



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

News in brief

May 2024

Meteorological and political turmoil

With the country experiencing one of the wettest springs on record, it is hardly surprising that no sector has not been affected. From poor cereal establishment (see Cereals, pg. 3), minimal spring flush (see Milk, pg. 7) and late finishing (see Beef, pg. 4), to managing forage ahead of next winter (see Inputs, pg. 10) and considering alternative bedding (see Management Matters, pg. 9), the impacts are widespread. This edition of Agribusiness News holds a theme of how sectors have been affected, and ways that these impacts can be mitigated over the coming months. In more positive news, sector updates from sheep and pigs show a strong market and early signs of a seasonal uplift, respectively.

In politics, the termination of the Bute House agreement on the 26th April, which established the SNP and Green Party government coalition, followed by Humza Yousaf's resignation as First Minister on the 29th April, throws political stability in the coming months into question. This follows the announcement on the 18th April of Scottish Government's intention to scrap the climate change target of 75% reduction in emissions by 2030, which is now deemed unfeasible, to be replaced instead with a system of 5-year carbon budgeting (see Policy Brief, pg. 2, for more detail). Alongside ongoing tensions between SNP and Greens about gender recognition laws, the decision was made to politically disassociate, leaving SNP to govern as a minority government. With a new First Minister on the horizon, and the potential of elections down the line, it is hoped that political uncertainty will not hamper progression of agricultural and rural legislation.

Lastly, the second phase of post-Brexit border checks have been implemented as of midnight on the 29th April, which will require imports to the UK to be held and inspected at customs (exempting Ireland), additional to new health certificates introduced on the 31st January. While checks are not expected to delay imports, it is anticipated that additional costs will contribute to increased food inflation of 0.2% over the next three years.

Next month:

- Deferred grazing
- Land registration

Contents	
Policy brief - Agricultural Reform Route Map update	2
Cereals - Wet weather leaves 2024 crop yield uncertain	3
BeefFinished price rising; dairy-beef trends	4
Sheep - Gap widens between import prices & record UK prices	5
Sector Focus - Pig update	6
Milk - Volumes down and grass growth poor	7
Sector Focus - Scottish hemp production for fibre products	8
Management Matters - Straw alternatives	9
Inputs - Managing winter forages	10
This month's editor: Anna Sellars	

Policy Brief

Agricultural Reform Route Map update

In preparation for the gradual transition to the new agricultural support framework which will start in 2027, the latest update from the Scottish Government puts some meat on the bones of the Agricultural Reform Route Map. The latest edition provides further details on how agricultural support will change in Scotland from next year, and the actions that farmers and crofters will have to take in order to be eligible for the new support payments.

For suckler cow units, currently eligible for the Scottish Suckler Beef Support Scheme (SSBSS), a key change will be that from 2025, calves will only be eligible for payment if their dam's calving interval is 410 days or less. For example, a suckler cow calving on the 1st of March this year, needs to have produced her calf by the 14th of April next year for her next calf to be eligible for a calf payment. Simple from a theoretical perspective, however, not so straightforward in practice as heifers can take longer to get back in calve, as can cows with twins, or where there has been a difficult calving.

For businesses with two calving periods who allow 'good' cows and heifers who fail to get back in calf to slip round to the next block; you need to weigh up giving them another chance to conceive versus the loss of next year's calf premium as the calving period will then exceed 410 days.

While advance notification will be given, the Scottish Government has also announced that in future years, the maximum calving interval could potentially be reduced by another 10 days. So, if you think that you may lose calf payments due to extended calving periods, seek advice now with regards herd nutrition, replacement heifer management and health and welfare planning.

While under Preparing for Sustainable Farming – Whole Farm Plans, most people are now familiar with the support funding available for carbon audits, soil analysis and Animal Health and Welfare plans; two new initiatives are going to be introduced – Biodiversity Audits and Integrated Pest Management Plans. Further details about the new Integrated Pest Management plans are available on the Plant Health Centre website. From 2025, in return for eligibility for basic payments; farmers will have to declare on their IACS Single Application Form that they have carried out at least two activities that are relevant to their business.

In addition to which, linked to GAEC No. 6 – Maintenance of soil organic matter, new Cross Compliance conditions are being introduced for wetlands and peatlands to help protect vital carbon stores.

From 2025, the new standards will prohibit a range of activities from being carried out on peatland and wetland areas including:

- Ploughing and cultivation linked to new drainage and/or the maintenance of existing drainage systems as this could cause further drying out of peatland areas.
- Also, activities which damage vegetation causing soils to be exposed resulting in the potential loss of soil carbon.

The new standards will apply to land with peat soils more than 50 cm in depth with a near natural vegetative cover, and also to wetland habitats.

Detailed guidance on all the changes being introduced for 2025 and further information on changes that will be introduced in 2026 will be announced this summer.

New consultation on cattle identification

With the aim of modernising how Scotland's cattle are tagged, identified and traced; the consultation is seeking views on updating the current noncomputerised system with full Electronic Identification (EID) including the use of an online register for cattle, fitting all newborn calves with electronic ear tags and ending paper cattle passports for EID identified animals. The overarching aims are to simplify management and improve safety for farmers and crofters. The consultation on cattle identification and traceability in Scotland (accessible here) closes on 27 June 2024.

Progressing to Net Zero

Despite the Scottish Government's announcement that it is stepping back from its 2030 target of reducing emissions by 75%; to meet net zero by 2045, new proposals for agriculture include consulting on introducing a carbon tax on large estates to incentivise peatland restoration, tree planting and renewable energy generation and introducing a pilot project aimed at reducing emissions from livestock through the use of special feedstuffs. In addition to which, new legislation will be brought forward to introduce multiyear 'Carbon budgets' replacing the current, annual targets. Further details are available online here.

Key dates

Date	Action
15 May 24	Midnight - IACS – SAF & BPS
•	Document submission deadline without
	payment penalty.
15 May 24	Land used to claim Basic Payment
	Scheme payment in the current scheme
	year has to be 'at your disposal' on this
	date.
31 May	Deadline for subsequent amendments
•	to a SAF without penalty.
	• •

christine.beaton@sac.co.uk

Cereals and Oilseeds

UK Supply & Demand v 2024 progress

March 2024 UK Cereal Supply and Demand Estimates (AHDB) show well above average end of season stocks for wheat and barley. Despite 2023's production being down 10% and 6% respectively, imports are up over 40% for both crops and exports down considerably (83% and 36% respectively). Reduced availability of oats, combined with average exports, leads to the smallest ending stocks of oats forecast since 2011/12. The impact of the UK's second wettest August through February since records began is clearly shown in the latest crop condition report (Fig 1). Information collected up to the end of March shows just 33% of UK winter wheat, 38% of winter barley and 37% of winter oats in a good or excellent condition and similarly, less than a third of all oilseed rape. These ratings are sharply lower than last year and even March 2020.

	Very Poor	Poor	Fair	Good	Excellent
Winter Wheat	17%	23%	26%	25%	9%
Winter Barley	15%	21%	25%	26%	12%
Winter Oats	15%	20%	28%	26%	11%
Winter OSR	18%	25%	27%	25%	6%

Fig 1: Winter cereal condition, Feb 2024. Source: AHDB

Similarly, many European crops have been continually impacted by unfavourable wet conditions across the key production regions, with reports last week that the state of French soft wheat is the poorest since 2020; 61% of crops are rated good or excellent, down from 97% last season. The spring barley area remains uncertain, and despite an increase expected due to a lack of winter cropping, current weather leaves doubts over area existing.

Spring barley planting here in Scotland is progressing variably from region to region. Surface drying belies the wetter conditions beneath, and creating sufficient tilth for good seed coverage is proving troublesome with decisions as to whether to roll seedbeds very much dependant on soil type. Reports of having to re-drill earlier sown barleys, lost to surface capping, are also concerning.

For the UK an estimate of breadmaking wheat production for 2024 based off the forecasted area and yields from previous years indicate the upcoming harvest could be the smallest in over ten years and down almost 40% compared to 2023 (Fig.

2). The spread between breadmaking wheat and feed wheat futures, currently around £80/t in the first quarter of 2024, could push higher still exacerbated by the decline in popularity of Group 1 varieties.

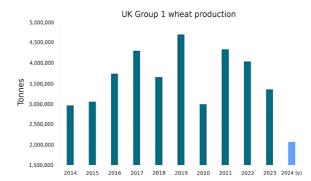


Fig 2: UK wheat production. Source: UK Flour Millers

The UK feed wheat futures have risen considerably over the past few weeks to regain value lost since January, closing 26th April at £183.00/t (May-24). The Nov-24 contract gained over the same period too, ending at £208.10/t which means that the price premium between May and November (old and new crop) has moved from parity 6 months ago to £25/t. The recent bullish market temperament comes from dry conditions reported both in Russia and US states coupled with ongoing Black Sea tensions prompting investment funds to cover short positions.

Following a strong pace over the autumn/winter period for UK oat exports, movements appear to have slowed slightly. According to HMRC, imports of oats this season to date (Jul-Feb) totalled 94.2 Kt. This sits 48% above the five-year average (63.8 Kt) for this period, but 27% below the same point last season (128.6 Kt). Exports to the EU totalled 86.2 Kt this season so far (Jul – Feb). The main destinations for oat exports were Belgium (37.8 Kt), Spain (19.8 Kt) and the Netherlands (15.4 Kt).

Lower supplies of rapeseed are expected in Europe for harvest 2024 (down 8%), which is putting greater reliance on Ukrainian rapeseed supplies this summer (although anticipated down 9%), and on Australian rapeseed supplies at the end of 2024 coming to the market. UK planted area is estimated now to be down 37% this year. Prices will also be helped if the rumours are true of the EU applying 50% import tax on Russian oilseeds and products.

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

Indicative grain prices week ending 27/04/2024 Source: SAC//trade/AHDB)

maidante grain prices week ending 2770-72024 Course. O/to/made/findbb/								
£ per tonne	Basis	May '24	Harvest '24	Nov'24	Nov'25			
Wheat	Ex farm Scotland	185	195	205	205			
Feed Barley	Ex farm Scotland	165	175	180				
Malt. dist. Barley	Ex farm Scotland	240	245					
Oilseed Rape	Delivered Dundee	360	363	378				
Milling oats	Ex farm Scotland	271						

Beef

April sees finished price increase

For week ending 20th April, finished beef price in Scotland for R4L steers and heifers is sitting at 496p/kg (+1.3p on week) and 498p/kg respectively. After the previous month saw finished prices drop by 30-35p/kg/dwt, finishers will welcome prices pushing upwards.

The numbers of cattle coming forward for slaughter are not plentiful and continue to trail behind 2023 levels. Going forward it is anticipated that cattle supplies will tighten further by mid-May which should support prime cattle prices. In late spring/early summer 2023 prices were at a high level of 515p/520p/kg and so finishers will be hoping that this is repeated in 2024.

Store markets

Usually during April, auction marts see cattle intended to be put to the grass coming forward but there has not been the same appetite to purchase from finishers due to the challenging weather and ground conditions. With finishers not seeing an increased finished price, but a falling return, store cattle prices have fallen in April. For some prices have fallen in the region of 20p to 30p/kg liveweight. Store cattle are still a good trade, just not at the levels of previous months. Plenty cattle coming forward as farmers struggle for shed space and the difficulty of sourcing straw has also affected store cattle prices. Trade for large forward stores remains strongest as delayed turnout is pushing back the price of grazing types.

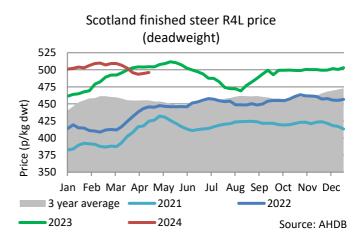
As we move into summer, the weather will be a crucial decider in the demand for stores and subsequent pricing.

Dairy-beef trends

Recent figures from AHDB highlight the evergrowing trend for increased dairy-beef bred calves. Registrations of dairy-beef calves have risen by 77% over the past 10 years due to increasing use of beef semen by dairy producers. In 2023, dairy-beef made up 35% of GB prime cattle (12–30 months) slaughter up from 28% in 2019. The majority of slaughtered prime cattle in GB remain suckler-bred. Aberdeen Angus birth registrations to the dairy herd continue to grow. British Blue cross remains the third most popular of all registered dairy-beef crosses however after several years of growth, the number of BRBX registered calves plateaued last year.

Cull cow remains strong

Strong demand for mince and cheaper cuts continues, as consumers look for lower value beef. At time of writing cull cow values are around 406pg/kg/dwt (+4.4p on the week) for R4L grading animals. Trade for cull cows remains buoyant, many beef cows have been at £1,700 to well over £2,000. Like prime cattle, cow slaughter has fallen year on year in Scotland however has risen south of the border. Continuing strong herd decline in England & Wales is set to maintain firm demand from English finishers for Scottish-born beef calves.



With breeding cattle sales kicking off, it will be interesting to see where the demand for breeding heifers is after the realisation now that cull cows are no longer a "by-product" but a "product" which has allowed many to look how they operate a replacement policy with more heifers now coming into herds.

Sarah.balfour@sac.co.uk

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

	R4L Steers (p/kg dwt)		-U4L Steers		Young Bulls -U3L		Cull cows			
Week Ending		Change on week	Diff over North Eng.		Change on week	Diff over North Eng.		Diff over North Eng.	R4L	-03L
06-Apr-24	493.5	-2.3	-4.8	487.7	-8.1	-10.6	473.7	-7.7	397.6	372.9
13-Apr-24	494.7	1.2	-3.6	493.6	5.9	-4.7	482.1	-9.2	402.4	377.7
20-Apr-24	496.0	1.3	-4.5	492.7	-0.9	-7.8	488.1	-2.9	406.8	379.3

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

Where does it stop?!

The SQQ price for the week ending 20/04/24 was 860.5p/kg, an increase of 173.5p/kg on the year. The phenomenal trade has continued to climb well after the typical peak in demand of Ramadan, with no sign of slowing down! Defra have recently updated their predictions on the carryover of 2023 lambs into 2024, where it is thought that 4.1 million lambs were carried over into the new year for marketing between January and May – a fall of 4.3% or 185,000 less lambs than the previous year. This was updated from the original figure of 430,000 or 10% due to ewe lambs that would normally have been retained for replacements being marketed to capitalise on the premium prime trade.

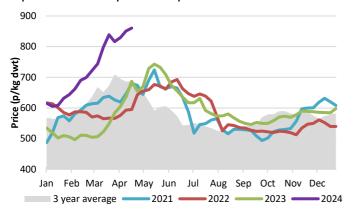


Fig 1: GB SQQ finished lamb price (deadweight). Source: AHDB

The most recent Defra slaughter statistics, March 2024 show clean sheep slaughter figures totalling 988,000 head (16% less than March 2023) and mutton and lamb production netted 24,000 tonnes (16% less than March 2023). Combined with producers pushing lambs on to sale in the premium market and the smaller carry over, there is every chance that the hogg trade could really cope with supply, helping to keep the price at the premium.

Certain areas of England have been especially hit with Schmallenburg and Blue Tongue Virus, which has reduced their scanning and lambing rates and hence the amount of new season lambs coming forward to market. AHDB have estimated 1.57 million lambs will enter the prime market up to the end of June, which is 82,000 less lambs than in

2023. Lamb numbers are expected to be further hit by losses from the recent climatic challenges during April.

Global prices

Comparing global prices, for the week ending 13th April, UK lamb deadweight prices equated to 9.93 euros/kg. With French lamb trading at 9.56 euros/kg, Irish lamb at 8.77 euros/kg and the Spanish lamb was 8.12 euros/kg. In contrast to this, New Zealand lamb deadweight price was 3.42 euros/kg, almost a third of the cost of the UK product with Australian lamb trading marginally higher at 3.98 euros/kg. Import statistics typically lag a few months behind by the time they are submitted and reported (see Fig 2).

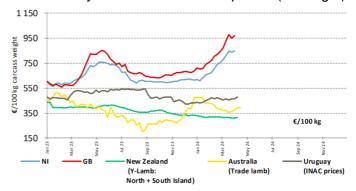


Fig 2: World Market Prices (Lamb carcasses) Source: European Commission

Eurostat EU import figures (Fig 3) show the price rises from January 2024 being linked to the decrease of the imports from Australia, New Zealand and Uruguay; with rises from "other" countries like Iran and Chile.

Origin	Jan 23	Jan 24	% Chg
Total	12 082	11 802	- 2%
United Kingdom	7 178	7 238	+ 1%
New Zealand	4 237	3 989	- 6%
Australia	393	200	- 49%
Chile	30	134	+++
Uruguay	142	64	- 55%
Iceland	44	53	+ 20%
Other	59	124	+++

Fig 3: EU Import prices for sheep & goat meat (tonnes carcass weight). Source: Eurostat

Kirsten Williams; 07798617293

Week ending	GB deadweight (p/kg) 16.5 – 21.5kg			Scottish auction (p/kg)				Ewes (£/hd) Scottish	
	R3L	Change on week	Diff over R2	Diff over R3H	Med.	Change on week	Diff over stan.	Diff over heavy	All
06-Apr-24	837.2	15.7	1.6	-1.7	397.30	10.3	36.3	5.0	120.89
13-Apr-24	856.6	19.4	-2.9	-3.5	402.40	5.1	43.7	8.4	118.31
20-Apr-24	866.1	9.5	-2.8	-2.5	396.30	-6.1	33.8	5.4	126.67

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: Pigs

Rocky period for pig sector profits

Those of certain vintage will remember when the pig sector was renowned for its boom-or-bust nature and "the pig cycle". The start to 2024 however has been remarkable for the relative stability to pig prices with only very small gains or losses being recorded each week.

After peaking in August 2023, prices fell away until the turn of the year before levelling off. Although profits are being made at the moment, the scars of the previous few years remain. While some of the losses are being recouped, it will take some time for reserves and borrowings to return to previous levels. Indeed, there are still reports of some producers deciding to leave the sector and trade journals are full of second-hand equipment from redundant units.

Standard Pig Prices (SPP EU Spec): After peaking at just under 226 p.p.kg in August 2023 following an increase in prices of nearly 65% over the previous 18 months, prices declined fairly steadily over the autumn and winter, levelling off at 211 p.p.kg in January (AHDB). Prices had started to edge upwards in March however the past two weeks has seen successive falls, eroding any of the gains. More encouraging is that prices across the EU have started to rise with the differential between UK and EU prices having narrowed to 20 p.p.kg from a high of 32 p.p.kg at the start of the year. Reduced supplies have helped support prices at home with processors starting to look for pigs again as home demand improves and pig farmers, like everyone else are hoping for sunny weather to bring the barbecues out, helping encourage demand further.

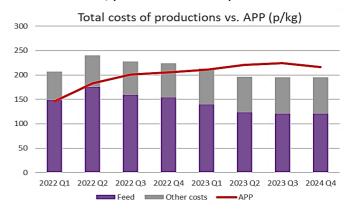
Slaughter Weights: Slaughter weights remain high at around 91kg, reaching 91.68kg last week. This is around 2kg higher than 12 months ago and an astonishing 10kg higher than 10 years ago (AHDB). Slaughter numbers are still declining with recent figures showing that 10% less pigs were slaughtered in March 2024 compared with March 2023 with cull sows and boars also 9% back on the year. While most of the this can be blamed on the significant contraction of UK sow numbers over the past few years, productivity has also been impacted in recent months by the wet winter and some reports of disease issues.

Cull Sows & Weaners: Cull sows have firmed over the past few months with values at 115-128 p.p.kg (T.V.C.), which is only slightly back on the same time last year. Although there has been a rise in cereals prices in recent weeks, there remains good demand for weaners from specialist finishers, with 7kg

weaners trading at £53-55/head (T.V.C.) and supply of pigs beginning to tighten.

Costs of Production: Despite lower prices, the latest published margins from AHDB (for Q4 of 2023) showed pig producers were still making a margin of 21 p.p.kg (£19 per pig), back from 28 p.p.kg and £25 per pig in Q3. Costs had remained the same between the two periods at 195 p.p.kg (£172 per pig). Within this, feed made up 62% of the total costs, at 121 p.p. kg or £106 per pig. While it is hoped that prices received will strengthen as we enter the summer, this is tempered by cereal prices rising by £20 per ton in recent weeks, putting pressure on margins along with concerns rising about the size of this year's harvest due to the wet weather. The return to profitability has also meant that some producers are looking to start re-investing in their businesses again, although are being met with much higher building and machinery costs than before the pig crisis started.

Figure 1. GB All Pigs Price (APP) vs. Cost of production Jan 2022 to Dec 2023, (Source: AHDB Pork)



EU pig sector update

The EU pig sector continues to have a big impact on the UK market. Prices have now started to rise again due a combination of a hugely contracted pig herd and also a very welcome upturn in demand, which had felt the effects of the cost-of-living crisis. EU pigmeat production is at its lowest for a decade and pig numbers are also at their lowest since records began in 2021 (AHDB). Imports are also at their lowest levels (excluding the initial impact of Brexit) with the UK losing market share, slipping from supplying 85% down to 71% in 2023 with a reduction in tonnage of just under 30Kt on the year. Pig numbers are not expected to recover in the EU and indeed when coupled with increasing environmental regulations, the EU commission is now predicting further annual declines in pig population of around 1% until 2035.

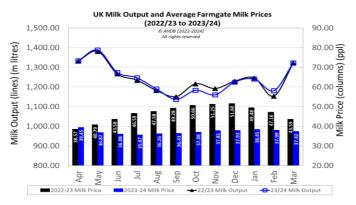
george.chalmers@sac.co.uk

What spring flush?

- Milk volumes are well down on this time last year.
- Weather impacts on grass growth has curtailed the seasonal rise in milk volumes.
- Commodity market prices show little change and no sign of significant improvement in milk price in the short-term.

Milk production data

The latest milk production data from AHDB shows that GB milk output for March was 1,086m litres (provisional), 11.4% more than February's volume. Daily deliveries were 35.67m litres for the w/e 13th April, just 0.3% above the previous week but 2.2% down on the same week in 2023. UK production for March was 1,322m litres, 12.0% more than the previous month but no change from March 2023.



Farm-gate prices

The Defra average UK milk price for March 2024 was 37.42 ppl, down 0.57 ppl from February and 14% lower than March 2023. The most up to date milk prices from the main Scottish milk buyers available at the time of writing are shown below. First Milk has increased its May price by 0.75 ppl, which is their fourth consecutive monthly rise.

Milk Prices for Apr/May 2024 Scotland	Standard Ltr ppl				
First Milk ³	May	39.50			
Müller - Müller Direct - Scotland 1, 2	Apr	37.50			
Grahams ¹	Mar	36.00			
Arla Farmers ³	Apr	40.06			
Lactalis / Fresh Milk Co.3	Apr	38.50			
1 Liquid standard litre – annual av. milk price based on s butterfat, 3.3% protein, bactoscan = 30, SCC = 200 un					
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.					
Includes 1.00ppl Müller Direct Premium. Haulage dedu vs 2021 litres, ranging from -0.25 to -0.85ppl.	ucted depending	g on band for 2023			

Dairy commodities & market indicators

The latest UK wholesale dairy commodity prices for the week beginning 18th March to the 15th April showed very little change from the previous month, with only a positive movement for butter (+1%), due to limited stocks and lower milk volumes (particularly in Ireland) reducing production. Again, markets have been quiet these last few weeks as buyers and traders wait to see how milk production pans out in the run up to the seasonal peak. The market indicators AMPE and MCVE both dropped, and the Milk Market Value indicator also fell 0.67 ppl from March. This is the third consecutive drop in a row, giving little hope of milk prices rising much further over the coming months.

UK dairy commodity prices (£/tonne)	Apr 2024	Mar 2024	Oct 2023
Butter	4,910	4,850	4,070
SMP	2,000	2,040	2,220
Bulk Cream	2,037	2,045	1,791
Mild Cheddar	3,470	3,490	3,290
UK milk price equivalents	Apr	Mar	Oct
(ppl)	2024	2024	2023
AMPE	36.14	36.62	34.53
MCVE	35.57	36.28	34.58

© AHDB [2024]. All rights reserved.

The latest GDT auction (16th April) showed little change in the average price across all products sold, down just 0.1% to \$3,590/t. The previous auction at the start of April was more positive, with the index up 2.8%. At the latest auction, the biggest price drops were seen in cheese products, with cheddar down 8.5% to \$3,974/t and mozzarella back 3.8% to \$3,755/t.

GrassCheck GB and nitrate warning

Data from GrassCheck GB shows a slow start to grass growth this year, which is not surprising given the cold, wet spring. Combined with low soil temperatures, grass growth at the end of April is predicted to be around just 20kg DM/ha/day, which is below the 5-year average. However, grass quality is good at 18.4% protein and 11.2ME. For a 650kg cow with a grass dry matter intake of 16kg, this should support M+20 litres of milk.

For those with late slurry and fertiliser applications this spring, it is worth testing fresh grass for nitrates prior to cutting to sure that all N applied has been used up. High levels of nitrates (>0.1% or >1000mg/kg in the fresh weight) can lead to poorer fermentation and reduced intakes, affecting animal performance. If over 0.25%, the advice is to delay cutting and retest the grass in three to five days. You can get a rough idea of whether all applied N has been used from the date of application, based on an N uptake of 2.5kg/ha (2 units/acre). If conditions are less favourable, add a safety margin of +7 days. For example, under favourable conditions, an application of 120kg N/ha will be fully utilised by seven weeks post-spreading (120/2.5 = 48 days). If applying only 80kg N/ha then it should be safe to cut after 32 days.

Iorna.macpherson@sac.co.uk

Sector Focus: Scottish hemp fibre

Advancing a sustainable Scottish supply chain for hemp fibre

Multiple SMEs are interested in developing a domestic supply chain for hemp and hemp-derived products to increase resilience, sustainability credentials and local community impacts, yet no single SME has the resources to determine the agronomics/techno-nomics underpinning a newly created domestic Scottish supply chain. Farmers, as an integral part of the supply chain, are naturally interested in the opportunities that growing hemp fibre could potentially bring. If the economics were to stack up, the addition of a new break crop to current rotations would be favourable.

Market failure to date

Despite these benefits the supply chain is still exposed to many threats limiting its development, including the limited routes to market, unproven profitability, lack of technical support, weather limitations, lack of financial assistance and unhelpful licencing protocols. It is fair to say that currently there is a market failure in the supply chain; markets for hemp fibre are growing rapidly and manufacturers are already operating in this sphere, but production and hemp processing have yet to evolve at scale in Scotland.

2024 feasibility study

Aware of this current market failure, SAC Consulting reached out to Scottish Enterprise (SE) in the latter part of 2023 for funding to support a supply chain study. The request was timely, aligning with the demand for a scalable sustainable biobased feedstock becoming more critical as the Scottish and UK government set their net zero mandates for 2050. Supported by the Industrial Biotechnology Innovation Centre (IBiolC), funding has been awarded and the study will run through 2024 involving variety trials, an assessment of the technical and economic aspects of crop production, crop processing requirements and market analysis. The main deliverable will be a free and publicly available 'sector' report, detailing all the project findings, to be published by SE on Evaluations Online, early in 2025.

Historical context

To give context to the project, hemp was widely used in the UK until the 20th century when cheap and abundant jute and cotton made it uncompetitive. The decline in its industrial use was gradually replaced by its misuse as a psychoactive drug. This resulted in European and North American countries banning its

cultivation. By 1928, cultivation was banned in the UK too.

Indeed, the UK has, by virtue of its strict licencing requirements, fallen well behind the times. That having been said, more recent lobbying, has been rewarded, with the Home Office moving to relax future licensing requirements for farmers wanting to grow the crop. Legislative amendments have already been made abroad and enabled European production to flourish. France is the largest producer of hemp in Europe, accounting for 67 per cent of the total hemp production in 2020. Poland was the second largest producer of hemp, followed by the Netherlands, Austria, and Italy. The top five countries produce 94 per cent of the total EU production.

In recent years the area dedicated to hemp cultivation has increased significantly in the EU from 19,970 ha in 2015 to 34,960 ha in 2019 (a 75% increase). In the same period, the production of hemp increased from 94,120 tonnes to 152,820 tonnes (a 62.4% increase). The major suppliers of hemp fibre to the UK are currently France, Lithuania, Netherlands, Australia, and Senegal.

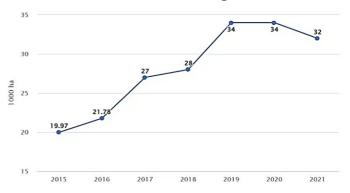


Figure 1: EU land used for hemp cultivation from 2015-2021. Source: European Commission

Carbon circular economy

As previously alluded to, hemp is receiving increasing appeal also for its ability to capture large volumes of carbon and to form part of circular economies. Industrial hemp absorbs upward of 13 tonnes of CO2 per hectare, and it is estimated that 1.63 tonnes of carbon is sequestered for every tonne of hemp grown. The value in that, itself, is interesting and of potential economic merit.

If you would like to be kept informed on project developments through the course of this year register your interest at mark.bowsher-gibbs@sac.co.uk.

mark.bowsher-gibbs@sac.co.uk

Management Matters: Straw Alternatives

Straw Outlook

Typically, at this time of year demand for straw for livestock bedding is relatively low, as stock are turned out to grass. However, a prolonged wet spring has affected stock getting out to grass and is now casting doubt of straw supplies for 2024 as wet conditions have affected spring cereals sown to date. It is anticipated that straw will be scarce come autumn, with many livestock farms having no carry-over after a long winter, it is therefore it is advisable to consider alternative bedding materials now. Contact local sawmills, wood processing and composting plants to find out what they can offer.

Key Considerations

There are several bedding alternatives available to farmers, however alternatives can present different management challenges. Key things to consider include storage, how compatible the material is with the farm's slurry system, and nutrient value when applied to land. When looking at alternatives ensure that animal health and welfare is not compromised with the new bedding material, making sure that stock are provided with a clean dry, comfortable and safe bed.

Woodchips for Cattle and Sheep

In 2020/21 on the back of straw price increases, many livestock farmers opted to use woodchips. Woodchips (must be produced from untreated wood) create a good free draining bed, allowing urine to pass through, the bottom layer absorbs moisture allowing the top layer to stay relatively dry. For best results it is recommended that the moisture content of the woodchip should be less than 30% (preferable 20%) to maximise absorbency of the woodchip. For bedding purposes, it is the coverage over the floor which is important. An initial depth of 10cm is recommended, however in some systems farmers have opted for a 30cm depth.

The Woodchip for Livestock Bedding Project (Farming Connect Wales) ran from December 2005 until May 2008 to evaluate the potential of woodchip as an alternative bedding material to straw for use indoors for beef cattle. Key findings as part of the project included.

 The moisture content of the animal's diets affected the performance of the woodchip bedding with more bedding required for the animals fed a wetter silage-based diet.

- The species of wood used had no effect on the performance of the woodchip bedding.
- Animal health, welfare and cleanliness of stock bedded on woodchip were of an equally high standard.
- Woodchip based manures performed poorest when applied to grass highlighting the importance of not applying woodchip-based manure to fields until fully broken down by composting for approximately 2-3 years.

Previous trial work carried out by SAC/SRUC investigated the use of softwood woodchips to replace straw as bedding for Blackface lambs on all concentrate diet over a six-week period. The trail found there to be no significant effects on performance or DLWGs. Although the lambs on woodchips had darker fleeces, they were not found to be dirtier when assessed for slaughter.

Woodfines

Woodfines or woodfibre bedding (product is readily available and often sold under different brand names) is made from recycled wood such as offcuts and pallets which have been finely chopped. Particle size tends to be within 8-20mm. As part of the chipping process, the material goes through an intensive cleaning process using magnets to remove nails etc. However, it cannot be guaranteed 100% contaminant free. Generally sold on a grade basis, price increases with the higher grades, as these have gone through further, more intense cleaning. Benefits to woodfines as bedding include potential for better weights gains as bedding produces natural warmth, therefore less energy used by cattle to keep warm, and it is not palatable. However, it is important to remember that cattle will need access to a form of roughage in their diet if straw is replaced as a bedding.

Farm Assurance Schemes have set rules on the use of alternative bedding materials so ensure that materials are permitted and ensure you comply with Nitrate Vulnerable Zone (NVZ) rules if appropriate, when applying wood based manure on land.

For more information on the use of alterative bedding materials please refer to;

https://www.fas.scot/downloads/alternative-bedding-materials/

sarah.balfour@sac.co.uk

Inputs: Winter Forages

Winter forage options – Making the most of on farm resources

It is May and hard to think about next winter. However, needs must as silage season is already upon us; as making silage is a costly business, it is essential to focus on this process to maximise forage resources.

Making silage to suit the stock

When making silage, think about what animals you are making silage for, high quality silage for youngstock and in lamb ewes will save money on bought in concentrates, but will be too good for dry suckler cows and will need diluting with straw. There is also a fine balance between getting enough bulk of silage and optimising the quality, with weather also affecting the quality and quantity of the dry matter of silage produced.

Table 1: Cutting time for quality silage

raise in cartaing anni	dolo il oditilig tillo loi quality chage								
Silage quality	Ear	Suitable stock							
(energy)	emergence								
9.5MJ/kgDM	75%	Fit dry suckler cows							
10.5MJ/kgDM	50%	Growing stock, autumn calving cows, pregnant ewes							
11.5MJ/kgDM	25%	Growing stock, finishing stock, pregnant ewes							

Alternative conserved forages

For winter feeding, arable silage offers an alternative to grass, traditional barley or wholecrop wheat. There are various mix options for establishing arable silage, for example barley and peas, or these together with added vetch or oats.

While the advantage is a good yielding crop, the energy and protein yield however will depend on the ratio of the species in the mix and how well the crop grows. The nutritional value is often similar to average quality grass silage (around 10-10.5MJ/kgDM energy and 100g/kgDM crude protein.

Alternatively, root crops can help reduce the need for as much ensiled forage and can help delay housing which in turn reduces forage and straw requirements. With less and later sown grain this year exasperating the problem of poor national straw supplies, root crops may be worth considering.

Table 2: Conserved Forages Pros and Cons

Crop	Pros	Cons
Silage	Quality can be varied to suit specific livestock group requirements. Ability to save on concentrate costs, if made well.	Expensive to grow and make. Quality of grass variation between fields.
Arable silage	A good alternative to moderate grass silage. Can be undersown with grass.	Can be poorer quality than moderate silage depending on cutting date and ratio of species in the mix. Need to plan ahead to establish in the spring. Attracts vermin once ensiled.
Wholecrop barley	Can be taken out of grain production if required and harvested early. Good energy feed. Can be undersown to establish a grass crop.	Poor for protein. Need to plan for sowing in spring with option to wholecrop. Attracts vermin once ensiled.
Нау	Can be a consistent feed. No plastic wrap or pitting required. High dry matter. Can be stored easily for several years.	Poorer energy and protein than moderate silage. Difficult to make good hay, reliant on good grass crop and good weather for a prolonged period.

Planning winter forage requirements

To avoid waste and to help plan your winter feeding requirements, it is advised to use a feed and forage calculator. AHDB's can be found here <u>Feed and forage calculator</u> | AHDB.

Having your forage analysed and getting your rations checked by a livestock nutritionist can also make the most of your on-farm forage resources.

karen.stewart@sac.co.uk

Key Economic Data

General Indicators		Price indices for February 2024 (Defra 2020 = 100)				
		Output Prices		Input Prices		
Base interest rate	5.25% (5.0% 22 June 23)	Wheat	118.6	Seeds (all)	106.1	
ECB interest rate	4.0% (3.75% Aug 23)	Barley	142.3	Energy	156.2	
	`	Oats	188.7	Fertiliser	162.1	
UK (CPI) inflation rate	3.2% (target 2%)	Potatoes	245.0	Agro chemicals (all)	120.8	
UK GDP growth rate	-0.3% (Q4 2023)	Cattle and Calves	142.4	Feedstuffs	130.9	
, and the second	,	Pigs	132.4	Machinery R&M	124.3	
FTSE 100	8139.83 (29/04/2024)	Sheep and Lambs	145.1	Building R&M	136.4	
		Milk	133.0	Veterinary services	109.4	

© 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