

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

March 2024

Farmer protests shine a light on food quality

Farmers across the EU and more recently in Wales have been protesting against new policies for increased environmental compliance and the impact of these on farm businesses and food production. In Europe, a key concern is also rising input prices but low and stagnant farm income, as well as increased burden for climate and biodiversity measures. In Wales, the new Sustainable Farming Incentive will require 10% of farms to be planted for woodland and an additional 10% set aside for biodiversity, with impacts estimated to reduce both the national flock and agricultural employment as a result.

In Scotland, the Agriculture and Rural Communities Bill in its stage 1 of consultation, with details of future support and compliance yet to be outlined. However, the National Good Food Nation Plan has recently been published, which is now open for public consultation until the 22nd April. This consultation offers an opportunity to showcase explicitly how farming can help to achieve wider societal objectives, such as producing local and good quality food, and enabling the public to engage with and understand where and how their food is produced. Details on how to respond to the consultation, and joining a series of upcoming in-person and virtual engagement events can be found here: <https://consult.gov.scot/agriculture-and-rural-economy/national-good-food-nation-plan/>

Also, at the end of January, the NFUS did the largest ever 'shelf-watch survey' across supermarkets in Scotland to understand the availability of Scottish produce, as well as labelling and price. Overall Aldi had the highest proportion of Scottish produce (48.7%) and Sainsbury's the lowest (7.6%). Since NFUS' results were published, Sainsbury's has announced a new 'Best of British' section in their online shopping platform.

Next month:

- Livestock health planning
- Planning for retirement
- Extending the Scottish lamb market

Contents

Policy brief	2
- AECS, energy efficiency standards, visitors levy	
Cereals	3
- Increased cost of shipped grain imports, tighter domestic cereal supply	
Beef	4
- Demand for finished cattle, straw shortage	
Sheep	5
- Smaller 2024 flock keep prices high	
Sector Focus	6
- Forestry – updates to FGS and timber markets	
Milk	7
- Characteristics of top performing dairy farms, prices update	
Sector Focus	8
- How will changing climate affect Scottish farms?	
Management Matters	9
- Optimising grassland management	
Input Costs	10
- Fertiliser cost and usage update	
This month's editor:	
Anna Sellars	

Policy Brief

Agri-Environment Climate Scheme

Slurry Storage

From the 1st of January 2026, under the Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2021, all businesses producing slurry from housed livestock must have sufficient slurry storage capacity equivalent to:

- 26 weeks for housed pigs, and/or
- 22 weeks for housed cattle.

However, for businesses seeking support funding under the 2024 round of the Agri Environment Scheme (AECS); it is important to note the following aspects:

- This is the last year that funding will be available for slurry storage.
- AECS funding regulations require businesses to provide 26 weeks' storage for cattle slurry to ensure resilience against increasing rainfall due to climate change.
- Support funding is not available to convert from a straw based to a slurry-based housing system.
- Support funding is only available for the current number of eligible livestock on the holding not for any future expansion plans.
- Grant aid is not available for slatted tanks.
- This AECS grant funding for slurry storage is not available to businesses located in an NVZ.
- The deadline for applications for support funding for slurry storage is Friday 19th April 2024.

The implementation of the 19th April application deadline is linked to seeking to ensure that all AECS grant aided slurry projects will be completed before the Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2021 transition period ends on the 1st January 2026.

Further eligibility and application requirements are available on the [Rural Payments Website](#)

Stand-alone Water Use Efficiency Lagoons

The deadline for Stand-alone Irrigation Lagoon applications (lagoon and underground drainage only) is Friday 19th April 2024. Successful applications will receive contracts from May 2024 onwards.

Eligible projects will be paid per cubic meter - £2.94 per cubic metre without a proprietary liner or £8.20 per cubic metre with a proprietary liner, with a maximum payment per business of £40,000.

Minimum Energy Efficiency Standards Consultation

As part of the Scottish Government's plan to introduce a minimum energy efficiency standard for properties in the private rented sector (PRS), the Government published a consultation document entitled [Delivering Net Zero for Scotland's Buildings](#) which sets out new proposals to improve the energy efficiency of all properties in Scotland – both in homes and non-domestic buildings.

Two key proposals to note are that:

- At the end of 2028, private landlords will need to have met the minimum energy efficiency standard or they will not be allowed to re-let the property if the existing tenant leaves.
- If purchasing a property, the buyer must replace any polluting heating system (gas/oil based) within a specified amount of time following completion of the sale. The proposal in the consultation is within 2 to 5 years.

The Government is keen to hear how these proposals could impact on rural areas/communities especially where recent storms have severely impacted on electricity supplies. The deadline for responses is Friday 8th March 2024, which can be [submitted here](#).

Visitor Levy (Scotland) Bill

Legislation which would give councils the power to introduce a visitor levy to raise funding for local tourism facilities and services has passed its first vote in Parliament. Of the 27 EU member States, 21 currently have a visitor levy scheme.

If the Bill is passed, the Visitor Levy (Scotland) Bill would enable councils to levy a percentage of the overnight accommodation cost, with the % rate being set by the local council. The levy would be collected by the accommodation providers and remitted to the relevant local authority. It would apply to almost all types of overnight accommodation, including hotels, self-catering accommodation and campsites.

All money raised would be reinvested in facilities and services that are substantially used by visitors, benefitting tourists and local economies.

christine.beaton@sac.co.uk

Key date

Date	Point to Note
19 April 24	AECS – Deadline for Slurry Store and Stand-alone Water Use Efficiency Irrigation Lagoon grant applications.

Cereals

Sea Freight cost rise

Domestic wheat futures followed EU and US wheat markets up at the end of February as low prices seem to have led to a slight uptick in global demand. UK feed wheat futures (May-24) closed February out at £165.00, up from £160.00, two weeks prior. The Nov-24 contract gained £3.80/t over the same period, ending February at £182.30/

In the meantime, grain exports from the Black Sea continue to flow and the war has effectively become part of the political background pressure for markets. The hostilities both in Eastern Europe and the Middle East are hindering sea trade too. More recently, commercial ships on the Red Sea have been attacked by Yemen-based Houthi rebels who claim their actions are in response to Israel's counterattacks in Gaza after Hamas attacked Israel on Oct. 7th. As a result, several of the world's largest shipping firms including Maersk, Hapag-Lloyd, and the Mediterranean Shipping Co. have suspended shipping through the Suez Canal, a passageway that connects the Red Sea and the Mediterranean Sea. Some carriers are diverting their shipments to Europe and the United States via the Cape of Good Hope, adding weeks to the journey and increasing costs. Not surprising therefore that the IGC Grains and Oilseeds Freight Index was up 19% year-on-year in December and no doubt costs will have been passed on to the processor and consumer.

Overall wheat prices in Europe have been capped both by higher global maize supplies expected out of South America, (notably Argentina and Brazil) and slow EU wheat export demand coupled with rising in-house inventories. Maize, into the UK, is consequently anticipated to increase by 9% this coming season.

UK trade

With the UK wheat supply and demand balance 31% tighter this year than last year, wheat exports are expected to be at minimum levels for 2023/24. Exports are currently forecast down from last season by 83% and the UK is expected to be a net importer this season and next aligning with AHDB's early indications of a 2024 wheat harvest of between 12-13Mt. Currently fresh farm supplies are just about accounting for the slow consumption offtake and limited buying activity.

For feed barley, export pricing is uncompetitive, and exports are currently forecast for this season down 38% from last season. With a move from

winter to spring cropping for harvest 2024 expected, the size of the barley crop remains a key watchpoint for new season export values.

Milling oats prices are achieving highs not seen since Jun '22 (AHDB quoting £252/t Jan '24 ex-farm) with substantial premiums over feed quality exceeding £70/t in early 2024 (Fig 1).

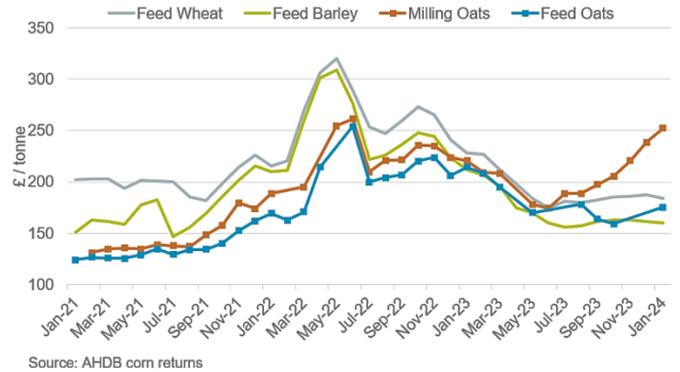


Fig 1 Strengthening milling oat values

Oat exports this season have hit a stronger pace than expected, especially considering the tighter oat supply and demand balance year-on-year. This season, UK oat exports are in line with the previous five-year average. Looking ahead, oat supply is expected to see a boost for harvest 2024 due to a larger intended planted area. This could see strong exports continue in 2024/25, providing the UK stays price-competitive to the continent.

Global factors mean OSR prices have fallen sharply. As of early February 2024, domestic OSR spot delivered prices were over £200/t lower than the peak in 2022. The lower prices combined with the 2023 harvest not delivering, means a drop in the OSR area for 2024 harvest is anticipated. The 20% price drop seen over the last 12 months is partly due to cheaper Ukrainian oilseed rape coming into the European market. Further to that, the overall bearish sentiment of the soyabean market has weighed on prices as record South American soyabean crops are starting to come to the market.

£ per tonne	Basis	Mar '24	May '24	Nov '24
Wheat	Ex farm Scotland	165	173	190
Feed Barley	Ex farm Scotland	145	153	170
Malt. dist. Barley	Ex farm Scotland	240	245	
Milling oats	Ex farm Scotland	245	250	
Oilseed Rape	Delivered Dundee	328	329	339
Beans	Ex farm Scotland	236		

mark.bowsher-gibbs@sac.co.uk, 07385 399 513

Beef

Brakes on

Prime cattle trade has remained firm since Christmas, largely due to tightening supplies of cattle. The volume of cows culled inevitably means there are not the calves available, coupled with a trend to finish cattle quicker and at a younger age means that there are and will be fewer cattle in the system now and going forward. In theory, availability for slaughter in Scotland should be seasonally high in early 2024 as the spring calf crop from 2022 reaches peak slaughter age, however reports suggest going forward that processors could soon be competing for cattle like never before.

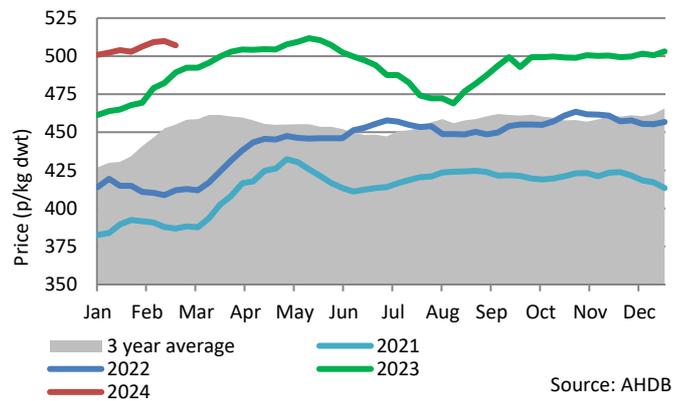
In the meantime, it appears processors are mindful of increasing prices, with prime cattle prices remaining steady in February. For week ending February 17th R4L prices were sitting at 509p/kg dwt (+ 5.7% on the year). Although there is much talk about the lack of cattle, the demand for beef is also very strong. Recent reports from AHDB show good demand for red meat.

Markets selling live finished cattle have seen increased demand ringside and, in some areas, have revitalised how cattle are sold, highlighting how important the auction market system is. Several Scottish markets have reported, prime sales are attracting an increasing number of buyers from south of the border due to the shortage of finished cattle.

Buoyant Store Trade

There has been no let-up in store cattle trade, with the strong demand continuing. Heavy forward stores are still very much in demand due to their short turnaround time on the finishing farms. However, there are less of these sorts available, so finishers are now buying lighter stores to maintain numbers and refill sheds as reports suggest that stores coming forward are tightening in numbers. A fall in barley price has also encouraged people to buy store cattle. Going forward, it is unlikely that prices will fall back when finishers need to keep their numbers up.

Scotland finished steer R4L price (deadweight)



Straw Scarcity

Although silage stocks for most are plentiful, the wet summer of 2023 is now affecting straw availability, with scarcity increasing prices significantly. It looks as though straw prices are now experiencing input inflation. Thankfully for businesses, requiring large amounts of straw did not come in 2022 when other inputs were inflating greatly. Prices are increasing quickly and if continue will result in the highest bedding costs realised for several years.

Breeding Stock

There is real optimism and keenness for breeding stock, with the recent two weeks of bull sales at Stirling, seeing commercial buyers keen to invest in top quality bulls which lead to significant increases in breed sale averages and clearance rates. Commercial buyers are now paying five figure sums for bulls.

The decline in suckler cow numbers, didn't affect trade for maternal breeds which were in demand with the Simmental breed achieving the sale's top price and a sale average of £7498, while Luings achieved a 100% clearance averaging £10,458.

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	
	Price	Change on week	Diff over North Eng.	Price	Change on week	Diff over North Eng.	Price	Diff over North Eng.	R4L	-O3L
03-Feb-24	506.3	3.3	-3.1	505.2	4.8	-2.6	496.0	6.7	376.8	354.1
10-Feb-24	509.2	2.9	1.0	507.5	5.3	-2.8	489.6	-8.9	379.7	355.7
17-Feb-24	509.9	0.7	2.9	509.1	1.6	-1.2	498.7	3.3	378.1	356.0

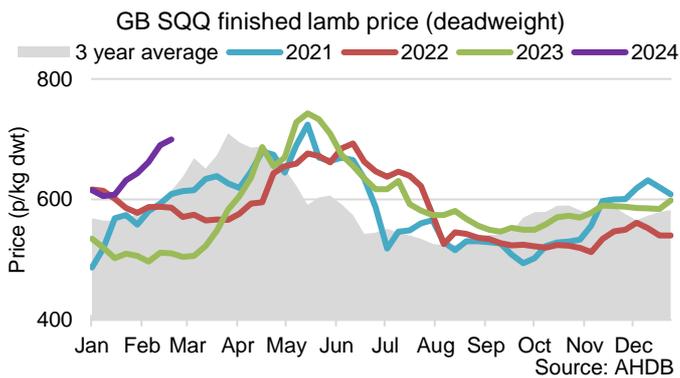
Market information for England and Wales is provided under licence from the Livestock Auctioneers Association (LAA). No part of this information may be used, reproduced or transmitted in any form by any means, for commercial purposes, without the prior written consent of the LAA

Sheep

Recent figures from HMRC have shown that in 2023 red meat exports to the European Union were comparable in value compared to 2022 (an increase of 2%), although the volume was 12% lower than the previous year. The red meat which aided this value was sheep meat, where an increase of 23% of value and volume was exported to the high value market in France. Exports to Germany also showed increases in value and volume of 15% and 12% respectively. Non-EU markets showed an increase of volume by 10%, however the value decreased by 15%. In contrast to the sheep meat, beef exports dropped by 15% in volume and 9% in value, largely due to the strong domestic demand in the UK.

Unbelievable Prices

The hogg trade is currently flying with prices rocketing due to an estimated 430,000 fewer lambs (or 10%) being carried over from the 2023 crop, compared to the previous year. Combined with the timing of both Ramadan and Easter in March, and the extra demand this brings.



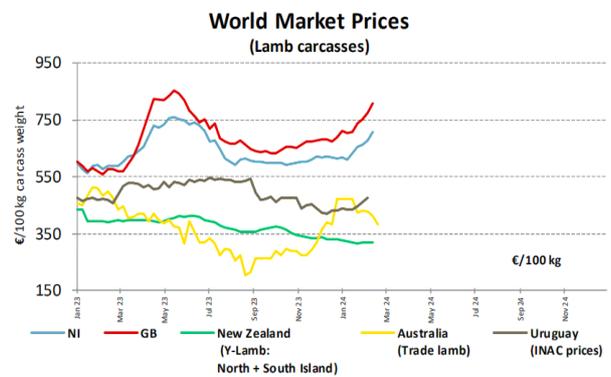
The timing of the religious festivals is set for us to see record prices for sheep meat into March and will enable the hogg trade to finish on a high.

As new season lamb comes forward, this may change, with a predicted high lamb crop of 16.4 million head (2% up on the year). However, many early lamb producers in the south have been hit with midge related health problems – Schmallenberg and Blue Tongue which has led to high losses of lambs due to high barren rates, abortions, low milk yields and deformities. This will affect this predicted lamb numbers and the speed that lambs come to the market, resulting in a slow start for the new season lamb in terms of volume.

Marketing New Season Crop to Europe

Europe is set to remain our largest exporter. Their national flock is decreasing, and the effects of midge related health issues (Schmallenberg and Blue Tongue) could have a large impact on the productivity of our national flock. While consumption of lamb remains stable, there is an opportunity for the UK product to grow in this market.

We will have competition with cheaper global products such as Australian and New Zealand lamb. However, we have seen how recent conflict in the Middle East (Israel and Gaza conflict) can increase shipping costs and add ~10 days on for rerouting which disrupts trade, making the cheaper product less attractive.



Australia's final 2023 slaughter statistics are in where the record quantity has been recorded, at 24,909,600 head, a staggering rise of 16.38% on the year. This increased production is definitely a huge risk as we go into Ramadan, Easter and the next crop of lambs, as their free trade quota has grown to the UK. At the same time, our consumption of lamb is decreasing.

The economic outlook for 2024 looks more positive with inflation set to decrease. However, the need for quick, easy and cheap family meals is set to grow, which will no doubt, drive the retailer to the cheaper foreign product rather than our home grown, natural, low carbon, high welfare, sustainable lamb! This makes it more important than ever to shout about the credentials of choosing and eating homegrown protein sources!

[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
03-Feb-24	647.2	13.4	-0.5	14.2	298.30	1.2	11.2	6.4	89.02
10-Feb-24	666.1	18.9	-1.2	0.1	318.00	19.7	7.3	10.0	87.22
17-Feb-24	695.0	28.9	1.6	-0.1	321.50	3.5	18.3	11.4	86.48

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: Forestry

Forestry Grant Scheme Updates and Availability

On Tuesday 5th December 2023, Scottish Forestry implemented a series of changes and enhancements to the Forestry Grant Scheme (FGS) which were designed to aid delivery of woodland creation and work to restore/regenerate Scotland's Rainforest and Caledonian Pinewoods.

Key changes included:

- All new FGS deer fencing in Scotland now qualifies for "high cost" grant (£9.90 per metre), an uplift of £2.30/m in some areas;
- An extension of the "Central Scotland Green Network- Fringe Area Contribution" to cover all of Scotland, providing an extra £750/ha for new woodland (up to 40 Ha);
- Doubling of the natural regeneration grant for expansion of native woodland to £600/ha;
- Increased grant for manual or mechanical bracken control – now £720/ha;
- Improved support for deer management and Rhododendron control within priority areas;
- Improved accessibility for "Small or Farm Woodland" creation grants

Further details can be found within Scottish Forestry's "[Briefing Note 45- December 2023](#)".

Whilst these improvements are positive news for new FGS applicants in eligible areas, Scottish Forestry has been severely impacted by the draft SG Budget Bill of 19th December 2023 – one of the most challenging budgets ever received in Scotland.

As a result of a 41% cut in budget for new woodland creation funding for 2024/25, Scottish Forestry are having to optimise the current 2023/24 claim year, and make difficult decisions affecting the 2024/25 claim year to maximise woodland creation within a heavily constrained budget.

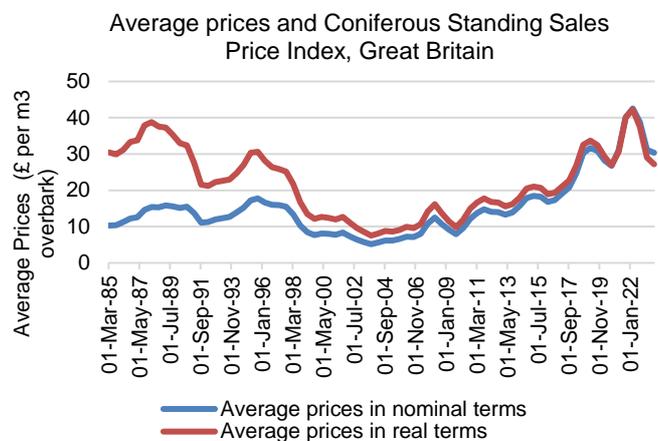
Any party working with a current FGS contract, or with future FGS applications/contracts in pipeline, is strongly advised to review Scottish Forestry's "[Briefing Note 46- February 2024](#)" to ensure their project aligns with newly released claim guidance, and with budget availability for the year ahead.

Timber Markets

The most recent [Timber Price Indices from Forest Research](#) were released in November 2023, publishing averages based on timber sales figures from Forestry England, Forest and Land Scotland, and Natural Resources Wales up to 30th September 2023.

The results show a 28.1% fall in real terms in comparison to previous year, with average price for conifer standing sales of £30.33 per cubic metre (overbark standing) in nominal terms compared to £38.81 the previous year.

Whilst these are averages taken from a whole of Great Britain dataset only showing public sector timber sales (and current to September 2023), they do reflect today's challenging markets which are facing a contraction in demand for construction timber due to a slowing of the house-building sector, higher interest rates, and continued economic uncertainty with all markets acting more cautiously as a result.



Average prices in real terms in £ per cubic metre overbark (real terms= 2021 prices)

6 months to	Coniferous Standing Sales Prices	Softwood Saw Log Prices	Small Roundwood Prices
31/03/2020	29.33	56.98	42.74
30/09/2020	26.88	48.37	37.03
31/03/2021	30.59	67.13	34.65
30/09/2021	40.12	79.39	37.92
31/03/2022	42.28	75.26	36.51
30/09/2022	37.48	63.56	42.07
31/03/2023	29.00	48.73	35.37
30/09/2023	27.21	48.49	35.30

Land Prices for Woodland Creation

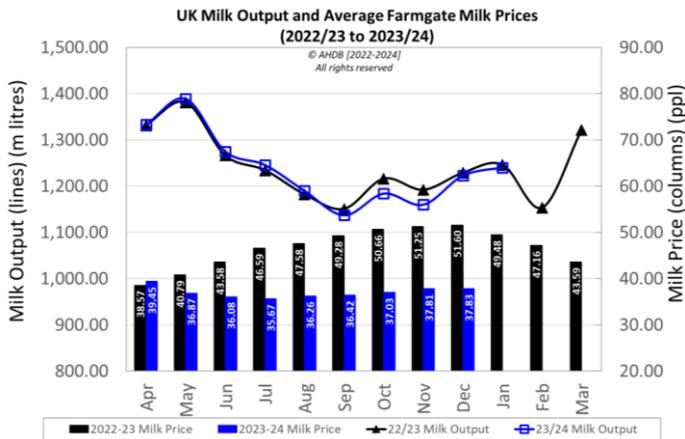
The increase in market caution has also hit land sales – crucially for the rural sector, the price of land suitable for commercial forestry planting has fallen dramatically by 22% in Scotland over the last year, falling to a market average of £9,900 per hectare.

In direct contrast, prices for land suitable for commercial forestry in both England and Wales have increased within the same period by 42%, rising to £16,600/ha and £13,400/ha respectively.

ben.law@sac.co.uk

Milk production data

The latest milk production data from AHDB shows that GB milk output for January was 1,023m litres (provisional), just 0.2% more than December's volume. Daily deliveries were 33.41m litres (w/e 17th February), 0.4% above the previous week and 1.1% less than the same week in 2023. UK production data for January was 1,238m litres, 1.0% more than the previous month but 0.6% less than January 2023.



Farm-gate prices: March 2024

The Defra average UK milk price for January 2024 was 37.68ppl, down 0.24ppl from December and 24% lower than January 2023. The most up to date milk prices from the main Scottish milk buyers available at the time of writing are shown below.

Milk Prices for Dec 2023/Jan 2024 Scotland	Standard Ltr ppl
First Milk Manufacturing (4.2% BF & 3.4% Protein)	Mar 38.00
Müller - Müller Direct - Scotland ^{1,2}	Mar 36.50
Grahams ¹	Feb 35.00
Arla Farmers Manufacturing (4.2% BF & 3.4% Protein)	Mar 40.06
Lactalis / Fresh Milk Co. ¹	Mar 35.00

¹ 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.
² 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 latest wholesale dairy commodity prices for the week beginning 22nd January to the 12th February showed little change from the previous month, with only butter returning a positive price movement (+2%) due to increased EU demand. Trade was reported as relatively quiet as buyers wait to see what the approaching spring flush brings. As a result, the market indicator AMPE was up just 0.21ppl on the back of the higher butter price and MCVE decreased by 0.86ppl.

The latest GDT auction (20th February) returned a 6th consecutive rise in the average price across all products sold, up 0.5% to \$3,664/t. This is by far the

smallest price rise seen over the last six auctions. Anhydrous milk fat showed the biggest change, up 8.6%. While mozzarella was also up by 5.3%, cheddar showed the biggest decline, down 7.6% to \$4,143/t.

UK dairy commodity prices (£/tonne)	Feb 2024	Jan 2024	Aug 2023
Butter	4,850	4,750	3,680
SMP	2,140	2,170	1,850
Bulk Cream	1,996	2,021	1,623
Mild Cheddar	3,530	3,600	3,330
UK milk price equivalents (ppl)	Feb 2024	Jan 2024	Aug 2023
AMPE	37.65	37.44	28.61
MCVE	36.77	37.63	34.14

© AHDB [2024]. All rights reserved.

Characteristics of top performing dairy farms

The Andersons Centre has recently completed its 2024 report on the characteristics of top performing dairy farms for AHDB. Some of the key attributes associated with the most profitable dairy businesses were:

- Being ruthless with cost control while minimising any impact on milk output or quality.
- Attention to detail by closely monitoring key performance indicators and making changes when performance drops.
- Know the most efficient stocking rate for your farm and look to maximise output from each productive hectare.
- Focus on dairy - better performing farms tended to have less enterprises such as other livestock on the farm.
- Have goals, both financial and non-financial and discuss with key partners/family members/staff to set budgets and draw up business plans.

'Appendix 1 - Fifty Ways to be Outstanding' is worth a read and gives practical suggestions on areas to improve and challenge current performance. The full report can be accessed here:

https://projectblue.blob.core.windows.net/media/Default/Imported%20Publication%20Docs/Characteristics_of_top_performing_farms_in_the_UK_2024-dairy.pdf

Scottish dairy cattle numbers

Data released by the Scottish Dairy Cattle Association in January this year showed that the number of Scottish herds now stands at 794, a net loss of 10 over the past 12 months. Despite this, the number of dairy cows has increased by 2086 to 180,648 and the average herd size now stands at 227. Ayrshire and Dumfriesshire saw a net loss of 6 and 4 herds respectively, Aberdeenshire and Wigtownshire both saw a net gain of 3 herds.

lorna.macpherson@sac.co.uk

Climate change & Scottish agriculture

Oscar Wilde famously quipped that Britain has the best climate but the worst weather. We are indeed fortunate to enjoy a temperate mild climate given our great distance from the equator. Global warming is, however, predicted to change our climate with knock on implications for our weather. For agriculture, an industry where production is so dependent on the weather, what are the anticipated consequences?

What is predicted for Scotland's climate?

UK climate scientists have modelled how the British climate might respond to four different levels of warming up to 2100. The modelling was granular thereby allowing predictions at a local scale within Scotland.

The scientists concluded that winters are likely to become warmer and wetter especially across north-western Scotland; summers hotter and drier though with summer storms of greater intensity; and sea levels to rise. Essentially a continuation of the change in climate experienced over the past few decades.

Mixed implications for Scottish agriculture

On the downside, warmer weather is likely to expose crops and livestock to more pests and diseases. For instance, the Barber Pole worm and Blue Tongue virus could reach Scottish sheep flocks. Similarly, the virus-free health advantage held by Scottish seed potato producers might be threatened. And intensive rainfall and flooding as experienced in eastern Scotland last autumn, will probably become more common.

But climatic change may also benefit Scottish agriculture. Carbon dioxide drives plant growth. So, higher concentrations in the atmosphere plus a warmer longer growing season should raise yields of current crops, including pasture, and expand the range of crops grown. A recent ClimateXChange report notes that Scottish growing conditions may become more like Denmark and northern Germany boosting the oat acreage and making the likes of crop seed and apple production possible.

Scotland better placed than many countries

In many other parts of the world, the impact of climate change will be far more negative. Scientists at Cornell University estimate that climate change since 1971 has reduced agricultural productivity growth by about a fifth. Farmers in the tropics will be especially hit by further global warming as many countries in this region are already hot. Though further from the equator, Brazilian soyabean production is also expected to suffer which has obvious knock-on effects for livestock producers here.

Agricultural production across southern Europe also looks threatened. Analysis by the European Environment Agency (EEA) concludes that land abandonment and desertification could markedly impact Mediterranean countries.

Yet the EEA also judges that growing conditions may well improve across northern Europe. Research and experience elsewhere also points to higher latitude countries benefiting. Soya and maize crops are now increasingly grown on the Canadian prairies. Agribusiness companies are investing in such areas, calculating how global food production could be hit by falling production in lower latitude regions due to global warming.

More concerning is the growing interest in opening up the high latitudes of the northern hemisphere to farming. A 2018 study calculates that a sizeable chunk of Sweden and Finland's forested lands could be converted to productive agriculture. While the Scandinavians might pass on this opportunity for environmental reasons, the Russians with their vast area of Siberian tundra might be less hesitant. Indeed, the Russian government is already leasing land in its far eastern territories to Chinese, Japanese and South Koreans investors for growing crops.

Fancy farming in Alaska?

If your conclusion from the above analysis is that "a little bit of" climate change, on balance, favours Scottish agriculture, be warned. Recently published Dutch research suggested something far more dangerous could hit the climate in north-western Europe, with catastrophic implications for our agricultural industry.

A major reason that Scotland enjoys a mild climate despite being a long way from the equator, is the "Atlantic conveyor", an ocean current that shifts warm water from the tropics to the northern Atlantic. Modelling suggests that this critical current could abruptly stop and soon, resulting in a quick and big cooling of temperatures across northern Europe. The Dutch researchers calculate that this outcome is far more likely than previously judged and such an event has occurred in the past.

So, for any Scottish farmers still questioning the sense of improving their carbon footprint, google farming in northern Alaska!

[Kev Bevan](#), 07368 825877

Management Matters: Grassland

Supporting Grass-Based Decision Making

Many are weighing up their grassland management plans at this time of year and, truth be told, it is nigh on impossible with so many variables. Traditionally, farmers might rely on previous years' practices or intuition. However, more precise, data-driven methods like feed budgeting offer a clearer path forward.

Feed Budgeting

Feed budgeting can help when considering the application of Nitrogen (N) fertiliser, for instance. The timing of fertiliser application is critical and depends on soil temperatures reaching above 5 degrees Celsius for five consecutive days and rising.

Predicting the weather's impact on grass growth and the subsequent need for fertiliser is challenging. Feed budgeting aids in estimating future grass requirements for livestock and the anticipated grass growth, ensuring decisions are made with a fuller understanding of needs versus supply.

Consider a farmer planning to fertilise early April in anticipation of cattle grazing from April 15th. By applying 100 units per acre of a 20:10:10 compound fertiliser, research suggests an expected increase of 250 kg of grass dry matter (DM) per hectare. This is based on the conversion of one kilogram of N into 10kg of grass DM. However, the effectiveness of this application hinges on three critical aspects: the current grass availability, the future grass availability, and the herd's grass demand at turnout.

Simple feed budgeting principles are helpful. For instance, estimates of animal requirements shows

that two and a half (700kg) cows per hectare in late pregnancy demand 22.8 kg of grass DM per day, whereas ten (70kg) ewes per hectare require 17 kg DM. Assessing grass supply involves measuring grass cover across the farm to calculate an average cover in kg DM/ha, which when tracked over time, aids in predicting future supply.

Where software can help

Utilising tools like FARMAX software within our GrazeUp service, farmers can utilise grass measurements alongside grass growth predictions, and align this with herd demand. This approach not only potentially saves costs but also optimises pasture quality throughout the season.

Predicting future grass supply can be complex without the aid of software. For example, with no animals currently grazing the turnout area and an average cover of 1600 kg DM/ha, growth rates between 3-5 kg DM/ha daily are expected in March. Over 30 days, this could increase the farm's average cover to between 1,690 and 1,750 kg DM/ha.

Considering a minimum grazing height of 4cm, or 1500 kg DM/ha, this provides the herd with an 8 to 11-day potential supply even if April sees no grass growth. How effectively you manage that supply directly influences its duration. Implementing rotational grazing can maximise its potential while set stocking may deplete it more rapidly.

By making informed decisions, farmers can enhance productivity, optimise resource use, and improve the sustainability of their operations.

poppy.frater@sac.co.uk

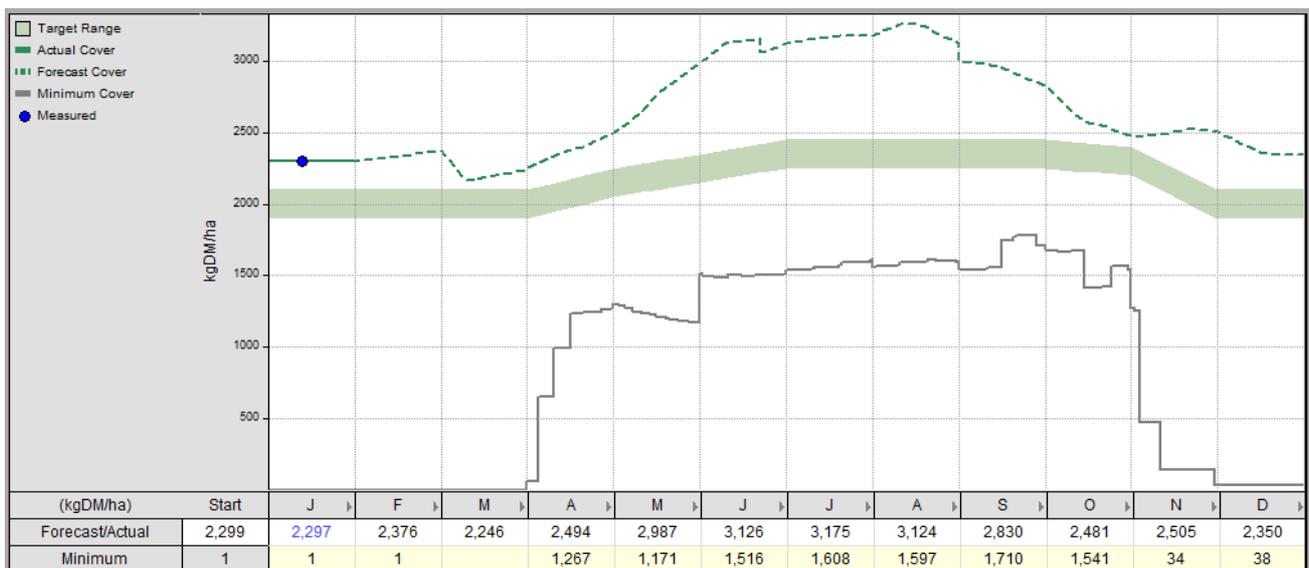


Figure 1 The 2024 projection at Oakwood Mill, taken from FARMAX software; Farm average cover based on recent measurements (blue dot) and projected grass growth, and minimum cover required is based on animal demand off pasture. This farm will not require Nitrogen fertiliser and has excess pasture projected – an opportunity.

Input Costs: Fertiliser

Market update

It is a welcome relief that fertiliser prices have stabilised and the outlook for the coming season looks to be more settled. However, given the rollercoaster in prices we have seen over the last two years it would be prudent to be prepared for future fluctuations.

UK agriculture is now more reliant on imports than ever before with Ammonium Nitrate production at CF Fertilisers English sites now using imported Ammonia. Added to the pressure on imports is the reduction in available product as merchants chose to avoid Russian nitrogen. Bulk delivery of fertiliser products into UK blenders takes approximately 4 weeks from source so supplies in the UK are still tight. Whilst the price has stabilised suppliers are warning to allow at least 2 weeks for delivery this spring, we all know the most expensive fertiliser is the one that isn't on farm when you need it.

Current pricing

Market prices for full loads delivered are quoted as:

- Urea – £360-£365
- Imported AN – £345-£350
- Nitram – £330-£335 (April delivery)
- MOP – £380-£390
- TSP – £430-£435
- DAP – £570-£575

New season prices are expected in June with Nitrogen prices expected to remain fluid. MOP currently being imported from Germany and TSP from Morocco appear to be more settled.

Long term fertiliser use trends

Nutrient	Tons used in 2011/12 (000t)	Tons used in 2021/22 (000t)	Difference
Nitrogen	863	1000	-13.7%
Phosphate	188	110	-41.5%
Potash	259	197	-23.9%
Sulphur	156	191	+22.4%

The eye watering costs of 2022 and 2023 prompted or forced many farmers into thinking differently and reducing their fertiliser use. It is anticipated that fertiliser use in 2023 was down 20%, a marked reduction from the trend seen in the preceding 10 years. The table above shows the difference in use key

nutrients applied in the UK between 2012 and 2022 as reported by AIC fertiliser statistics report 2023.

Sustaining lower inputs

Lower fertiliser use is good for the pocket and good for the environment, but we must consider how we make reduced use sustainable for our businesses in the long term. Sustainable reductions in fertiliser can be achieved through considering the following management practices:

- Maintaining an appropriate soil pH, phosphate, and potash levels for optimum availability of nutrients;
- Ensuring good soil structure encouraging healthy roots and uptakes of nutrient;
- Inclusion of legumes in rotations and grass swards;
- Applying nitrogen in suitable conditions when crop response will be greatest;
- Preparing feed budgets and measuring yields to match supply with demand of forage;
- Using yield information to assess response to N applications and establish an optimum rate;
- Maintaining equipment and using technology to reduce waste and emissions;
- Making better use of organic manures and other available nutrients through analysis and preparation of an annual nutrient management plan;
- Including sulphur in grades to optimise nitrogen uptake;
- Targeting applications to the crops and grasses which will provide the greatest response.

There will still be plenty of fertiliser orders to go in for this spring especially for grassland and where the outcome of winter sown crops is still to be determined but when considering what to buy and when to buy, please remember to;

- Allow at least 2 weeks for delivery and longer as orders volumes increase;
- Ensure you have submitted your photo identification to enable your order to be released after changes to the Control of Poisons and Explosives Precursors Regulations 2023 were imposed in October 2023.

Consider your recent fertiliser use and if it sustainable – cheap nitrogen can be tempting but this can mask some underlying issues.

lorna.galloway@sac.co.uk

Key Economic Data

General Indicators		Price indices for December 2023 (Defra 2015 = 100)			
		Output Prices		Input Prices	
Base interest rate	5.25% (5.0% 22 June 23)	Wheat	120.34	Seeds (all)	105.19
ECB interest rate	4.0% (3.75% Aug 23)	Barley	143.28	Energy	155.19
UK (CPI) inflation rate	4.0% (target 2%)	Oats	166.02	Fertiliser	160.66
UK GDP growth rate	-0.3% (Q4 2023)	Potatoes	199.54	Agro chemicals (all)	128.12
FTSE 100	7,652.82 (29/02/2024)	Cattle and Calves	138.59	Feedstuffs	132.16
		Pigs	134.05	Machinery R&M	122.38
		Sheep and Lambs	122.84	Building R&M	136.44
		Milk	132.28	Veterinary services	105.80

© SAC Consulting 2023 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