

# Agribusiness NEWS

**SR  
DP**

**Farm  
Advisory  
Service**

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

## News in brief

October 2024

### Opportunities and Challenges

While falling numbers in the beef and sheep sector are pushing sale prices higher; it is not all plain sailing for livestock producers with adverse weather increasing the risk of parasitic burden with tried and tested animal health care products not always readily available.

While currently the pig sector is enjoying a period of stability with prices and costs having remained fairly stable for some time; as Defra has estimated that an outbreak of African Swine Flu (ASF) could cost the UK between £10- £100 million, they have announced immediate measures to safeguard pig farmers and the industry from an ASF outbreak. The ban on imports started on the 28<sup>th</sup> of September unless it can be proven that the products are manufactured and packaged to EU commercial standards and weigh less 2 kg.

Following a challenging harvest for both forage and grain, our feed and forage budgeting article highlights the important of knowing both the quantity and quality of on-farm feedstuffs when planning winter rations; with our bale grazing article giving food for thought on making life simpler when out wintering cattle.

With the weather already turning colder, our article on heating rural housing discusses the temporary lifting of the ban on woodburning stoves and other biofuel heating systems including peat in new houses and building conversions and the pros and cons of new technologies in helping to heat draughty farmhouses and cottages.

With an ever increasing emphasis on a cyclical economy, our article on biomass highlights that, as currently, the UK only produces 66% of what we need and with increasing demand from the construction, cosmetic and pharmaceutical industries; there are opportunities for the agricultural sector to help meet the growing demand. For farmers interested considering this land use option, the Biomass Connect Project (led by UKCEH) demonstration sites at Auchincruive in Ayrshire and Boghall, Edinburgh or the Biomass Connect Showcase Event in Warwick on the 7 & 8<sup>th</sup> November 2024 could be a worthwhile day away from the farm.

### Next month:

- Home Grown Proteins
- Biodiversity

## Contents

<b>Policy brief</b>	<b>2</b>
- Climate Change Bill, Health & Safety and Woodburning Stove update	
<b>Cereals</b>	<b>3</b>
- North American grains heading eastward	
<b>Beef</b>	<b>4</b>
- Record prime prices	
<b>Sheep</b>	<b>5</b>
- Beef and Lamb New Zealand new season outlook	
<b>Sector Focus</b>	<b>6</b>
- Biomass – Challenges and Opportunities	
<b>Milk</b>	<b>7</b>
- Milk volumes down but commodity prices up	
<b>Sector Focus</b>	<b>8</b>
- Bale Grazing Cattle	
<b>Input costs</b>	<b>9</b>
- Feed & Forage – Do you have enough for this winter?	
<b>Management Matters</b>	<b>10</b>
- Heating Rural Housing	
<b>This month's editor:</b> Christine Beaton	

# Policy Brief

## Climate Change Bill Published

With the call for views closing on the 16<sup>th</sup> of August 2024, the Climate Change (Emissions Reduction Targets) (Scotland) Bill has now progressed to Stage 1 of the parliamentary process.

The Climate Change (Emissions Reduction Targets) (Scotland) Bill seeks to amend the Climate Change (Scotland) Act 2009, in response to the Climate Change Committee's advice that Scotland's interim emissions reduction target for 2030 was beyond what could be achieved.

Given that the chain of events set off by the Global pandemic in 2020 and the impact this had on the agricultural sector alone in terms of energy and fertiliser pricing and usage; it is of no surprise that the initial Climate Change Bill's carbon budgets have gone a bit awry. Therefore, based on recommendations from the Climate Change Committee, the new Bill is seeking to set a limit on the amount of greenhouse gases emitted over each five-year period starting with 2026-2030, to provide a more reliable framework for emissions reduction.

If passed by the Scottish Parliament, the legislation will also change the current deadline to finalise the next Climate Change Plan for Scotland, so that the Plan can align with the timescale for carbon budgets.

As part of Stage 1, a debate will take place on 10 October 2024 to consider and decide on the general principles of the Bill. Further information on the new Bill is available through this link: [Climate Change \(Emissions Reduction Targets\) \(Scotland\) Bill | Scottish Parliament Website](#)

## Licensing Canine Fertility Services

Under new plans to improve animal welfare, the Scottish Government has announced proposals to introduce a strict licensing framework for canine fertility businesses.

The planned licensing scheme will clamp down on unethical breeding practices, regulate the services offered, ensure higher standards of care and protect animal welfare.

The proposals are a response to concerns raised by those in the veterinary profession and key animal welfare organisations regarding the unregulated nature of businesses offering canine fertility services.

Businesses offering canine fertility services will be licensed annually, and subject to regular inspections to ensure compliance with licensing conditions.

Secondary legislation to allow for licensing of canine fertility clinics will be introduced to Parliament at the earliest opportunity.

As a part of the consultation published in February 2024, consideration is also being given to the need for registration or licencing of commercial dog walkers, dog groomers, animal boarding facilities including day care and livery services and riding establishments. While some registration/licencing requirements are already covered by existing legislation; it is generally viewed as outdated and in need of modernisation.

For more information on the consultation findings, please click on this [link](#).

## Children and Farm Machinery

With harvest well underway and school 'tattie' holidays getting underway this month; following the prosecution of a grandparent for having his grandchild in the tractor cab, it is important that all family members and staff are aware that under Section 33(1)(g) of the Health and Safety at Work etc Act 1974, children under the age of 13 are specifically prohibited from riding in or driving any agricultural machinery.

The law also requires that employers make sure their risk assessment for young people under the age of 18 takes full account of their inexperience, immaturity and lack of awareness of relevant risks.

For further information and guidance, please follow this link [Children and public safety - HSE](#)

## Woodburning Stoves Update

Following the introduction of the New Build Heat Standard (NBHS) regulations which came into effect on the 1<sup>st</sup> of April 2024; the Scottish Government has temporarily suspended the ban on the installation of woodburning stoves and other biofuel heating systems including peat in new houses and building conversions.

As the review of the ban commissioned in May is nearing completion; the Scottish Government expects its recommendations to be implemented by the end of this year.

## Key dates

Date	Action
30 Nov 2024	The Scottish Upland Sheep Support Scheme application window closes
1 Dec 2024	Scottish Kept Bird Register deadline for registration of all eligible birds

[christine.beaton@sac.co.uk](mailto:christine.beaton@sac.co.uk)

# Cereals and Oilseeds

## Global grains trade eastward

It is now apparent that the EU/Black Sea harvest is down year on year by 20.5Mt (UK-3MT, EU-9MT, Russia/Ukraine-10MT). By contrast, N. American and Canadian production is up year on year by 16.5MT and they have been competing to export eastward.

After modest gains through the first part of September, the wheat Nov Futures price remains fragile. Competing factors of disappointing EU and UK yields, competition from large harvest volumes of Black Sea crop, the strengthening of Sterling in the foreign exchange markets particularly against the dollar, and high US wheat and maize production are all having an impact; compounded by speculative trading. The UK will ultimately be a net exporter of feed barley this year and a net importer of wheat.

The EU harvest was indeed over-estimated; the EU rapeseed production was well below par, and the French wheat crop could be the lowest since 1984, at only 25Mt with an average yield below 6t/ha. Additionally, the German crop will likely be 18.03 Mt, 15% down on last year due to untimely rain leaving disappointing yields and quality. Additionally, there wasn't such a rise in spring barley planting as farmers could switch into soya or maize.

## UK Harvest and Grain Quality Update

Latest government stats for UK harvest 2024 indicated an 11% reduction in winter wheat area (the smallest since 2020) and a 17% decrease in winter barley area across England, with a corresponding 23% increase in spring barley planting. The oats area increased by 11%. In Scotland, the trend was deemed similar but less marked: wheat down by 8%, winter barley down by 4%, spring barley up by 4% and oats up by 16%.

### Winter Barley

In southern parts of the UK, winter barley harvest results mirrored that of France, with low sunlight during key flowering periods leading to disappointing yields in many areas. A similar situation unfolded in Scotland and northern England, with significantly lower nitrogen levels than in 2023 and, in some cases, the lowest on record. AHDB reports winter barley yields, on average down 11 per cent on the 5-year average across the UK. Specific weights ranged

from 59 to 72 kg/hl, with an average of 64 kg/hl. Screening retentions averaged 88%.

### Winter Oats

Progress in Scotland has been slow, lagging behind recent years' pace. Oat yields have varied across the UK and between winter and spring oats. On average, yields are down 7%, at 5.07t/ha, though these figures are not adjusted for variety. Winter oat quality has been good, and most samples meet milling specifications. Preliminary results for spring oats are also generally positive, with bold, well-coloured samples and an average specific weight of 53 kg/hl.

### Winter Wheat

Wheat harvesting in Scotland has been delayed due to rain and haar. By the 11th of September, only 16% of the Scottish wheat crop had been harvested although by the 26<sup>th</sup> the majority had been cut. UK wheat yields currently remain 8% below the five-year average at 7.42t/ha. UK output could therefore be below 11MT this year and will have to value the crop high enough to attract the import tonnage required to cover the shortfall.

### Spring Barley

By mid-September, 50% of Scotland's spring barley harvest was complete. Quality has been similar to southern UK crops, with low nitrogen levels averaging below 1.60. Nitrogen (N) content across the UK crop has averaged 1.45%, with most samples between 1.2% and 1.6%. While high N samples are rare, this could pose challenges for exports with a minimum nitrogen specification. UK spring barley yields are estimated to be 4% below the five-year average, currently at 5.67t/ha. However, it's still too early to gauge Scotland's yield average. What is evident however is that the premium for malting barley is fast diminishing for uncontracted sales

### Oilseed Rape

Average yields of OSR across the UK are estimated at 2.93t/ha, down 9% on 2023's performance. Of all the EU27 (plus the UK) Member States, the UK has been the single worst performing country in terms of average yields; average OSR yields in the UK have dropped 10%, (0.36t/ha) during the most recent 5-year period when compared to the previous 5-year period

[mark.bowsher-qibbs@sac.co.uk](mailto:mark.bowsher-qibbs@sac.co.uk) 07385 399 513

**Indicative grain prices week ending 27/09/2024** Source: SAC//United oilseeds/Farmers weekly/AHDB)

£ per tonne	Basis	Sept '24	Nov '24	May '25	Nov '25
Wheat	Ex farm Scotland	180	188	205	202
Feed Barley	Ex farm Scotland	165	158	160	171
Malt Barley	Ex farm Scotland	205			
Oilseed Rape	Ex farm Scotland	366	371	382	362
Beans	Ex farm Scotland	235	235		



# Beef

## Record High Scottish Prime Cattle Prices

Finished beef prices in Scotland throughout September have increased steadily, driven by a seasonal dip in supply and strong demand from both domestic and international markets. For several months now, reports have pointed towards prime cattle values rising amidst tightening cattle supplies, with this now coming to fruition with prices in increasing by more than 7% in the three months since June.

During the second week of September at Scottish abattoirs R4L grade steers reached £5.17/kg/dwt, a 5% increase compared to the same week in 2023. Based on a 370kg carcass, finishers were receiving over £1,900, around £150 greater return than the previous month. Prices have continued to surge upwards with prices quoted for the week ending 21 September for R4L steers sitting around £5.23/kg/dwt (+7p from the week previous). Prices quoted for Angus sired cattle are around £5.30/kg/dwt.

Looking ahead, it is anticipated that prices will remain strong. Competition is fierce among finishers to secure cattle, with numbers simply not there due to the Scottish beef herd declining. Tightening supplies will continue to drive prices upwards as processors look to stock up for the festive period.

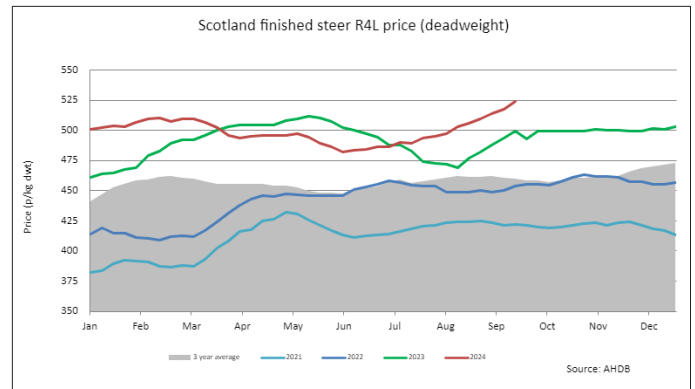
### Strong Demand for Store Cattle

Store cattle trade remains strong with many markets reporting a rise in values with several producers reporting an increase of £100/head on the year for cattle traded in recent weeks. While this is positive and needed for suckler producers after a long winter, finishers will not see it that way. After having to fork out for expensive stores earlier in the year, with these leaving little, if any, margin when slaughtered; there could be those who are cautious when buying stores, in case finished beef prices drop. There are also concerns in some areas of straw price and availability, which will also impact finisher margins.

Initial weaned calf sales have also been strong, with sale averages of over £3.40/kg. With many suckled calf sales due to take place in the coming weeks,

auction marts across the country are anticipating that there will be good demand for suckled calves with feed prices lower and more simply, cattle numbers are less, so there is competition to secure cattle.

Demand for Scottish-born stores is expected to remain strong among finishers across the UK, as a reduced calf crop in autumn 2023 and spring 2024 means that there may not be the numbers coming forward at upcoming autumn sales.



### Unseasonal Lift in Cast Cow Values

Demand for processing beef continues to be strong, with cows trading at a premium at Scottish abattoirs over England & Wales. Cull cow prices have risen in recent weeks despite a seasonal rise in numbers slaughtered which usually pressures prices downwards. However, it is anticipated that cow values will drop going forward as numbers forward for slaughter increase significantly post weaning.

### Unseasonal Lift in Cast Cow Values

Recent data released by ScotEID, quoted a reduction of 8,400 beef cows in the past 12 months. An increase in herd dispersals throughout Scotland in the summer contributed to this with reasons for dispersal including lack of labour, no succession and concerns about business profitability linked to investment needed to adhere to Government regulations. Despite this, it is encouraging that many of the herd dispersal cows were sold into other suckler herds, with larger numbers of cows on farm, producers are aiming to spread their fixed costs thus reducing the cost per cow.

[Sarah.balfour@sac.co.uk](mailto:Sarah.balfour@sac.co.uk)

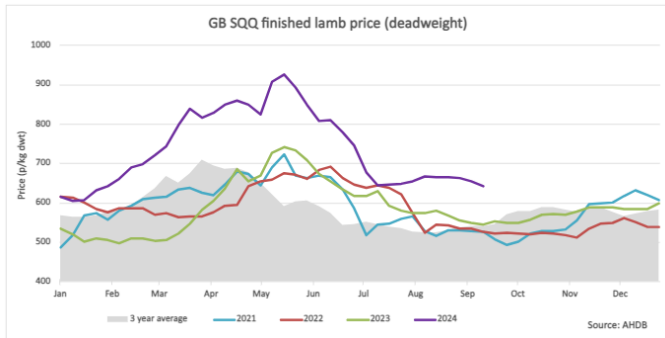
Scotland prime cattle prices (p/kg dwt) (Source: drawn from AHDB and IAAS data)

Week Ending	R4L Steers (p/kg dwt)			-U4L Steers		Young Bulls -U3L		Cull cows		
		Change on week	Diff over North Eng.	Change on week	Diff over North Eng.		Diff over North Eng.	R4L	-O3L	
07-Sep-24	514.0	4.3	5.5	511.2	4.2	2.8	503.0	-2.0	418.8	385.8
14-Sep-24	517.5	3.5	1.9	518.6	7.4	0.9	508.4	7.8	419.2	386.6
21-Sep-24	523.6	6.1	8.9	521.5	2.9	12.6	513.4	9.8	420.8	379.5

# Sheep

Store and breeding sales have continued to hit the headlines, with record breaking prices being made across the country this Autumn. This has been in response not just to the decrease in the global ewe flock, but also to the positivity surrounding the sheep sector with strong prime prices and a growing Muslim population.

While the prime price has fallen as supply has increased; there are reports of lower carcass weights and leaner lambs, which affect the average. For the week ending 14<sup>th</sup> September 2024, the SQQ price stood at £6.42/kg, which was 97 pence per kg higher than the same week last year.



## Around the Globe

Prices of tradable commodities such as sheep meat, are largely priced depending on supply, demand and world currencies. Beef and Lamb New Zealand recently published their new season outlook. They have outlined that the next lamb crop will be reduced by 5% to 19.2million head. The reduction is largely due to less ewes and a higher level of replacements being retained to rebuild flocks following droughts in 2024. With this smaller lamb crop coming from a large exporting country, it is worth understanding where the rest of the globe is in terms of economics and demand of sheep meat.

**China's** economic recovery from the pandemic is taking longer than the rest of the world. With this, the demand for red meat is not as strong as it has been in the past. However, China is still New Zealand's largest export market, with 37% of lamb

and 77% of mutton being imported to China in 2023/24.

**America** has a growing demand for lamb, with consumption levels increasing, especially in the high value cuts. Demand is increasing in lamb in the younger demographic, as well as their being an increasing Muslim population in the US.

**European** flocks are decreasing in size, resulting in lower production, and less sheep meat available for domestic consumption.

**Australia** has been dominating the world lamb production of late. However, their national flock has peaked, with an estimated rise of 11% in the lamb crop between 2023 – 2024. This is now set to decrease by 5% from 27.7 million in 2024 to 26.3 million in 2025 following problems with abattoirs being at capacity and low prices. With this lower production, it is expected prices will rise for the marketing of the 2024 crop which started in September.

With each country having their own challenges, from an economics, supply and slaughter capacity, it is clear to see that the global flock is decreasing, while demand is not. Looking at global prices for September, France and Spain are back on top, with New Zealand and Australia gaining pace in their farm gate price.

Lamb Prices	Week ending 07/09/24 Euros/kg Deadweight
France	€9.26
Spain	€8.74
UK	€7.76
Australia	€5.07
New Zealand	€4.27

Source: BordBia

[Kirsten Williams](#); 07798617293

Week ending	GB deadweight (p/kg) 16.5 – 21.5kg				Scottish auction (p/kg)				Ewes (£/hd)
	R3L	Change on week	Diff over R2	Diff over R3H	Med.	Change on week	Diff over stan.	Diff over heavy	Scottish All
07-Sep-24	665.4	-1.7	-3.4	-3.0	285.70	-6.6	9.8	0.1	87.92
14-Sep-24	654.5	-10.9	-6.1	-2.5	283.90	-1.8	3.5	3.6	79.04
21-Sep-24	643.7	-10.8	-4.4	-1.7	283.30	-0.6	18.8	2.0	80.53

Deadweight prices may be provisional. Auction price reporting week is slightly different to the deadweight week. Source: AHDB and IAAS

Standard weight 32.1 - 39.0kg; Medium weight 39.1 - 45.5kg; Heavy 45.6 - 52.0kg

# Sector Focus: Biomass

## UK Biomass Challenges and Opportunities



Utilising biomass as a source of renewable energy for heat, power and transport is seen as a crucial component of the UK's transition to net zero. A Government Report published in 2024 highlighted that 11% of UK electricity was generated from biomass in 2022, and 6.4% of heat was generated from biomass in 2021.

Domestically, we produce 66% of the biomass feedstock we currently require. Although biomass is seen as a key contributor to our sources of renewable energy, biomass is also currently used for construction materials as well as cosmetics and skincare. In addition to which, there is the potential for biomass to be used to produce biochar, bioplastics, and pharmaceuticals. As the requirement for biomass is expected to grow as we switch from non-renewable to renewable energies, and from oil-based products to those made using renewable raw materials; clearly, more biomass is required to meet these demands.

Biomass crops include short rotation forestry, short rotation coppice, and perennial [forbs](#) and grasses. Short rotation forestry is harvested every 5-10 years. Examples include Alder and Poplar. Short rotation coppice is harvested every 2-3 years and includes Willow and Poplar. Grasses are harvested more regularly and include Miscanthus and Switchgrass. Some of these crop options can be grown as buffer strips or on water margins and have the benefit of reducing pollution, enhancing biodiversity, increasing the soil carbon stocks, and in helping the UK achieve its dual objectives of net zero and enhancing biodiversity.

The use of biomass is suited to small-scale heat and power generation, for example, wood chip and biogas generators. This could form the basis of an on-farm energy and heat supply, contributing to the business becoming self-sufficient in heat and light. Equally, it can operate at a community level, for

example local heat networks, or it can operate at an industrial scale, for example, [Drax power station](#) in North Yorkshire.

Biomass at community or industrial scale creates market challenges. A significant challenge for the farming community is to co-ordinate and transport the regularity of supply of the high volume of biomass required. This may require co-operation between growers. A second challenge is establishing a pricing or support regime that sufficiently rewards the farmer for the risks associated with growing the crop. Additionally, there are potential opportunities for alternative use of the biomass, but these markets are currently undeveloped. Some of these challenges are recognised by the [UK's biomass strategy 2023](#).

### Interested in knowing more?

The Biomass Connect Project, led by UKCEH, has the objective of providing support and guidance for farmers considering this land use option. In Scotland, SRUC has demonstration sites at Auchincruive, Ayrshire and Boghall, Edinburgh. Other demonstration sites are located in England, Wales, and North Ireland.

Biomass Connect is funded through the government's £1 billion Net Zero Innovation Portfolio, which looks to accelerate the commercialisation of low-carbon technologies and systems.

There is also a wealth of resources on growing biomass crops and their environmental benefits on the Biomass Connect website [www.biomassconnect.org](http://www.biomassconnect.org).

Typically, there is a Biomass Connect Showcase Event on the 7 & 8<sup>th</sup> November 2024 at The Slate, Warwick – please see [Biomass Connect Showcase Event](#) for more information.

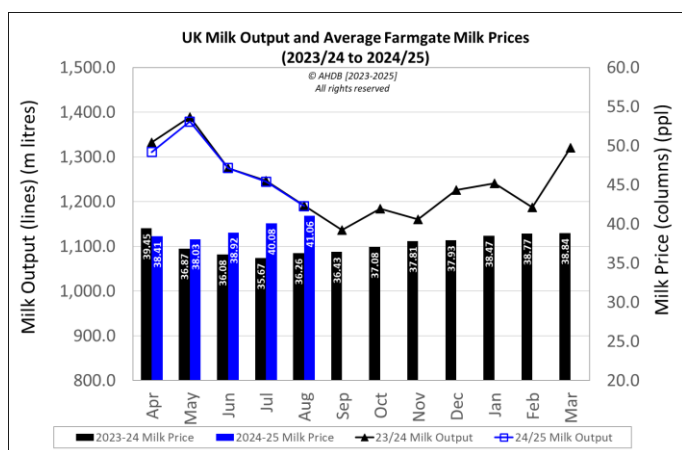


[Kairsty.Topp@sruc.ac.uk](mailto:Kairsty.Topp@sruc.ac.uk)



## Milk production data

The latest GB monthly milk production data from AHDB is estimated at 991mlitres for August, which is 31mlitres less than the previous month and 5 mlitres less than August 2023. Daily deliveries were 31.78mlitres for the w/e 17<sup>th</sup> September, which is just 200,000 litres less than the same week last year. The UK milk volume for August is estimated by Defra at 1,189mlitres, which is 56mlitres less than July. With reports of grass growth lower than this time last year, poorer silage quality and cows not milking as well as expected, little growth in milk volume is expected for the remainder of 2024, despite milk prices continuing to rise.



## Farm-gate prices

Milk prices are still rising due to low seasonal production and strong demand with low product availability, especially of butter and cream.

The milk prices from the main Scottish milk buyers available at the time of writing are shown below:

Milk Prices for Sep/Oct 2024 Scotland	Standard Ltr ppl
First Milk <sup>2</sup>	Oct 42.60
Müller - Müller Direct - Scotland <sup>1,3</sup>	Oct 41.25
Grahams <sup>1</sup>	Oct 40.00
Arla Farmers <sup>2</sup>	Sep 43.33
Lactalis / Fresh Milk Co. <sup>2</sup>	Sep 42.00

<sup>1</sup> Liquid standard litre – annual av. milk price based on supplying 1m litres at 4.0% butterfat, 3.3% protein, bactoscan = 30, SCC = 200 unless stated otherwise.

<sup>2</sup> Manufacturing standard litre - annual av. milk price based on supplying 1m litres at 4.2% butterfat, 3.4% protein, bactoscan = 30, SCC = 200 unless stated otherwise.

<sup>3</sup> Includes 1.00ppl Müller Direct Premium. Haulage deducted depending on band for 2023 vs 2021 litres, ranging from -0.25 to -0.85ppl.

## Dairy commodities & market indicators

The wholesale markets for dairy commodities continue to rocket! September's bulk cream and butter price were up 16% and 10% respectively on the previous month, with some butter sales hitting an all-time high of £7,000/t. Strong demand and tight supplies both in the UK and in the EU are supporting prices. Many processors are choosing to sell cream as opposed to incurring the cost of processing it into butter. Even SMP and cheese are seeing higher prices now compared to in recent months. Again, reduced

availability is supporting prices and as traders start to look for increased cover for the Christmas period, if milk supplies fail to rebound significantly, prices will climb higher and that should be further be reflected in improvements to the farm-gate milk price.

UK dairy commodity prices (£/tonne)	Sep 2024	Aug 2024	Mar 2024
Butter	6,730	6,100	4,850
Skim Milk Powder (SMP)	2,150	2,020	2,040
Bulk Cream	3,147	2,703	2,045
Mild Cheddar	4,150	3,860	3,490
UK milk price equivalents (ppl)	Sep 2024	Aug 2024	Mar 2024
AMPE	47.15	42.68	36.62
MCVE	44.81	40.95	36.28

© AHDB [2024]. All rights reserved.

Given the record prices seen in the fats market, AMPE jumped 4.47ppl and the Milk Market Value indicator increased by a massive 3.98ppl to 45.28ppl for September. Globally, demand for milk products is not as fierce, going by the recent GDT auction (17<sup>th</sup> September), where the average price index rose just 0.8%, with butter down 1.7% and cheddar up just 2.9%. Chinese demand is back, with net imports likely to be around 12% less than last year. Their domestic milk production has increased from 30.39mt in 2017 to almost 42mt in 2023. However, birth rates are falling, and a stagnant economy and aging population have reduced demand for butter, cream and cheese.

## Feeding to maximise your milk price

With feed prices easing back and milk prices continuing to lift, it may be tempting to look at increasing feeding rates of concentrates to stimulate milk output. Remember that increasing milk output may not be favourable for milk fat or protein percentage, although overall solids production will likely increase with higher feed rates. Depending on your milk contract, you may be rewarded more for fat or protein, so it is worth thinking about what you can do nutritionally to influence the milk component that gives you the best return. It is very difficult to feed for an improvement in both fat and protein, without using both protected fat and amino acid supplements.

Fibre drives butterfat, so if the forage portion of the diet drops and starch levels increase (with higher cereal inclusion), butterfat will likely take a hit and milk protein percentage may increase, as energy and starch intake drives milk protein content. However, feeding concentrates that are high in digestible fibre, such as sugar beet pulp, soya hulls or wheat feed will be more favourable for butterfat production, especially if they replace some cereals in the diet. If they replace silage, the response in butterfat will depend on the quality of that silage being replaced. It is best to seek nutritional advice if you are looking to improve milk quality through changes in feeding.

# Sector Focus: Bale Grazing

Bale grazing is a method of out wintering cattle. This method has been adapted from practices in Canada and North America and offers numerous benefits to cattle producers. However, prior planning of the system is essential.

## The System

A bale grazing system consists of either silage or hay bales being placed in fields ahead of the winter, and then utilised by cattle along with deferred grazing during the winter months.

Typically, once forage is conserved in the summer or autumn, the selected wintering fields are closed off from grazing livestock, allowing a wedge of grass to be built up for the winter. Bales are placed along the field margins when ground conditions allow in the summer/autumn thus avoiding the need to transport bales out to grazing livestock in the winter.

When the system is in place, the grazing cattle are allocated a certain area of grass and a set number of bales according to the number of animals, the size of field, grass yield, etc., with an electric wire being used to control access to the allocated area.

The bales can either be offered to the animals by:

- rolling a ring feeder over them
- rolling the bales out along the ground

## Planning

For a bale grazing system to work well, it is essential that the field or fields have a well-drained soil to prevent damage from poaching and also to prevent nutrient loss. The site should have good shelter for livestock and a protected water source, to prevent pollution and erosion of water courses.

If the field has a slope, it will aid the rolling out of bales throughout the winter, allowing gravity to assist. The earlier that bales are placed in the wintering field, will benefit the system; in that the grass will be able to grow longer around the bales, allowing more cover on the soil, which will protect it from trampling.

To understand how many bales are required in a bale grazing system. A calculation is outlined in section 5 of [outwintering-strategies-booklet-497866-sep-2022.pdf \(sruc.ac.uk\)](#)

Good electric fencing equipment is required for the system. A single electric wire will typically suffice for the system. However, depending on ground conditions, a back fence may be required to prevent ground conditions from trampling.

As with all outwintering systems, it is vitally important to have a contingency plan for severe weather events. Is there another area the animals could go

onto – stubble fields, a sacrifice area, next year's silage ground, or temporarily into a shed, etc?

## Benefits

There are numerous technical and financial benefits to a bale grazing cattle system. These include:

- With no requirement for bedding, mixing and carting forage out to fields each day, the labour requirement is reduced considerably compared to typical wintering systems; with labour only being required to move the electric fence and to open up the bales.
- Equally, time is saved not having to muck out sheds or to cart/spread dung or slurry. With a bale grazing system, all manure is evenly spread over the wintering field throughout the bale grazing period.
- With all forage being sited *in situ* prior to winter; tractor usage throughout the winter is extremely reduced. This results in more efficient use of labour, lower fuel costs, less wear and tear on machinery and a lower carbon footprint.
- From a grassland management perspective, grazing the deferred grass in the winter, allows for dead leaf material to be removed from the sward, allowing a higher quality spring growth with greater diversity of the sward.
- With the animals being grazed behind a wire, there is an even distribution of urine and faeces across the field, benefitting the return of nutrients into the ground. This in turn brings further benefits with regards maintaining and enhancing the organic matter of the soil.



Photo: Bale grazing set up in the late summer

[Kirsten.Williams@sac.co.uk](mailto:Kirsten.Williams@sac.co.uk)



# Inputs:

## Forage and Feed Budgeting

---

### Importance of planning

Carrying out a forage budget might sound like a big task but there are some great tools available, and planning now can save you from a much bigger headache in a few months' time.

Once all forage has been harvested and silage has been in the pit for a minimum of 6 weeks; this is an ideal time to take stock of what you have in store to carry livestock through the winter and of equal importance, to assess the quality of forage. However, It is always useful to revisit the budget during the winter, just to check you are still on track.

### Benefits of Forage and Feed Budgeting

Forage and feed budgeting allows you to assess the feed and forage available against the livestock demand. As we head into the winter months this is particularly useful to allow you to identify any shortfalls early - allowing for early intervention and forward planning. It allows for more control of the ration and avoids any sudden dietary changes which can be detrimental to production. It also helps to avoid potentially expensive feed purchases later in the season by allowing for forward bulk buying therefore, reducing cost volatility. By assessing forage quality, you can make the best use of resources available and ensures that each ration is balanced to meet requirements.

### The process:

1. Get your forage analysed
2. Measure and calculate forage availability
3. Measure any other feeds available
4. Calculate demand from all livestock categories
5. Determine supply vs demand
6. Consider options to increase feed available or reduce demand
7. Take Action!

### Steps to create a forage budget

#### Step 1: Calculate the volume of forage available -

- For a pit =  $length \times width \times height = total\ volume\ m^3$ .  
Don't forget to add a ramp if applicable ( $(length \times width \times height)/2$ ).

- For bales, weigh a few bales to get an average weight (kg) and  $x$  number of bales = Total FW (kg)

#### Step 2: Convert volume into fresh weight available

$Volume \times density$  (this will vary with clamp height and dry matter)/1000 = fresh weight (kg)

#### Step 3: Calculate dry matter available

$Fresh\ weight \times dry\ matter\ \%/100$

#### Step 4: Calculate demand

$Number\ of\ stock \times dry\ matter\ intake \times days\ feeding$

#### Step 5: Calculate shortfall or surplus

$Dry\ matter\ available\ vs.\ Dry\ matter\ demand$

Forage wastage should also be included in your calculation at Step 3 when estimating the dry matter available. At housing, wastage is predicted to be around 10% and while grazing with ring feeders, wastage is predicted to be between 20-30%.

The size of the animal, body condition, production level i.e. stage of pregnancy, lactation, growth rate etc. will all impact actual demand. Having rations formulated for each category of livestock will allow you to better match forage availability and quality, in line with your forage budget and this should be revisited as the winter progresses.

### Options to consider if forage or feed is short

If you calculate a shortfall in supply, there are a few options to consider. If forage is in short supply consider options to extend the grazing season or sourcing additional forage; harvesting additional forage could also be an option but consider the pressure on grazing availability. Or is there an alternative feed or forage replacer you could use to help meet the deficit? Forward buying can be beneficial depending on market conditions and help avoid unexpected costs later in the season.

In order to prioritise the breeding and replacement stock, consider selling cows not in calf or replacement/breeding stock not meeting performance targets.

If you have youngstock, could you reduce the pressure on feed and/or forage stocks by selling them store before housing? Or could you increase the use of concentrates to finish them faster? This is something you could discuss with a nutritionist or feed adviser to weigh up the cost-benefit of each option.

For further information, the FAS companion app is available to download from the Google play store and Apple Store and has a forage calculator as well as other helpful technical advice. Or you can find a forage and feed budgeting guide here:

FAS: <https://www.fas.scot/downloads/a-step-by-step-guide-to-forage-and-feed-budgeting/>

AHDB: <https://ahdb.org.uk/feed-and-forage-calculator>

[mary.young@sac.co.uk](mailto:mary.young@sac.co.uk)

---

# Management Matters

## Heating Rural Housing

In rural areas of Scotland, heating and energy choices can be more challenging than in urban areas due to isolated locations, traditional stone constructions and detached properties.

There is a drive at the moment to improve the energy efficiency of housing across Scotland, however there's no 'one fit for all' solution and research and costings should be undertaken before making any decisions with regards changing an existing system or when building a new home.

### EPC targets

Energy Performance Certificates are produced when a domestic property is sold or let out. Prior to Covid, there was a target set by the Scottish Government to make all rental properties meet an efficiency level of C, and if not already at this level, then property owners were expected to work towards it over a period of time.

While this target has been shelved for the foreseeable future; it is not to say that the Scottish Government won't revisit it in the coming years. There have also been whispers that when housing is sold, there could be penalties on the seller if the EPC is below a certain level.

Improving an EPC level in rural housing can prove challenging. Detached, stone-built properties are already at a disadvantage compared to semi-detached/terraced housing and flats where there a degree of heat being spread across the building footprint.

### Is there funding available?

While, depending on your situation, there is currently funding through Government Energy Company Obligation schemes known as ECOs; as you would expect, it may not be that straightforward.

Air Source Heat Pumps are being promoted as replacements for gas and oil boilers but ensuring the right sized Air Source Heat pump is essential to prevent a jump in electricity bills. Tying in with

renewable energy sources is also encouraged where possible, such as solar panels with battery storage. Equally, upgrading the windows, doors and insulation in a property will reduce heat loss and provide the occupant with greater comfort. But please ensure that the contractor undertaking the work is qualified, and the work comes with a warranty and a manufacturing guarantee.

### Legislation changes

While the New Build Heat Standard (NBHS) regulations came into effect in April this year which stated that new homes and buildings were not allowed to use direct-emission heating systems including gas or oil boilers and wood burning stoves; following concerns that a ban on wood burners would negatively impact on people living in rural areas; a Government review was instigated in May. It is expected that the findings of the review will be published and implemented by the end of this year.

### New technologies

As already mentioned, Air Source Heat Pumps are becoming increasingly popular for new builds and as replacements for existing heating systems. Consideration can also be given to underfloor heating, Ground Source Heat Pumps, and in some cases, Biomass systems. There is no doubt that there is a drive to move away from oil and gas. But when retrospectively fitting a new system, care should be taken to ensure that the technology works more efficiently than before by fitting the appropriate sized equipment including radiators and combining it with renewable energies and/or installing or upgrading property insulation.

### Where to find further information

Further information on heating can be found at the following sources:

- [Farm Advisory Service](#)
- [Home Energy Scotland](#)
- [Energy Saving Trust](#)

[jennifer.galloway@sac.co.uk](mailto:jennifer.galloway@sac.co.uk)

## Key Economic Data

General Indicators		Price indices for June 2024 (Defra 2020 = 100)			
		Output Prices		Input Prices	
Base interest rate	5% (5.25% July 24)	Wheat	118.7	Seeds (all)	106.6
ECB interest rate	3.65% (3.75% June 24)	Barley	137.6	Energy	146.5
UK (CPI) inflation rate	2.2% (target 2%)	Oats	194.4	Fertiliser	149.8
UK GDP growth rate	0.6% (Q2 2024)	Potatoes	279.9	Agro chemicals (all)	115.1
FTSE 100	8,312.26 (27/09/2024)	Cattle and Calves	141.2	Feedstuffs	123.4
		Pigs	131.0	Machinery R&M	125.9
		Sheep and Lambs	139.0	Building R&M	137.2
		Milk	138.1	Veterinary services	109.8

© SAC Consulting 2024 SAC Consulting is a division of Scotland's Rural College (SRUC)  
This publication is funded by the Scottish Government as part of the SRDP Farm Advisory Service