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News in brief

Scottish decline in livestock numbers

While farmers across Scotland have been tackling extreme weather and a challenging end to the year's harvest, June Agricultural Census data has been processed and 2023 headlines released. Most notably, there has been a 3% reduction in cattle numbers and 2% reduction in sheep numbers in Scotland from 2023. For cattle, this reflects a longstanding trend in herd contraction, as well as a greater reduction this year due to high cull numbers driven by strong prices. However, increased herd efficiencies would normally expect to buffer a herd reduction to some extent, suggesting the national herd may be contracting more significantly than before. For sheep, concerns about reductions may be eased with persisting strong prices and indications of an increase in lamb consumption particularly in export markets (see Sheep article, pg. 5). For further detail on June Agricultural Census results https://www.gov.scot/publications/resultssee: scottish-agricultural-census-june-2023/

In policy news, Scottish Government have two open consultations closing on the 24th November, which we would encourage all rural stakeholders to participate in, where relevant:

- The Rural Affairs and Islands Committee has launched its consultation on the Agricultural and Rural Communities (Scotland) Bill;
- And, the Finance and Public Administration Committee
 has launched its <u>Call for Views on the Agriculture and
 Rural Communities (Scotland) Bill Financial
 Memorandum</u>.

Lastly, the Rural Affairs Secretary has announced that envelopes for Tier 1 and Tier 2 direct payments will be released at the NFUS AGM in February 2024.

Next month:

- Financial roundup
- · Global trends update

November 2023

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Policy Brief

RSABI Flood Funding & Forage Aid

Following the devastating damage caused by Storm Babet, Scottish farming and crofting families seriously affected by this extreme weather event can apply to the RSABI Flooding Fund for a grant of up to £1,000 per family. Further details are available online at www.rsabi.org.uk, by phoning the Helpline on 080 1234 555 or by applying for support funding online here.

RSABI are also working with <u>Forage Aid</u> who help UK farmers and crofters to prevent livestock suffering where feed, forage and/or bedding supplies have been affected by extreme weather events. For further information on the Forage Aid help available please email <u>forageaid@rsabi.org.uk</u>

New Agriculture and Rural Communities Bill

As a replacement for the Common Agricultural Policy, the new Agriculture and Rural Communities (Scotland) Bill aims to deliver the key ambitions set out in Scottish Government's Vision for Agriculture. The legislation has been designed to provide an adaptive support framework:

- To help farmers and crofters produce food more sustainably;
- To support their role in delivering climate change mitigation and adaption;
- To facilitate biodiversity restoration.

As part of Scottish Government's vision for Scotland becoming a 'global leader in sustainable and regenerative agriculture,' the payment framework will incentivise a drive towards low carbon approaches aimed at improving the resilience, efficiency, and profitability of the sector.

Scottish Government has been appraising a list of Agricultural Reform measures that will best address climate mitigation, adaption, and nature restoration. Further details of the aspects being considered as part of the reform measures can be found on the Rural Payments website: <u>Agricultural Reform List of Measures (ruralpayments.org)</u>

As part of the planned programme of reforms, to help shape future support and how it is delivered, the next phase of public participation is open to all who wish to participate in surveys, interviews, online and inperson workshops. Volunteers will be reimbursed with the amount varying by activity dependent on time involved. To register interest, please use this link - https://forms.office.com/e/5kgnShDVEz

Funding for collaborative regional food and drink projects

Businesses and groups who wish to promote regional food products and establish new markets can bid for up to £5,000 of support funding through the Scottish Government's Regional Food Fund.

The Fund aims to stimulate collaborative projects that drive the sales and promotion of regional food. Eligible applicants include:

- Individual businesses in the food and drink sector, including primary producers, on behalf of a collaborative group or project;
- Regional and community groups (both rural and urban);
- Regional food groups.

Further information and guidance is available online at https://foodanddrink.scot/

Applications forms for the scheme are available at through this link <u>Regional Food Fund (RFF) - Oct 2023 (formsite.com)</u>.

The closing date for application is Friday 24th November at 5pm.

Rural and Islands Housing Action Plan

A new Rural and Islands Housing Action Plan will support the Scottish Government's commitment to deliver 110,000 affordable homes by 2032, of which 11,000 will be in rural and island areas.

As part of the long-term Housing Strategy, <u>Housing to 2040</u>, <u>Rural and Islands Housing Action Plan</u>, the Scottish Government aims to commission research into affordable home ownership in rural and island areas and to work with local authorities and registered social landlords to deliver the demand-led Rural Affordable Homes for Key Workers Fund, with up to £25 million available to 2028.

Key dates

Date	Point to Note
30 Nov 23	Scottish Upland Sheep Support Scheme application window closes.
1 Dec 23	LFASS and Young Farmers Top-up payments start

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Cereals and Oilseeds

Hard to find bullish sentiment

Recently, traders in the agricultural commodity markets have been looking to supportive fundamentals. These have included weather conditions in South America, increased demand for U.S. exports, surging crush and ethanol demand, growing Chinese interest, a potential resurgence of wheat imports in India, and reduced Russian exports which could boost export demand in Europe. Additionally, there were macroeconomic factors such as declining EU and UK currencies and the possibility of rising crude oil prices due to Middle East tensions.

The U.S. markets were particularly active, with wheat, maize and soyabean all testing resistance levels. However, all these attempts failed, and the markets then began testing recent support levels to the downside. Similarly, in Europe, the LIFFE wheat May24 contract couldn't sustain itself above £200/t, and the MATIF wheat Dec23 contract struggled to break the long-term €240/t resistance.

All of this meant the markets experienced a recurring pattern of rebounding briefly only to face subsequent price drops again. The abundance of cheap Russian wheat supplies, (Russia has about one third of the world's supply of wheat), continues to exert downward pressure on markets. By way of example, Russian Black Sea wheat (FOB) has been trading at a 15% discount to EU wheat available out of Black Sea ports.

This reduced export demand for European-origin wheat therefore, coupled with a lack of tenders from major importers, continues to weigh on prices. UK wheat into Spain and Ireland, is facing fierce competition from Germany and Denmark. European markets are also following the global trend, facing a €7 decrease week on week in the most active contracts. Furthermore, recent rainfall in Australia and Argentina is easing concerns in these countries, which are expected to contribute significantly to global wheat exports in the 2023/24 marketing year.

AHDB market data, is not surprisingly, illustrating a bearish longer-term outlook for grains, in part, attributed to the global oversupply situation, especially in maize markets, with a near-record U.S. maize crop now entering the market, and South America expected to fill the seasonal gap from early 2024. At time of writing, Nov '24 London feed wheat futures are priced at £203.20/t (Fig 1)

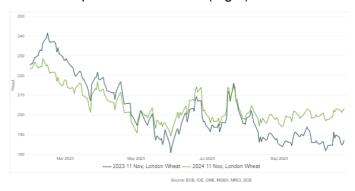


Fig 1. Nov 23 and Nov 24 London Feed Wheat Futures Jan 23-Oct 23

The geopolitical tensions in the Black Sea appeared to have eased, contributing to the bearish sentiment. However, any escalation in these tensions could potentially add a risk premium to wheat prices. The Middle East situation, while not directly related to grain fundamentals, has implications for energy markets. Brent crude oil futures, for example, only recently increasing 2% because of conflict concerns.

In the UK, feed barley has seen demand rise considering its competitiveness versus wheat and maize in feed rations. Malting barley markets remain quiet and the large carryover of stocks seen into this year is unlikely to be repeated in 2024 given the low yields seen across much of Europe. With storm Babet more than likely to push more area into spring cropping, and inevitably more spring barley planted, a reduced or negligible carry-over can only be price-supportive for 2024's harvest.

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Indicative grain prices week ending 27th October 2023 (Sources: SAC, Graindex, AHDB)

£ per tonne	Basis	Nov '23	Mar'24	Nov 24
Distilling Wheat	Ex farm Scotland	194	198	204
Feed Barley	Ex farm Scotland	174	178	
Malt. dist. Barley	Ex farm Scotland	245		
Oilseed Rape	Delivered Dundee	335	345	350
Spring beans	Ex farm Scotland	213	220	

Beef

Beef price rallies

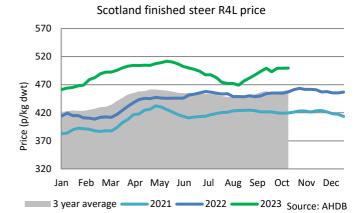
Finished beef prices in Scotland have rebounded significantly in recent weeks, with increased demand as processors are now entering the Christmas buying period, the pressure is on to find enough prime cattle. Availability remains a concern as numbers of finished cattle about are less. Many finishers sold cattle when the price was dropping, so these cattle are no longer there. Prices are now back closer to the peaks seen in May. Deadweight R4L steers are bordering on £5/kg, with prices quoted for week ending 21 October at 499p/kg (around 15p/kg higher than south of the border).

Liveweight cattle prices in Scotland remain strong, around 20p/kg above last year's levels, with a number of markets reporting increased throughputs as finishers return to the live ring. At a global level, beef prices are coming under pressure from rising production in Australia and Brazil. Weaker than expected consumer demand in China, has led to a build-up, reducing wholesale prices.

With the main Christmas killing period from early November to early December, a rise in price was expected. It is anticipated that prime beef prices will remain firm into early December as they look to build stocks for the festive period. Post-Christmas it is likely that numbers of prime cattle required are less as cows come back into favour to meet the demand for manufacturing beef after the Christmas spend has put pressure on consumers budgets.

Cull cows

Cow prices have returned to more normal levels relative to prime cattle prices as most processors look to reduce cull cow throughput as they shift towards prime beef, which is affecting demand for cull cows. Cull cow price has dipped back this month, with prices currently around 35-40p/kg less than same week in 2022. With prices dropping there is little incentive to cull cows and it is unlikely that prices will rise until mid-December.



Suckled calves

Store cattle are meeting a strong demand, driven by a rise in finished beef prices. Well fleshed, continental types continue to meet a buoyant trade, with over wintering stores in less sought after. Store cattle sales have been boosted in numbers in October as suckled calves come onto the market. Suckled calf producers are seeing stronger prices for their calves compared to last year with forage in good supply, feed prices back and the beef price 40-50p/kg up on the year, adding £160 to a 360kg calf. The annual Spring born calf show and sale at Thainstone in Aberdeenshire, saw suckled calves average 328p/kg.

Breeding stock

Enthusiasm in the beef trade again is impacting breeding sales, with many markets reporting a lift in averages, as good quality breeding cattle are in demand. However, stock not reaching the quality demanded by farmers is more difficult to sell. The autumn bull sales have seen strong prices paid for the best commercial bulls. Despite AHDB reporting for the first half of the year a 4% decline in Charolais calf registrations, the Charolais breed achieved an average of £8,253 for 65 bulls sold.

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

	R4L St	eers (p/kg o	dwt)		-U4L Steer	s	Young B	ulls -U3L	Cull	ows
Week Ending		Change on week	North		Change on week	Diff over North Eng.		Diff over North Eng.	R4L	-O3L
07-Oct-23	499.3	6.4	8.8	501.6	6.4	12.5	487.1	3.3	399.5	371.1
14-Oct-23	499.3	0.0	6.4	498.2	-3.4	9.0	491.5	13.0	398.4	353.1
21-Oct-23	499.7	0.4	5.7	503.1	4.9	8.5	490.2	22.0	389.5	351.3

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Sheep

Short term outlook

The European Commission have recently published their short-term outlook for 2023-2024. In this it details how the European sheep flock is declining, by an estimated 1.8% in 2023, and a forecasted further decline of 1% in 2024, due to various factors including, high input costs, a low supply and stock of forage following the long, dry, hot summer and losses through outbreaks of disease e.g., Sheep Pox and Blue Tongue.

In the outlook, they cover all aspects of agriculture, showing the predicted trends in the short-term It allows a good comparison between period. proteins, and they show per capita consumption (the yearly use of a particular meat by each person, calculated by dividing the amount used by the population) for each type of meat. It shows that many meats are likely to endure decreases in consumption due to the increased cost of living and inflation. However, lamb, being the most expensive meat, will feel little negative impact due to being favoured as the meat of choice for cultural reasons and religious festivals. Year on year differences in per capita consumption of the various protein meat sources in the EU are forecast as follows:

Lamb	+0.8%
Beef	-3.5%
Pork	-5%
Chicken	+4.3%

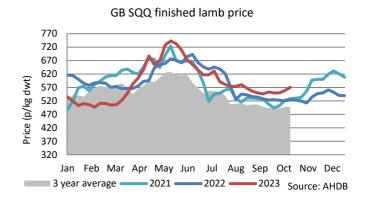
Chicken is estimated to increase in consumption, due it to being one of the cheapest forms of animal protein as well as an increased supply of poultry due to a lower amount of avian influenza affecting flocks.

EU customers

The EU remains committed to importing UK sheep meat, due to our competitive price and location, which makes the EU outlooks a great tool and good news for Scotland.

The UK lamb price has remained higher than the past two years (2021 and 2022) since August this

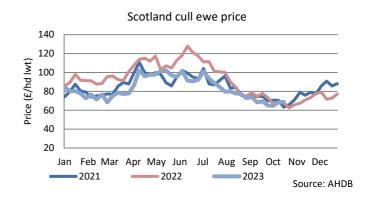
year. Typically, we see this price continue to increase until the end of the year from now.



However, to remain attractive to our European customers our price must stay competitive, especially when our supply of finished lambs going to slaughter is increasing over the coming months.

Cull trade

While our prime lamb trend is showing higher than previous years, our cull trade is following a very similar pattern to that of 2021 and 2022. With poorer hill ewes making a current impact on average prices at market, well fleshed ewes are very much sought after and making a premium. Supply will run short of these culls as winter progresses, and we will see the market sharpen in coming months, especially for the better quality fleshy types.



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Week	GB deadweight (p/kg)			Scottish auction (p/kg)				Ewes (£/hd)		
ending	16.5 – 21.5k	g						Scottish	Eng&Wal	
		Change	Diff	Diff		Change	Diff	Diff		
	R3L	on week	over	over	Med.	on week	over	over	All	All
		OII WEEK	R2	R3H		OII WEEK	stan.	heavy		
07-Oct-23	550.5	-1.0	-4.2	-0.9	246.60	-0.7	9.7	3.7	64.69	75.14
14-Oct-23	557.3	6.8	-7.1	-1.6	255.50	8.9	9.0	4.2	68.36	76.03
21-Oct-23	571.6	14.3	-7.4	-1.8	260.40	4.9	15.3	5.2	68.81	76.04

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: Land values

Consistent trends in demand

The patterns in the market for farmland from 2021 carried into 2022, as new buyer types contributed to a demand which continues to outpace supply. Again for 2023, farmers are still the main buyers in farmland, but the gap is being closed by new players which have entered the market in the past few years:

- Commercial forestry remains the chief driver of increasing land values, especially in areas with primarily non-arable agricultural land;
- Corporate, institutional, and ESG buyers are a driving force in the purchase of estates and upland holdings, especially peaty areas;
- Private investors and lifestyle buyers continue to play a role.

Several of these buyer types are crowding into the market due to the new asset class of natural capital. Urgent action is necessary to mitigate climate change and protect and restore Scotland's natural environment. However, the Scottish Land Commission (SLC) and other voices are adamant that private investment in Scotland's potential for carbon sequestration and biodiversity enhancement must not detract from land reform goals or the principles of a just transition to a net zero economy.

The wider economic conditions of 2023 are also a factor in the increased demand. Low interest rates and high inflation make land an attractive investment because it has historically provided a good hedge against inflation. Those investing for this reason have less immediate interest in carbon projects or other land use change, instead simply holding land as a financial asset.

Supply peaks in response

The current situation has been described as a 'seller's market' due to the strong demand for all farm types. In response to this, 41,600 acres of farmland were marketed in Scotland in 2022, a 48% increase from 2021 and 30% higher than the 5-year average, marking a major shift from the constrained market of previous years. This figure does not account for off-market sales. These closed transactions played a lesser role in 2022 compared to 2021 but continue to make up a significant proportion of sales of smaller parcels of land. Nearly every farm (89%) which was put on the market in 2022 found a buyer by the end of the year.

Beyond the high prices currently being achieved for farmland, the uncertainty surrounding agricultural policy and the possibility of a change in government in 2024 have been cited as reasons that farmers are considering early retirement and exiting agriculture.

Prices and their effects

This increase in supply still does not meet the market's demand, driving up prices for land across Scotland. Prices peaked at over £8,000 per acre for land suitable for forestry in early 2022, before falling back off later in the year. Prime arable land on the east coast fetched prices from between £4,500 per acre in the Highlands to £16,000 in the Lothians.

Table: Average 2022 prices for arable and pasture farmland by region (per acre). Source: Strutt & Parker Scottish farmland market review (Spring 2023).

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	Arable	Pasture					
Highlands and Islands	£4,250	£2,500					
Lothians	£9,000	£4,000					
Central Scotland	£7,000	£3,750					
Northeast Scotland	£7,500	£3,750					
Scottish Borders	£7,000	£3,000					
Southwest Scotland	£4,500	£3,000					
West Scotland	£4,500	£3,500					

Although other farming businesses are the most common purchasers of Scottish farms going up for sale, these buyers are most often large farms who are looking to expand their business or redirect profits from development land. In light of this, the current prevailing market trends seem to reinforce and perpetuate the pattern of concentrated landownership in Scotland. The prices and speed of many transactions have limited participation to a small number of well-resourced interests, drawing criticism from the SLC and others, who maintain that there needs to be policy intervention to safeguard opportunities for communities, family farms, local businesses, and new entrants to farming.

The New Entrant pages of the FAS website provide resources for those looking to start in the agricultural sector. Those interested in purchasing land are advised to monitor local newspapers, social media, land agent pages, and agricultural forums and groups. Alternative options to explore include seasonal lets, tenancies, joint ventures, contract farming, share farming, and business equity partnerships.

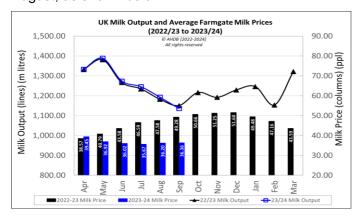
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Milk volumes are declining, dairy markets are more positive but farmgate prices slow to respond

- Milk volumes are well below last year's levels at this time.
- Dairy commodity prices continue to increase, both domestically and in the GDT auction.

Milk production data

The latest milk production data from AHDB shows that GB milk output for September was 962m litres, 3.4% less than the previous month and 1.4% below September 2022. Daily deliveries were 32.4m litres (w/e 21st October), 0.2% above the previous week but 3.0% less than the same week in 2022. UK production for September was 1,136m litres, 4.5% less than August, as shown below.



Farmgate prices: November 2023

First Milk and Müller have reduced their November milk price by 0.85ppl and 0.5ppl respectively with others likely holding (but not announced at time of writing). The Defra average UK milk price for September 2023 was 36.36ppl, up 0.16ppl from August but 26% lower than September 2022.

Mil	k Prices for November 2023 Scotland	Stan	dard Ltr ppl		
Fire	st Milk Manufacturing (4.2% BF & 3.4% Protein)	Nov	36.00		
Mü	ıller - Müller Direct - Scotland 1, 2	Nov	36.25		
Gra	ahams ¹	Oct	36.00		
	a Farmers Manufacturing (4.2% BF & 3.4% otein)	Oct	35.21		
La	ctalis / Fresh Milk Co.1	Oct	35.50		
Ye	w Tree Dairy ^{1,3}	Oct	36.00		
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					
3	Liquid standard litre price for A volume litres.				

Dairy commodities & market indicators

All dairy commodity products traded between 25th September and 22nd October showed a positive price uplift from the previous month. While mild cheddar was only up 1%, butter, cream and SMP were up by 10%, 9% and 19% respectively. These increases are attributed to reducing milk supply in the EU, helping bolster the demand for cream exports. The increase in

SMP has been driven by positive movements in the two most recent GDT auctions and more product being exported to the Middle East and southeast Asia. As a result, AMPE has increased by 5.71ppl for October, with MCVE only up 1.19ppl on the back of the marginal increase in mild cheddar price.

UK dairy commodity prices (£/tonne)	Oct 2023	Sep 2023	Apr 2023
Butter	4,070	3,710	3,920
SMP	2,220	1,860	2,020
Bulk Cream	1,791	1,648	1,518
Mild Cheddar	3,290	3,260	3,550
UK milk price equivalents (ppl)	Oct 2023	Sep 2023	Apr 2023
AMPE	34.53	28.82	31.81
MCVE	34.58	33.39	37.56

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MMV or the Milk Market Value (as reported by AHDB Dairy) indicates the average market value of one litre of milk based on how it is typically utilised in the UK. Changes in MMV are usually closely correlated with movements in the farmgate milk price in three months' time. MMV for October was 34.57ppl, up from 32.48ppl last month, and this was the first significant positive movement in MMV in over a year.

The two GDT auctions held in October (3rd and 17th) both saw increases in the average price of all products sold. The latest average was \$3,202/t (up 4.3% from the previous auction) and this is the 4th price rise in a row, sparking more optimism in the dairy markets.

Looking forward/global outlook

Currently, milk production in the main exporting regions (EU, USA and NZ) is declining and for the last six months of 2023, output is forecasted to be fairly static (-0.2 to 0% growth). Peak production in New Zealand has suffered from El Nino's dry weather effects, impacting grass growth. The recent positive GDT auctions and EU commodity markets should hopefully mean the last of milk price cuts for now. However, since commodities are still only at a price comparable to the current farmgate milk price, they will need to move significantly higher before processors are likely to increase the price paid to their farmers.

Increase in levy rates

There are proposals to increase AHDB levy rates for the 2024/25 financial year. The dairy levy was last set over 20 years ago and looks set to rise by 33% from 0.06ppl to 0.08ppl. Final recommendations will be put to AHDB's board by sector councils before the proposals are put forward to Government and devolved administrations before the end of the year. The increase will go towards improving delivery of services, including marketing and identifying new export opportunities, continuing their independent research and strategic farm networks.

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Sector Focus: Croft diversification

Diversification is a great way to add value to your existing physical and personal assets, add a new income stream to your farming business, and can be both financially and personally rewarding for you and your family. It can involve adapting and changing your current business to meet new trends, markets, and customer demands which utilise and add value to your existing physical assets (natural assets, views, biodiversity, land, buildings, machinery, etc.) and/or your own personal knowledge, skills, interests, culture and heritage. Crucially, diversification should be unique to you, your farm or croft, family, and lifestyle.

There is now a notable income gap between farms with diversified activities and those without. Latest data from the Scottish Farm Business Survey outlines that farms with diversified activities on average generated £24,200 more income than those without, and 58% of businesses surveyed (sample size: 350) now have at least one diversified activity (Source: Scottish farm business income: annual estimates 2021-2022).

While diversification for many is driven by necessity, to support farm business income, it's important that farmers and crofters choose enterprises which they themselves are truly passionate and engaged in rather than looking over the hedge and following others' diversification paths.

Agritourism

Agritourism continues to go from strength to strength in Scotland with a growing network of farmers and crofters showcasing the very best in food, farming, and environmental sustainability to domestic and international visitors. Inviting the public onto your farm or croft isn't for everyone and does require a specific skillset and a willingness to open your farm gates and privacy to consumers, but those who do enjoy engaging with visitors and it can generate healthy financial returns. Stand-alone farm tours can generate around £15-30 per person, per hour, with bespoke hands-on activities demonstrations like lambing experiences, alpaca interactive sheepdog/sheepshearing demonstrations generating around £35-50 per person, per 1-2-hour session. These may also include refreshments and home baking. Luxury food drink-based experiences using homegrown/reared produce can generate around £400-600 per small group (6-8 people) with private chef options and large group bookings commanding a premium.

Croft tours, workshops, arts and crafts

I recently returned from a work trip to Shetland where I experienced first-hand the creativity of crofters and smallholders who celebrate their crofting roots, culture, and heritage, sharing them

with domestic and international visitors. Bespoke workshops and events are a powerful way to showcase traditional crofting practices, culture, heritage, and the community spirit which underpins life in rural areas. Visitors to Shetland can take part in a variety of workshops including; carpentry, spoon and shawl pin whittling, photography, art, and knitting using pure Shetland wool. Local croft tours can be combined with guided tours of Iron Age brochs, Viking longhouses, early Christian chapel sites, and twentieth century military remains, among other trips to sites of natural and historical interest.

Showcasing local, seasonal food and drink is also a big part of the developing culture on Shetland where businesses work collaboratively for mutual benefit. Shetland has a strong agricultural supply chain where pure Shetland Lamb and Mutton is reared, slaughtered, processed, and delivered to local hotels and restaurants. Through collaboration and supply chain efficiencies, crofters can add value to their livestock, provide employment within the local abattoir, and supply local hospitality outlets, which ultimately fulfils growing customer demand for an authentic product and story with strong provenance.

The key learning from Shetland is that crofters and smallholders have identified their own unique selling point, creating sustainable income which align their personal interests and skillsets with crofting roots, culture, and heritage which is unique to them, their family, lifestyle, and individual crofting enterprises.

Closer to home, other great examples of farmers adding value to their assets and creating alternative diversified income streams include: photography workshops, floristry workshops, wreath making, soap making, foraging, basket weaving, bee keeping and smallholding courses, children's education and farm to fork activities, to name a few.

Diversification: where to start?

- What interests you or your family specifically? What are you truly passionate about?
- What assets (physical and/or personal) could you add value to on your farm or croft?
- What makes you, your farm, location, views, produce, culture, heritage, unique from others?
- Does someone in your family or business have unique skills or interests they could pursue into a new business opportunity?
- Diversification can be seasonal. Do you have times in your agricultural calendar which could support an additional enterprise? E.g. Christmas
- How do you want your diversification to fit with your lifestyle? Have a vision not just a business plan.

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Inputs: Soil health

In the past soil has been seen as a medium for growing crops, including grassland swards. The main focus has been on the nutrients that are available from the soil to support the yield and quality of the growing crops. Efforts were mainly focused on the addition of these nutrients to ensure sufficient were available for growth and usually added in excess to ensure a plentiful supply.

Soil health legislation

Thinking has changed in the last 15 to 20 years and a more rounded view of the soil has emerged. This has encompassed the soil health of the soil which has been defined by the Intergovernmental Technical Panel on Soils (ITPS) in 2020 as 'the ability of the soil to sustain the productivity, diversity, and environmental services of terrestrial ecosystems'.

The concept of soil health covers three main areas within the soil: chemistry (which is still very important), physics (the structure of the soil) and biology (the soil as a living medium). Some of these areas have become incorporated into government strategies and policies for soil across the UK. This is true in Scotland, where the main report is still the Scotlish Soil Framework, which lists the pressures on soil. It indicates that although there are a number of policies in place for the protection of aspects of some soils, there is not one policy for the overall protection of the soil.

The EU is conscious of the deterioration of European soils, with an acknowledgement that an estimated 60 to 70% of soils in the EU are not healthy. Additionally, it understands that soils are still subject to further decline as a result of erosion, compaction, organic matter decline, pollution, loss of biodiversity, salinisation and sealing. As soils do not receive the same protection in the EU as air and water, this year on the 5th July the EU proposed at new law to attempt to ensure all EU soils are in a healthy condition by 2050. This would require monitoring of soil health so appropriate action can be taken to maintain soil fertility and yield, with sustainable soil management becoming the norm.

What has been considered for Soil Health?

It is significant that soil health is now being considered and the impact of poor soil health receiving more focus along with attempts for its maintenance and enhancement. However, we need to consider how healthy is a soil. We need a way of measuring and then monitoring soil health that is not too costly or time consuming but still provides useful results for management. SRUC researchers, in partnership with AHDB and through consultation with experts and industry are exploring robust methods for monitoring soil health.

Soil Indicators

A set of soil indicators needed to be developed that had broad agreement and were suitable for a range agricultural practices. The final suggested pН, indicators comprised of soil extractable extractable Potassium (K), Phosphorus (P), extractable Magnesium (Mg), Soil Organic Matter (%), soil structure - using the Visual Evaluation of Soil Structure (VESS), and earthworm numbers. The results of these assessments were considered in relation to bands that had been agreed, through previous research, publications and expert opinion, to be placed in traffic light-coloured ranges that gave an immediate visual interpretation. These related to actions, if the results were to be investigated (red), monitored (yellow) or no immediate action required (green). Colour coded scorecards could then be created to allow management decisions to enhance the soil quality in any areas of a field that needed attention.

Additionally, the soil indicators need to be relevant to the soil texture in the field, to inform management decisions. An example is given in Figure 1, where three fields have been assessed and the traffic light system: Field 1 (Grassland) has the poorest soil health and needs attention for the soil structure and potassium with further nutrient and liming recommended; Field 2 (Grassland) has good soil health; and Field 3 (Arable) needs more organic matter, consideration of the some of the nutrients i.e. K and Mg and concern about the soil structure to prevent it deteriorating further.

Figure 1. Soil health scorecards for three different fields.

Soil Indicator	Field 1 (Grassland)	Field 2 (Grassland)	Field 3 (Arable)
Soil Texture	Clay loam	Sandy clay loam	Sandy loam
pН	5.8	6.2	6.5
Ext. Phosphorus (mg/l)	4.2	4.6	9.6
Ext. Potassium (mg/l)	35	83	69
Ext. Magnesium (mg/l)	45	66	57
Soil Organic Matter (%)	6.2	8.4	3.0
VESS Score (1 to 5)	4	2	3
Earthworms	6	12	6

It is encouraging that soil health is now being considered in relation to the maintenance and sustainability of soils. Regular assessments and the use of soil scorecards are a major step forward as they can be used for benchmarking with other comparable soil types to understand what makes a good soil more needs to be done on the longer-term monitoring of the soils to ensure they remain profitable for years to come.

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Management Matters: Digital Dairy Chain

Transforming the dairy supply chain through Innovation, Growth & Collaboration

Digital Dairy Chain offers any business or individual involved in the dairy supply chain across Cumbria, South and West Scotland a range of services to support innovation and productivity through collaboration. This is a five-year, UK Research & Innovation funded project, with a budget of £21 million to transform the dairy sector in the region and uplift the rural economy, via grant funding and sustainable solutions.

The project partners will focus on aligning industry needs which will include developing digital connectivity, stimulating research and new product development, supporting business growth and attracting talent and skills, across the region.

There are a number of individual programmes of activity in operation through the Digital Dairy Chain. These include four tranches of funding and direct business support; the Collaborative R&D Funding Competition, the Milk Round Technology Accelerator, the Space Maker NPD Facilities and Innovation Vouchers. While new dates for the R&D Funding Competition will be announced towards the end of the year, the Milk Round Technology Accelerator programme and the newly launched Cumbria Maker Space (open to those based in South West Scotland as well as Cumbria) are accepting applications on an ongoing basis. The Cumbria Maker Space project allows producers to move from small scale 'kitchen creations' into commercially viable production, with fully funded training and business support provided.

Innovation Vouchers of up to £10k are available to encourage businesses to create innovative solutions to the challenges faced by the dairy industry. The deadline for the next wave of Innovation Voucher funding is the **16th November 2023.** For more information contact info@digitaldairychain.co.uk



The 44rd Edition of the SAC Farm Management Handbook (cofunded by the Scottish Government) is now available to download free on the Farm Advisory Service website at: https://www.fas.scot/publication/farm-management-handbook-2023-24/

To own your own hard copy of this comprehensive and up-to-date source of farm and rural business management information, please visit www.sac.co.uk/fmh or contact us on 01835 823322 or email the FMHB team on fmh@sac.co.uk

The 2023/24 edition of the Farm Management Handbook includes over 80 individual farm enterprise gross margins, together with information on carbon management, current support payments, diversification, forestry and woodlands, renewable energy options, the environment, business management, taxation and opportunities for new and young farmers.

Key Economic Data

General Indicators		Price indices for July 2023 (Defra 2015 = 100)				
		Output Prices		Input Prices		
Base interest rate	5.25% (5.0% 22 June 23)	Wheat	123.9	Seeds (all)	106.6	
ECB interest rate	4.0% (3.75% Aug 23)	Barley	129.4	Energy	153.3	
	` ,	Oats	139.9	Fertiliser	158.3	
UK (CPI) inflation rate	6.7% (target 2%)	Potatoes	149.4	Agro chemicals (all)	125.2	
UK GDP growth rate	0.2% (Q2 2023)	Cattle and Calves	133.0	Feedstuffs	142.0	
, and the second se	,	Pigs	141.0	Machinery R&M	117.6	
FTSE 100	7,321.72 (31 Oct 2023)	Sheep and Lambs	125.7	Building R&M	140.7	
		Milk	126.3	Veterinary services	106.4	