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June 2023

News in brief

Royal Highland Show showcases policy updates and industry progress

As always, June has been a busy month, and the Highland Show brought its usual batch of much-awaited launches and announcements.

Following mounting tension from the farming community about the lack of clarity on what a post-Brexit agricultural and land use policy might look like, the release of various policy reports and updates provides interesting and much-awaited reading. These include:

- The announcement by Mhairi Gougeon on new conditions for farm support payments from 2025, including Whole Farm Plans, peatland and wetland protection, and conditions on the Suckler Beef Support Scheme – for further information see page 2;
- Scottish Government's Response to the Climate Change Committee's 2022 annual progress report – further detail in the article on page 9;
- A discussion paper on Just Transition and Land Use in agriculture, exploring the current context as well as policy ambition;
- The Scottish Natural Capital Accounts for 2023, estimating the quality and value of natural capital services in Scotland.
- The Agricultural Reform Route Map to 2032, developed in consultation with ARIOB and the Farmer-Led Groups;
- The new 10-year Food and Drink stability strategy, highlighting opportunities for Scotland to add value to its unique and valuable agrifood sector.

Next month:

- The whisky industry and net zero
- Feed and rationing update
- Direct marketing for diversification

Contents

This month's editor:
Anna Sellars

Revised Agricultural Reform Route Map

As part of the Scottish Government's Vision for Agriculture, a second edition of the Agricultural Reform Route Map has been published setting out the wider land and agricultural change plan for Scotland from 2023 through to 2032.

In 2025, as part of the process of changing to a new agricultural support framework from 2026, the following measures will be introduced:

- The foundations of a whole farm plan, including soil testing, animal health, and welfare declaration, carbon audits, biodiversity audits, and supported business planning.
- New conditions to the Scottish Suckler Beef Support Scheme linked to calving intervals to encourage livestock keepers to reduce the emissions intensity of their cattle production systems.
- New protections for peatlands and wetlands.

Basic payment & greening

While greening requirements will not change in 2025, aimed at making businesses more efficient, new conditions will be introduced to the Basic Payment Scheme, making this support conditional on: meeting essential standards in farming activity; climate response; biodiversity gain; whilst safeguarding animal health and welfare standards and workers' rights.

In 2026, the Basic Payment Scheme will end and 'Base Support' and 'Enhanced Support' measures will be introduced.

Suckler beef

The recently published Calving Intervals in Scotland's Cattle Population report highlights that the mean calving interval of suckler beef in Scotland is ~ 400 days, with 12% of animals having a calving interval of 14 months or longer (based on the analysis of CTS calving data from 2015-2021).

Calving interval is a key efficiency metric for beef production systems. Longer calving intervals equate to lower numbers of calf sales per annum and higher greenhouse gas emissions per kg of beef sold off the farm.

The free-to-use MyHerdStats tool allows farmers and crofters to view performance indicators for their herds. Identifying opportunities for improvements to herd efficiency, including reducing calving intervals will help beef producers reduce the total emissions from their production systems.

Protecting Scotland's Peatlands

Peatlands cover around 2 million hectares, or one quarter, of Scotland and are of national and global significance linked to their ability to store carbon, support nature and reduce flood risk.

Following on from the commitment to spend £250 million restoring 250,000 ha of degraded peatlands by 2030, as part of Just Transition to net zero by 2045, the Scottish Government has announced that protection of wetlands and peatlands will be part of the planned new Good Agricultural and Environmental Conditions (GAECS 2). Further details will be published later this summer as part of the Agricultural Reform Route Map.

Emergency approval of Asulam (Asulox) for bracken control denied

Following the recommendations of the Expert Committee on Pesticides and the HSE, the Scottish Government is not authorising the use of Asulox this season due to the risks it poses to the environment and human health, siting that the potential adverse effects of Asulox use outweigh the potential benefits.

Although as bracken contains a range of toxins to deter herbivores, it is rarely consumed by livestock; the EU now considers Asulam to meet the criteria for endocrine disruption in humans. It also presents a high risk to aquatic organisms, which is exacerbated by aerial spraying. Equally, it is viewed that spraying in upland areas carries a potentially high risk of contaminating drinking water, especially as upland reservoirs do not have the capacity to treat this type of pollution.

While other chemicals can be used for bracken control, they are less effective and physical methods including rolling and cutting are only suited to controlling bracken in level areas and not on steep ground where Asulox has proved to be most effective for hill and upland farms.

For AECS 2023, contracts previously approving chemical control of bracken will now change to allowing mechanical or manual control only. Further information is available on the SASA website.

Deposit Return Scheme delayed

The launch of Scotland's Deposit Return Scheme designed to incentivise recycling, reduce litter and help tackle climate change by reducing the amount of single-use drinks containers going to landfill, will be delayed until at least October 2025.

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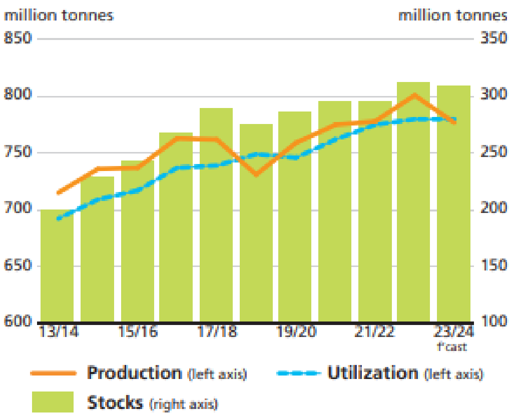
FAO: Wheat production off 2022 peak

Global wheat production, stocks and trade (Fig 1) are all forecast to fall in 2023/24 from their 2022/23 record high levels. Nevertheless, with significant carryover stocks from last season and nearly stagnant total utilization, world wheat supplies are set to remain unchallenged. Global wheat markets are expected to tighten slightly in 2023/24 but should remain adequately supplied. Total wheat output in 2023 is pegged at 777 million tonnes, representing a 3.0 percent fall from the all-time high reached in 2022. The bulk of the foreseen decline is expected to occur in the Russian Federation and Australia, following record-high outputs in both countries in 2022, while smaller declines are anticipated in several other leading producers, including Ukraine.

Fig.1: Wheat production, utilisation and stocks



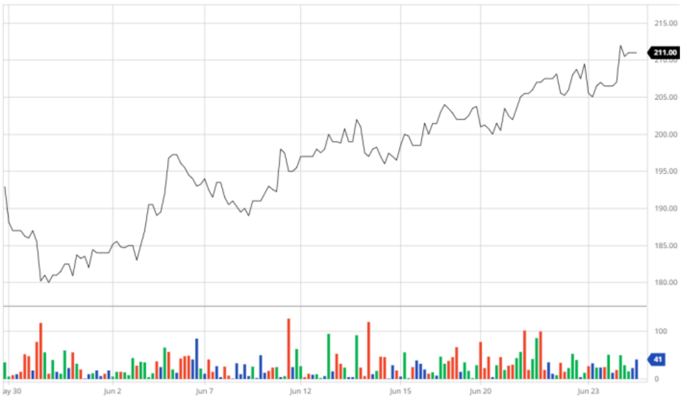
Source: FAO

Markets rebound on U.S dryness

At the end of last week, we saw a real acceleration of prices to the upside driven by reports confirming downgrades to maize and spring wheat crops, primarily in the USA.

UK prices continue their rebound, (Fig.2) up 15% in the last 4 weeks and now trading at a three-month high (Nov 23 UK feed wheat: £211/t on 26th June). EU wheat prices are following the buoyant US market and other supportive elements. Australian wheat areas are expected to dry out in early July and could add to concerns over global weather hotspots. Reports that India's production will be much lower than government estimates will be watched closely, as well. If true, it could turn India, like China, into a net importer later this year, tightening the global balance sheet and becoming a new bullish factor. Drought conditions in Canadian spring areas is getting some market attention, especially after the 9% drop in US spring crop condition ratings earlier this week and downgrades to Russia's spring wheat crop, representing 35% of the total production.

Fig.2: London FW Nov '23 (1st May-26th June '23)



Source: AHDB

The UK malting barley market has been the biggest riser of all over recent weeks with significant premiums quoted on high-N brewing contracts. However with the onset of an optimistic harvest in France and recent rains here, the rally may well be running out of steam. Sellers of winter barley for export continue to face aggressively priced barley of Black Sea origin.

Footnote: Farm level emissions and nitrogen 2021-22

Utilising the Farm Business Survey data and Agrecalc, the Scottish Government has published a new experimental set of statistics on emissions and nitrogen usage at farm level. Based on commercial sized farms in the Farm Business Survey, this new and experimental data provides greenhouse gas emission estimates and nitrogen for a range of farm types. The new estimates show that for the average Scottish farm greenhouse gas emissions have remained stable over the last three years, and that the nitrogen balance (the amount of nitrogen that might be lost to the environment) was lower in 2021 than the first estimate made in 2019. For further details please see online here.

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Indicative grain prices week ending 30th June 2023 (Sources: Frontier,SAC,ODA,ADM,AHDB)

£ per tonne	Basis	July '23	**Harvest '23**	**Nov'23**
Wheat	Ex farm Scotland	197	212	220
Feed barley	Ex farm Scotland	165	170	181
Malt. dist. barley	Ex farm Scotland			245-300
Oilseed rape	Delivered Dundee	360	358	368

Beef

Finished beef price falls

Over the past month, finished beef price has significantly dropped, sitting at 499p/kg/dwt, for week ending June 17 for Scottish R4L grading steers. The takeover of ScotBeef, is arguably to blame however increased supplies in recent weeks and reduced demand due to hot weather as consumers revaluate their meat buying habits opting for processed meat and BBQ foods, is also impacting trade. Irish imports to the UK have increased with there being a 40p/kg price difference between UK and ROI, which has also contributed to a price drop. Future processing demand in the coming weeks, will depend on ROI prices, as more cheaper Irish beef could be imported to keep UK prices managed.

This dip in the finished price has come at a bad time for those short keep finishers starting to sell their more expensive stores bought in the spring, as before this price fall many were needing around 520p/kg/dwt to cover costs. At the current beef price these undoubtedly will leave no margin.

With less housed cattle available, and grass cattle unlikely to be ready until late August, and concerns over grass availability due to lack of rain and hot weather, numbers look to be tight in the coming months as there does not look to be a significant rise in numbers becoming available. Young bulls have helped processors to make up the short fall in cattle numbers over the past months, however by the end of July, in keeping with the time of year; it is likely many will have been traded.

Hot weather impacts

Forage availability, due to lack of rain may start to have an impact on store cattle prices. With some bigger store sales scheduled for July, finishers could look to pay less for stores or choose not to restock at the same level, in an attempt to recoup some loss suffered on the back of trading these dearer March and April bought cattle and concerns of grass. Who is having rain is likely to drive trade and prices. Demand is likely to still be with the short keep heavier types.

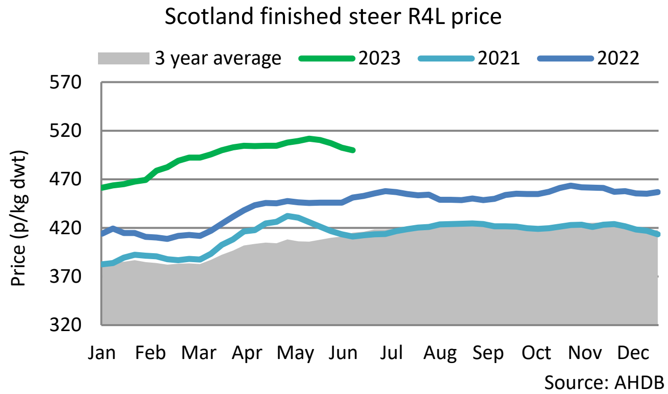
Cull cow trade remains strong although back 2-7p/kg depending on outlet, the hot summery weather is boosting sales of burgers and other BBQ foods. Trade may well drop off slightly in the coming weeks as imports rise and numbers coming forward from the dairy industry, increase supply. Those with cows to go should sell now rather than wait.

We are still without clear policy direction from Government, however at the Royal Highland Show, QMS set out its new five-year strategy, which will include genomics, brand integrity and securing funding for a verification system for the eating quality of Scottish red meat proteins.

Abattoirs in fewer hands

After weeks of speculation, ScotBeef announced its sale to ABP, with the sale expected to be complete by the end of July. The takeover continues the consolidation of meat wholesalers actively seeking prime cattle in Scotland, however not a reduction in the number of cattle required to meet retail demand.

With three companies now controlling much of the beef process in the UK, there is apprehension among producers; time will tell if this will have significant implications for cattle prices.



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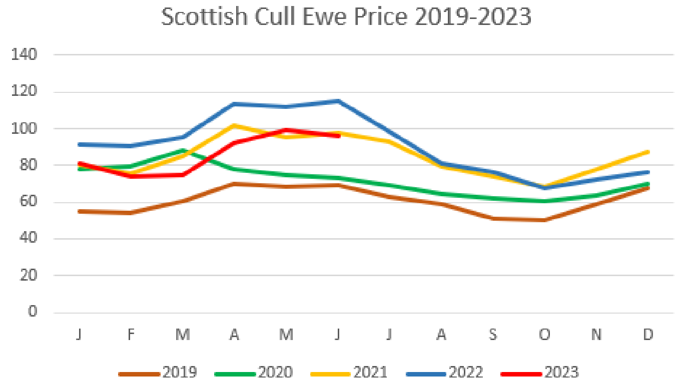
Scotland prime cattle prices (p/kg dwt) (Source: drawn from AHDB and IAAS data)

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
03-Jun-23	**507.3**	-3.2	8.6	**509.3**	-4.2	7.0	504.1	7.6	440.9	412.0
10-Jun-23	**502.5**	-4.8	4.9	**505.9**	-3.4	6.4	500.1	8.4	436.5	408.1
17-Jun-23	**499.8**	-2.7	2.7	**501.6**	-4.3	6.2	493.8	11.2	436.1	404.3

Cull ewes

It has been reported that the number of adult sheep slaughtered in the UK between Jan-April 2023 is 5% higher than 2022. This may be due to the drought in summer 2022, and these additional culls being concentrate fed over the winter prior to being marketed. AHDB have forecasted an increase of 0.8% adult sheep will be slaughtered in 2023 compared to 2022, totalling 1.71 million. The national flock has increased by 1% to 14.4 million ewes.

The cull ewe trade has followed a similar pattern to that of 2021, with a rise being seen during Ramadan and then following typical supply and demand trends.



Wool trade

Global trading of wool has shown decreasing values over the last month. Wool for manufacturing continues to be at the mercy of the delicate global economy. China has been actively buying wool from the higher quality wools as the prices have lowered through the last month. Prices for the end of June 2023 are as follows:

	Ave. price end June23	Change in month
Australia	1139 ac/kg	-70 ac/kg
United States	773 usc/kg	-12 usc/kg
China	55.58 ¥/kg	-0.15 ¥/kg
Europe	7.08 €/kg	-0.29 €/kg

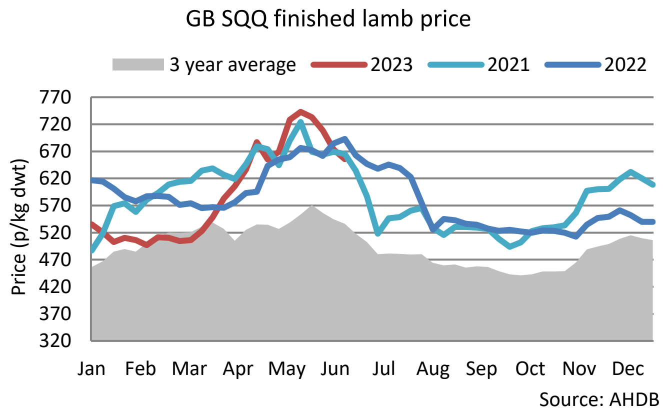
Source: Australian Wool Innovation Ltd

Lamb exports

Exports of lamb are growing, with the first quarter of 2023 seeing a rise of 22% on the year. AHDB have estimated a rise of 14% in exports will be witnessed in 2023 compared to 2022. The reason for this rise is due to:

- The decreasing flock in Europe;
- New Zealand and Australian lamb targeting closer more profitable markets in China and Asia
- UK domestic demand is decreasing, meaning we have a higher level of product to export, strengthening our position in the market;
- Global demand of sheep meat and protein is high;
- Our current price is competitive especially to the French. Our deadweight price has overtaken the Spanish price which will limit our competitiveness to Spain.

The below graph shows the effect of high supply and low demand at the start of the year, with a high carry over of hoggs. With Ramadan and Easter in April, this created high demand as hoggs slowed down and the new season lambs were slow to start, creating a lower supply. Now as the lambs start to come forward at pace, the price will drop, which will again make us price competitive to our European traders.



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Week ending	GB deadweight (p/kg) 16.5 – 21.5kg				Scottish auction (p/kg)				Ewes (£/hd)	
									Scottish	Eng&Wal
	R3L	Change on week	Diff over R2	Diff over R3H	Med.	Change on week	Diff over stan.	Diff over heavy	All	All
03-Jun-23	**707.3**	-25.0	0.4	4.0	**336.70**	-8.8	16.0	20.5	95.47	103.30
10-Jun-23	**672.3**	-35.0	1.0	2.6	**323.00**	-13.7	-7.0	8.2	101.26	99.52
17-Jun-23	**655.5**	-16.8	-0.3	1.0	**295.90**	-27.1	2.1	0.4	91.51	90.49

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: Potato update

Trends in potato production

The levy body AHDB Potatoes no longer exists to collect planting returns and market information. This makes concrete information on the potato crop in GB hard to come by. The general feeling is that planted area is substantially down, particularly in England and Wales. This drop in area is not uniform for sectors within the crop – decreases in areas planted for seed and processing potatoes have likely declined only modestly, while the fall in pre-pack ware may exceed 10%.

Demand for ware potatoes both for the home market and to export destination has been very brisk and many growers have had little difficultly clearing stores of the 2022 crop.

SPCS statistics

SASA have released their first estimate of crops entered into the Seed Potato Classification Scheme (SPCS) in Scotland which confirms the generally feeling of a modest decline in planted area. This year 9,897 ha were entered into the scheme – this is 515 ha less than in 2022, a 5% reduction. Ten thousand hectares is sometimes quoted as a psychological benchmark for the Scottish seed potato industry below which it could be viewed as a minor crop.

Of interest is the changing popularity of varieties both for supply and demand in the home and export seed sector, and also because it augers coming shifts for ware markets.

There are 246 varieties registered this year in the classification scheme, but most have almost negligible area. Only eleven varieties have over 200 ha of seed and the three most widely grown varieties: Cara (1,137 ha), Maris Piper (1,047 ha), and Hermes (963 ha), account for almost one third of the total area of seed potatoes in Scotland.

Area (ha) of ten most widely grown seed potato varieties entered in the SPCS in Scotland (2023)

Variety	Hectarage		% Change	
	2023	2022		
Cara	1137	1051	+8.2	↑
Maris Piper	1047	1342	−22.0	↓
Hermes	963	916	+5.1	↑
Desiree	434	445	−2.5	↓
Atlantic	345	355	−2.8	↓
Innovator	332	383	−13.3	↓
Royal	312	352	−11.3	↓
Lady Rosetta	241	210	+14.5	↑
Markies	233	316	−26.3	↓
Brooke	224	235	−4.8	↓

Source: SASA

Cara and Hermes are varieties grown primary for export to partners such as Egypt and Morocco and the popularity of Cara has increased consistently for the past few years, primarily due to the favourable margins. However, there were some reports of over-supply to the Egypt market in 2022 and with some growers dealing directly with merchants or growers in the export destination rather than contracting through brokers there is increased exposure.

Cara is a “growers’ variety” with few prominent agronomic weakness – however, it is susceptible to both species of Potato Cyst Nematode (PCN) and has a tendency to leave groundkeepers that are difficult to eradicate.

Maris Piper has long been the most popular potato variety with almost everyone in the supply chain (aside from agronomists) due to its versatility. However, it is susceptible to many diseases and requires high agronomic inputs. While still the second most widely grown seed potato variety it’s hectarage has dropped significantly on 2022: down 22% (a drop of 296 ha).

A glance at the Pre-Basic seed area reveals up-and-coming varieties that are making their way through the multiplication system. Taurus, Caruso, and Jazzy are all varieties that have modest areas of commercial grade seed but relatively large PB areas meaning they will be significant contenders in the coming years. The biggest increase over all (both absolutely and in relative terms) is King Russet with 100 addition hectares on 2022.

Crop update

Planting was somewhat challenging in 2023, particularly in England – later planted crops were planted in good conditions but for many growers it was a stop-start processes. In Scotland some plantings were up to two weeks behind schedule, but most growers were complete in good time.

Aside from a few emergence issues which can probably be linked to conditions at planting, crops are developing well – current temperatures are ideal for growth although few crops had closed canopies by the summer solstice.

Scottish conditions through much of May and early June have been dry, with irrigators a common sight in the major production areas of Angus and Fife. Recent EU MARS Bulletin registers rain deficits across the north of the continent. Reportedly this is causing concern in Germany and the Benelux nations, but recent thunderstorms may have brought some relief.

A freak hailstorm in the Republic of Ireland has also damaged several crops – while not something that will move markets it’s a dramatic example of the vicissitudes of weather!

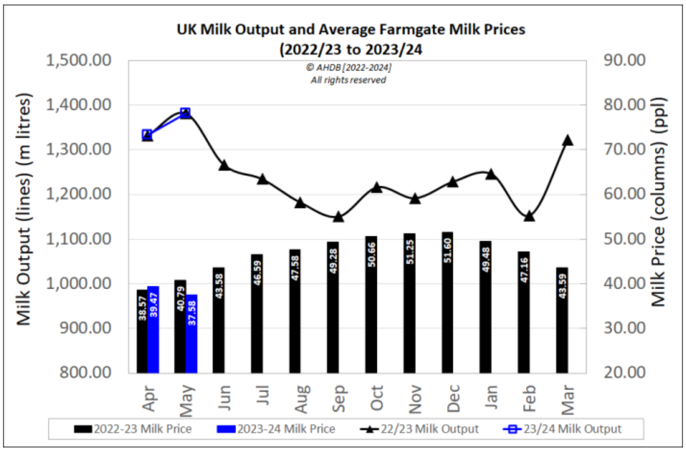
SRUC Potatoes Team

Have milk prices bottomed out?

- *Milk volumes are falling rapidly, there are fewer and smaller price cuts for July compared to recent months and commodity markets appear to be fairly stable.*
- *Farm-gate milk prices are now in the region of between 35-38ppl from the main Scottish milk buyers, depending on the type of supply contract, with supermarket aligned contracts still above 40ppl.*

Milk production data

Milk production data shows that UK milk output for May 2023 was 1,381.76m litres - an increase of around 0.35m litres on a year-on-year basis (+0.03%) and 3.65% higher than April 2023.



According to GrassCheck GB, grass growth rates have been steadily dropping throughout June on the back of hot, dry weather. Quality is also being affected due to moisture stress, with average crude protein levels of just 14.1% and an ME of 10.6MJ/kg DM. Despite recent rains in some areas, grass is in short supply and milk volumes are unlikely to rise anytime soon.

Farmgate prices: July 2023

The UK average milk price for May 2023 was 37.58ppl – down 1.89ppl from April and 7.86% lower than May 2022. The main Scottish milk buyers have either reduced their price for July or held at the June price.

Milk Prices for July 2023 Scotland	Standard Ltr ppl
Lactalis / Fresh Milk Co.[1]	35.50
First Milk Manufacturing *(4.2% Butterfat & 3.4% Protein)*	36.85
Müller - Müller Direct - Scotland [1, 2]	37.75
Arla Farmers Manufacturing (4.2% Butterfat & 3.4% Protein)	35.21
Grahams[1]	36.00
Yew Tree Dairy[1,3]	38.00
[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 and additional 0.25ppl haulage charge for Scottish suppliers.*	
[3] *Liquid standard litre price for A volume litres.*	

According to The Dairy Group, the estimated cost of production for the 12 months up to March 23 was 45ppl. Not surprisingly, the biggest increases were in feed, fertiliser, power and labour. With family labour costed at 3ppl, they estimate the break even cost to produce milk this year is 40ppl (not taking into account grants, subsidies and other income). While feed costs have eased back, with the current milk price margin over purchased feeds is predicted to drop by £350/cow for the year up to March 24. This equates to £70,000 less for a 200-cow herd. Based on current forward prices for straights and assuming good quality forage, it is thought that concentrate feed costs of around 8ppl this winter should be attainable.

Dairy commodities & market indicators

There were small increases to the values for AMPE and MCVE for June 2023, reflecting increases to the value of butter and SMP. The table below shows that UK wholesale prices have in fact increased (slightly) across the board. Whilst there's a long way to go before announcing any grand recovery to milk prices, this does at least suggest that price levels are beginning to stabilise.

UK dairy commodity prices (£/tonne)	June 2023	May 2023	Dec 2022
Butter	3,990	3,910	4,620
SMP	2,060	2,040	2,430
Bulk Cream	1,622	1,490	2,042
Mild Cheddar	3,560	3,550	4,430
UK milk price equivalents (ppl)	**June 2023**	**May 2023**	**Dec 2022**
AMPE	32.66	32.01	39.63
MCVE	37.59	37.45	47.85

The latest Global Dairy Trade (GDT) auction held on 20th June showed no difference in the price index, with a 0% change in the average price index, remaining at $3,479/t from the previous auction two weeks ago. While the average butter price rose 5.5% (to $5,379/t), cheddar and skim milk powder both fell 3.3% (to $4,533/t) and 2.3% (to $2,667/t) respectively.

Looking forward

While market indicators point towards the milk price having bottomed out and more stability in dairy markets, industry analysts predict that recovery will be slow and any milk price rises are unlikely to materialise in the short-term. There are plentiful butter stocks, cheddar prices remain stable (although young cheese prices have been slowly rising) and with some big supermarket tenders currently on-going, significant rises are unlikely to materialise at the moment. This means we could be looking at little movement in the milk price until at least the last quarter of 2023. In addition, consumer demand for dairy products is still back, both domestically and globally. However, milk volumes are still below forecasted levels and if the summer drought continues to impact volumes this may help drive positive milk price changes a little quicker.

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Soil compaction and grassland yield loss

Understanding the effects

Understand the effects of soil compaction should be part of a regular assessment of overall soil health for grassland farmers as well as arable farmers. The trampling by livestock and trafficking of grassland fields with heavy machinery has been shown to have effects on yield reductions from compaction that might not be obvious once the sward has started growing.

Soil compaction can restrict the growth of roots, limit the availability of nutrient uptake, so the fertiliser applied is not used efficiently for grass yield. This can lead to wasting money on costly fertilisers that are not being used and additionally increase the nitrous oxide emission from the sward leading to an increase in greenhouse gas emissions.

Research at SRUC Dairy Research and Innovation Centre at the Crichton Royal Farm in Dumfries over a period of three years has shown an accumulated reduction in grassland dry matter yield of over 14% from machinery trafficked fields and over 11% for cattle trampling. These effects were also seen at a sister experiment based at Harper Adams University in Shropshire on a lighter, sandier soil.

Do I have soil compaction?

The potential for causing soil compaction increases the wetter the soil becomes therefore avoiding compaction initially by not turning out livestock or driving over wet ground, especially after several days of rainfall should be considered. However, if this cannot be avoided then a check on the soil structure should be done to assess any damage. This can be achieved simply with a spade by digging out a block of soil a spade depth (approximately 23cm) and the width and length of the spade (20cm x 20cm). The use of the assessment sheet for the Visual Evaluation of Soil Structure (VESS) developed by SRUC gives descriptions of the status of the soil structures and example photos of the level of compaction (Slide 1 (sruc.ac.uk)). The VESS method has now been adapted by AHDB as part of their soil health monitoring scorecard and is in use in countries such as Switzerland and Brazil. The descriptions are based on a traffic light system with scores of 1 or 2 indicating good soil structure and only to reassess after any further suspected compaction event. A score of 3 indicates some compaction and to think about a change in management, a score of 4 or 5 indicates intervention is needed to improve the soil structure and remove the damage.

Depth of soil compaction

Soil compaction may not only occur at the surface but can have been produced at a lower soil depth, especially if caused by heavy machinery. The VESS assessment also helps in decisions on what method of improving the soil structure is most suitable. This is the idea of the 'limiting layer' – what depth in the soil is the compaction that is having the most effect on the grass yield. If the soil is most compacted at the surface (0 to 15cm) then spiking or surface aeration would be the best management of this problem. However, if the compaction layer is deeper in the soil profile (15 to 30cm) then, for grassland, a sward lifter would be most suitable. The tines of the sward lifter, when used, need to be set below the compaction layer or the results can be increased compaction (fas.scot/downloads/technical-note-tn739-use-of-a-sward-lifter-to-improve-grassland-soil-compaction/).

A sward lifter is a useful tool for improving soil structure at depth, however, care must be taken not to drive over areas that have been recently sward lifted as these can 'slump' and create a worse soil compaction problem.

Other considerations

Apart from keeping off wet soils as much as possible there are a number of other considerations to help reduce soil compaction. These include ensuring any water that drains through the soil is allowed to flow away through a functioning drainage system, if one is installed.

The more the load is spread across the surface of the field will help reduce damage, so low pressure tyres should be considered. It is not always the weight of the tractor that causes the damage but what is being towed. If wet during silage harvest it can the trailer plus the 10 t of cut grass it contains that is compacting the soil, therefore a double axel trailer with wide tyres can also help prevent damage.

Overall, an awareness that compacted grassland soils lead to yield reductions but there are solutions to improving the soil structure that ensures healthy grassland yields are maintained.

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Climate progress update published

At the end of May, Scottish Government published the 2023 progress report on the Climate Change Plan, detailing progress made across all industries to policy outcomes, including agriculture. While the envelopes of emissions for each sector, drawn from the UK's National Inventory of Greenhouse Gases, is based on 2020 data (the most recent available), other reporting metrics and progress indicators are drawn from various and more recent datasets.

For 2020, agriculture as an industry was 0.6 Mt CO2e over its emissions envelope of 7.6Mt CO2e, an envelope which is advisory, but not legally binding. To put 0.6 Mt into context, that equates to around 1,300 cars' equivalent of emissions annually, or 1000 homes. While for 2020 agriculture overstepped its sectoral targets, much progress has been made since 2020 in reducing emissions in Scottish farming, such as two round of the Sustainable Agriculture Capital Grant Scheme, wider uptake of carbon auditing, and the National Test Programme funding further carbon reporting and soil carbon testing. Progress on the 5 practice-oriented outcomes is as follows:

Increased engagement with FAS on environmental issues and climate change	*On track*
Use, spreading precision and N use efficiency of nitrogen fertilisers	*On track, except N use efficiency which is too early to say*
Reduced time to slaughter and increased efficiency (improved health and reduced losses)	*On track*
Improvement in covered slurry storage and precision applications	*Covers on track, precision appl. too early to say*
Area of woodland on farms	*On track*

CCC reduction recommendations

In December 2022, the Climate Change Committee provided the following recommendations to Scottish Government on reducing emissions in agriculture and land use, with all actions to be undertaken in 2023 other than those with later dates noted.

CAP reform & finance:

- More detail on targeting and delivery of subsidies and schemes, delivering climate and other environmental goals – PRIORITY MEASURE;
- Frameworks for monitoring, reporting and verification of schemes to assess effectiveness;
- Set out how public and private finance with aligned and enhanced to increase private finance.

Farming practices:

- Take action to overcome financial barriers to low carbon farming;
- Enhance advice and knowledge on climate mitigation and adaptation for farmers;
- Continue to invest in research and development for low carbon farming practices;
- Increase scope of regulatory components of post-CAP schemes;
- Increase coverage of Nitrate Vulnerable Zones (in 2024).

Forestry & hedgerows:

- Ensure fundings and incentives sufficient to meet planting targets – PRIORITY MEASURE;
- Support for tree nurseries to increase domestic production to meet demand;
- Continue Woodland Carbon Code;
- Develop a plan to increase UK sourced timber production and supply;
- Enhance incentives for agroforestry and hedgerows.

Peatlands:

- Implement a comprehensive mechanism for increased peatland restoration beyond 2030;
- Set out ways that peat soils for agricultural use can be managed in a more sustainable way;
- Set out timescale for ending domestic and industrial peat extraction, and ban the sale of horticultural peat;
- Implement regulations to prevent bare beat or rotational burning.

Other:

- Address non-financial barriers preventing uptake of low-carbon farming, such as enhancing knowledge and skills and simplifying application processes, support to overcome legal complications etc.;
- Set out clear and fair roadmaps and consequences of net zero on agriculture and land;
- Develop action plan for how energy crops can help to meet emission targets;
- With third parties, provide training and increase capacity to promote sustainable farming;
- Take action to encourage a 20% reduction in meat and dairy by 2030, and food waste by 50% by 2030 (in 2025).

ScotGov response to CCC report

On the 20th June, Scottish Government released their response to the recommendations, with all measures accepted, except for those in italics partially accepted, with justifications:

- Some targets are too ambitious, but progress is under way to run feasibility studies etc., e.g. bioenergy action plan;
- Reluctance to be prescriptive on the reduction in meat and dairy consumption;
- There is no added value of additional measures versus those already in place e.g. NVZ expansion, and fully accepting would suggest insufficiency of current measures;
- Disagree with suggestion that there is a problem with legal setup with leases regarding emissions reduction/sequestration, and concern about objections of landlords;
- Some measures require specific exemptions, such as muirburn and peat extraction for whisky and small-scale domestic use.

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Honeybees & farming: having hives on your land

Most beekeepers don't have land of their own and they keep their bees on landowners or farmer's land. The traditional agreement is a 1lb of honey per hive per year donated to the landowner. However, there are also pollination services which farmers will pay beekeepers to pollinate oil seed rape and other crops such as fruit and borage as they can increase their yield significantly.

There are some things you may wish to consider before agreeing to let someone put hives on your land. Honeybees not properly cared for can spread disease and become a liability to the public and landowner. You will be able to make your own judgements, but you may wish to ask the following questions of the beekeeper.

- What are their contact details?
- How many hives do they wish to place in the apiary? (2-15 max is usual)
- Where do they think would be safe, secure, accessible, and good for the bees? (Facing morning sun, not under trees or in a frost pocket)
- How much experience do they have keeping bees? (a year or two may not be enough)
- Are they a member of the Scottish Beekeepers Association or a local beekeepers association?
- Do they have public liability insurance (available by joining the SBA)
- Do they have any qualifications? (Most won't but a basic beekeeping qualification from the SBA would indicate they at least know the basics)
- Have they told someone else where the bees will be?
- Will they be working with someone else?
- How good is their swarm control?
- Do they think there is enough forage for the bees?

The most important question would be **are they registered on Beebase?** This is important because if there is a disease outbreak within 3k they will be notified and if something happens to the beekeeper there is a record of where they are. It is also a useful resource of information for beekeepers and landowners on keeping bees. The website can be found here. https://www.nationalbeeunit.com/ You may also wish to draw up your own agreement.

There is a website called Bee Connected which aims to provide good communication between beekeepers and farmers. https://beeconnected.org.uk/ It can bring farmers and beekeepers together, and keeps beekeepers notified when a neighbouring farmer is applying insecticides to their crops. Farmers enter the details of when and where you're planning to spray an **insecticide** that may present a risk to bees (for instance on a flowering crop, or where the field has a conservation buffer strip), and notification will be sent to neighbouring beekeepers registered with the system. NRoSO members can now claim 2 CPD points per year for registering and using BeeConnected.

I would like to write more articles on beekeeping and farming so if there is anything you wish to know more about or need advice on, please do contact me. My email is below. You can find podcasts on beekeeping here: https://player.captivate.fm/show/bf56d68f-aebb-4876-abd2-82a2b61716a1/

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Key economic data

General Indicators	
Base interest rate	5% (4.5% 31 May 23)
ECB interest rate	3.5% (3.0% Mar 23)
UK (CPI) inflation rate	8.7% (target 2%)
UK GDP growth rate	0.1% (Q1 2023)
FTSE 100	7,500.49 (28 June 2023)

Price indices for February 2023 (Defra 2015 = 100)			
Output Prices		Input Prices	
Wheat	135.5	Seeds (all)	108.4
Barley	151.0	Energy	175.7
Oats	152.7	Fertiliser	194.7
Potatoes	120.3	Agro chemicals (all)	125.9
Cattle and Calves	144.6	Feedstuffs	149.7
Pigs	136.5	Machinery R&M	117.6
Sheep and Lambs	136.9	Building R&M	140.0
Milk	137.9	Veterinary services	105.6

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