by 3.43pppl largely due to a 2.83pppl drop in the SMP component. MCVE only fell by 0.95pppl. The other indicator of interest - MMV or the Milk Market Value (the average market value based on typical utilisation of milk) also fell from 53.35pppl in July to 51.91pppl for August. Changes in MMV are closely linked to movements in the farm-gate milk price in three months' time.

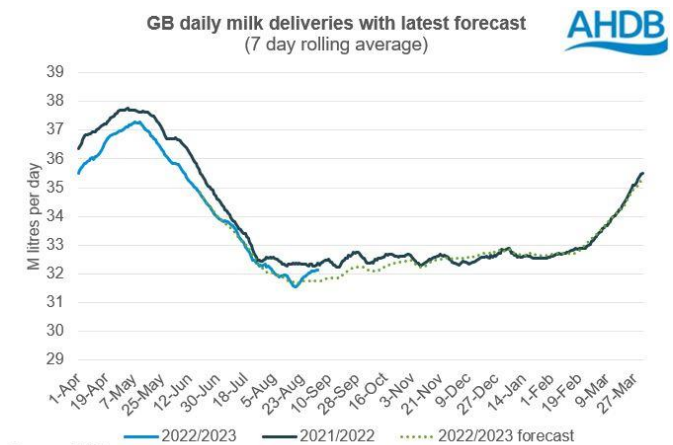
| | Aug 2022 | Jul 2022 | 12 months previously | Net amount less 2.4ppl average haulage – Aug 2022 |
|------|-----------|-----------|----------------------|---|
| AMPE | 51.32pppl | 54.75pppl | 32.10pppl | 48.92pppl |
| MCVE | 52.06pppl | 53.01pppl | 33.46pppl | 49.66pppl |

Source: AHDB Dairy

- For the week ending 9th September, there was no change in the spot milk price from the previous week, trading at 55-59pppl delivered. Bulk cream firmed slightly to £2.82-£2.86/kg ex works and is expected to rise again the following week, possibly hitting £2.90/kg.

GB Milk Deliveries and Global Production

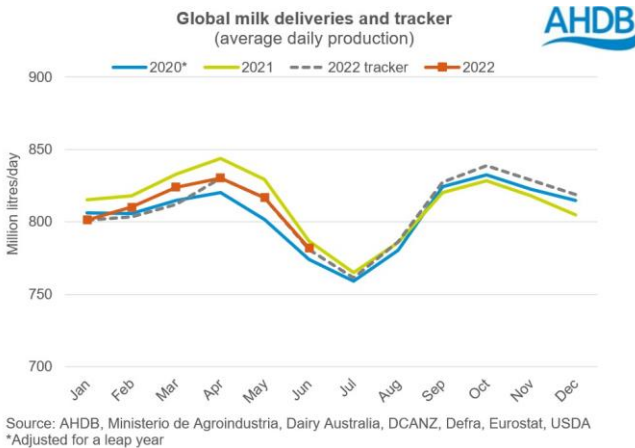
- GB milk production has shown a slight recovery since the end of August, with output now above forecasted levels but still just below this time last year. Daily average deliveries are up 0.5% on the previous week (for the week ending 3/9/22) and are now 0.6% below the same week last year, which equates to 0.21 million litres less/day.



- Global milk production is also behind last year for the month of June. Average daily deliveries were 781.8m litres (back 4.8m litres or 0.6%).

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The biggest drop was seen in Australia (back 9.2%), with the UK, EU and US down 2.3%, 0.4% and 0.1% respectively compared to June 2021. Higher production costs and adverse weather have been the main drivers of reduced output in most regions.



Other News

- The number of dairy herds in Scotland has dropped to 819, according to the Scottish Dairy Cattle Association. Latest figures released in July showed a net loss of 13 herds since the start of the year. Milking cow numbers are back by 897 in the last six months to 178,464 and average herd size has increased to 218.
- The Sainsbury's Dairy Development Group (SDDG) have held their price for September, which stands at 47ppl. This is the same as the September price for Tesco (Müller) producers and Müller directs. The SDDG puts the current cost of production at 42.48ppl, which is very similar to the Tesco producers cost of 42.26ppl. The Tesco cost of production is based on the following and their producer's price will rise 1ppl in October to 48ppl:
 - variable costs - 23.03ppl
 - overhead costs - 13.79ppl
 - depreciation - 2.37ppl
 - plus 3.07ppl adjustment for feed, fuel and fertiliser.

Monthly Price Movements for September 2022

| Commodity Produced | Company Contract | Price Change from Aug 2022 | Standard Litre Price Sep 2022 |
|--------------------------------|--------------------------------------|--|--|
| Liquid & Cheese | Arla Farmers UK | No change | 48.42ppl liquid 50.35ppl manufacture |
| Cheese, Liquid & Brokered Milk | First Milk | +2.14ppl | 48.64ppl manufacture |
| Cheese | Fresh Milk Company (Lactalis) | +0.92ppl liquid 0.95ppl manufacture | 47.32ppl liquid 49.2ppl manufacture |
| Liquid & Manufacture | Grahams | No change | 46.0ppl |
| Liquid & Manufacture | Müller Direct | +1.00ppl | 46.75ppl (includes 1ppl direct premium and -0.25ppl Scottish haulage charge) |
| Liquid & Manufacture | Müller (Co-op) | +0.67ppl | 47.0ppl |
| Liquid & Manufacture | Müller (Tesco) | +1.00ppl | 47ppl |
| Liquid, Powder & Brokered | Yew Tree Dairies | +2.0ppl | 48ppl Standard A litre price |

- Müller have announced a further 1ppl increase in their milk price from 1st October, bringing their liquid standard litre up to 48ppl (47.75ppl for Scottish suppliers). Their organic price also increases by 2ppl, up from 56 to 58ppl. In comparison, OMSCO's milk price from 1st October increases from 49 to 50ppl.
- First Milk are adding a further 0.75ppl to their milk price from October, bring their manufacturing standard litre up to 49.39ppl.
- Arla have published strong financial performance figures for the first half of 2022, with revenue up 17% to £5.4 billion compared to the first half of 2021. The increase was attributed to price rises in their foodservice and retail divisions. To help their farmer suppliers with inflated production costs, Arla will pay out 1 eurocent/kg of milk produced in the first six months of this year: its first ever half year supplementary payment.

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Straights Update

Global News

- Despite forecasts of a bumper Russian wheat crop and increased grain exports out of Ukraine, concerns around US and EU maize crops have been supporting wheat prices. The EU's average yield of maize has been revised down to an estimated 6.64t/ha, down from 7.25t/ha by MARS, the EU's crop monitoring service. It is estimated that the EU maize crop will be the lowest in 15 years. In Germany, their Agricultural Ministry forecasts maize production to be 21.5% back on last year at just 3.5mT.
- The Ukrainian Agrarian Council has reported that the sowing area for the wheat 2023 harvest will likely be 30-40% lower, with an output of less than 15mT. In comparison, 19mT has been harvested in 2022, compared to 32.2mT in 2021. The country's overall grain harvest this year could be around 50mT, back from 86mT in 2021 due to the war. Total grain exports for August out of Ukraine are down 59% on last year at 2.26mT.

UK and Scottish News

- Apart for some pockets of spring barley and beans to cut, harvest 2022 is all but complete and probably the earliest for 25 years. Yields across the board will not break records but are reported to be above the average; wheat 8.2-8.6t/ha, winter barley 7.2-7.4t/ha, spring barley and oats both 5.5-5.9t/ha and rapeseed 3.2-3.6t/ha. Protein levels in wheats are lower mainly due to inefficient nitrogen uptake over the dry summer and possibly reduced nitrogen application.
- Pricing wheat into rations will be affected by the increasing demand for wheat from the distillers, rising 23% in the year to June 2022. In addition, maize yields have fared poorly especially in drought torn France, so demand for local Scottish wheat is at a premium to the rest of the country.
- UK malting barley demand also rose 9% in the first half of 2022. However, a 0.75 million tonne surplus has been reported this year, meaning that malting premiums may disappear post-Christmas, forcing more into feed homes at discounted prices. The demand for malting

barley is dropping, with few domestic buyers and little export interest. Consequently, the malting barley price has now fallen to around export levels and the price drop is also due to high pass rates of UK spring barley for malting. As of the beginning of September, the premium over feed barley was about £35/t in the southeast of England and £20-£27/t on the south coast but it is likely that premiums will get less as the cost-of-living crisis continues to worsen.

- Ex farm prices for cereals as of 9th September are as follows:

| Ex farm | Feed wheat | Feed barley | Oats | Beans |
|----------------|------------|-------------|------|-------|
| September 2022 | 255 | 233 | 215 | 300 |
| November 2022 | 258 | 236 | | |
| Futures | | | | |
| March 2023 | 272 | 250 | | |
| November 2023 | 260 | 238 | | |

Sources: SAC Consulting, AHDB and Graindex.

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Silage Quality and Milking Performance

Results from SAC Consulting's analytical laboratory indicate that first cut silages from dairy farms this year are on average wetter compared to last year's average but with slightly higher metabolisable energy (ME) content.

This is a slightly different trend from the findings of Trouw Nutrition and their analysis of over 500 early cut dairy silages, which had higher NDF (neutral detergent fibre or total fibre content) and lower ME values (11.45 vs 11.71 MJ/kg DM) compared to silages in 2021. Silages with a lower ME and higher NDF this year are likely due to a higher proportion of overwintered grass in silage fields and those waiting for more bulk with slightly later cutting.

Results of 1st cut dairy silages

| Nutritional parameter | 2022 Average (2021) | 2022 Minimum | 2022 Maximum |
|-------------------------|---------------------|--------------|--------------|
| Dry matter (%) | 26.7 (31.6) | 14.9 | 44.3 |
| ME (MJ/kgDM) | 11.3 (11.0) | 10.1 | 12.2 |
| Crude protein (%DM) | 13.0 (13.2) | 9.8 | 18.0 |
| NDF (%DM) | 45.8 (45.7) | 39.2 | 54.6 |
| Sugars (%DM) | 6.5 (7.2) | 3.0 | 9.9 |
| PAL (meq/kgDM) | 893 (822) | 736 | 1172 |
| Silage intake potential | 98 (105) | 79 | 115 |

Source: SAC Consulting

Looking at SAC's results in the above table, the variation between the minimum and maximum values is enormous, especially for dry matter and protein content. The 2.1 MJ difference between the lowest ME and highest ME silage equates to 4.75 litres of milk, based on a silage dry matter intake of 12kg. Higher protein silages will be best supplemented with feeds that supply more bypass protein such as protected sources of rapemeal or soya, as a high percentage of protein in silage is rapidly degradable in the rumen. These silages are likely very early cut, with low NDF values and will be best fed alongside some slightly more mature forages such as wholecrop and other fibre sources (soya hulls or sugar beet pulp) to ensure sufficient fibre for rumen health.

Given the average dry matter content there are obviously some wet silages around, which can bring several problems such as:

- Clamp slippage: spoilage of silage around the slippage area can reduce feed value and palatability and is more likely to cause heating in the TMR. It would be worth feeding a mycotoxin binder for a period of time until the silage quality improves.
- More risk of acidosis: wet silages tend to have a higher potential acid loading value. When combined with a high starchy diet/high

concentrate intake, the risk of acidosis is increased.

- Low dry matter intake: partly due to lower bulk fill as well as reduced palatability with less sugars and higher levels of undesirable acids produced during fermentation, leading to lower milk output.

If available, mix in some drier forage; bales are ideal to provide some longer chop material to help dry up the mix and improve ration presentation and cudging rates. Baled silage or hay would be preferable, but if not available then straw at 0.5 to 1kg/cow will be beneficial to incorporate with very wet silages and provide more effective fibre for rumination. Chop length is important to ensure that cows cannot select out the longer fibre particles and leave them (no longer than 5cm). Addition of molasses will also help improve palatability and intakes.

On the other hand, dry silages can pose problems too in terms of keeping quality, TMR heating, ration sorting and lowered intakes. The addition of water to help bring the overall ration dry matter content to around 40% can help with intakes and reduce sorting behaviour.

If cows are not milking as well as you expect this winter, it is worth retesting the silage with a face sample. Do not just rely on the analysis of a core sample that was taken earlier in the summer, especially if that core sample was taken at a different point in the pit that you are currently feeding out of. If milk yield cannot be explained by the silage quality and ration formulation, other contributing factors could be:

- Issues with transition performance and increased incidence of metabolic diseases.
- Average days in milk - target is around 180 days for an all-year-round calving herd. Are there many later lactation cows with high days in milk dragging the average down as opposed to cows not milking to their potential? If cows are peaking where they should be and not losing excessive condition in early lactation, then this implies that nutrition should be adequate.
- Hangover effects of heat stress this summer. Reduced intakes, milk yield and fertility can still be evident six to eight weeks later.
- Low body condition score in early lactation or calving in too low a score, with cows lacking the

energy reserves to milk as well off their backs in early lactation.

- Other disease issues - mastitis or metritis.
- Stocking density - is there sufficient feed and lying space for the number of cows?
- Lameness incidence.

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The Importance of an Open Area for Lying Down in Dairy Cows

Lying down is a critically important behavioural need for dairy cattle, and as such it is an important metric to measure the comfort of cow accommodation. Insufficient lying time leads to increased stress, decreased feeding time and lameness. This in turn, decreases milk production, fertility and cow longevity. Lying time varies depending on where the cow is in the lactation cycle, but cows should typically spend around 12 hours a day lying down (see figure 1 below).

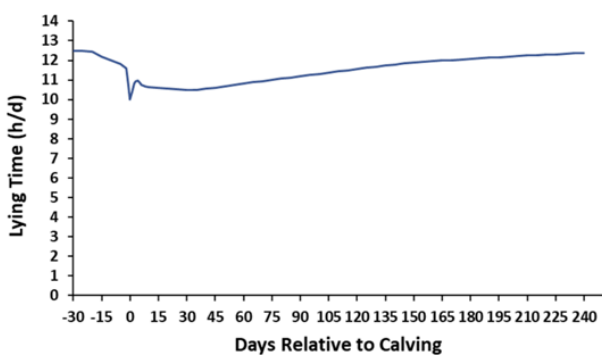


Figure 1. Schematic representation of the variation of lying time relative to calving. Lying time of dry cows is typically higher compared to lactating cows and abruptly decreases at calving. After calving, lying time increases as the cow progresses to late lactation. (Adapted from Maselyne et al., 2017; Piñeiro et al., 2019).

The good news is that lying time is dependent on our cow management practices and the housing environment that we provide, so we can control and improve it. Good management practices such as avoiding frequent regrouping and keeping heifers in a separate group to decrease competition between cows have been found to increase lying time in various studies. In addition, minimising time cows spend away from the lying area being milked, handled etc is also good practice.

The environment we provide for cattle also affects lying time. Poor ventilation and temperature control decreases lying time. The comfort of the lying areas

is dependent on the size of cubicles or loafing area as well as the choice of bedding material, and also affects the cattle's lying time and choice of lying area (see figure 2).

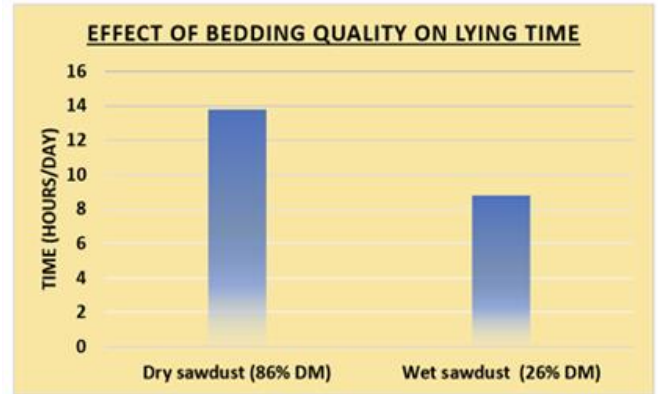


Figure 2. Effects of bedding quality on lying time. Dairy cows lay down 4 hours more in dry sawdust compared to wet sawdust (Adapted from Fregonesi et al., 2007).

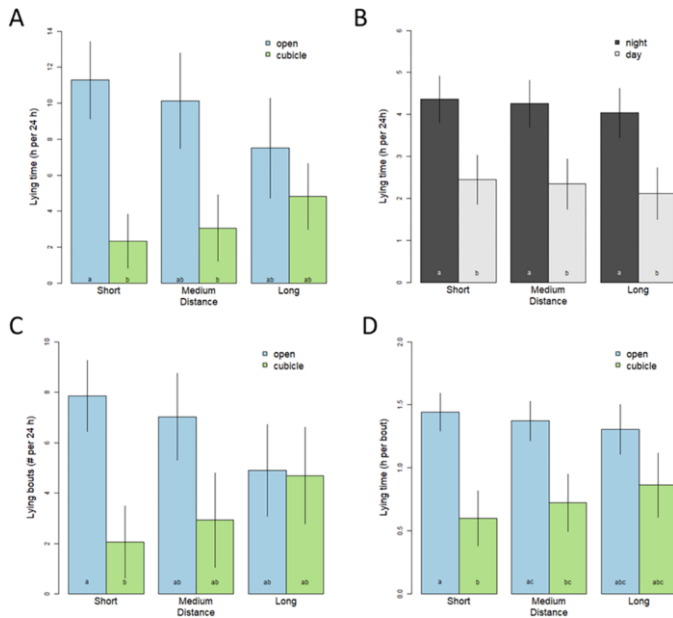
A recent study carried out at the Agri-EPI Midlands Dairy Research Centre at Harper Adams University in conjunction with researchers from SRUC's Dairy Research Centre at Crichton measured cow motivation to access different lying down areas. Lying down areas and loafing areas provide a better space for cows to express oestrus behaviour and for lower-ranking cows to escape dominants.

Thirty Holstein-Friesian cows were housed in groups of five in an indoor robotic milking unit with easy access to six mattress-bedded cubicles. To assess the cattle's motivation to access open lying areas, the cows had the option to walk further via a one-way indoor raceway to access the open lying areas. This was repeated at various distances; short (34.5m) Medium (80.5m) and Long (126.5m), to assess how the distance to the lying areas affected their choice of lying area. The study measured cow motivation to walk to open lying areas with both mattresses and straw bedded areas versus their willingness to just lay in the mattress bedded cubicles.

Overall, cows lay down for longer on the open lying areas at each distance compared to the cubicles, with cows lying down slightly longer on straw than on the matts, although lying times on the open lying areas did decrease at the longer distances (see figure 3). However, cows were still lying for >60% of their lying time on the open lying areas at the long distance. This study demonstrates that cows prefer open lying areas over cubicles and the provision of

which could better cater for the behavioural needs of housed dairy cows and improve housed dairy cow welfare.

Figure 3. Lying as a function of distance choice treatment



References:

Shewbridge Carter, L, Haskell, MJ, Ball, D, Gibbons, J, Harris, WE & Rutter, SM. 2022, 'Dairy cows value an open area for lying down', PLoS ONE, vol. 17, no. 5, pp. e0268238.

<https://doi.org/10.1371/journal.pone.0268238>

Spencer J A and Piñeiro J, 'Lying Time of Dairy Cows: Importance of a behavioural need' 29/05/2020 <https://www.dairybusiness.com/lying-time-of-dairy-cows-importance-of-a-behavioral-need/>

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Solar Panels

Although new Feed in Tariff (F.I.T.) agreements have not been available for some time, the lower cost and higher efficiency of modern solar panels make them more attractive. The sudden spike in electricity prices has also made payback times a lot shorter. There are a number of things to consider before investing in a solar system.

As an example, consider a 50kw (kilowatt, rated power output) solar system. This has the potential to produce at least 40,000kwh (kilowatt hours, energy produced) of electricity annually, depending on location. At 35p a unit, this could offset the

purchase of £14,000 of electricity per year. As existing contracts are renewed, this figure is likely to rise.

However, if the system is mounted on an east/west facing roof, rather than south facing, expect a drop in performance of between 15-20%. It is also unlikely that all this electricity will be used on farm, especially if time of peak generation does not match time of peak use. In a high use situation, such as some dairies or grain drying units, use of generated power can be up to 80% (although, this would be a maximum figure).

Battery storage is available but not proven. It is likely that this technology will improve and become cheaper with time. If hot water is required on farm, the use of insulated water cylinders with an electric immersion heater is also a way to make use of peak electricity generation.

Any electricity not used has to be purchased by your energy provider under the government's Smart Energy Guarantee. If there is a large amount of extra electricity generated and, crucially, grid capacity is available, a better price can be negotiated.

To further encourage energy efficiency, Scottish businesses can apply for an SME loan. <https://businessenergyscotland.org/smeloan/> This is an interest-free loan of up to £100,00 with an 8-year payback. This can be used for various energy efficiency and renewable energy measures. There is also cashback available on some measures. Those most relevant to agriculture include LED lighting and "variable rate drives". Variable speed milk, or vacuum pumps may fall into the latter category. However, solar panels do not qualify for cashback.

As a condition of the loan, an energy efficiency assessment must be undertaken. This should be applied for before the loan.

<https://businessenergyscotland.org/support-scottish-businesses/>

The assessment has no charge and will involve a farm visit by the assessor. Lead times to get the assessment done appear to be lengthening, which would indicate an increase in demand.

Several banks are offering incentives for loans for energy efficiency projects. These include foregoing

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an arrangement fee or offering a percentage cashback on the value of the loan.

The table below shows the break-even cost of a 50kw system installed with loan assistance and with an interest-bearing loan.

Costs associated with a 50kw solar system

| | | | | |
|---|--------------------|--------------------|--------------------|--------------------|
| KWh produced | 40,000 | | | |
| KWh used @ 60% usage | 24,000 | | | |
| Purchase offset @35p/KWh | £8,400 | | | |
| Purchase offset @60p/KWh | | | £14,400 | |
| Export income @7.5p/KWh | £1,200 | | | |
| Total annual saving | £9,600 | | £15,600 | |
| Maximum breakeven cost of system with 8-year payback | 0% interest | 7% interest | 0% interest | 7% interest |
| | £76,800 | £58,000 | £124,800 | £95,000 |

The energy efficiency assessment uses a figure of around £10,000 per 10kw as an investment cost. Generally, as the size of the system increases, the cost per kw decreases.

Although this shows the break-even costs over eight years, panels are expected to last 25 years, with little maintenance other than keeping them clean. Inverters are likely to need replacing within this time.

The financial viability of a solar system will depend on how much of the electricity produced can be used on farm. Before considering installation, it would be useful to assess exactly how much power is used, and when. In-line meters that will record on an hourly basis can be installed, although temporary meters are also available. These can be put in place for up to six weeks to give an energy use profile. This can be compared with daylight hours to estimate likely usage of any potential electricity produced.

Although the electricity bill is not usually the highest on farm cost, the size of increases has been staggering. With such volatility, it may be a good

time to look at locking in some of your electricity costs.

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Using Parasitic Wasps to Control Flies

Biting and nuisance flies cause a lot of problems during the summer, especially on dairy farms, in-calf units and more intensive beef systems. Areas that flies can affect are reduced live weight gain, mastitis, new forest disease and reduced milk yield. It is important to work out where your fly breeding grounds are; they are usually areas where dung and other forms of bedding can accumulate.

Parasitic wasps can be used to take a proactive, cost-effective approach that reduces the use of antibiotics and insecticides. This is a long-term approach to reducing your overall fly population and should be used in conjunction with other more traditional methods of fly control for the first few years. Natural controls are more successful when used as a preventative rather than a cure.

Parasitic wasps are fly parasites, but they do not retain the characteristics that a wasp suggests. They are very small insects, approximately 2mm in length and they only eat nuisance flies. Female wasps pierce the nuisance fly maggot pupae. They can lay up to 350 eggs per day and on hatching, the parasites subsequently eat the maggots. Over time, this cycle naturally reduces the nuisance fly population. Fly parasites should be introduced in areas where the breeding fly population is. For example, in standing muck areas that are not often disturbed like calving pens, calf sheds, straw yards, corners of cubicle sheds and additional areas of standing manure. When pens are cleaned out the wasps continue to work in the dung pile which gives an added benefit to reducing the outside population of flies.

You should look to release the first batch of pupae of the season in March and every six weeks following on from this, until the end of August. As the fly season ends the need increases as you are trying to prevent the establishment of the following year's breeding flies. Timing is essential as fly populations increase over the season; a single fly can lead to hundreds of thousands later in the season if left to breed. One tube holds 240 wasps and treats 200m² at a cost of roughly £34.00. Use

of pour on will on average be reduced by 25% if the system is stuck to as fly populations are significantly decreased.

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Understanding Soil Carbon Content

As part of the first phase of the Preparing for Sustainable Farming Programme, farmers can receive funding for soil sampling and analysis, as long as they have carried out a carbon audit in the last three years from the 1st of January in the year of sampling that aligns to PAS 2050 standards. Funding for soil sampling is available on up to 1/5th of Region 1 land and must include analysis on pH, phosphorus, potassium and carbon. Soil carbon content and management practices to increase soil carbon are vitally important and can greatly contribute towards lowering a farm's carbon footprint. Therefore, it is important to understand what affects soil carbon and what can be done to increase these stores.

The carbon content of a soil is closely related to its organic matter content. Therefore, building soil organic matter will help build soil carbon stocks. Soil organic matter refers to living (or previously living) materials within or added to soil. It includes plant roots that develop over the growing season, incorporated crop stubble and added slurries and manures. The organic matter content contains not only organic carbon, but also other elements such as hydrogen, nitrogen and oxygen, which are also part of organic compounds.

In the UK, the soil carbon content typically ranges from between 80 to 120T/ha to 30cm depth.

The carbon content of a soil can be influenced by many factors, the main ones being soil type and climate. For example, clay soils are very good at storing (sequestering) carbon, whereas sandy soils are relatively poor. Changes in the management of land will affect whether the soil carbon stocks are increased, decreased or maintained.

Management factors play a huge part - the longer the soil has had perennial cover, the better its carbon stocks will be. Therefore, grassland generally tends to have higher carbon stocks than arable land as it is tilled (disturbed) less. There is only so much carbon that soils can sequester

regardless of how well it is managed. All soils will have a maximum carbon threshold.

Factors that will increase soil carbon content include:

- Having appropriate stocking rates within carrying capacity.
- More productive grass species and legumes.
- Adding manure, fertiliser or biochar (minus N₂O cost of fertiliser).
- Land use changes (e.g., changing from arable to grassland or grassland to woodland).
- Reduction in cultivation intensity.
- Use of cover crops /perennial crops in rotation (grass).

Even though farms with a higher stocking rate may have a higher technical efficiency, research shows that soil carbon sequestration on grassland is reduced with higher stocking densities. However, the detrimental effect of high stocking rates on soil carbon can be offset by good grassland management and rotational grazing practices.

Mechanical cultivation has the biggest impact on the soil carbon content. Cultivation enables oxidation, promoting the fast metabolism of aerobic microorganisms, which results in CO₂ being released by their respiration. It is estimated that cultivated soils can lose in the region of 3T of soil carbon/ha/year. Soil carbon loss from arable land which is under continual cultivation can be decreased by reducing the frequency, depth and intensity of cultivations.

For more information on managing soil health and carbon stocks see the following resources:

<https://www.fas.scot/crops-soils/soils/>

<https://www.farmingforabetterclimate.org/improving-farm-profitability/soils-fertilisers-and-manures/improving-soil-quality/>

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Dates for Your Diary

- 14th September - **UK Dairy Day**. The International Centre, Telford, Shropshire, TF3 4JH.
- 29th September - **Chewing the Cud about Dairy Cows and Carbon**. Culscadden Farm,

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Garlieston, Newton Stewart, DG8 8AD. Time: 10.15-15.50. To book your place please contact SAC Consulting Stranraer on 01776 702649 or email: stranraer@sac.co.uk

- 30th September - **Taking the Plunge - Constructed Farm Wetlands**. Low Ballees Farm, West Kilbride, KA23 9PG. Time: 11.00-16.00. To book your place please visit: <https://www.fas.scot/events/event/taking-the-plunge-constructed-farm-wetlands/>
- 3rd October - **Dumfries Auction Mart Monthly Sales of Dairy Cattle**. Dumfries Auction Mart Huntingdon Road, Dumfries DG1 1NF. Time 13.30.
- 5th October - **The Dairy Show**. Bath & West Showground, Somerset, BA4 6QN.
- 24th - 26th October - **DIY Artificial Insemination AI Course**. Falkirk. For more information

contact event organiser Embryonics on 01606 854411 or email: courses@embryonicsltd.co.uk

- 25th October - **Welsh Dairy Show**. The Showground, Nantyci, Carmarthen, SA33 5DR.
- 26th October - **Developing the Rumen for Optimum Calf Health**. Coopon Carse, Palnure, Newton Stewart, DG8 7AX. Time 11.00. To book your place please visit: [Dumfries & Galloway: Developing the rumen for optimum calf health | AHDB](#)
- 27th October - **Safe Use of Veterinary Medicines**. On-line course. For more information contact event organiser Embryonics on 01606 854411 or email: courses@embryonicsltd.co.uk

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



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