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News in brief

September 2020

As we head into the Autumn, beef and sheep prices remain strong following continued demand for both store and finished stock, sheep skin prices continue to fall partly due to the manufacturing industry closing during lock down restrictions, and partly due to the continuing reduction in demand for leather for premium products such as car interiors, shoes, clothing, etc. Worryingly, AHDB has reported that some abattoirs are paying for the disposal of large sheep skins from older sheep. Potato and poultry prices, and milk production continue to be significantly affected by the pandemic, and while the Government's 'Eat Out to Help Out' during August stimulated demand, the processing sector, especially with regards poultry meat has struggled to deal with Covid outbreaks affecting processing plants.

Harvest results from across the UK have confirmed poor yield expectations, with storms and heavy rain impacting on grain quality. With farmers on some malting barley supply contracts being advised that buyers will not uplift the full contract tonnage at harvest, managing grain drying and on-farm storage facilities will be key to avoid losses due to spoilage.

While the 2019 Total Output from Farming figures show an increase of £0.04 billion to £3.39 billion compared to 2018; due to rising costs of production, the Total Income from Farming (TIFF), which is the official measure of the profit gained by the agricultural industry was down 3% to £791 million or £263 million if support payments are excluded.

Although time is fast running out to get a Brexit deal ready to be signed before the end of the year, Brexit negotiations appear to be continuing at a tortoise's pace. While the UK is focusing its negotiations on Sovereignty; the EU wants a 'Level Playing Field' with regards worker's rights, taxation, environmental protection, and state aid/subsidies for business.

Next month:

- Management Matters: Scotland's Food and Drink Agency.
- Brexit and Northern Ireland

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Christine Beaton

The European Agricultural Fund for Rural Development
Europe investing in rural areas

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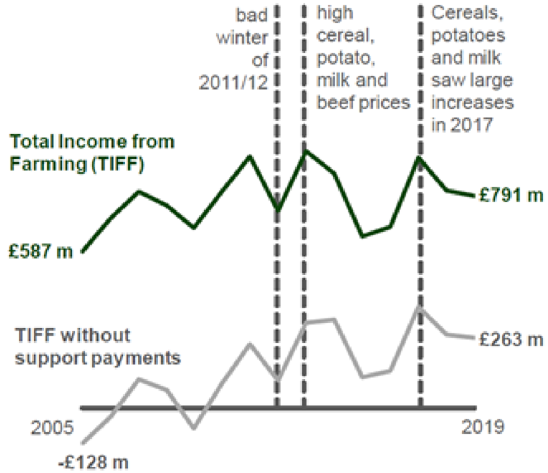
Total Income from Farming

Each year, the Scottish Government publish Total Income from Farming (TIFF) figures, which is the official measure of the profit gained by the agricultural industry. A summary of initial estimates for 2019 are included below.

TIFF was estimated to be £791 million, down 3% compared to 2018; TIFF without support is estimated to be £263 million, see chart below.



Source: Scottish Government

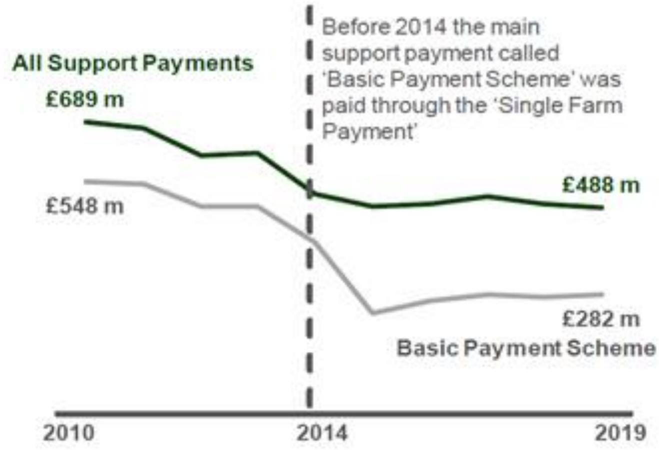
While between 2018 and 2019 total outputs from farming increased, costs also increased; combined with a decrease in support payments; these trends resulted in a decrease in TIFF.

Total output from farming in 2019 is estimated to be £3.39 billion compared to £3.35 billion in 2018. This is due to an increase in the value of wheat, potatoes, pigs, and poultry; the value of cattle and sheep decreased.

Total input costs increased from £3.04 billion in 2018 to £3.08 billion in 2019, mainly due to an increase in fertiliser and lime costs (+£27 million); seed costs rose by £9 million. In contrast, fuel and machinery costs decreased from £288 million in 2018 to £280 million in 2019 and the cost of borrowing decreased from £108 million to £96 million, mainly due to a decrease in net interest payments.

Total support payments to farming in 2019 fell by 2% in real terms to £488 million; of this amount, £282 million is Basic Payment Scheme payments and £206 million is indirect payments. Changes in the value of support payments can be seen in the chart opposite.

Support payments accounted for 67% of TIFF in Scotland, this is similar to the previous year.



Source: Scottish Government

TIFF per hectare in Scotland was £129. How this compares to the other 10 NUTS1 regions can be seen in the chart below and reflects land types and uses.

Source: Scottish Government

A copy of the TIFF publication can be found at: https://www.gov.scot/publications/total-income-farming-estimates-scotland-2017-19/

Greening Confirmation

The Scottish Government has confirmed that the greening rules will remain in place for the 2020-21 season. This announcement comes following the decision by DEFRA that greening in England will be scrapped from next year, as they begin to focus on transitioning to their new post-Brexit Environmental Land Management (ELM) scheme. Greening requirements in Scotland will be considered as part of the phased simplifications and improvements to CAP schemes, so changes are likely, but not in the short-term.

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Cereals and Oilseeds

US maize crop suffers, prices up

With a UK wheat crop expected to be the lowest since 1982 and domestic prices capped by the cost of imported wheat and maize, the direction of world markets remains important to UK prices. Recent crop damage to the US maize crop caused first by storms and now by hot dry conditions have boosted prices in the US. Drought and frost in Argentina have also impacted cereal crops there.

In their current report the USDA expect world market grain stocks to rise for the second year in a row from 109 days of supply in 2019 to 110.5 days in 2020: the highest in three years. Much of this expected rise in output is driven by expectations of a strong increase in the US maize production and higher wheat output in Australia and Russia. Grain output in the EU was cut further as yield estimates have been cut.

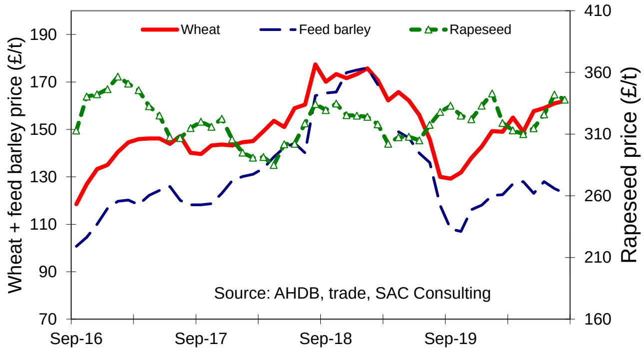
UK harvest disappoints, quality at risk

Harvest results from across the UK have confirmed poor yield expectations. The UK wheat crop could be around 10.3mt; the lowest since 1982. Early cut spring barley in Scotland appears to yielding below average with some skinning and higher nitrogens.

Lower yields have been compounded by storms and heavy rain delaying harvest and impacting on grain quality. Malting barley in certain parts of the UK and Scotland are facing various quality issues including loss of germination, skinning and higher nitrogens and screenings. Despite the increased UK sown area of spring barley, lower yields and quality issues may limit the quantity of barley meeting malting standards. There may be some relaxation of malting specifications from some buyers. There are also steps farmers can take to protect crop quality:

- Minimise mechanical stress on grain at harvesting. SRUC research has found that risk of skinning is strongly linked to faster or coarser combine settings. These effects can also be seen during handling at the maltings.
- Aim to segregate barley cut at different stages to preserve quality as far as possible.
- Follow safe storage guidelines *(see page 9 article on Grain Drying and Storage)*

Scottish spot ex-farm grain and oilseed prices



Malting barley harvest uplift reduced

UK GB barley use in malting was 28% (132kt) lower in the April/June 2020 period; hence higher stocks left in store. With the malting barley harvest underway the whisky sector is facing reduced demand and growing stocks of malting barley over harvest. Farmers on some malting barley supply contracts have been advised that buyers will not uplift the full contract tonnage at harvest. Instead farmers (often without sufficient facilities) will have to dry and store some grain themselves for uplift and use later in the season. *(See page 9 for more on safe drying and storage)*

Work starts on new maltings

Despite the uncertainties of the current malting barley market, longer-term optimism and investment continues. Bairds Malt Ltd have commenced construction of a new maltings in Inverness, adding 57,000t of additional capacity and doubling capacity at the site. The first batch of barley is expected to be taken in for malting by the end of 2021. The company are also increasing malting capacity at their Arbroath site by 22kt. As this capacity comes on-line it will enable more Scottish barley to displace imports

In Alloa, Crisps Malt are opening a new packaging line to enable them to better service the craft brewing and distilling markets in Scotland and abroad. This will enable more local barley to be supplied to a range of additional brewing and distilling markets and save transport of product from outside Scotland.

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Indicative grain prices week ending 20 August 2020 (Source: SACC/AHDB/trade)
* Before oil bonus, # Ex-farm England spring brewing max 1.85%N, ~ nominal May

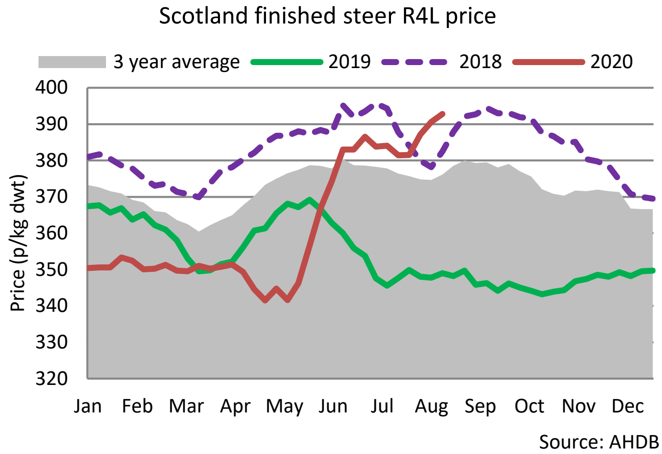
£ per tonne	Basis	Aug '20	Hvst '20	Nov '20	Mar '21	Nov '21
Wheat	Ex-farm Scotland	164.20	164.00	165.00	171.00	148.00
Feed barley	Ex-farm Scotland	123.00	123.00	125.00	132.00	123.00
Malt. barley- distil	Ex-farm Scotland					
Malt. barley- brew	Ex-farm England#			138.00	142.00	
Oilseed rape*~	Delivered Scotland			338.00		328.00

Beef prices remain in a very strong position this month, with average prices exceeding the 390p/kgDW mark: in many cases, 400p/kgDW is achievable. Cull cows are still a flying trade as demand for processing beef remains high across the country. With cull cows trading for between 280 and 300p/kgDW, those finishing cows are in a strong financial position. For breeders who have some culls to go, it is worth considering weaning calves and getting cows away when the price is so strong. Store cattle are also a flying trade, showing a combination of lower supply and some confidence from finishers in the prospects for beef. Those who find themselves with a shortage of fodder could look to the store ring this autumn as a means to offload cattle younger and lighter than normal.

Processors are currently having to work very hard to fill their orders and although supply is likely to increase in the coming months, there is optimism that the price will remain strong right through the autumn. With lockdown restrictions easing, for now, many families are looking to have some form of a holiday and are treating themselves to a few days away and are eating out. The recent 'Eat Out to Help Out' campaign has kept restaurants busy and ensured that high value cuts of beef are in high demand. One would also hope that all those who are consuming high quality, safe, Scotch beef enjoy their experience and will remember it when the anti-red meat propaganda machine starts turning again.

Housing priority groups

As we head into September, days become noticeably shorter; colder weather also restricts grass growth and quality. Those who are finishing cattle at grass should start to think about housing them in the next few weeks if they haven't done already. Particularly given that the law of diminishing returns applies to finishing cattle, i.e. the bigger an animal gets, the higher its maintenance requirements are and the more feed it needs to eat to put on a kg.



Source: AHDB

Longer-term outlook

Beef looks like a safe bet for the remainder of 2020 but what about further down the line? The outlook for the whole beef supply chain is dependent on the prospects of the person at the very end, the consumer. Currently, most consumers have reasonably full pockets from a combination of the government backed Furlough scheme and limited opportunities to spend money on holidays and other luxuries. This has meant that they are able to spend more money on food. But as the country begins to get back to normal, this situation is almost certainly going to deteriorate as we strive to repay a massive national debt. If unemployment increases and those with jobs struggle to make ends meet, the beef price will come under pressure again. Add in the, as yet unknown challenges that Brexit brings, the beef industry there may well be some choppy waters ahead.

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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 Bull-U3L		Cull cows	
		Change on week	Diff over N. Eng.		Change on week	Diff over N. Eng.		Diff over N. Eng.	R4L	-O3L
1-Aug-20	**387.2**	5.7	11.1	**384.8**	4.8	16.0	385.5	19.5	305.0	281.8
8-Aug-20	**390.6**	3.4	9.4	**390.4**	5.6	16.6	388.3	14.0	306.7	281.7
15-Aug-20	**392.8**	2.2	9.7	**388.0**	-2.4	9.8	391.2	22.5	310.8	285.0

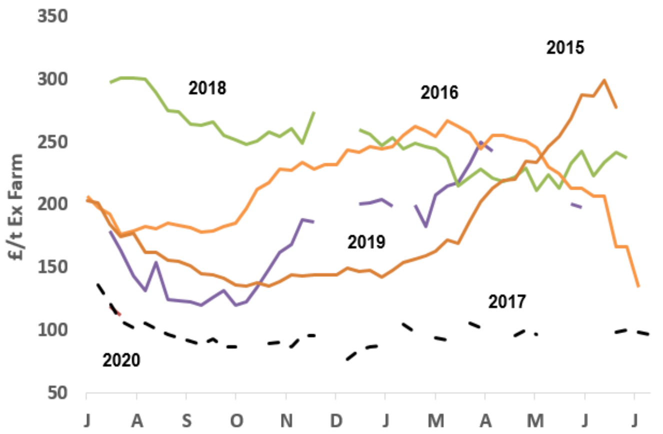
Market price update

- *The latest GB Weekly Average Prices for the week ending 15th August was £175.68/t for free-buy and contract purchases.*

- *The latest GB Weekly Average Free-Buy price reported on 15th August was £111.74/t.*

Crop Year 2018/19	15 Aug	8 Aug	1 Aug
Average Price (£/t)	175.68	185.81	182.17
AVP change on week (£/t)	-10.13	+3.64	-24.28
Free-Buy Price (£/t)	111.74	118.73	-
FBP change on week(£/t)	-6.99	-	-

GB Weekly Average Free-Buy Price (2015-2019 crop years)



Trading Season July - July Source: AHDB

Potato Market Overview

Potato lifting across many parts of the UK is now well underway and despite a few heavy showers setting some growers back by a few days, the majority are making good progress. Free-buy markets continue to see downward pressure on prices due to increasing supply being met with limited demand. The majority of potato movement across all sectors is on contract with very limited free-buy trade. It is likely that free-buy prices will remain low in the coming weeks as more growers start lifting and more stocks become available in the market. This may not suit some growers who typically sell free-buy stocks quickly off-the-field at the start of the season to generate cash flow and sell varieties which typically don't store long-term.

Maris Piper continues to command a premium price over other varieties, mainly due to its recognisable name proving popular with consumers.

Easing of lockdown restrictions across some popular overseas tourist destinations has stimulated some export demand, particularly to the Canary Islands, but volumes by large remain low. There are also reports of oversupply of potatoes on the continent which is limiting export opportunities for GB growers.

The Eat Out to Help Out scheme introduced to help kick-start the UK hospitality industry has been extremely welcomed by both businesses and consumers. The scheme, which comes to an end on the 31st August, allowed consumers to get a 50% discount on food or non-alcoholic drinks when eating or drinking out in participating establishments. This had both positive and negative impacts on the potato sector. Demand for frozen potato products from the processing sector were up, however chip shops continuing to sell at 'full price' as a takeaway outlet experienced reduced footfall as consumers chose the '50% off' dine-in option in restaurants, pubs, and cafes.

As schools have now re-opened, there is optimism that demand in processing markets will rise, which in turn will have a positive impact on prices and movement in the bagging and packing markets.

Prices by sector

Prices reported on Friday 21st August:

In the English packing market, Grade 1 Maris Piper is trading around £150/t ex farm with highs of £180/t ex farm for top quality stocks. Grade 1 Whites are trading around £100/t ex farm with a high of £140/t ex farm. Reds are in good demand and due to the low availability of set skin stocks, this is reflected in an increase in price. Grade 1 Reds are trading around £240/t ex farm, with a high of £285/t ex farm reported.

There are no prices reported in the Scottish packing market.

In the East of England bagging market, chipping Agria is trading around £140/t ex farm with a high of £145/t ex farm, Sagitta is trading around £115/t ex farm with a high of £120/t ex farm, and Piper is trading around £120/t ex farm with a high of £140/t ex farm. In the West of England, Accord is trading around £75/t ex farm with a high of £100/t ex farm, Miranda trading between £75/t and £90/t ex farm, and Piper trading between £70/t and £100/t ex farm. There are no prices reported in the South of England or in Scotland.

Peeling Piper is trading around £70/t ex farm, down by around £15/t ex farm on the previous week.

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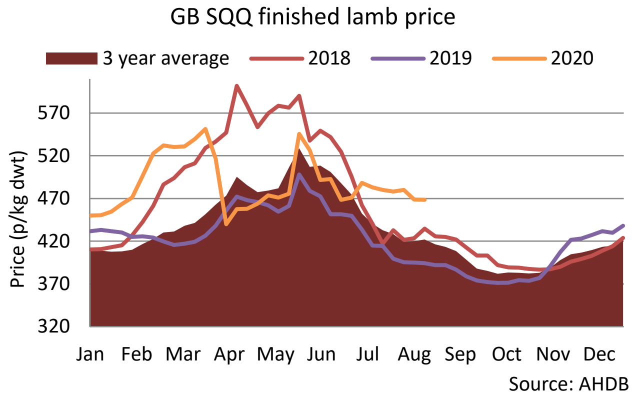
The price is right

The finished lamb price has held up exceptionally well throughout the summer, showing a premium on price compared to previous years. However, this finished price is forecast to fall marginally as we progress into September. Abattoirs have reported that the killing out percentage has started to drop in lambs, meaning drawing them slightly heavier is advantageous.

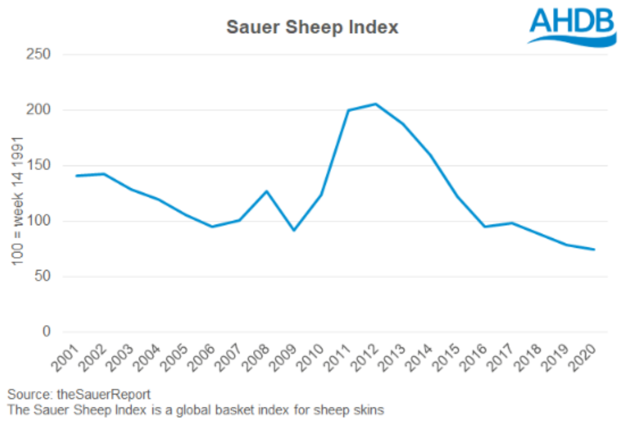


AHDB have reported in the week ending the 15th August that estimated slaughterings at British abattoirs totalled 268,500 head, which is up 5% on the week, but relatively steady on the year. Together with the buoyant finished price and the availability of grass, the finishers seem to have the confidence to invest well in store lambs, with sales looking exceptional. Lairg in particular showed wether sales averaging £59.29 (+£7.22 on the year) and ewe lambs averaging £73.04 (+£13.53 on the year).

Cull ewes are also holding up very well, with ewes being £5-6/head dearer than this time last year. This may start to slip with more hill ewes being weaned in the coming weeks. Many tup sales have started, under new restrictions and online, with good averages being achieved to date.

Global skin outlook

It has been well reported that the value of skins took a fall due to the manufacturing industry closing during lock down restrictions. However, it is very interesting to see the reduction in the market over the last two decades globally.



We are not alone in having pressure on the value of our skins, with other major sheep meat producing countries suffering a reduced requirement in leather for premium products, car interiors, shoes, clothing, etc. AHDB has reported that some abattoirs are paying for the disposal of large sheep skins from older sheep.

Antibiotic free meat

New Zealand's Alliance has reported there is a growing demand for Raised Without Antibiotics (RWA) meat, as consumers are becoming increasingly mindful of what they are eating. Supply is not meeting demand and they are currently paying a premium of 15c/kg (£0.08/kg) for this RWA lamb.

This is an interesting concept to add value to a product at a time when global markets are quieter than normal.

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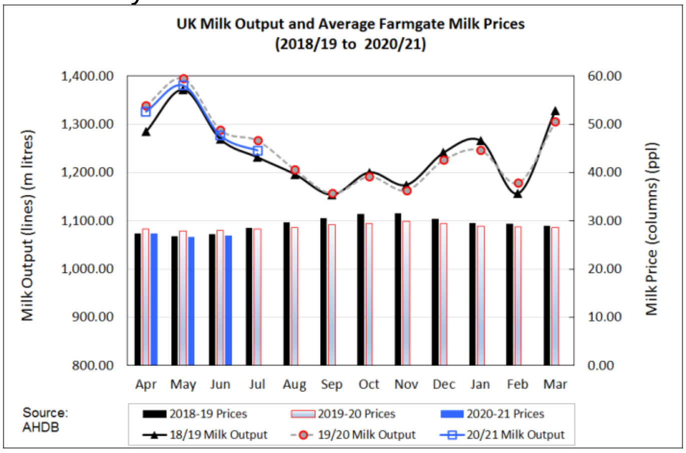
Week ending	GB deadweight (p/kg) 16.5 – 21.5kg				Scottish auction (p/kg)				Ewes (£/hd) Scottish	Ewes (£/hd) Eng&Wal
	R3L	Change on week	Diff over R2	Diff over R3H	Med.	Change on week	Diff over stan.	Diff over heavy	All	All
1-Aug-20	**479.2**	2.0	-6.6	1.5	**222.50**	8.3	1.3	6.5	66.69	64.51
8-Aug-20	**468.6**	-10.6	-4.6	1.6	**212.60**	-9.9	4.7	4.7	64.55	64.57
15-Aug-20	**467.5**	-1.1	-6.0	0.2	**213.10**	0.5	7.1	3.5	64.28	66.67

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

UK output reduces further during July

- *UK milk output for July 2020 is down by 20.47m litres on last year.*
- *During the first four months of the milk year (April – July), UK production is 59.48m litres down on last year.*
- *The average farmgate milk price during June 2020 is estimated at 26.89ppl.*

UK monthly milk output for July 2020 is estimated at 1,245.90m litres (before butterfat adjustment). This is 20.47m litres lower than July 2019 output when UK production for the month stood at 1,266.37m litres. Cumulative UK milk production for 2020/21 now stands at 5,229.45m litres (before butterfat adjustment). This is 59.48m litres lower than at the end of July 2019.



The UK average milk price for June 2020 is estimated at 26.89ppl (1.10ppl lower than June 2019). The UK average price for May 2020 has been revised downwards by AHDB from 26.83ppl to 26.68ppl.

Farmgate price update - Sept 2020

Price announcements for September 2020 include:

- Arla Foods amba – Arla is to maintain the hold on member milk prices going into September 2020. The liquid standard litre price remains at 28.17ppl, whilst the manufacturing standard litre remains at 29.26ppl.
- First Milk – FM has announced a price increase of 0.50ppl from 1st September 2020. This means that the liquid standard litre price will increase to 27.25ppl, whilst the manufacturing standard litre will increase to 28.15ppl.
- Müller – will hold the price for Direct members going into September 2020. This means that Müller Direct members in England and Wales will receive 26.25ppl, whilst suppliers in Scotland will receive 26.00ppl (after the deduction of an extra 0.25ppl haulage charge).
- Müller – Direct members will receive a retail supplementary payment equating to 0.46ppl based on July 2020 milk deliveries.
- Lactalis – Lactalis has confirmed another 0.25ppl price increase for the second consecutive month. The latest price increase from 1st September 2020 takes the liquid standard litre to 27.00ppl. The manufacturing standard litre price will rise to 28.11ppl.

Annual Average milk price estimates for September 2020 (ppl)	
Milk Buyers – Scotland	**Standard Ltr***
Lactalis (No profile or seasonality) [1]	27.00
First Milk Liquid [1, 2]	27.25
First Milk Manufacturing *(4.2% Butterfat & 3.4% Protein)* [2]	28.15
Müller - Müller Direct - Scotland [1, 3]	26.00

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 FM prices include 0.25ppl Member Premium. The member premium increases to 0.50ppl from April 2020.
3 No monthly supplementary payment included in the price estimate. Includes 1.00ppl Müller Direct Premium and additional 0.25ppl haulage charge for Scottish suppliers.

Growth in milk volume exported south

Analysis from AHDB shows that milk production in Scotland reached an estimated 1,507 million litres for 2019/20. This represents an increase of 1.90% over 2018/19 milk production in Scotland. According to AHDB, around 269m litres of milk produced in Scotland was transported south into England for processing. This equates to around 9,438 bulk tankers transporting milk south each year. Of the total 269m litres milk moving south, approximately 190m litres was transported by Müller. This goes some way to explaining the additional transport costs currently being incurred by Müller suppliers in Scotland (see footnotes in table above).

Butter and cream prices recover

- *Butter and cream prices have continued to recover during August 2020 following a sharp fall during April this year.*

Following the onset of the Covid-19 lockdown, UK dairy wholesale prices reduced considerably, with butter and cream prices for April 2020 coming back to £2,390/t and £900/t, respectively. Since that point, butter and cream prices have shown a gradual recovery each month and prices for August now on a par with Nov/Dec 2019. AHDB estimates cream income to a liquid processor at 8.39ppl for August 2020, compared to 5.10ppl for April 2020.

UK dairy commodity prices (£/ tonne)	Aug 2020	July 2020	Feb 2020
Butter	3,080	3,070	2,930
SMP	1,860	1,920	2,180
Bulk Cream	1,480	1,430	1,250
Mild Cheddar	2,920	2,920	2,870
UK milk price equivalents (ppl)	**Aug 2020**	**July 2020**	**Feb 2020**
AMPE (2014) *	28.01	28.55	30.40
MCVE (2014) *	30.92	31.01	30.56

** AHDB have recently launched AMPE (2020) and MCVE (2020) which contain revised weightings. From October 2020 ABN will publish AMPE (2020) and MCVE (2020).*

Source: AHDB

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Covid creates surprise challenges for poultry sector supply and demand

Food supply chains have been pushed to the limit since the coronavirus outbreak early in the year, and poultry markets have been no exception. While issues around tariff and food standards have been on the table for a long-time, lockdown presented some overnight challenges for both eggs and poultry meat.

Producers and processors had to respond quickly to stockpiling in March and April, and with the reduction in broiler meat demand due to long-term closures of food outlets, food service has adapted as much as possible to find new markets for products, such as liquid egg.

Poultry meat processing has struggled to meet demand given social distancing and health restrictions, with a high proportion of workers in a small number of processing plants testing positive for coronavirus: processors have worked hard to put safety measures in place. Throughout the production and processing sectors PPE and hand sanitiser have been challenging to get hold of, as well as sawdust bedding with the closure of saw mills.

Egg demand stretched production capacity

The egg sector has fared rather better, with demand driving up the weaker prices experienced in 2019. April saw an increase of 7.4% layer egg settings followed by an 8.3% increase in layer placements for Q2 (compared to the same periods in 2019), showing the industry's response to a 19% increase in egg, particularly shell egg demand, from the consumer market over lockdown.

Between March and June in particular, eggs were in much greater demand in supermarkets due to the rise in people eating in and home baking during the coronavirus lockdown. This surge for shell eggs but a much reduced market for egg products e.g. liquid eggs for catering, caused supply chains to move to more mixed box sales and the marketing of liquid egg products to manage demand.

As a result, farmgate egg prices rose by 9% during the first three months of 2020 (75.5p/dozen in the first quarter of this year, compared with 69.3p/dozen during the same period of 2019, DEFRA), with further rises feeding into Q2. However, as restaurants have begun to open up, consumer patterns are likely to slowly return to normal, both in the home and eating out, and there is no guarantee that egg prices won't drop again in a few months.

Poultry meat

Broiler slaughterings peaked in April, in line with a supply chain response to stockpiling, but have since fallen, with around half a million birds slaughtered less per month than the summer months of 2019. Following initial stockpiling, chicken meat prices have also fallen, with overall consumption decreasing and issues with carcase-balance exacerbated in the rise of home cooking versus cuts more utilised in food service.

However, 2020 has also shown the lowest broiler placings in May and June of the last 4 years, with production scaled back following lockdown in response to the closure of the food service sector. As restaurants begin reopening, this may see a return to normal, ahead of the annual dip in demand around Christmas in favour of other meats.

Trade and standards developments

May saw the announcement of revised post-Brexit tariff schedules, suggesting that the poultry sector will be more protected post-Brexit than it would have been according to 2019's draft tariff schedule. Furthermore, the newly-established Trade and Agriculture Commission will aim to ensure future trade agreements maintain animal welfare and environmental standards. This is welcome news for consumers and retailers; in July, several major retailers agreed never to sell chlorinated chicken in response to customer fears about food safety.

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Pence per 6 pack												
	Very large			Large			Medium			Mixed weight		
	2019	2020	Change	2019	2020	Change	2019	2020	Change	2019	2020	Change
Cage	-	0		-	0		-	0		60	70	16.7%
Free range	191	170	-11.0%	122	123	1.0%	98	99	0.6%	91	116	27.5%
Organic	-	320		221	250	13.1%	217	183	-15.9%	178	175	-1.7%
Packer to producer UK free range average price (incl. bonuses, p/doz.)										2019	2020	Change
Source: BFREPA and leading supermarket ½ doz. pack prices, July 2020										81.8	81.4	-0.5%

Reduced production and usage by end users due to the pandemic may have limited their capacity to store crops, with the result, farmers may have to store grain normally earmarked for harvest movement much longer than previous years.

Whilst most milling and feed cereal contracts require grain to be below 15% moisture content, generally malting contracts allow moistures of up to 19% to be accepted.

In normal circumstances, malting barley may receive little or no drying if harvested below 19% and uplift is expected within a week or so. Grains stored for longer periods at higher moisture contents and temperatures will start to heat, leading to a deterioration of quality, the formation of potentially hazardous moulds or mycotoxins and infestation by insects and mites.

Grain Drying

As the period of safe storage is related to grain moisture content and temperature, drying grain to under 14%m.c. and cooling to below 15°C will significantly reduce the risk of spoiling and infestation as fungi are unable to grow and mites are unable to reproduce at these levels. For grain destined for the malting market or others where germination is critical, taking the moisture content and temperature down further to 13%m.c. and 10°C is suggested.

Care should also be taken to dry malting barley at lower temperatures than feed grains with grain and air temperature not exceeding 50°C and 60°C respectively along with plenty of airflow to maintain germination.

Grain Cooling

It is important that grain is cooled down as quickly as possible to prevent infestation and moulds and mycotoxins developing. While most insect species breed rapidly in grain above 25°C, most insects will not reproduce in temperatures below 15°C, although grain weevils can still breed slowly at 12°C. Taking temperatures down below these levels is therefore recommended. However, malting barley should not be cooled below 10°C.

Cooling of the grain bulk may be achieved by using duct flooring, horizontal tubes, or vertical systems such as pedestal fans with the number of ducts appropriate to grain depth and ventilated at a rate of 10m³/hr/ton. Fans should only operate when the air temperature is below that of the grain. In most cases, blowing air down the tubes and up through the grain will achieve best results. This process will see warm air and moisture move from the grain pile into the overhead space in the shed. In addition, stored grain will naturally respire. This damper air produced through aeration and respiration processes needs to be removed to prevent condensation, with sheds used for long term storage requiring to have good ventilation e.g. gable fans etc.

Stored Grain Spatial Requirements

It is also important for growers to know how much storage they need or conversely how much grain they can store. Barley and wheat occupy 1.42m³ and 1.3m³ respectively so 250t of barley would require 355m³. In the same way, a storage area 10m by 15m and 3m deep could store around 321t of barley. It is important to note that grain puts significant side pressure on walls, particularly when stored above 1.5m so this must also be considered when calculating storage requirements.

Monitoring & Housekeeping

Initially, monitoring should be undertaken every few days; although once grain reaches its final storage temperature, weekly monitoring of temperature and moisture content along with the use of traps to detect the presence of insects or mites should be undertaken, with any localised increases in moisture of 2% or temperature increases of 1°C investigated.

Grain stores and equipment should be thoroughly cleaned and free from pests with hoovering and suitable treatments used where necessary.

While short-term stores only need a rainproof roof and clean solid floor, they must be empty by 31st October. Buildings used for long-term storage should be fully waterproof, with walls and floors of solid construction, doors that fit properly, and should exclude birds and animals with monitoring for ingress by pests undertaken.

AHDB have produced a useful Safe Storage Calculator whereby the moisture content and temperature for a specific grain bulk can be used to give an indication of how long that grain can be stored in its current state thereby allowing potentially problem lots to be prioritised for drying and handling.

As always growers should be aware of end users requirements and stipulations as well as farm assurance standards.

The following guides provide further information on grain drying and storage.

“Ensuring good germination in malting barley” HGCA Topic Sheet No.60 Summer 2002.

AHDB Grain Storage

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While much water has flowed under the bridge since the European Union (Withdrawal Agreement) Act 2020 gained Royal Assent on 23 January, cementing the UK's exit from the EU on the 31 January 2020; the transition to a new trade and relationship partnership with the EU starting on the 1 January 2021 is now less than 120 days away and no side can afford to be caught napping.

Although Brexit speaking, the EU and the UK have always converged on wanting 'fair and open' competition for their businesses; now, the EU's negotiating ideology is based on having a 'level playing field' with regards worker's rights, taxation, environmental protection and state aid/subsidies for business - with ideally, 'dynamic alignment' for the latter two, whereby, if the EU changes its own rules, the UK would automatically follow suit. The UK is focusing its negotiations on a zero tariff/zero quota deal i.e. no taxes on goods crossing borders and no limits to the amount of goods that can be traded with the added proviso of the right to diverge or move away from EU rules and regulations when it wants to, and definitely no dynamic alignment. Needless to say, currently, the playing fields have many mole hills to be worked on before kick-off on the 1st January.

Border Controls (Great Britain & EU)

Regardless of the outcome of the trade talks, as part of its proposed 'Border Operation Model', and in preparation for leaving the EU Customs Union, the British government has announced a £705 million funding package for new border infrastructure at ports, 10-12 new inland customs clearance centres; investment in new border staff, equipment and software, and possibly, new freeports (one of which may be Edinburgh). The new border controls will be introduced in 3 stages:

Stage 1 - From 1 January 2021, traders importing standard goods will need to prepare for basic customs requirements including keeping sufficient records of imported goods and considering how they account for and pay VAT on imported goods. Traders will then have up to six months to complete customs declarations. Additionally, there be physical checks at the point of destination or other approved premises on all high-risk live animals and plants, and a requirement to pre-notify for certain movements, but they will not be required to enter GB via a Border Control Post (BCP). Export declarations and UK exit Safety and Security declarations will be required for all goods.

Stage 2 - From April 2021, all Products of Animal Origin (POAO) – including meat, honey, milk or egg products and all regulated plants and plant products will require pre-notification and the relevant health documentation. Physical checks will continue to be conducted at the point of destination until July 2021.

Stage 3 - From July 2021, traders moving any goods will have to make full customs declarations at the point of importation and pay the relevant tariffs. Full Safety and Security declarations will be required. Sanitary and Phytosanitary (SPS) checks for animals, plants and their products will take place at GB Border Control Posts and not at destination. There will also be increased physical checks and samples taken.

While import and export controls are generally reserved under the control of the UK Government, the areas of food safety, the protection of human, animal and plant health, and the environment, are devolved to the governments of Wales and Scotland. This may lead to some differences in precise requirements and enforcement bodies.

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Key Economic Data

General Indicators		Price indices for June 2020 (Defra 2015 = 100)			
		Output Prices		Input Prices	
Base interest rate	0.1% (0.75% Mar '20)	Wheat	134.79	Seeds (all)	104.2
ECB interest rate	0.00% (0.00% Sep '18)	Barley	114.64	Energy	103.5
UK (CPI) inflation rate	1.0% (target 2%)	Oats	126.03	Fertiliser	87.6
UK GDP growth rate	-20.4% (Q2 '20)	Potatoes	143.90	Agro-chemicals (all)	127.8
FTSE 100	6,018 (20 Aug '20)	Cattle and Calves	105.31	Feedstuffs	115.2
		Pigs	125.20	Machinery R&M	111.9
		Sheep and Lambs	124.63	Building R&M	111.5
		Milk	110.78	Veterinary services	113.5

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