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News in brief

Global commodity cycle on the up?

There are growing signs global commodity prices may be on the up spurred on by strong global economic growth. Oil prices are a key indicator and these are now at a four year high led by very strong global demand growth (see fuel price article on page 10). While there are reasons to expect oil price rises may be limited by the US's burgeoning shale-oil sector, crude oil prices now appear to have broken out of their four year slump.

Geo-political issues are major wildcards that could derail the current positive sentiment in the global economy. Many of these risks fall at the feet of one man, Donald Trump. His latest foray into the unknown involves applying random tariffs on steel and aluminium leaving the world trade agenda in disarray. His actions may have inadvertently dampened UK hopes of striking a quick and advantageous trade deal with the US post Brexit. This may turn out to be a silver lining for agriculture if it means we stay closer to the EU's Custom Union for longer. For large sectors of UK farming anything that puts back the day we face unbridled free-trade with the US is to be welcomed.

Within agriculture cereal and oilseed prices are now starting to move into higher territory not seen consistently for a similar four year period. Like oil, demand is outpacing expected production and stocks are starting to drop sharply. Of course crop estimates remain subject to the weather and a long time remains before this year's harvests are decided. But so far, most large global producers are facing some issue or other of sub-optimal weather; mainly drought. As we know higher grain prices soon feed through to affect livestock sectors, so now may be a good time to review forward cover for winter feeds.

Next month....

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This month's editor:

Julian Bell



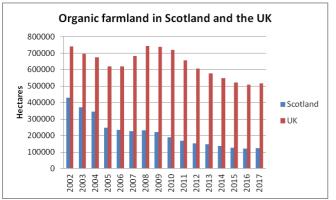




Policy Briefs

Organic land area increases

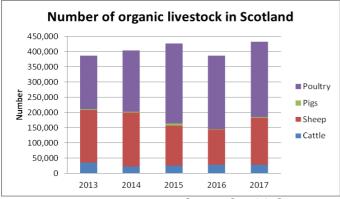
Statistics recently published by the Scottish Government has revealed that the area of land used for organic farming in Scotland in 2017 was 122,660 hectares, an increase of 1,062 hectares (+0.87%) compared to the previous year, see chart below.



Source: Scottish Government

Grassland accounts for the majority (~93%) of the organic land and cereals about 4%, which, in percentage terms, is similar to the previous year.

The total number of organic livestock has increased by around 46,000 (+12%). Although there was an increase across all four livestock types, the greatest increase was in the number of sheep (~39,000), followed by poultry (~5,400), see chart below.



Source: Scottish Government

Compared to 2016, there was also an increase in the number of licensed producers and processors in Scotland from 560 in 2016 to 578 in 2017.

As the first chart shows, the area of organic farmland in the UK as a whole has also increased (+1.87%) compared to last year. and in both Scotland and the UK it is the first increase since 2008. In contrast, organic production in Europe has been consistently increasing year on year and is almost double what it was in 2005.

Why the increase in organic land area in Scotland and the UK? The organic bodies are putting it down to an increase in confidence in the organic market and a reflection of the increasing demand for products both in the UK and abroad.

Census and scheme dates

June 2018 Agricultural Census

The June 2018 Agricultural Census is sent by the Scottish Government to all holdings who complete a Single Application Form (SAF) and to a sample of other agricultural holdings. The census should be completed based on information that is correct on 1st June 2018, unless it states otherwise, and be returned by 30th June 2018.

Completing the census is a legal requirement under the Agriculture Act 1947 and is used to help the Scottish Government develop the right policies to support agriculture in Scotland.

Beef Efficiency Scheme

Farmers who are participating in the Beef Efficiency Scheme have until 31st December to return all tissue samples, including animals selected in March. The extension from 30th June is due to spring 2017 born calves being included in the recent selection, and the recognition that these animals may now have been moved to summer grazing or sold, making the original date unachievable. Although 31st December is the final deadline, it is advisable to submit samples before then.

AECS – slurry storage

Applications for stand alone slurry storage should be submitted by 26th June 2018. Funding for slurry storage is only available in certain catchments (i.e. bathing waters, drinking water protected areas, catchments within targets areas) but does not include Nitrate Vulnerable Zone areas. Eligibility for funding can be checked at: https://www.ruralpayments.org/publicsite/futures/topics/all-schemes/agri-environment-climate-scheme/.

Food Processing, Marketing and Co-operation

The Food Processing, Marketing and Co-operation grant scheme opened on 1st May and will close to applications on 31st August 2018. Further information about the scheme can be found at: https://www.ruralpayments.org/publicsite/futures/topics/all-schemes/food-processing--marketing-and-co-operation/

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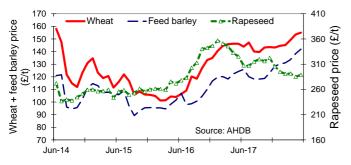
Cereals and Oilseeds

Drought pushes up world grain prices

World grain markets have risen in recent weeks as a number of weather issues, mainly drought, have Dryness and above average come to light. temperatures are a significant issue in; Australia, parts of Russia, the US and parts of Canada. In North America these impacts are consistent with the La Nina weather system that has prevailed until recently, but this is fading. The US is expecting high temperatures and little rain across the main wheat and corn producing states in the immediate forecast. Russia and Ukraine expect lower grain crops due to dryness with Sov Econ estimating 2018/19 grain production down 9mt at 126mt. Cereal crops are generally favourable in the EU but yield potential has been negatively impacted given the late spring and high recent temperatures.

In their first estimate for the 2018 harvest, USDA project world grain stocks to use will fall to their lowest level in five years. This would equate to a fall in stocks-to-use from 86 days worth of consumption in 2017/18 to 77 days in 2018/19, the lowest level since 2013/14. Lower stocks make the market sensitive to any crop problems that emerge.

Scottish spot ex-farm grain and oilseed prices



In the UK, DEFRA's latest cereal balance sheet revision for May showed a further tightening of the UK cereal situation. Wheat demand estimates have been increased, outstripping some increases in imported supplies. Higher animal feed and ethanol use has increased demand. Wheat ending stocks are seen at 1.735mt, the lowest in five years.

In the last month, Scottish ex-farm wheat prices rose; +£3.10/t for spot (£157.30/t) while new crop rose +£5/t to £160/t for Nov.'18. New crop rapeseed rose +£13/t to £290/t delivered harvest.

- World prices rise on drought in key producers
- World and UK cereal stocks fall further, leaving less buffer for the new crop season

Barley stocks down, rain needed

In Scotland, a prolonged dry spell is impacting crops especially late sown spring barley. How big an impact this has on grain yield, grain quality and straw yield is not yet clear, but rain is needed soon. Scottish Government figures show that Scottish farms started the 2017/18 season with 160kt higher barley stocks on a bigger crop but by March 2018 feed and malting usage was up 180kt on the same period a year ago leading to a 20kt fall in stocks.

Scottish farm disposal survey - barley Cumulative figures (Oct-Mar) ('000's t)

Year to date	Malting	Feed		Open stock	
Mar-17	786	621	1,508	1,625	117
Mar-18	875	718	1,688	1,785	97
'18 vs '17	89	98	180	160	-21

Source: Scottish Government

UK and EU malting barley prices have risen in recent weeks due to wider global market issues including drought in key exporters; Australia and Canada. There are also concerns over malting barley crops in northern Europe including Denmark and England. Farmers remain reluctant sellers given concerns over crop yield and quality.

Winter crop choice – rye for AD

Poor potential performance of spring crops may encourage a shift to winter cropping this autumn; weather permitting. With winter barley disappointing of late, wheat and hybrid rye for AD are key cereal choices. AD plants are actively recruiting for rye whole-crop at £25/t standing in the central belt with the farmer responsible for everything, excluding harvesting. With target yields of 40t/ha+ output can be £1,000/ha+ and the crop offers early entry for rapeseed or re-seeding grass.

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Indicative grain prices week ending 18 May 2018 (Source: SACC/AHDB/trade)

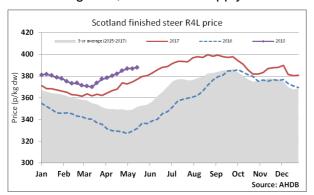
"* Before oil bonus, # Ex-farm England spring max 1.85%N, ~ nominal

£ per tonne	Basis	May 18	Jun 18	Hvst 18	Nov 18	May 19	Nov 19
Wheat	Ex-farm Scotland	157.30	160.00	157.00	160.00	164.00	157.00
Feed barley	Ex-farm Scotland	137.00	138.00	130.00	132.00	136.00	
Malt. barley - distil	Ex-farm Scotland			174.00			
Malt. barley - brew#	Ex-farm England		165.00		165.00		
Oilseed rape*~	Delivered Scotland			290.00			

Beef

Finished cattle doing well

Little to complain about regarding finished and cull cattle prices. As the chart shows, the Scottish finished price has been trading nicely above last year's spring levels and well above the three year average. This week (w/b 21st May), the Scottish base is in the 380-385p/kg dwt range, Angus qualified around 420p and, perhaps most notably, young bulls near 380p. With decent Scottish cull cows also returning well at around 315p/kg dwt, the conclusion is that demand, especially for manufacturing beef, is ahead of supply.



However, much to complain about the weather. While the current warm, dry weather is welcome, the consequences of the non-existent spring depressing calving percentages both this and next year are probably high. The lack of pasture also checked the trade for stores and calves in April, but demand has since picked up with the weather.

The rise of the fake burger?

A fine summer will boost consumption of manufacturing beef as sales of burgers for barbeques normally jump. So demand for culls should remain especially strong. It may tempt some producers to cull harder this year to maintain calving patterns.

It also seems likely to tempt the supermarkets to test the market for non-meat burgers. Tesco will reportedly stock US made Beyond Meat burgers (based on pea protein) as early as July.

Fake burgers will have little impact on cattle prices this year. Irish and Polish imports may affect the

market, though the weak pound offers some protection to cheap imports.

The bigger threat to suckler beef production remains chicken production and native (Angus and Hereford) sired dairy beef. Of course, the alternate view is that such meat production systems offer an opportunity for farmers to change their enterprise balance to something more feed efficient. On many Scottish beef/sheep farms the majority of feed is simply used to maintain the cows!

The end of the big four

The proposed merger between Asda and Sainsbury's raised alarm among cattle producers and processors. Put simply: with a market share similar to Tesco, the merged supermarket would have more bargaining power, openly admitting that such power would yield savings for shoppers. Becoming more competitive with Aldi and Lidl, is clearly a major driver behind the merger. But the deep discounters are not the only force shaking up UK food retail.

In buying Whole Foods, online retailer Amazon suddenly took a big foothold in the massive US grocery market. It is possible that Amazon may make a like play in the big UK grocery market. The technology behind Amazon's move into groceries is the interesting bit that beef producers and processors need to be aware of.

Microwave assisted thermal sterilisation (MATS) was developed by Washington State University for the US army. Essentially, MATS produces tasty ready-to-eat meals that are easy to store and ship. Critically, refrigeration is not needed which reduces delivery costs and food safety problems. Combined with advances in robotic controlled packing and distribution (British company Ocado have cracked this technology), the trend towards prepared meals delivered to your home seems set to grow.

Producing beef based products that fit into this developing marketing channel will be necessary to the future success of the beef industry.

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Prime cattle prices (deadweight) (Source: drawn from AHDB data)

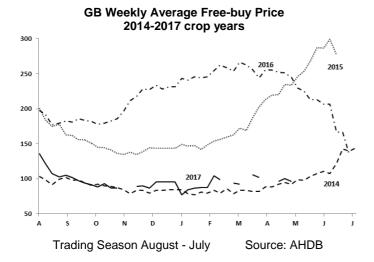
		R4L (R3 bull) catt	-U4L Steers					
	E&W			Scotland			E&W		Scotland
	South	North	North	Ctaara	Heifer	V Dull	South	North	All
	Steers	Steers	Y. Bull	Steers	Heifer	Y. Bull	Steers	Steers	Steers
5 May	373.2	378.6	366.3	386.8	385.1	378.3	375.3	377.2	384.6
12 May	376.4	381.8	363.4	386.8	386.5	375.7	382.6	379.4	383.9
19 May	371.7	383.3	363.4	388.0	386.2	379.7	377.6	377.9	384.5

Potatoes

Market price update

- The GB Weekly Average prices for the week ending 5th May 2018 were £162.22/t for free-buy and contract purchases and £96.31/t for free-buy purchases.
- Compared to the previous reported week contract and free-buy purchases were up £2.59/t and free-buy purchases were down £3.79/t.

Crop Year	5 May	28 Apr	21 Apr
Average Price (£/t)	162.22	159.63	154.32
AVP change on week (£/t)	2.59	5.31	-2.88
Free-Buy Price (£/t)	96.31	100.10	96.11
FBP change on week(£/t)	-3.79	3.99	-5.47



The Scottish packing market was reported as being "unusually quiet" for the time of season. This was due to warmer weather experienced by many across the country last week. Grade 1 Maris Piper was trading around £210-220/t ex farm and grade 1 whites ranging between £35-60/t ex farm depending on quality.

Movement in the English packing market remained steady with little change in price for Whites, Maris Piper and King Edwards. Salads (45mm down) were trading between £150-250/t, grade 1 King Edwards trading between £135-165/t, and grade 1 Maris Piper between £250-265/t ex farm. Grade 1 whites continue to trade between £55-£100/t depending on quality and region.

Potato stocks

AHDB figures suggest that GB growers had approximately 1.3 m t of potatoes in storage at the end of March. This level is similar to that in March 2015 and roughly 300,000 t more than at the end of March last year. This season approximately 4.7 m t have either been sold off the field or moved out of growers' stores since harvest. This is the highest

level of movement recorded throughout this period since the 2011/12 season. Some growers are reportedly left with 200-300t of ware still to move when stores are normally empty. Whether growers manage to find a market for all these extra stocks remains to be seen. The late start to planting should push back new crop harvest dates and create additional old-crop demand if crop quality can be maintained in store.

Growers play catch-up on late spring

After a cool and unsettled March delaying spring work on many farms, planting is now around 90% complete. Local reports suggest that in Fife, Angus and Perthshire, planting has gone well with crops being planted in good soil conditions. Heavier land in East Lothian and Berwickshire has taken a while to dry up and some growers are around 2-3 weeks behind on previous years. The situation in England is similar as with planting reported to be 2-3 weeks The impact of late planting is likely to be late. However, it is still early in the reduced yield. growing season and no-one can predict the summer weather! The SACAPP Potato Bulletin suggests that recent warmer weather should promote faster crop emergence than if planted on a more normal

European planting estimates

The NEPG (North-Western European Growers) estimate that growers in the five leading potato growing countries will plant 0.4% more potatoes than last year. Despite significant delays, planting on the continent is almost complete. France, Belgium and Germany have increased planted area while the Netherlands area has decreased by 2.5%. Although there is no estimate available at the moment for Great Britain, the five year average has been used to calculate the area planted. Overall, European estimates suggest that there is a 0.4% increase in planted area than last year and a 6.7% increase compared to the 5 year average. This level of growth in potential production would outstrip the recent weak growth in demand from the processing industry.

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Sheep

A lambing to forget

After 10 months of winter we seem to have gone straight into summer. Unfortunately, the impact of the past couple of months on farmer, animal and land across much of Scotland has been tough. And while the fine May weather is welcome, the consequences of the dreadful winter and spring will be felt for some time.

But prices at historic highs

Yet for those selling hoggs and culls in the past few months the prices have been exceptional. As the chart shows prices have reached historic levels. In their 18th May update, Farm Stock (Scotland) quoted a base price for hoggs in the 550-585p/kg dwt range with new season lambs in 600-620p. The update stressed that the curtain is coming down on the hogget season with processors about to switch fully onto new season lamb, so assuming their teeth haven't changed get hoggs away immediately to cash in.

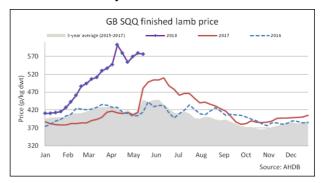
The price of hoggs and culls is unlikely to fall off a cliff on 1st June thanks to Ramadan. But the month long Muslim festival ends on 14th June so don't dally too much.

The prospects for the new season lamb price would appear reasonable. The consensus is that poor lambing weather in March allied to poorer ewe condition means a smaller lamb crop and a delay in lambs finishing. Of course, the high prices will mean that lambs will be away at the minimal level of finish possible.

Looking into the main season, don't rely on domestic consumption. The retailers have taken a thumping in recent months and are likely to limit lamb promotions this year. According to *The Grocer* magazine, in April the wholesale price of UK lamb was £5,522/t, a 34.1% rise on the previous year. This compares to £3,615 for beef, £1,359/t for chicken and £3,658 for NZ lamb. So don't factor in strong demand from supermarkets nor the restaurant trade this summer and autumn. It is also hoped that the supermarkets don't contract in old season Kiwi lamb for the autumn, but that may well be a forlorn hope.

On the plus side, the store lamb trade should be strong given recent hogg prices. For farmers looking to rebuild feed stocks for the coming winter, selling store lambs is a good option for cutting grazing pressure and pushing more feed into the backend and winter.

As for the export trade, the weak pound remains supportive, as does the fact we are still in the EU trading system. However, consumer demand across the EU will also be under pressure if prices persist above last year's levels.



Brexit update

Negotiations are going better or worse than expected depending on your standpoint. To this point, the EU holds the upper hand and there seems little prospect of tables turning. So the odds on a soft Brexit have shortened.

In short, that probably means the sheep trade arrangement between the UK and the EU-27 staying similar to now, though not as good. We would transition to the new trading basis over maybe a couple of years starting 29th March 2019. However, there remains the chance of a no deal and us crashing out of the EU in March. If that occurred, next summer's prices don't bear thinking about.

That's trade, but what about farm policy? Whatever the trade deal, UK farmers will exit the CAP. The questions then are "when" and "what to". It's pretty clear from the command paper issued by Defra asking for feedback on proposals **for England** that direct support will be cut with farmers instead paid for supplying public goods. There was an almost total lack of detail on how this would work in practice, or how it would apply within a UK where farm policy is devolved. kev.bevan@sac.co.uk

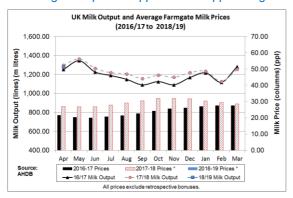
Week	GB deadweight (old season)			Scottish	auction (new	Scottish	E&W	
ending	16.5 – 21.5kg			(p/kg LWT)			Ewes (£/hd)	Ewes (£/hd)
	R2	R3L	R3H	Stan	Med	Heavy	All	All
5 May	575.6	576.9	573.5	223.9	254.0	255.7	69.8	75.7
12 May	582.4	584.7	581.9	284.1	295.8	286.6	74.1	79.2
19 May	580.7	582.2	580.6	269.5	295.2	285.9	71.2	77.0
Deadweight	Deadweight prices may be provisional. Auction price reporting week is slightly different to the deadweight week.							

Milk prices reduce during March but price signals are now positive

The UK average milk price has reduced for the fourth consecutive month according to DEFRA statistics, reducing by 0.83ppl between February and March 2018. This produced an average milk price of 28.57ppl for March deliveries.

UK monthly milk output for April 2018 is estimated at 1,277.72m litres (before butterfat adjustment). This is around 19.45m litres lower than output for April 2017.

- UK output for April 2018 estimated to be 19.45m litres down on last year. The late spring is the main reason for the dip in production.
- UK average milk price dropped to 28.57ppl during March.



Müller contract fully subscribed

Following the launch of their fixed price contract with Lidl, Müller has confirmed that the contract is now fully subscribed. The contract allows farmers to fix up to 50% of their milk supply at 28.00ppl for up to 3 years.

Müller are currently recruiting new suppliers in order to achieve their planned expansion to production.

Milk prices starting to rise

After a period of reducing prices during the first quarter of 2018, market reports suggest that there is reason for optimism regarding UK milk prices during the next few months.

- Graham's Dairies the 0.50ppl reduction announced from 1st May 2018 was rescinded, meaning that the standard litre price for May remained at 26.75ppl.
- Lactalis See table below. Milk price (26.50ppl) includes 0.50ppl supplement paid during April, May and June 2018.
- Müller 0.75ppl price increase from 1st June 2018 for Müller Direct suppliers. See table below
- Müller The retail supplement for April 2018 is confirmed at 0.212ppl.

- Arla Foods amba 1.15ppl increase from 1st June 2018. This takes the liquid standard litre price to 27.51ppl.
- Arla direct suppliers 1.00ppl increase from 1st
 June 2018. This takes the standard litre price to
 25.30ppl.

Annual Average milk price estimates for June 2018 (ppl)						
Milk Buyers – Scotland	Standard Ltr*					
Lactalis (No profile or seasonality) (3 month contract) 1	26.50					
First Milk Liquid 1	26.00					
First Milk Manufacturing (4.2% Butterfat & 3.4% Protein)	26.88					
Müller - Müller Direct 1, 2	26.75					
Standard litre – annual av. milk price based on supplying 1m litres at 4. protein, bactoscan = 30, SCC = 200 unless stated otherwise.	.0% butterfat, 3.3%					
No monthly supplementary payment included in the price estimate.						

Wholesale prices set to improve

World wholesale prices have been showing some improvement recently with the latest Fonterra (GDT) online auction (15th May 2018) average price increasing by 1.90% and the weighted average price increasing from US \$3,465/t to \$3,637/t.

- World wholesale prices are improving. Further improvement is expected as world milk supplies remain below expectation
- There has been significant improvement to UK butter prices since January

The improvement to GDT prices reflects the higher wholesale prices available via the world market and this is also feeding down into UK product price levels. A cold spring and the resulting tighter than expected supply has been the main trigger in the northern hemisphere, whilst lower output in New Zealand has also helped to lift product prices in the southern hemisphere.

Butter prices are key to the price changes that are occurring within the market. On the world market, butter has increased from US \$4,877/t to \$5,694/t between January and April 2018 whilst within the UK butter prices have increased from £3,660/t to £5,180 (up £1,520/t) in the five month period January - May 2018. This has contributed to the lift in AMPE from 28.90ppl to 33.08ppl between April and May 2018.

UK dairy commodity prices	May	Apr	Dec
(£/ tonne)	2018	2018	2017
Butter	5,180	4,660	4,000
SMP	1,320	1,155	1,230
Bulk Cream	2,350	2,080	1,800
Mild Cheddar	2,970	2,920	3,000
UK milk price equivalents	May	Apr	Dec
(ppl)	2018	2018	2017
AMPE (2014)	33.08	28.90	26.38
MCVE (2014)	32.33	31.38	31.87

Source: AHDB

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Management Matters: Renewables

Changes to renewable energy incentive payments

Renewable energy incentive payments such as the feed-in tariff (FIT) and the renewable heat incentive (RHI) were introduced to kick-start the uptake of renewable energy technologies and begin the decarbonisation of the energy industry and initially the incentive payments provided the largest portion of the income available from new developments. As uptake of renewables has increased the level of payments for new schemes has been reduced. The FIT is due to close completely for new applications in Q1 2019 and so far there have been no proposals brought forward by the UK Government to replace it. The RHI has also seen a reduction in payments but will continue until at least 2020/21although its status beyond this is unclear.

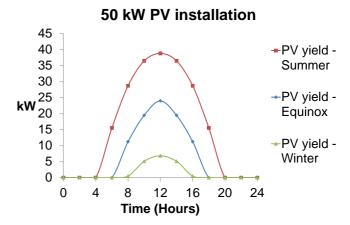
Some developers are now looking at building large scale solar PV and wind projects without tariffs and anticipating an acceptable return over the life of the project as energy prices undoubtedly increase. In regard to farm scale renewable electricity projects the viability of new schemes now relies on the value that can be obtained from the energy produced and in cases where a large proportion of the power can be used on-site to offset the purchase of grid electricity, such schemes can still make economic sense. Where such a scheme can tie into the remaining FIT program before 31st March 2019 this will provide a useful top-up for the 20 years over which payments will be made.

So what type of farm scale project may currently be viable under reduced FIT payments? Sites that meet all three of the following criteria:

- High yielding sites e.g. wind turbines at sites with high wind speeds.
- Sites that are less expensive to develop e.g. where construction and grid connection costs are low
- Sites where a large proportion of the yield can be used to offset more expensive power currently purchased from the grid.

When considering the final bullet point it is important to look at the match between yield and on-site usage patterns. For example, solar panels will produce the bulk of their power in the summer in the middle of the day as shown in the chart. Therefore where electricity use is more in the evening or

during the winter months direct offsetting will not be possible.



Energy storage technologies such as lithium-ion batteries can be used to "time-shift" usage and as the cost reduces this will become more viable in some situations. Prior to investing in batteries however, it is worth auditing your energy usage and actively managing it to take full advantage of on-site renewables. Daily demands such as water heating can often be re-scheduled to make better use of on-site generation. Cooling demands can match well with solar output.

Recent changes the RHI (subject to parliamentary approval) will see tariff guarantees introduced for biomass CHP, geothermal and biomethane applications of all sizes, as well as for biomass over 1MWth, biogas over 600kWth and ground source heat pumps and water source heat pumps over 100kWth giving greater certainty to investors. All biomass installations will now receive a single level of support irrespective of size with a cap on annual payments. There will be a small increase in biomethane tariffs but all new biogas and biomethane installations will have to produce at least 50% of their output from waste-based feedstocks in order to receive support for all of their production. Heat uses have also been reviewed with drying of digestate by new installations no longer eligible for RHI payments and drying of woodchip only eligible where it can be shown that an existing fossil fuel dryer is being replaced.

The intention is that these changes will provide increased focus on long-term decarbonisation, offer better value for money and support growth in technology supply chains, allowing sustainability without government support in the future.

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Sector Focus: On-farm Distilling

Field to bottle

Agricultural businesses are continually evolving as farmers seek new innovative ways to add value to their crops and businesses. One of the latest innovations is on-farm distilling. On-farm distilling is the process of taking raw ingredients grown on a farm and distilling them to produce spirits such as vodka, gin and whisky.

In order to gain some control over the end price they receive a growing number of farm businesses have diversified in order to become price makers for their commodities. Reasons for diversification include:

- Price volatility in the potatoes and cereals market.
- Tight quality specifications put on crops for processing leading to rejections and potential crop devaluation.
- Squeezed profit margins and supply chain pressures pushed down from retail to the farm gate.

Ogilvy Spirits

Ogilvy Spirits is a family farm based near Forfar growing potatoes and distilling them to produce a premium, award winning vodka. The Jarron family have farmed at Hatton of Ogilvy since 1910 and made the step in 2014 to set up an on-farm distillery to create a premium spirit with a long shelf-life and export potential.

Arbikie Highland Estate

Arbikie Highland Estate is a family-owned farm situated on the east coast of Angus. Arbikie is a single-site operation sowing, growing and harvesting all ingredients used to produce premium vodka, gin and whisky. Barley is grown to produce single malt whisky, three varieties of potatoes are grown to create vodka and gin, and water used in the distillation process is sourced from Arbikie's underground lagoon helping to emphasise the provenance of all ingredients used.

Ballindalloch Single Estate Distillery

Ballindalloch distillery is part of the multi-faceted Ballindalloch Estate, owned by the Macpherson-Grant family, in the heart of Speyside. Similar to Ogilvy and Arbikie, Ballindalloch produce whisky with full provenance and traceability as all ingredients are sourced from their 7,000 hectare estate.

Marketing, differentiation and single grain spirits

The drinks industry is becoming an ever crowded marketplace with over 131 registered distilleries producing whisky and raw spirit for flavoured gins and vodka (Scottish Government Special Economic Study CBAA, 2017/18). In 2016, gin stole the limelight as Britain's most popular spirit. There are now over 100 Scottish gins and over 50 distilleries producing gin within Scotland (Scottish Gin Society, 2017). In 2010 UK gin sales were £774.9 million compared to £1.29 billion whisky sales. Today, both spirits are worth over £1.2 billion, and by 2020 gin is predicted to overtake whisky to more than £1.5 billion (Euromonitor, 2017). In what some would regard as a saturated marketplace it is imperative to develop a Unique Selling Point. Ogilvy, Arbikie and Ballindalloch have done this by emphasising the provenance of ingredients used to create their premium spirits. On-farm distilleries differentiate from other brands by communicating the story of growing, harvesting, and distilling crops to create their premium alcohol. Farm distilleries can also add value through promoting the use of a Arbikie have achieved this by single grain. extending their product portfolio to include potato vodka, wheat vodka and a limited edition Highland Rye whisky.

Added Value

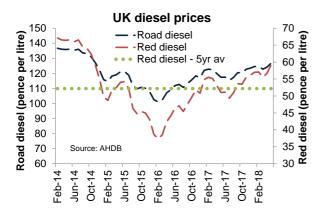
Setting up an on-farm distillery would seem overwhelming for many farming families requiring significant investment, time, planning, and management. Those who have, reap the rewards by adding value to their crops and adding an extra income stream to their farming business. With strong demand for premium drinks both at home and overseas, cereal and potato growers may have an opportunity to supply a local craft distillery. This will help spread risk, reduce market volatility, add value, and help distilleries communicate their story of locally sourced ingredients from field to bottle.

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Sector Focus: Fuel Price Impacts

Crude oil prices reach four year high as stocks decline

On the world market, crude oil prices in dollars have risen 30% in the last year to average \$69.45/barrel during May 2018 compared to \$49.20/barrel in May 2017. This rise is driven primarily by world crude oil demand moving strongly ahead of current production, drawing stocks down and buoying prices higher. Geo-political concerns, particularly the US's withdrawal from the Iran nuclear deal, and its imposition of fresh sanctions on the Iran have further boosted prices. In the UK fuel prices in pounds have also risen though the rises have been partly mitigated by a strengthening of sterling against the dollar (see below).



UK red diesel prices up 8ppl – Red diesel prices in the UK have risen 16% or 8.3ppl to 59.3 ppl in the year to May 2018. This increase is due largely to global factors noted above. Road diesel prices have also risen and are up 9.5ppl to 126.9ppl in the year to May 2018 compared to 117.4ppl in May 2017.

Assuming average red diesel usage of 150l/ha on cereal farms the 8.3ppl price rise in the last year has added costs of £12.50/ha or £1.65/t of grain at 7.5t/ha average yields. On intensive potato and vegetable units where diesel use could be 3 to 4 times higher, these price rises will be more like a £40/ha to £50/ha increase. Whilst

noticeable these cost increases are less than the rises seen in grain prices (+~£20/t) though they will be of greater concern to potato producers where prices are weaker than one year ago.

Agricultural market impact – Rising oil prices quickly feed through to the cost of producing and transporting bulky global commodities such as feed and grain. Soya prices in Argentina have risen recently in part due to transport delays caused by striking truck drivers who are suffering from rising fuel costs. Grains and oilseeds prices also gain support from higher fuel prices as this inflates their value as feedstock in ethanol or biodiesel production. These examples illustrate how future oil price direction matters to more than the cost of fuel.

Oil price drivers – If oil prices remain elevated for an extended period, world oil demand growth is likely to slow and world oil production, particularly in the US will increase further. Already the US is expected to see a sharp rise in oil production in 2018 and 2019. OPEC producers also have capacity to turn on the taps to cash in if prices move higher. While oil price may rise further in the short-term any sharp increases will spur higher output and cut demand to restore balance in the medium-term.

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Key economic data

General Indicators		Price indices for March 2018 (Defra 2010 = 100)					
		Output Prices		Input Prices			
Base interest rate	0.50% (0.25% Nov '17)	Wheat	120.9	Seeds (all)	107.2		
CCD interest rate	0.000/ (0.0E0/ Mor.'16)	Barley	132.4	Energy	112.8		
ECB interest rate	0.00% (0.05% Mar '16)	Oats	122.3	Fertiliser	98.3		
UK (CPI) inflation rate	2.4% (target 2%)	Potatoes (Main Crop)	117.6	Agro-chemicals (all)	110.6		
		Cattle and Calves	135.3	Feedstuffs	114.3		
UK GDP growth rate	0.1% (Q1 '18)	Pigs	101.8	Machinery R&M	117.8		
FTSE 100	7,793 (24 May '18)	Sheep and Lambs	134.1	Building R&M	118.3		
		Milk	115.5	Veterinary services	109.0		

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