

2 March 2022

AHDB milk forecasting forum

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The small print

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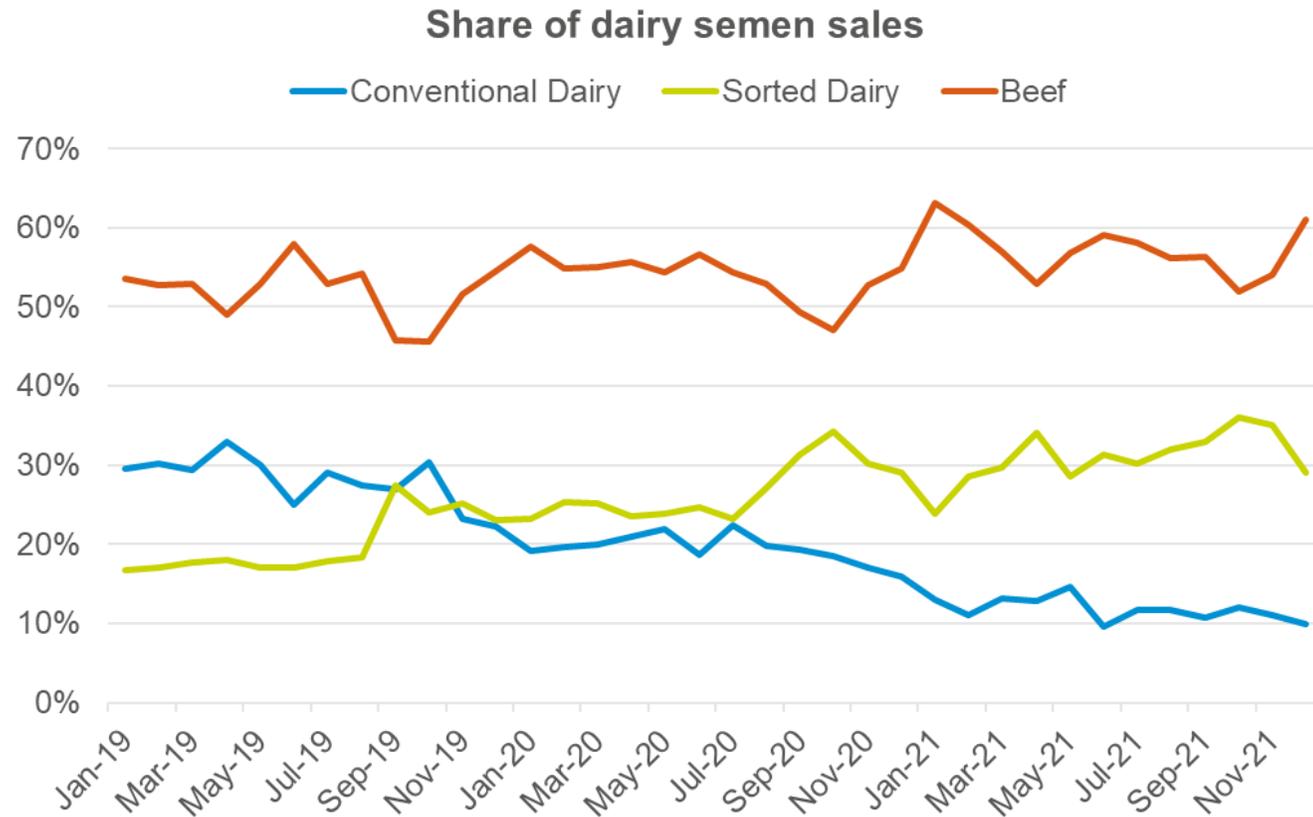
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Contents

- Key topics:
 - Herd size - inseminations, calf numbers and calving patterns
 - Feed markets
 - Costs
 - Yields
- Milk forecast
- Compositional quality

Inseminations, calvings and herd size

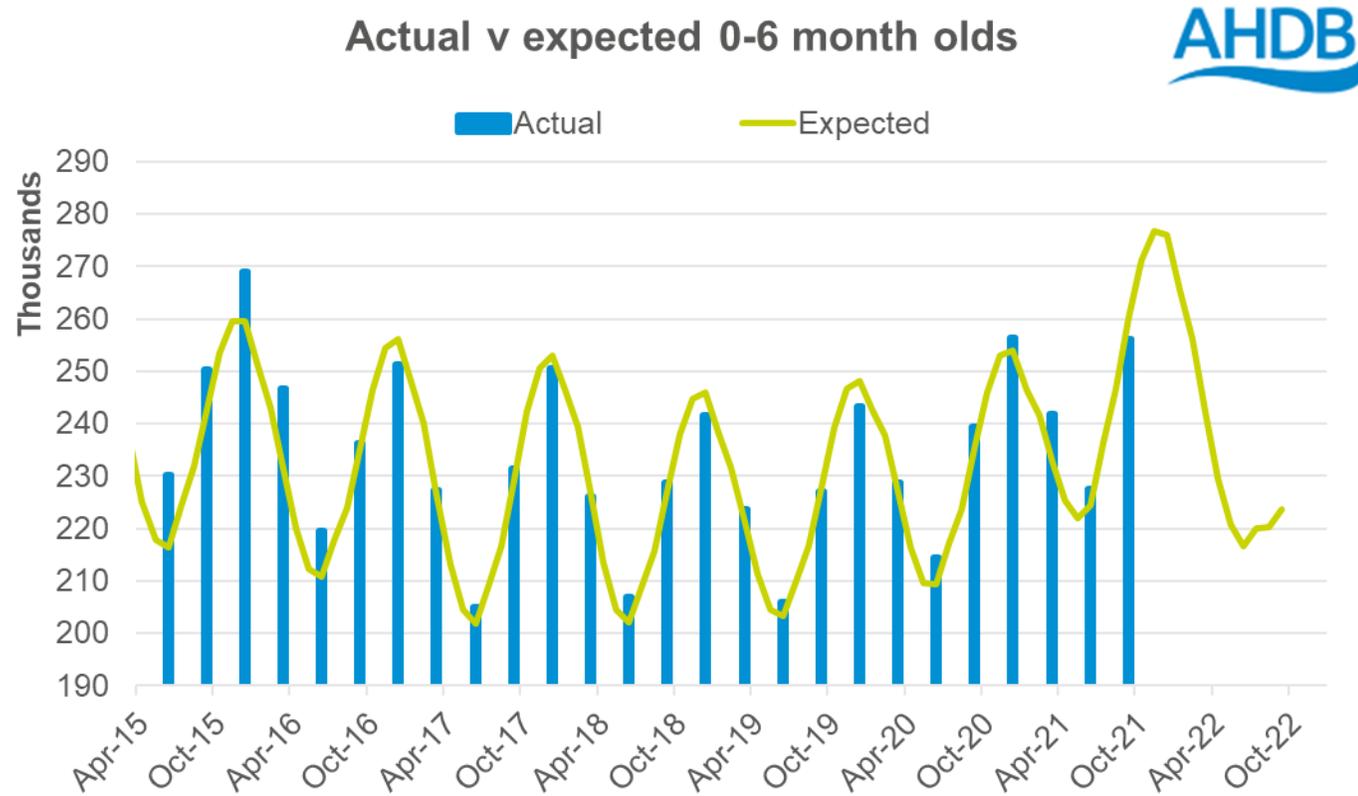
Semen sales continue to drive replacements



Source: Genus

- Beef and sorted dairy semen continue to increase share of sales
- Seasonal lift in Beef share starts around December

Expected dairy replacements

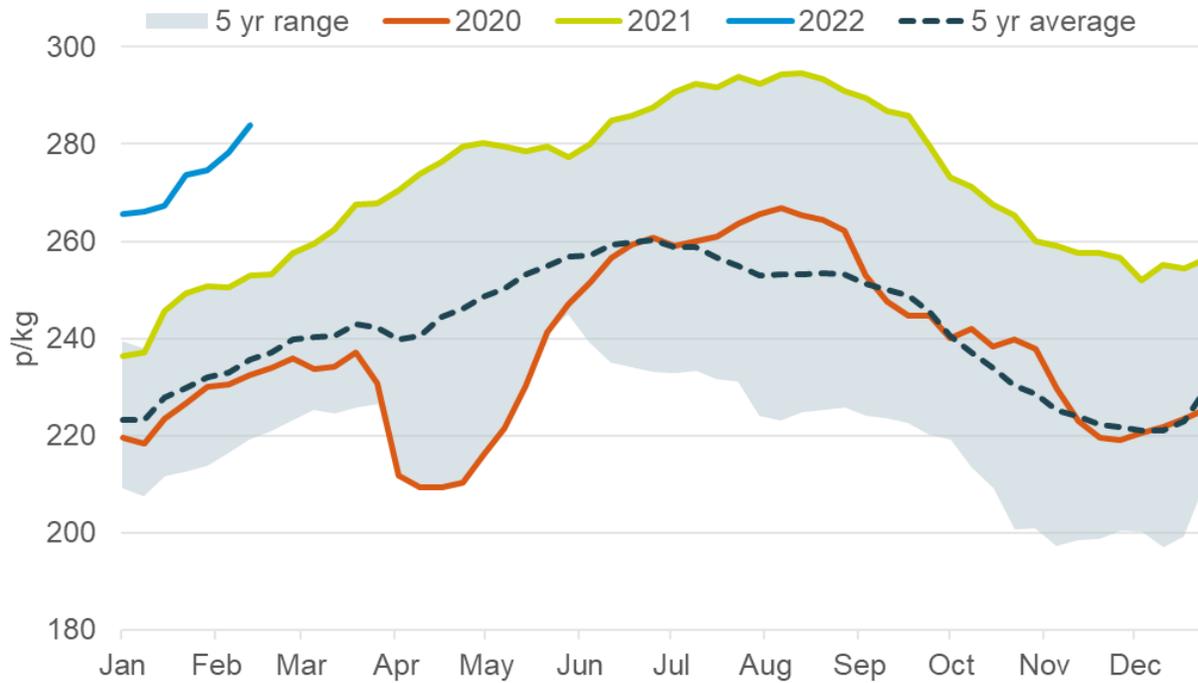


Source: AHDB, BCMS

- Estimates of the number of 0-6 month old females based on insemination data
- Underlying assumptions have been adjusted to bring projection in line with higher calvings from last year
- Actuals in Oct-21 were 17k up on last year and inline with the projection
- Insemination data suggests a further increase over the coming year
- Does not necessarily lead to an increase in the herd size – just a reduction in the average age

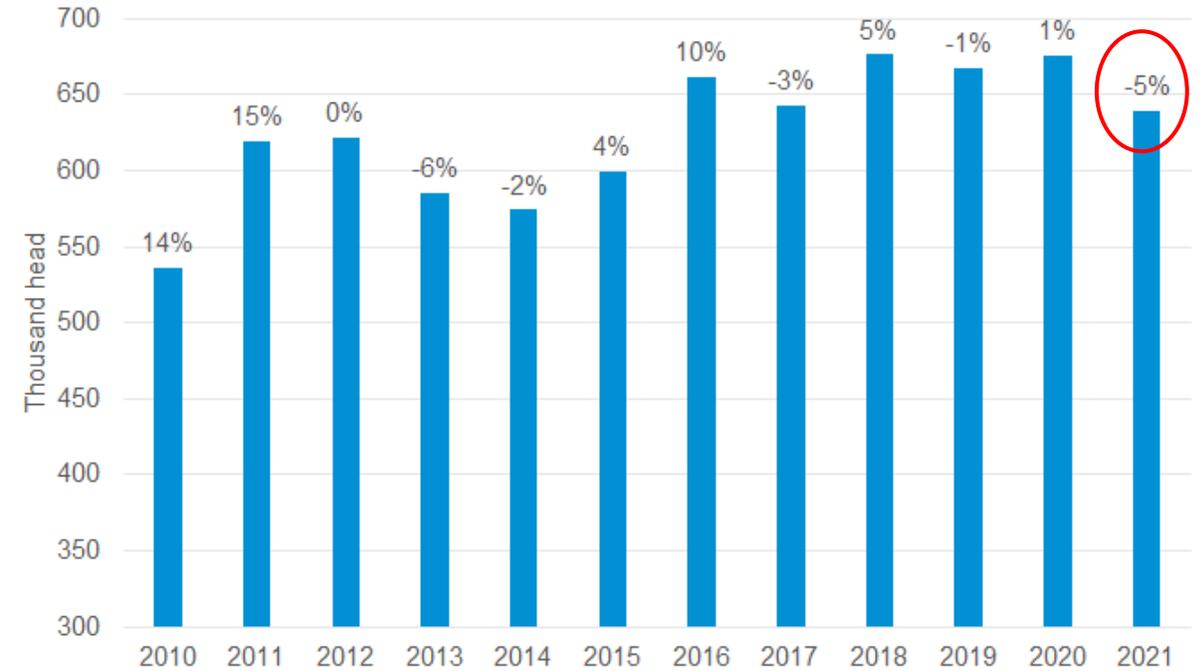
Cow prices have been high but cow slaughter low

GB overall average deadweight cow price



Source: AHDB

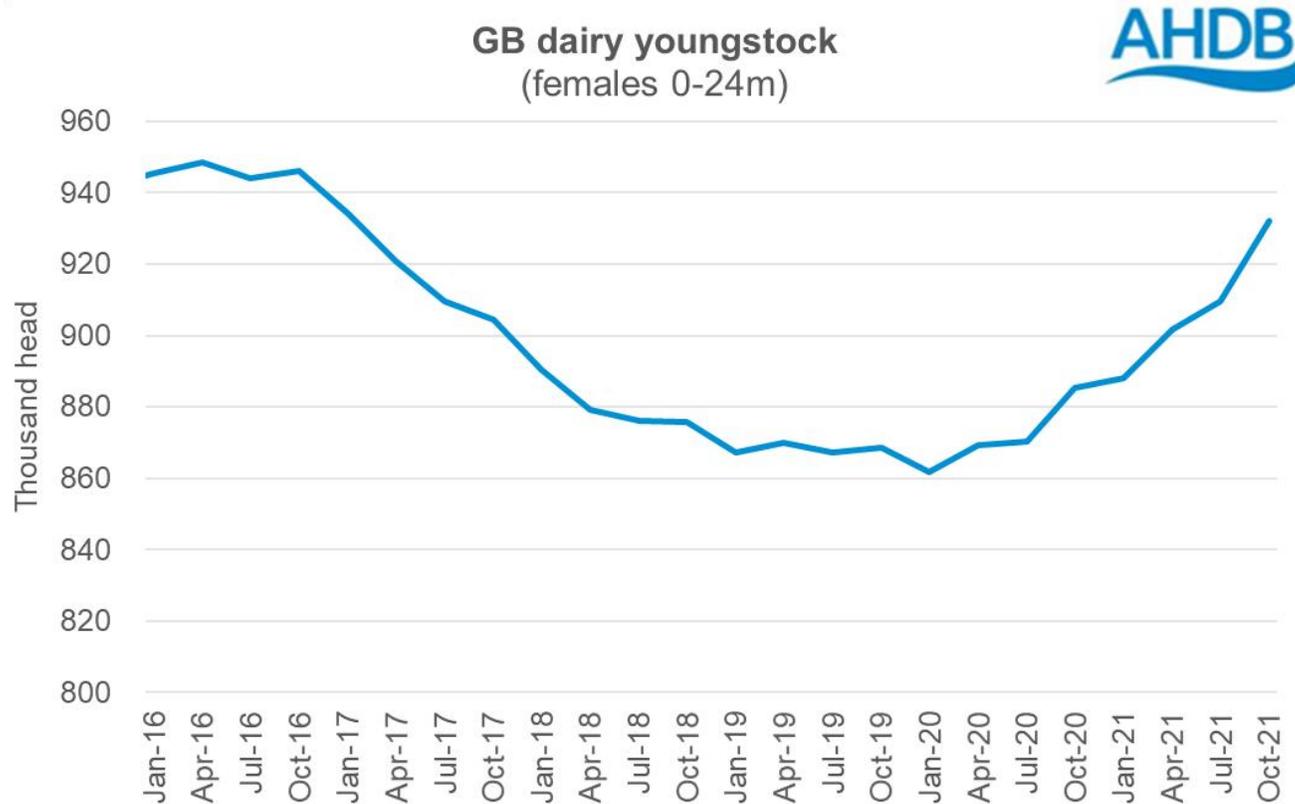
UK annual cow slaughter



Source: Defra

Note: data is for all cows so will include beef breeding cows as well as dairy cows

Will maturing youngstock trigger a clearout?



Source: BCMS

Quick calculation:

Rise in youngstock numbers

+ Rising feed costs

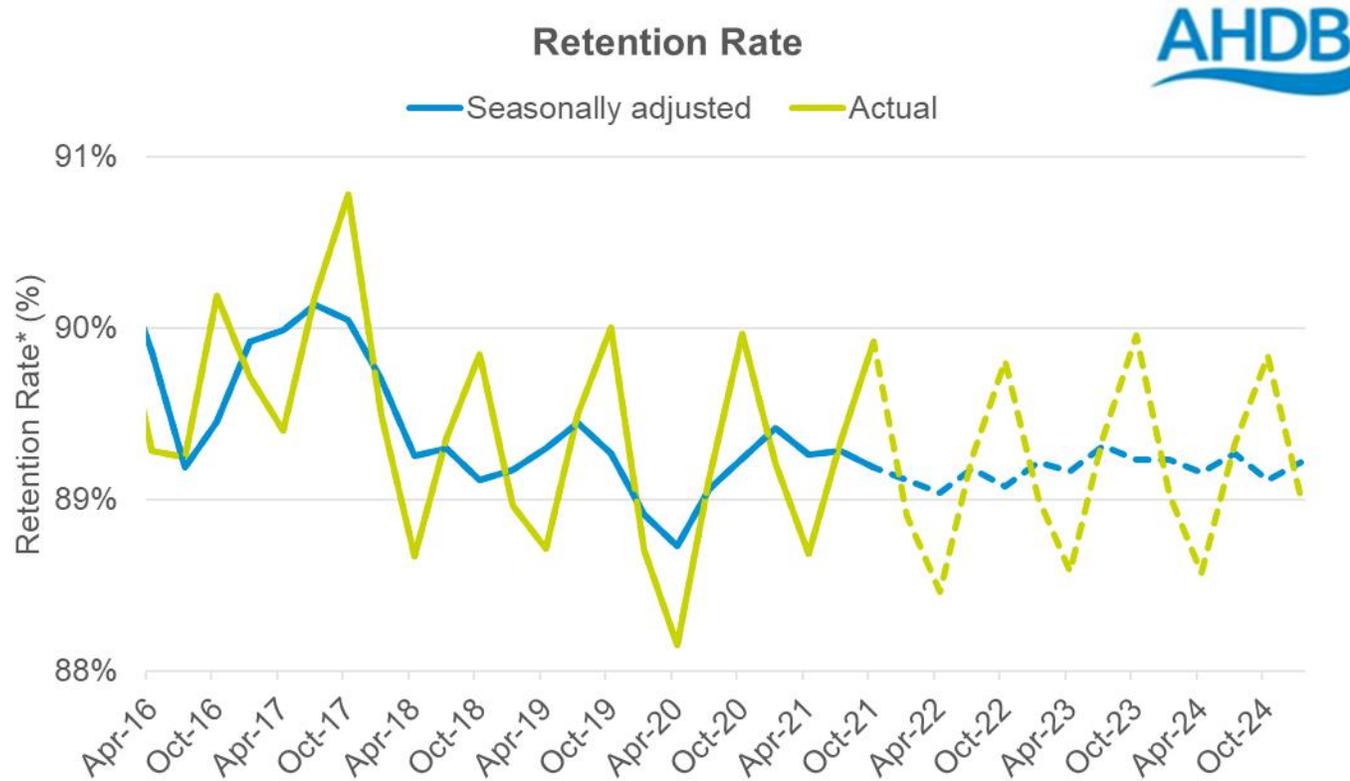
+ Record high cow prices

= Clear out time?

→ Hasn't happened yet BUT:

- Declining youngstock 2+ years ago has limited new entrants to herd
- Rising youngstock from 2020 will start coming into the main herd this year

Retention rate

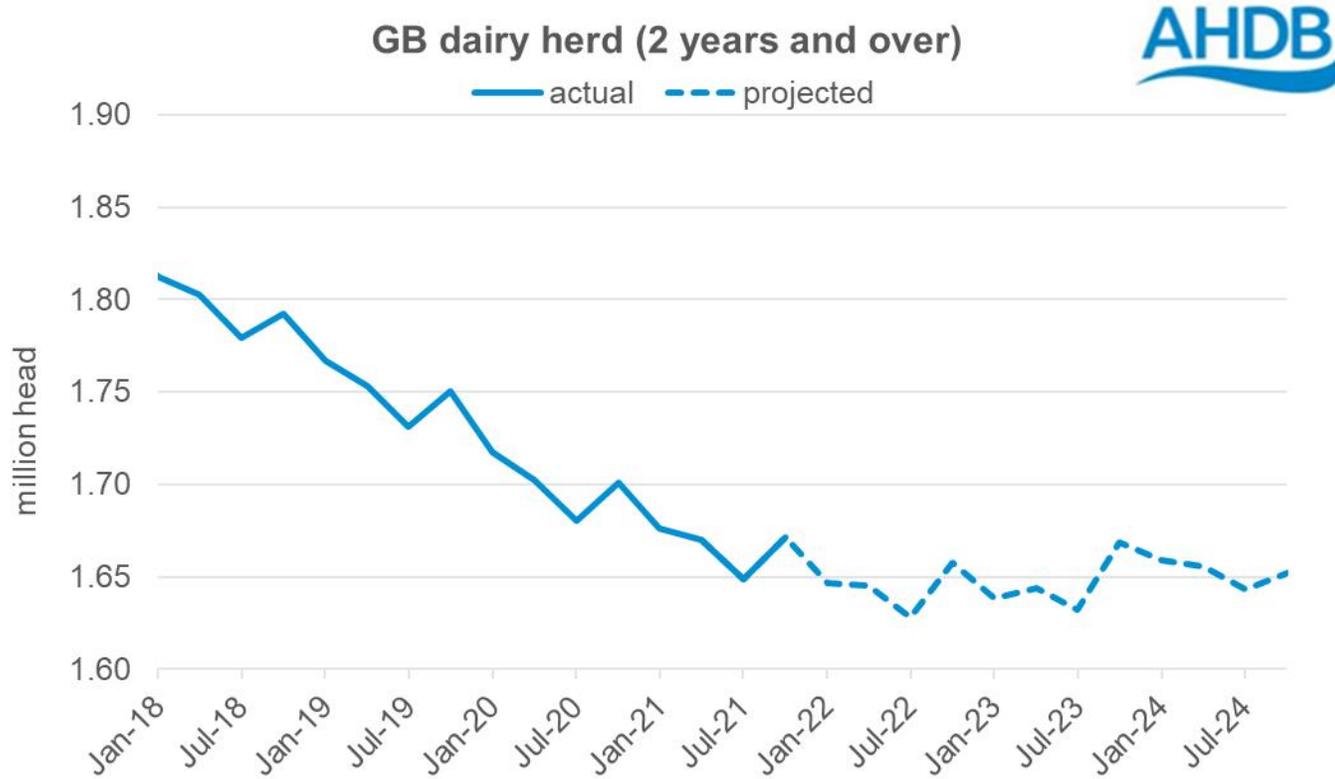


Source: BCMS, AHDB

*Seasonally adjusted 6-monthly retention rate for 2-8yrs

- Retention of cows over 6 month period
- We seasonally adjust because Oct always high and Apr always low – allows us to see trends easier
- Retention rates rose through 2020 but eased off in 2021
- Retention rates are higher for younger animals
- Increase in proportion of youngstock in the herd naturally gives an increase in overall average retention rate

Herd size expectation



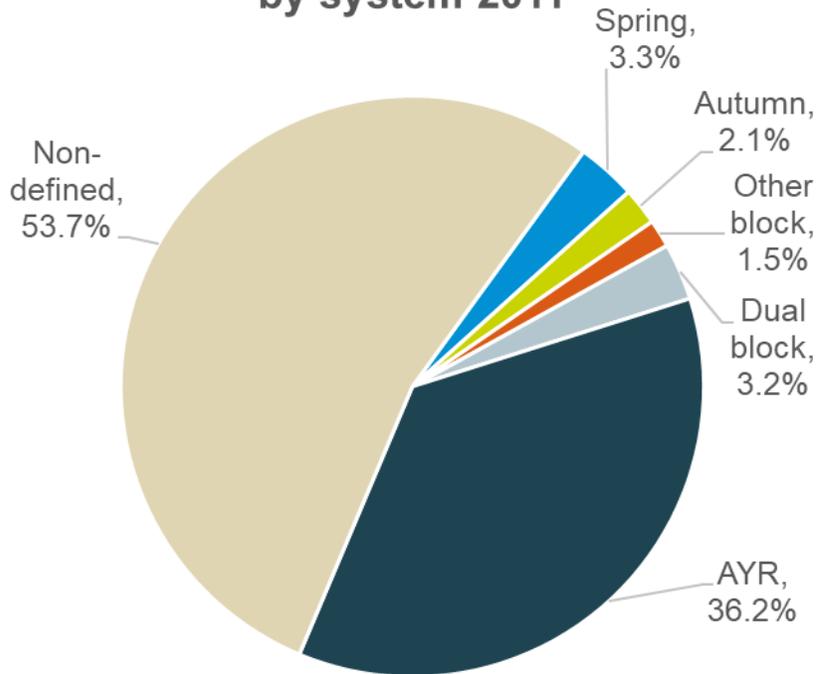
Source: BCMS, AHDB

Actuals currently available to October 2021

- AHDB projection of number of cows in the GB dairy herd
- Based on predicted youngstock numbers (from insemination data) and 3 year average retention rates
- Expectation that milking herd will be around 1.66m by Oct 2022, down 0.8% year-on-year
- Herd decline expected to flatten off due to higher youngstock numbers
- Adjusted following previous forum to include increased culling levels – but rising youngstock numbers keep pushing up the future herd

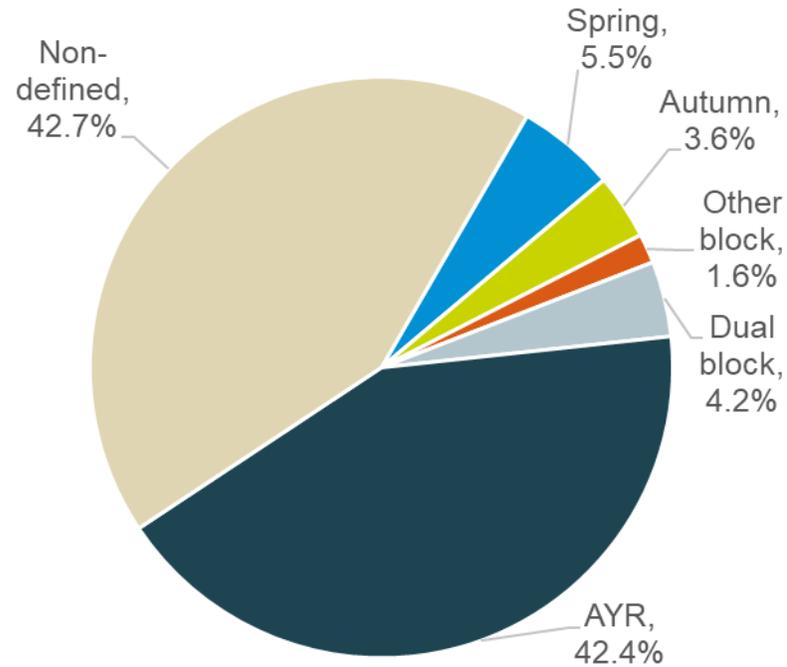
Calf registrations by calving system

Breakdown of GB dairy calf registrations by system 2011



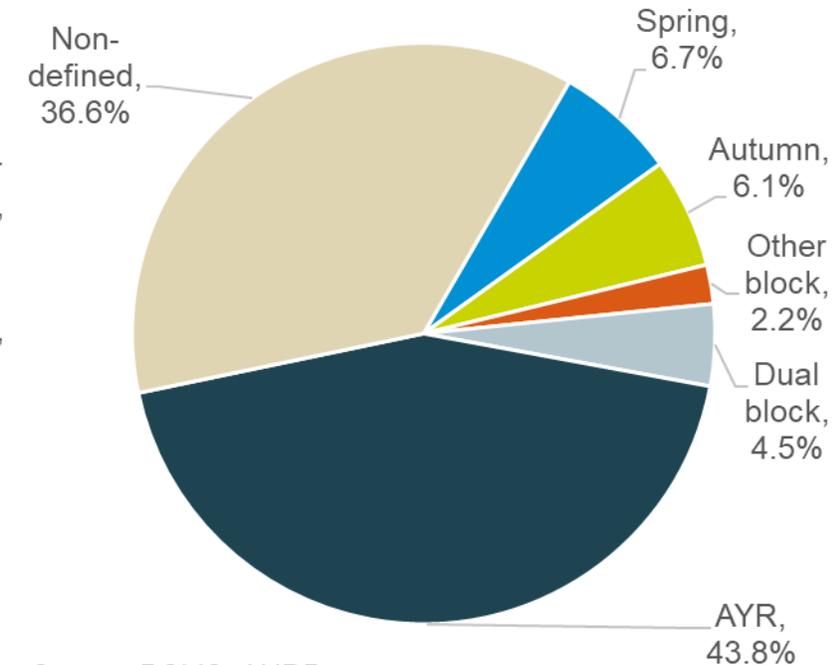
Source: BCMS, AHDB

Breakdown of GB dairy calf registrations by system 2016



Source: BCMS, AHDB

Breakdown of GB dairy calf registrations by system 2020



Source: BCMS, AHDB

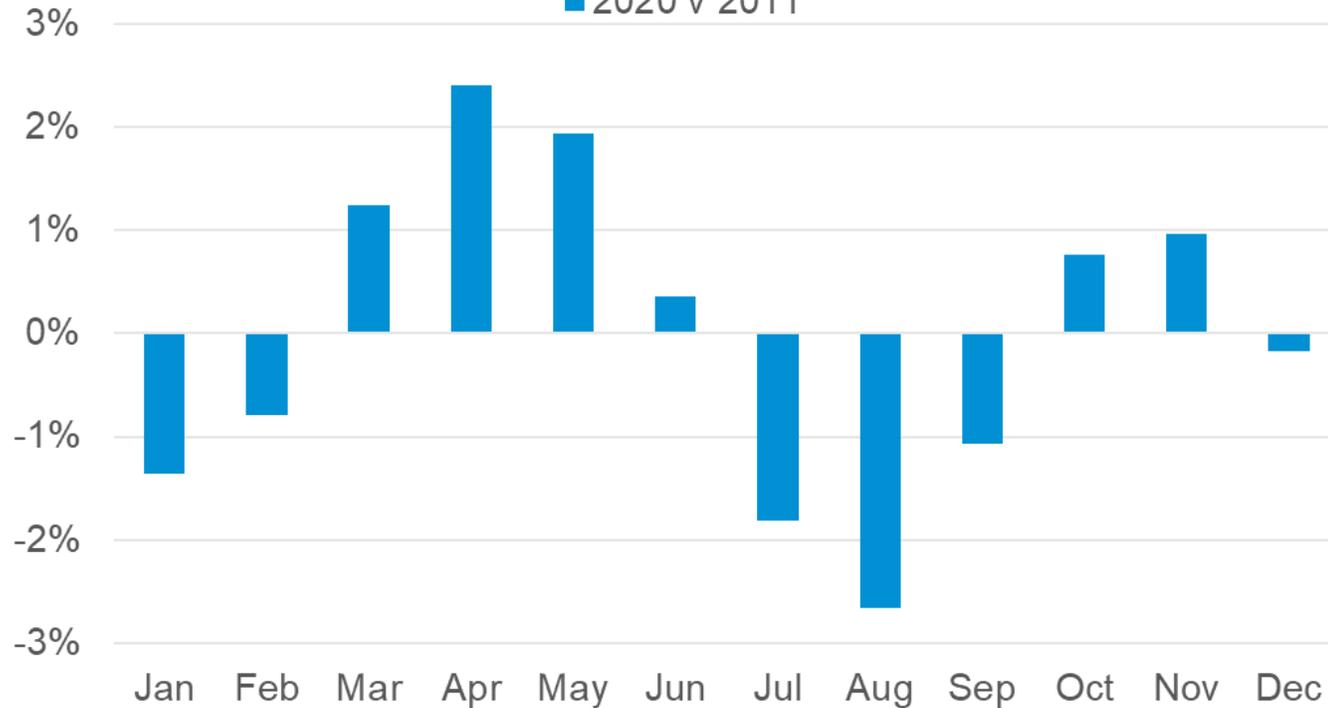
- Increased focus on calving patterns (both block and AYR) over the last ten years

Seasonal profile of milk production



Net impact of changing calving patterns on GB milk production

■ 2020 v 2011



Source: BCMS, AHDB

- Block calving has increased seasonality
- Trough has moved from Oct/Nov to summer
- Autumn is now flatter, instead of low
- Peak is a little higher

02 March 2022

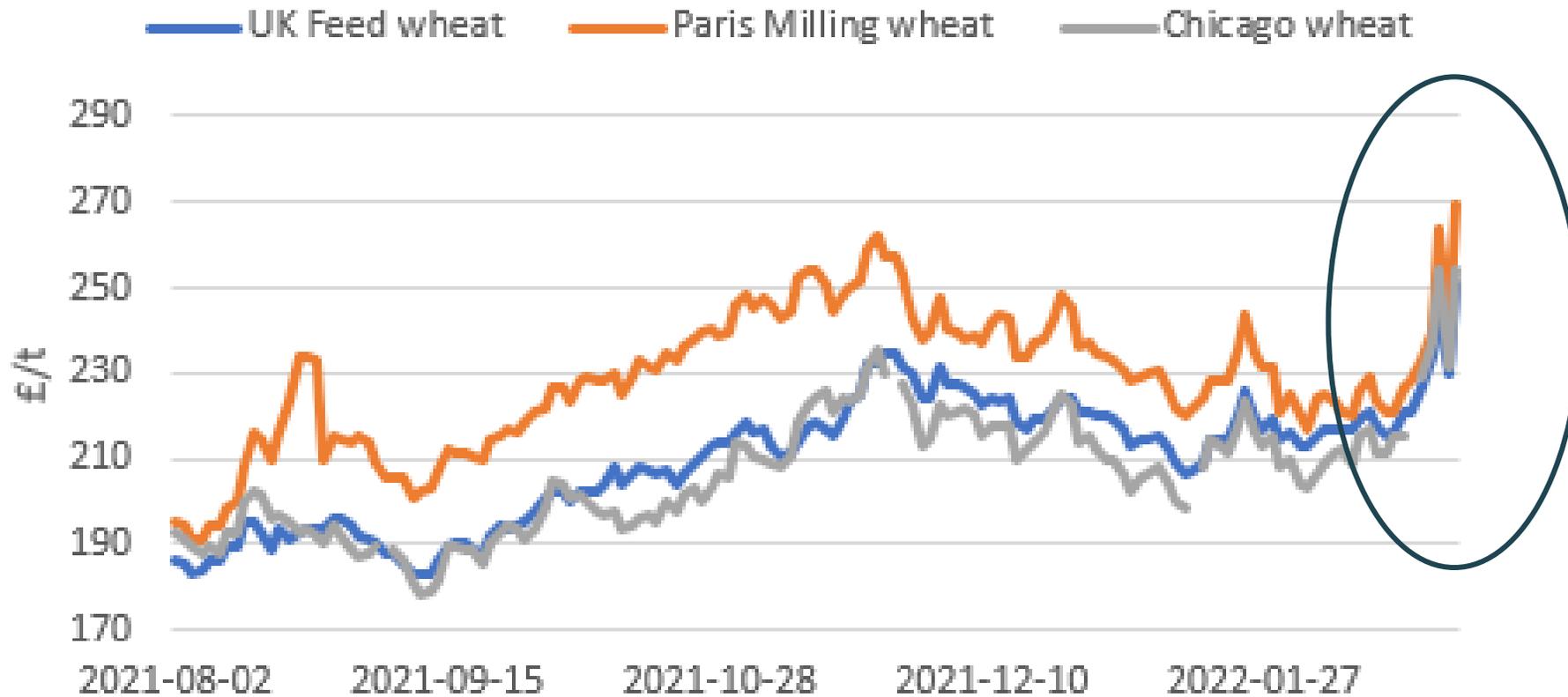
Feed market update: where are prices heading?

Vikki Campbell, Senior Market Specialists Manager



Nearby contracts at record highs

Nearby contracts hitting record highs

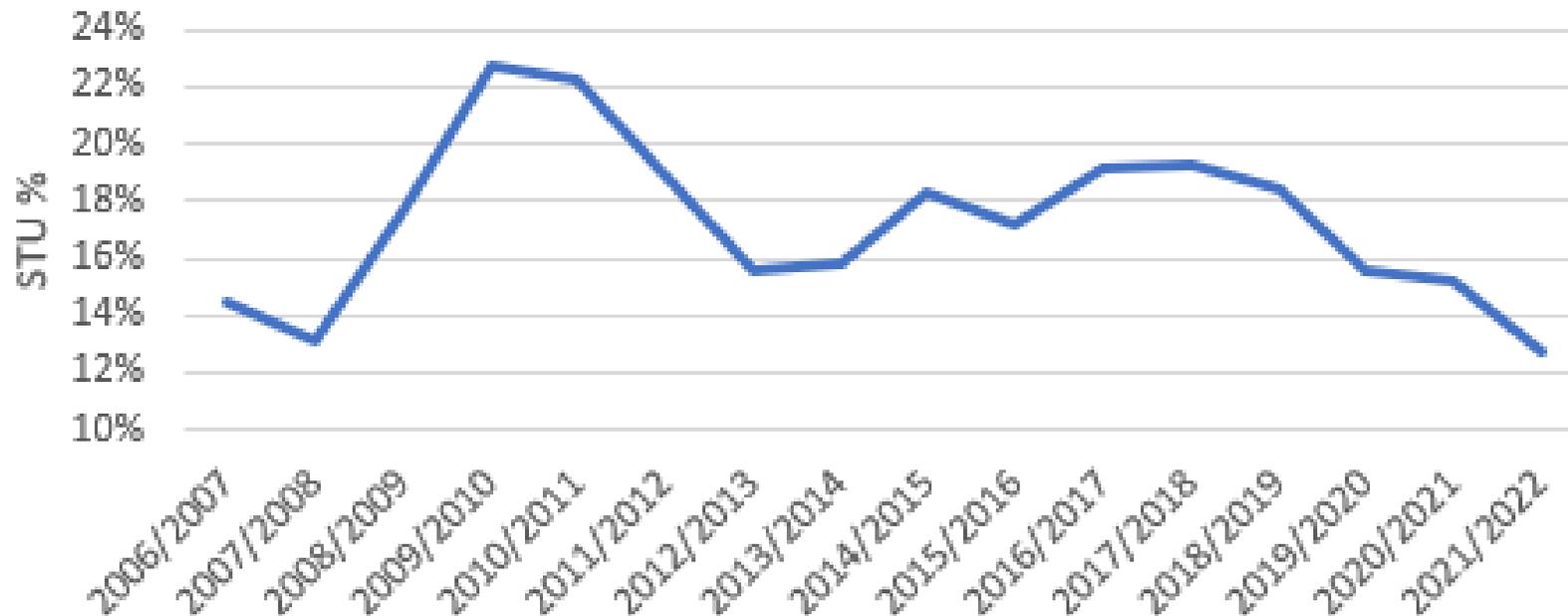


- Nearby prices soaring to record highs on Russian invasion of Ukraine
- Exacerbating already tight global supply
- Volatility set to remain while conflict ensues

Source: CME, ICE, Euronext

A very tight global outlook for wheat

Global STU of major exporters* tightest for at least 16 seasons



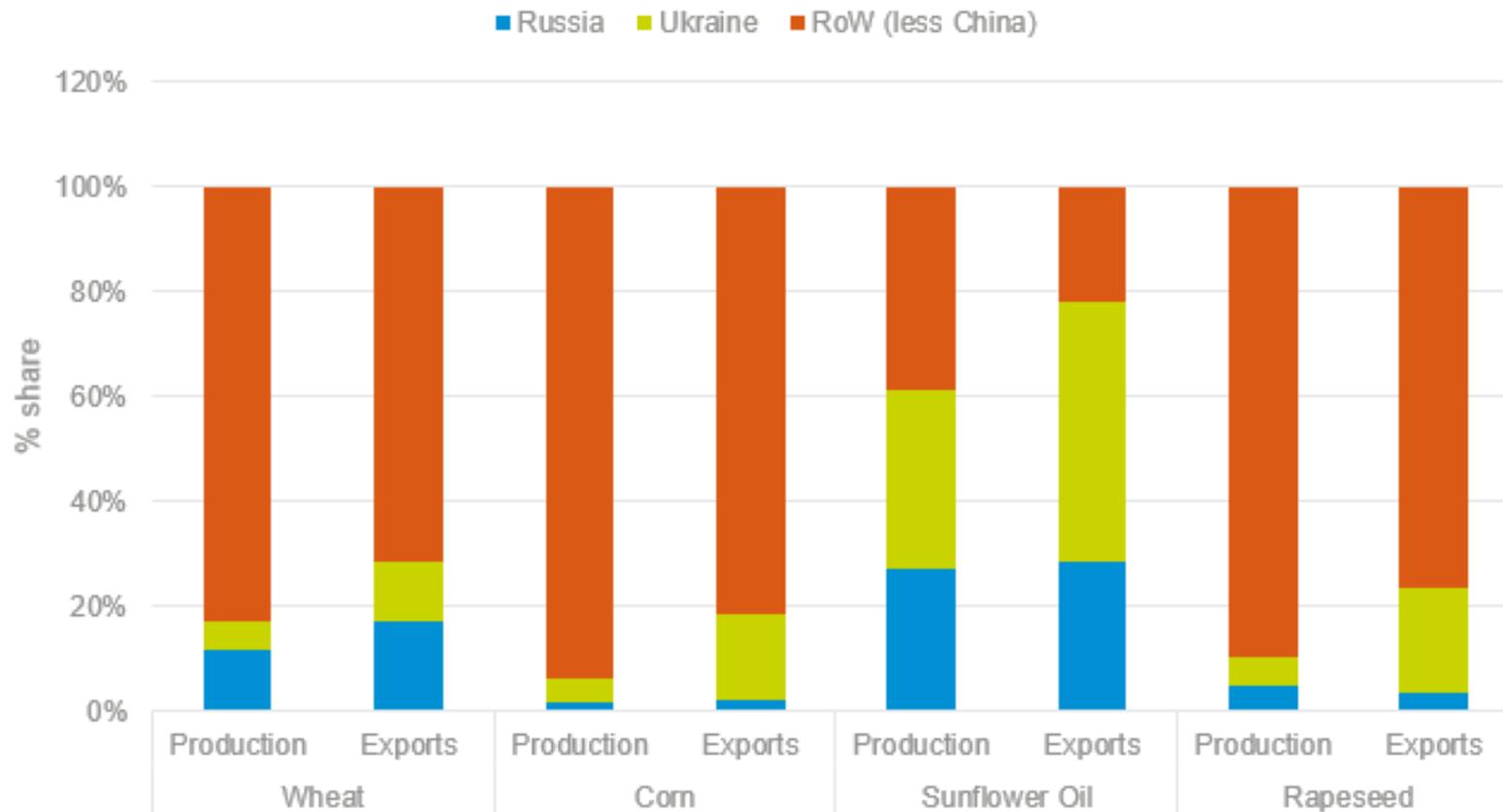
- Even prior to Russian invasion of Ukraine, STU ratio tightest for over 16 years
- Global exporters harvest weather hampered in 2021
- What is the impact of largely reducing the exports of two of the major exporters?

* Argentina, Australia, Canada, EU, Kazakhstan, Russia, Ukraine, US

Source: USDA

The impact of restricted exports from the Black Sea

Black Sea share of global production and exports - 2021/22 MY 



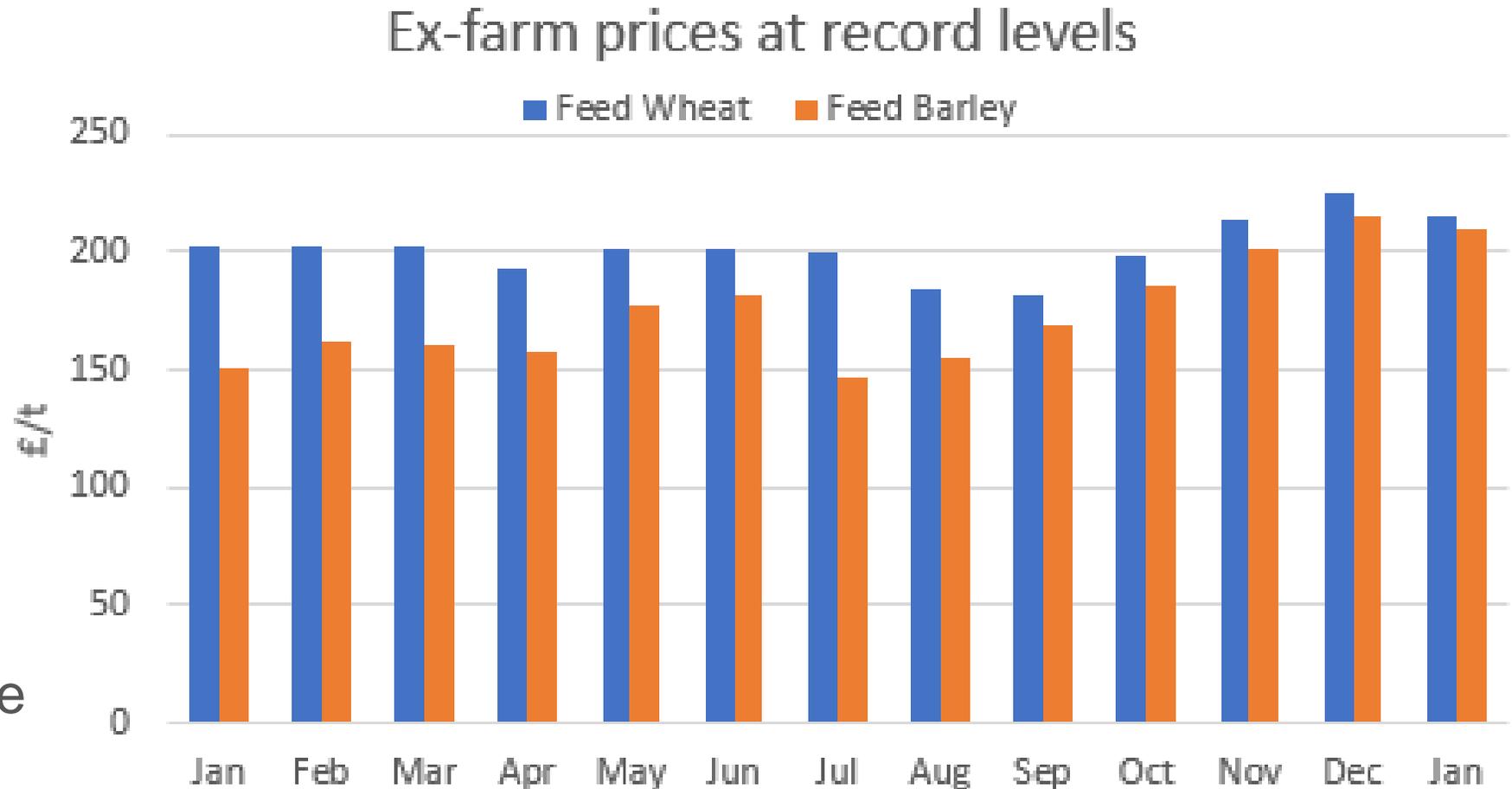
- So far this season (Jul-Feb 21st), Ukraine has already exported 18.5Mt* wheat (77% of USDA projection) and 19.8Mt* corn (59% of USDA projection)
- Between Jul-Dec, Ukraine had exported 87% (2.7Mt)** of USDA projected rapeseed exports
- Over the same period, 39% (2.6Mt)** of the USDA projected Ukrainian sun oil exports had been shipped

* UkrAgroConsult

** State Customs Committee of the Ukraine/I.H.S Markits

Ex-farm price levels look set to remain supported

- While easing back from December, ex-farm prices still at record highs
- Reduced liquidity and increased demand supporting prices
- Milling wheat to specification become harder to source



Source: AHDB corn returns

Jan '20 - Jan '21

New crop fundamentals more bearish, but conflict throws much to the wind



- EU wheat area growing on the year
- While rain needed, crop condition still “very good”



- Black Sea area remains a large question mark. Winter wheat areas are up, but capacity stopped/restricted on labour/inputs for spring fieldwork



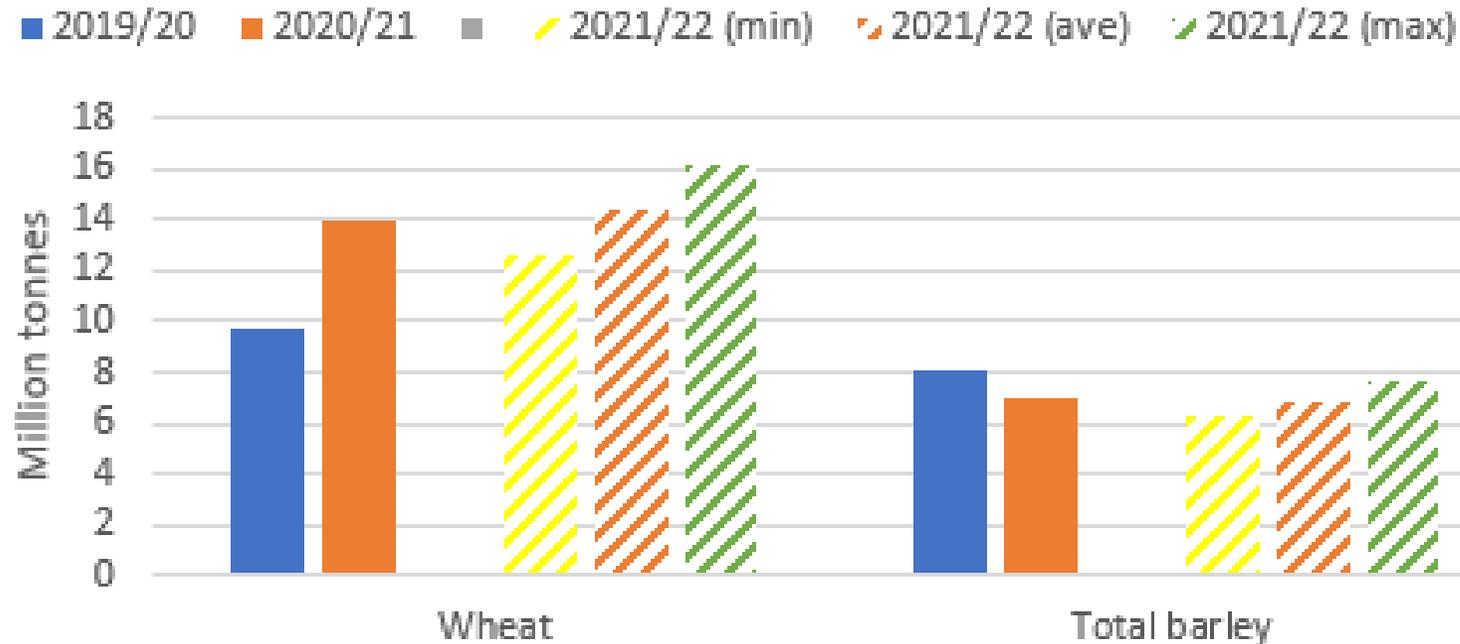
- US wheat area up on year
- Some key growing states have dryness concerns



- First look at area 26 April
- Strong potential for improvement on 20/21 drought riddled crop

For UK, production could tick up for wheat if average yields achieved

Slight increase in wheat area, but barley area  down a touch



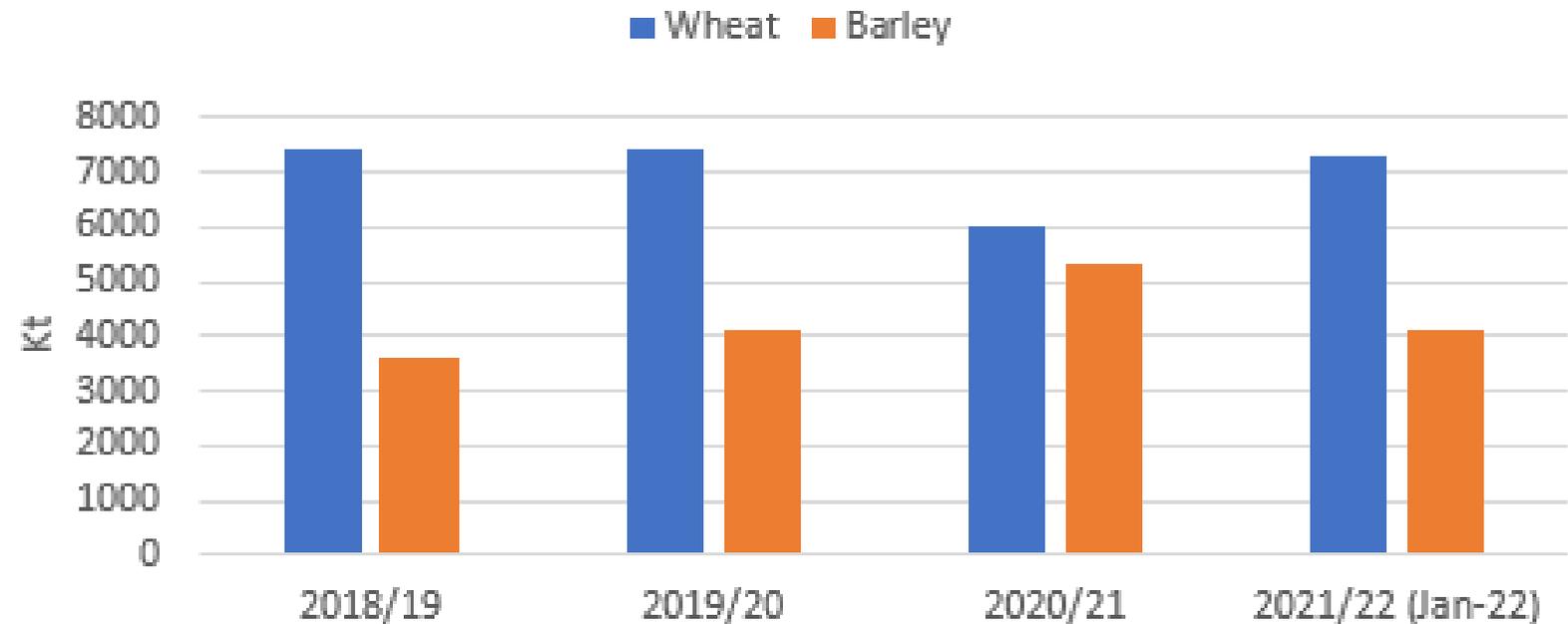
- Rising input costs have potential to impact yields
- Potential for reduction in application rates, or late delivery – missing scheduled spraying campaigns

Source: Defra, AHDB, Andersons
Production estimates based on min/max/average yields from past 5 seasons

Animal feed wheat use rebounds, while opening stocks tightest this century

- However, opening stocks for wheat tightest this century
- Competing demand from bioethanol. Second plant coming on line Q1 2022
- Further support given to prices

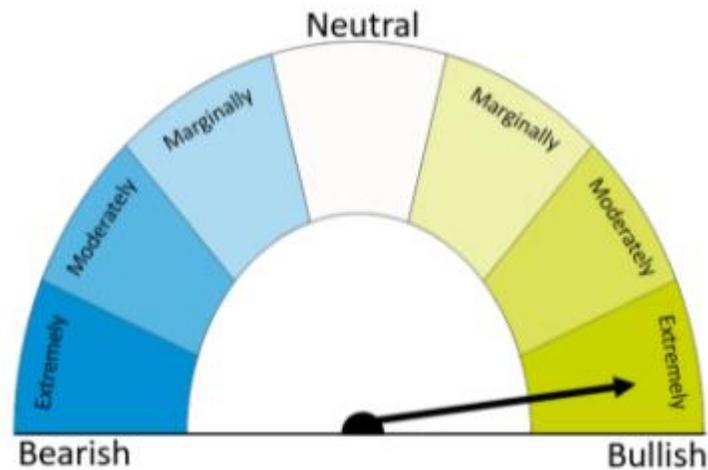
Wheat use for animal feed to recover this year, while barley back to 19/20 levels



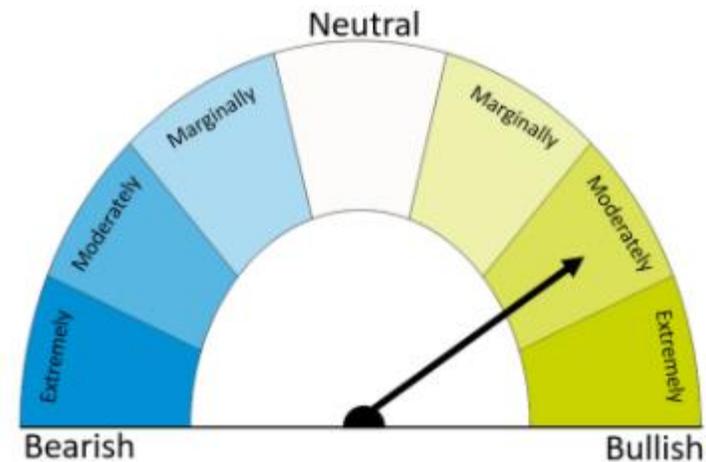
Source: AHDB

Where now?

Wheat



Barley



- Two major exporters disrupted is surging prices in a tight supply arena
- LT - ?? Much depends on how long the Ukr conflict lasts, with production risks to other players

- Barley discount diminishing as wheat becomes more expensive to source
- However, will follow wheat prices. Global tightness means there is not much slack for barley to pick up demand

Oilseeds – market drivers

Rapeseed - 2021/22 tight S&D for EU



Record South American production need to satisfy demand, but La Nina impacting



Russian invasion of Ukraine causing sun oil prices to soar

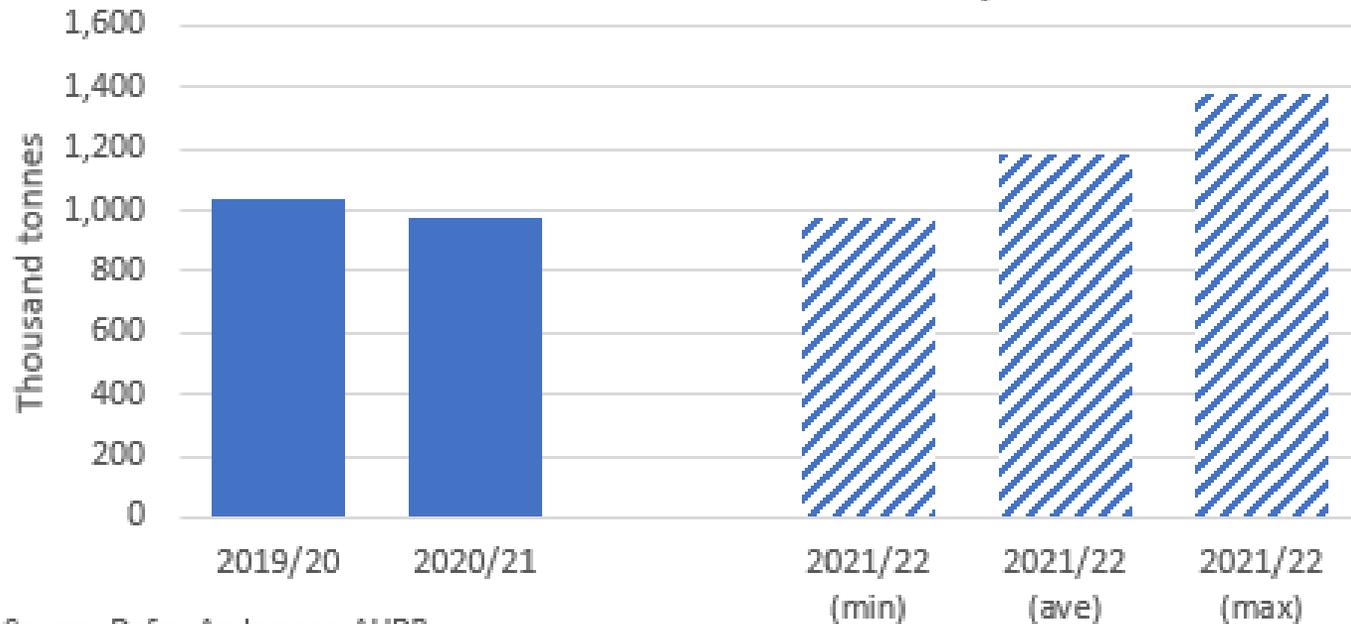


Export restrictions causing palm oil prices to jump



Rapeseed outlook – some easing but balance still tight

A slight uptick in UK OSR area, but still the second lowest this century

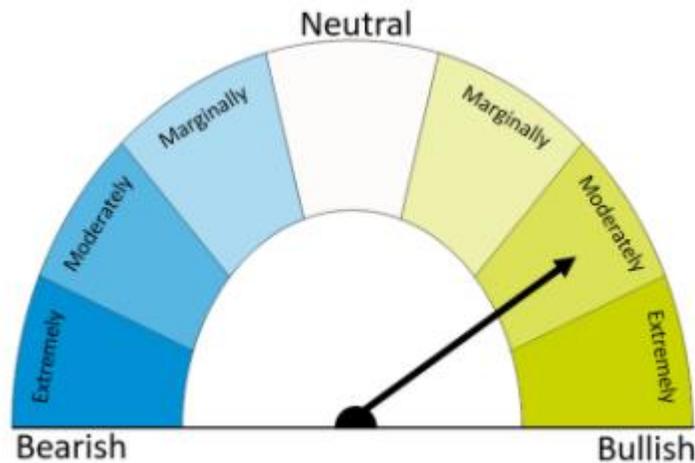


Source: Defra, Andersons, AHDB
 Production estimates using min, ave, max yields of previous 5 seasons)

- Tight supply & demand picture
- Imports up 134% on the year, 45% Ukrainian sourced
- Crush margins and volumes may ease but to remain strong

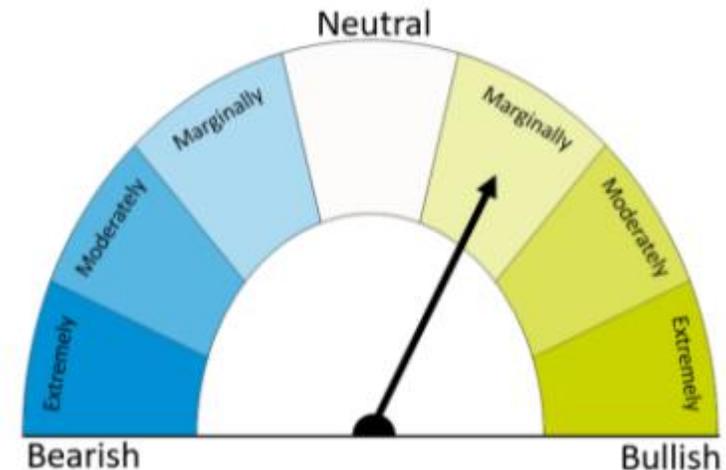
Where now?

Rapeseed



- Global supply remains tight
- While most of Ukrainian rapeseed already exported, sentiment keeps entire complex elevated
- Canadian plantings and Russian/Ukrainian conflict setting the tone long term

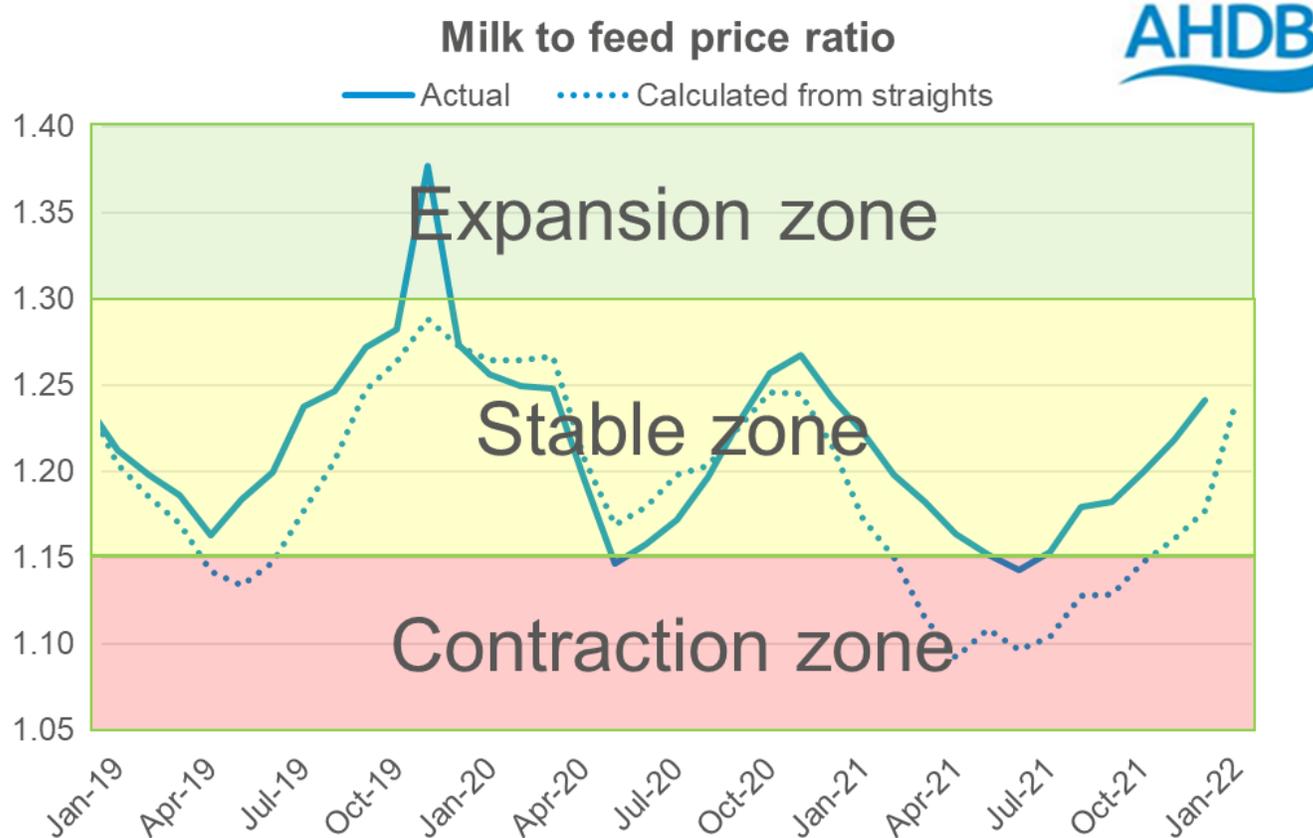
Soyabeans



- Could see further support from Black Sea conflict news
- However, more bearish tone worldwide with Brazil harvest ahead of pace and US area forecast up
- This could limit upwards price potential

Costs & Yields

Milk to (concentrate) feed price ratio

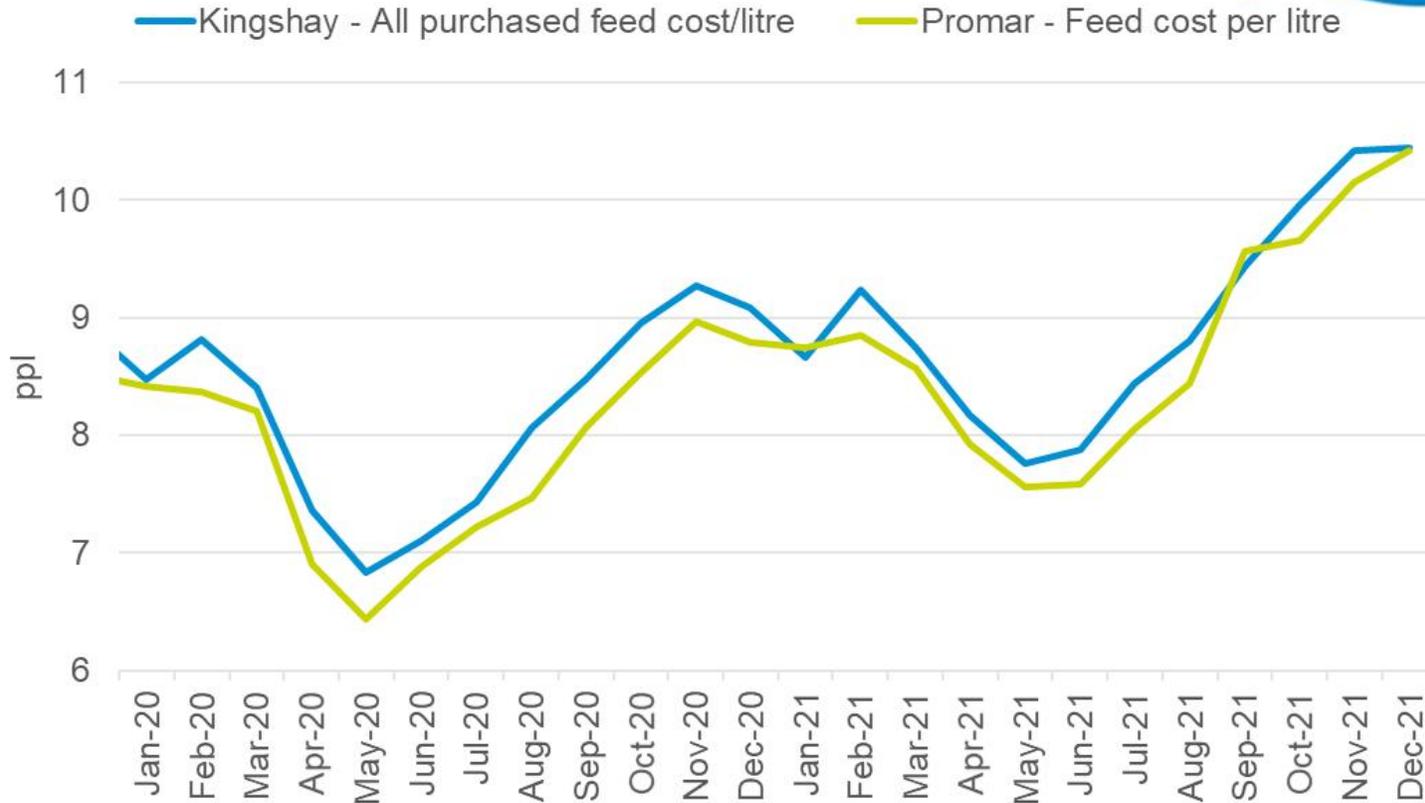


Source: Actual - Kingshay, Promar, Defra, AHDB, Daera. Calculated - AHDB, Defra

- Actual concentrate costs lower than the calculation from straights
- The efforts to keep cost increases to a minimum has kept our Milk to Feed Price Ratio in the stable zone.
- If only concentrate costs considered, we avoided a significant period inside the contraction zone.
- Recent increases in milk prices have helped lift us away from contraction zone
- But, **concentrate feed prices are only one element of rising costs** – does not take into consideration fuel, fertilise or increased cost of forage

Total feed cost per litre is highest since 2013

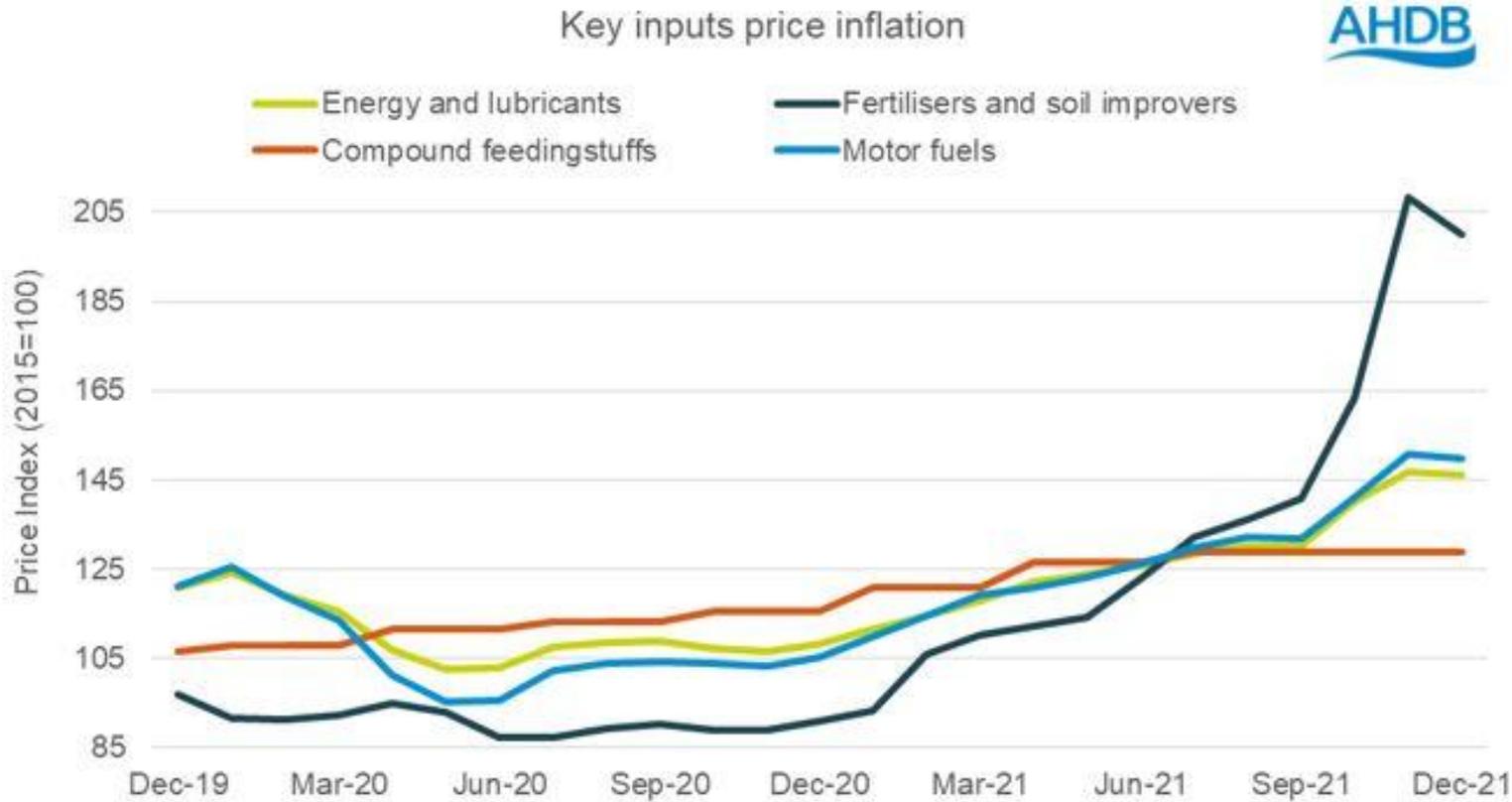
Feed costs in ppl



- Still only purchased feed costs
- Cost of producing own forage not be accounted for.

Source: Kingshay, Promar

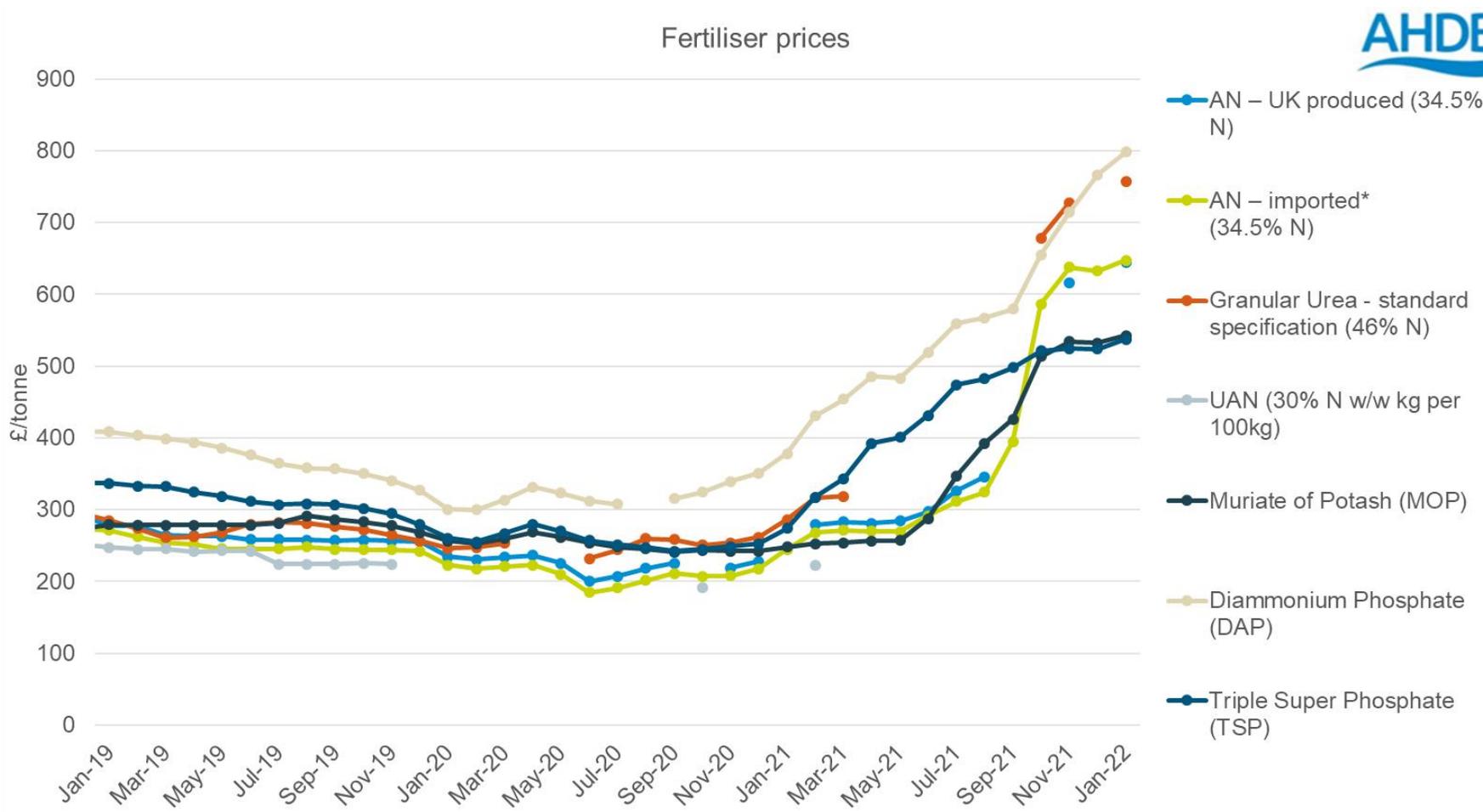
Other costs



Source: Defra

- Feed costs not the only consideration
- Energy, labour, fertilisers etc all costing more
- Latest Agricultural Price Index data shows slight dip in December **but** we expect this is a blip in a rising trend

Fertiliser prices

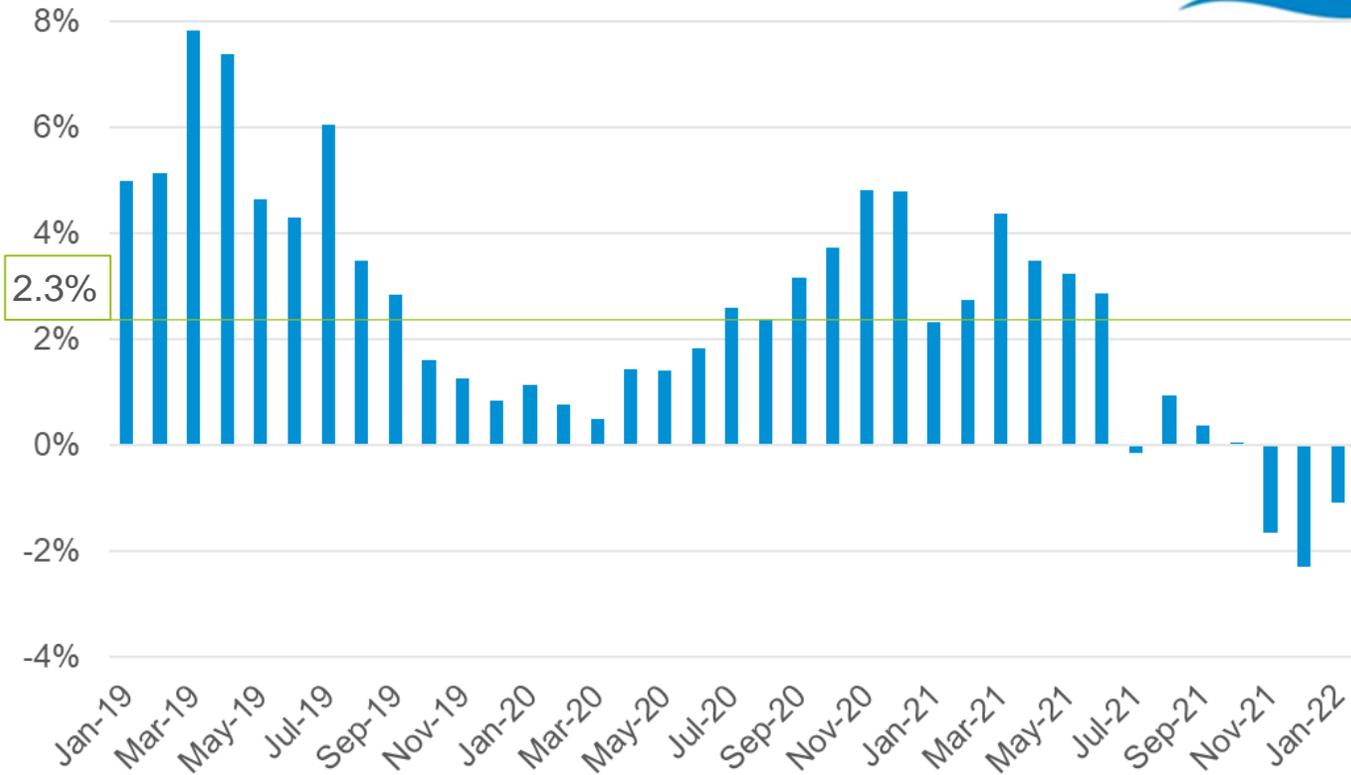


- N based fertilisers more than 2.5x more expensive than a year earlier (Jan21vJan20)
- P based fertiliser prices roughly doubled in same period

Source: AHDB

Impact on yields

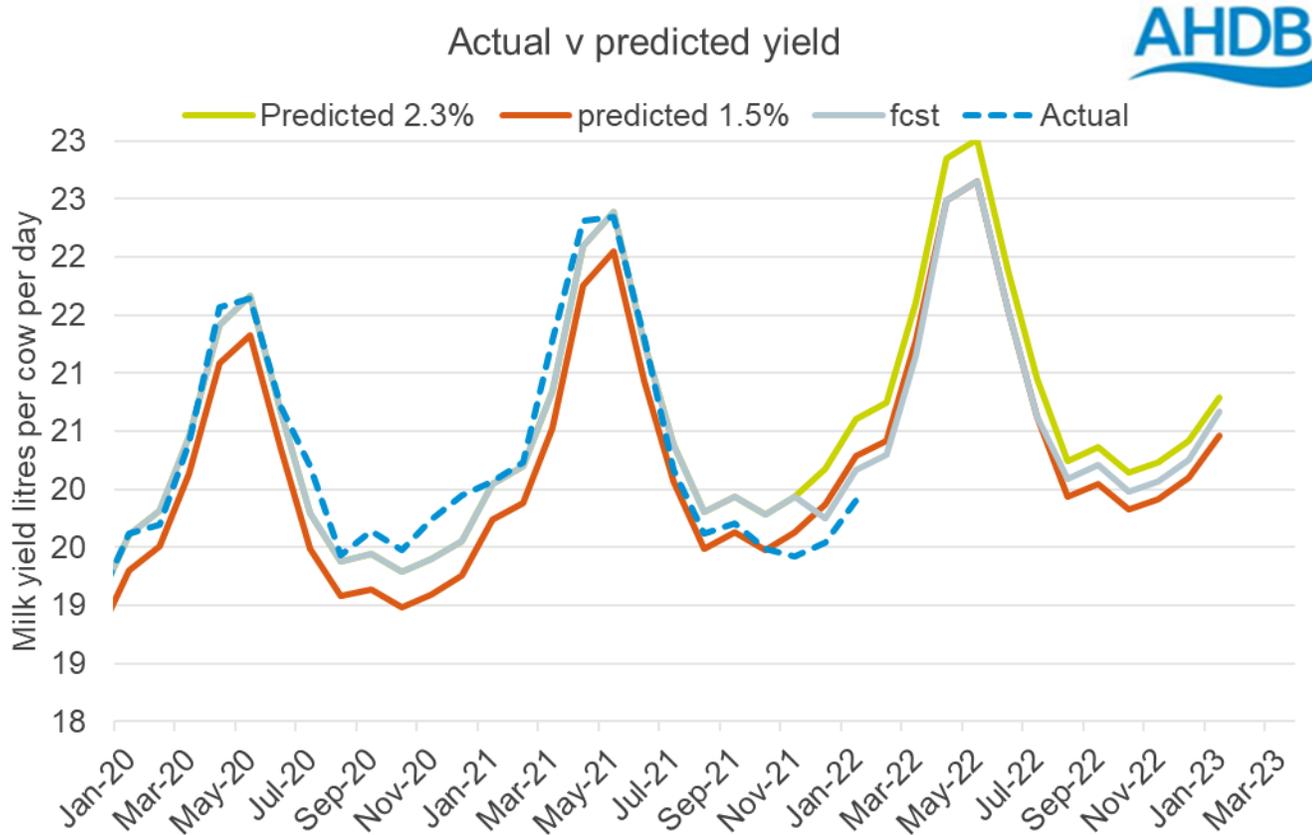
Year-on-year change in milk yields



Source: AHDB

- Yield response can be a few months delayed from price pressures
- Prior to this yield drop-off, we had been assuming 2.3% annual growth in yields
- Notable drop-off from July 2021
- Strong yields in late 2020 inflate the difference

Yield forecast

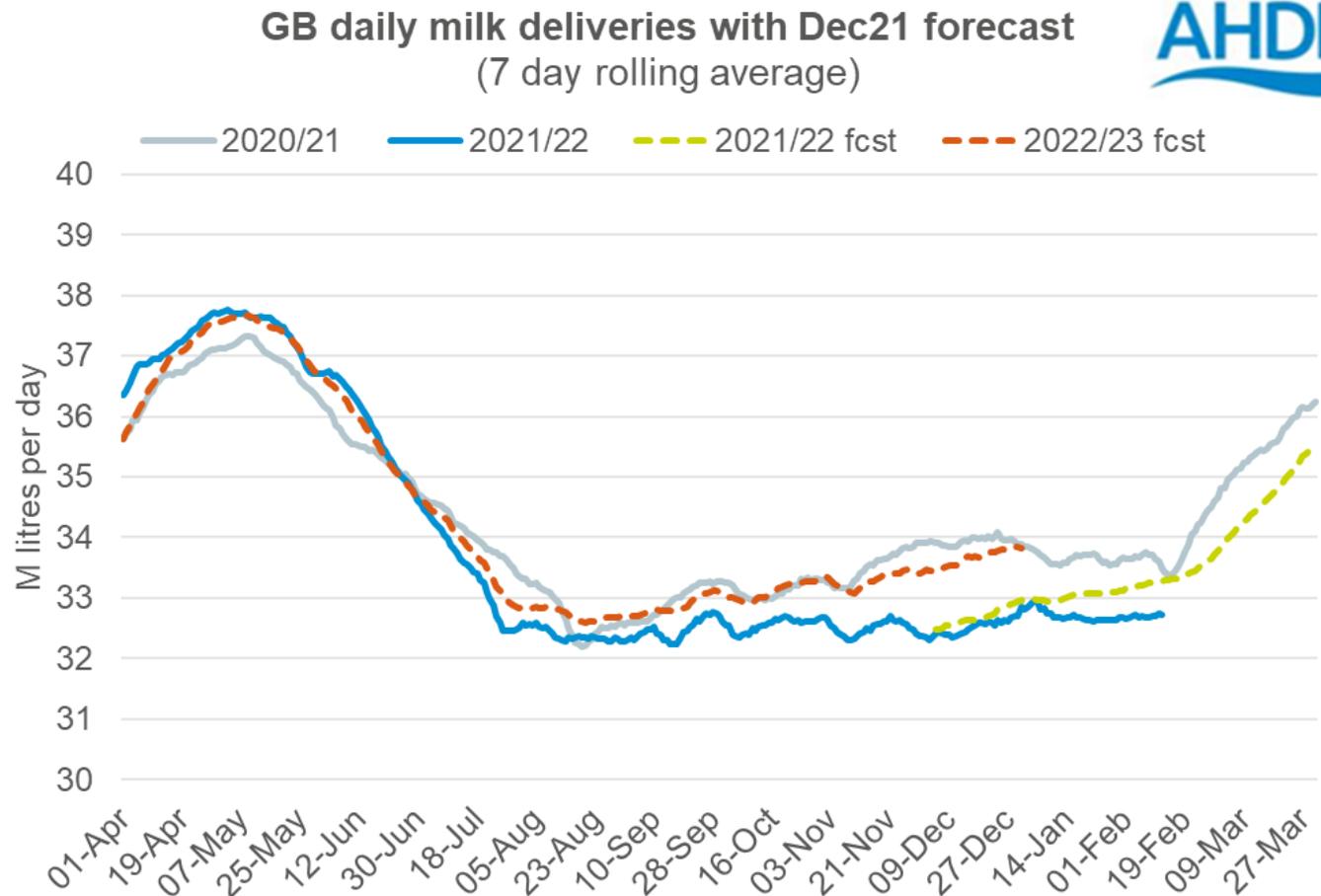


Source: BCMS, Defra, AHDB

- Historically yields were growing by 1.5% and then 2.3% year-on-year
- Yields have been low since July, believed to be due to high costs
- Yield growth expectations were lowered in December '21 forecast (grey line), but with expectation of recovery
- Actuals still running below this

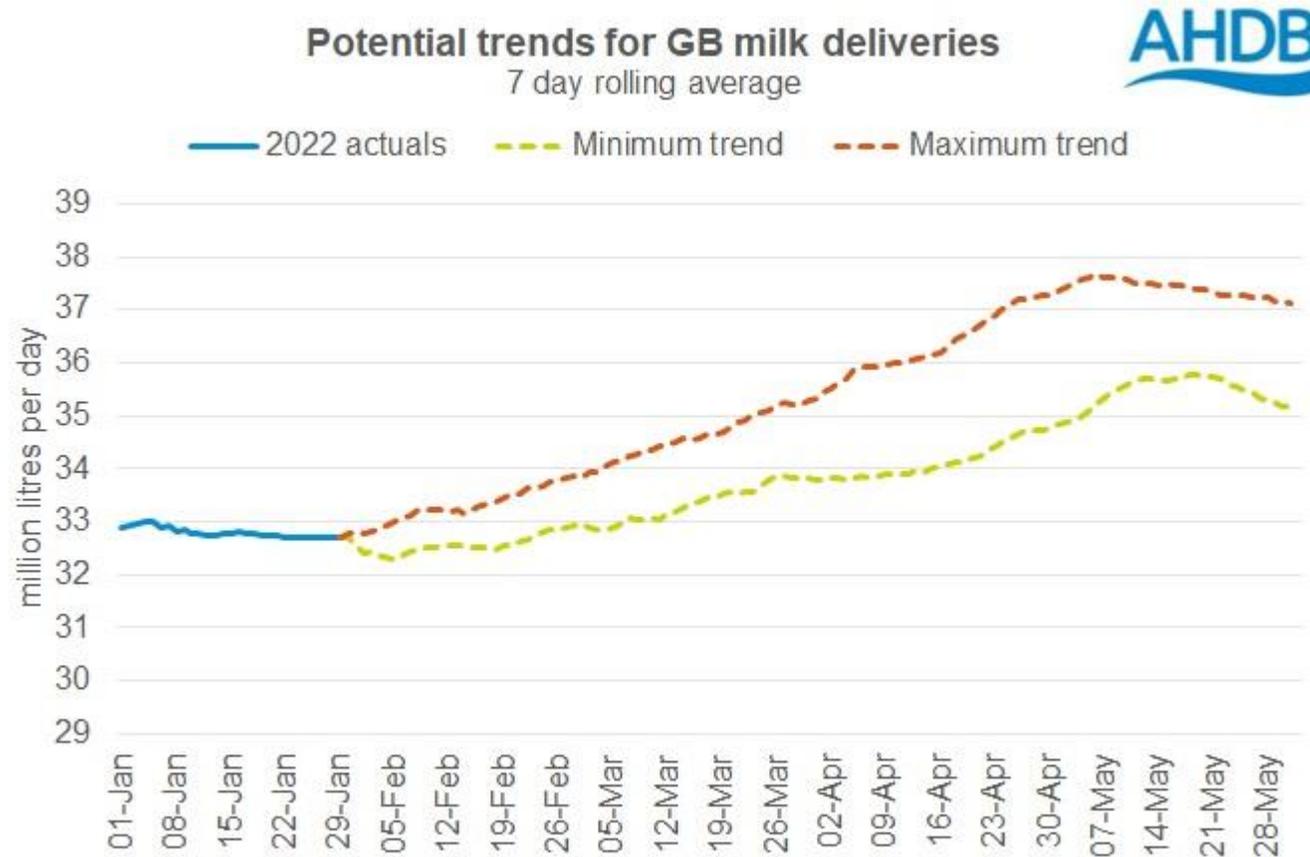
Latest milk forecast

GB milk production – Dec forecast 2022/23



- Dec forecast predicted 2021/22 to come to 12.4bn litres, down 1.2% on 2020/21
- Calendar year 2022 was projected to reach 12.5bn litres
- Expected production to start picking up from December onwards
- Actuals tracked forecast for rest of December but flattened out below forecast in January

Peak milk production

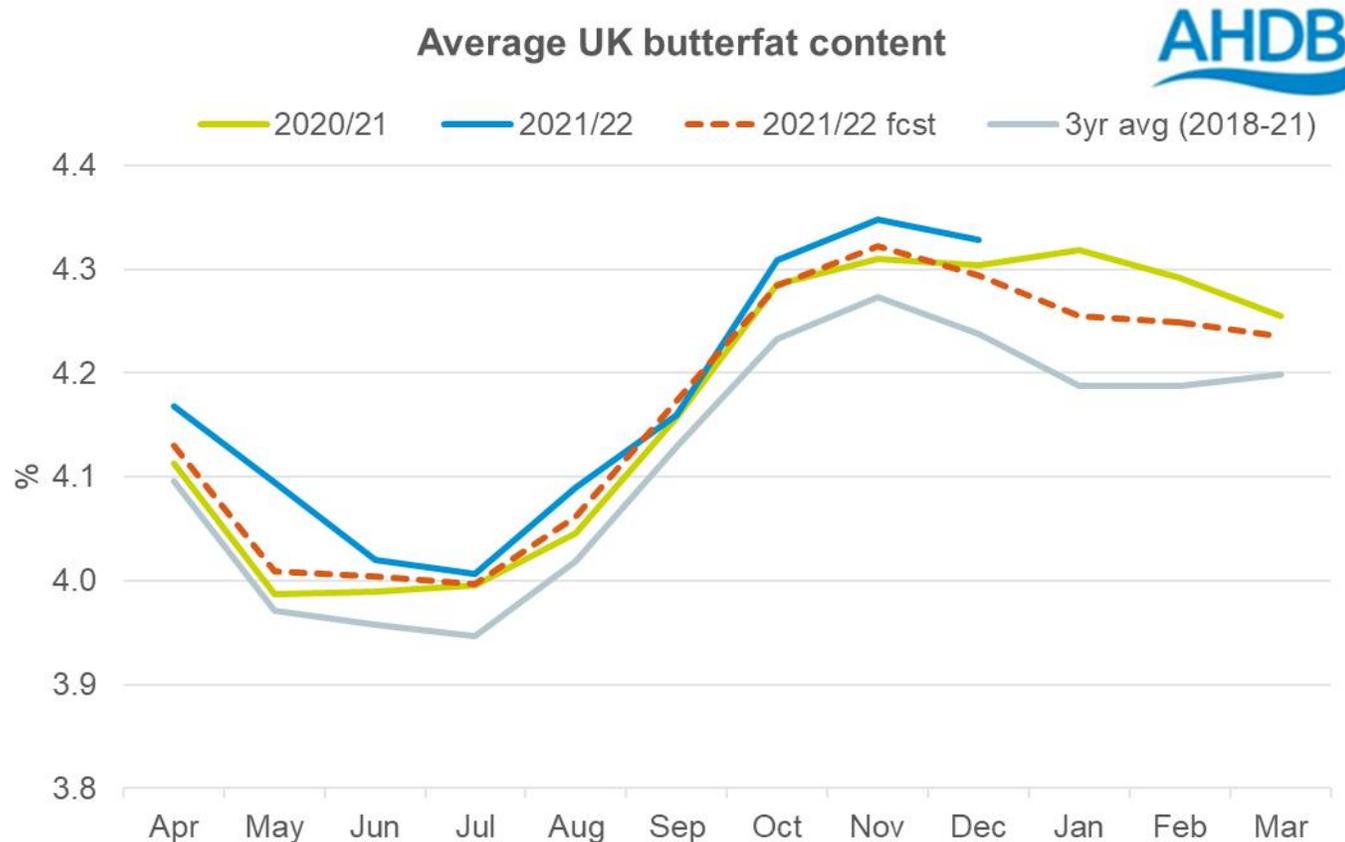


Source: AHDB

- Back in June we forecasted a 2022 peak of 38.2ml, pushing processing capacity
- Low production since then has brought expectations back
- Graph based on peak trends from the last 7 years applied to Jan production
- Dec forecast ran similar to max trend
- Continued low production brings down peak expectations

Compositional quality

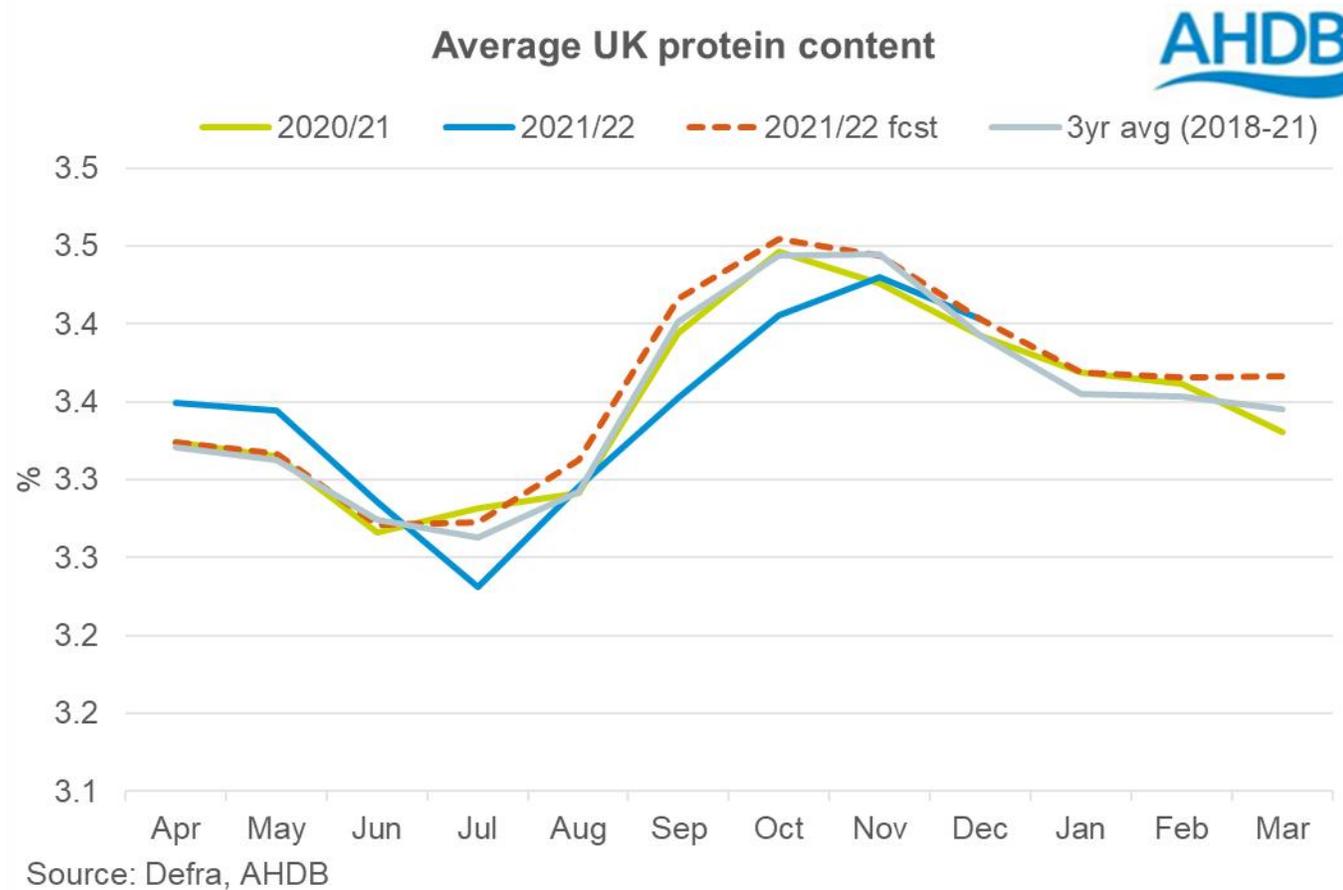
Latest butterfat vs forecast



Source: Defra, AHDB

- Butterfat content mostly above forecast so far this season
- 2021 ran high in the first part of the year then moved closer to year-ago levels
- Forecast based on improvement trend over last 5 years
- Forecast was done in April 2021

Latest protein vs forecast



- Protein levels were low through summer and autumn
- November and December back in line with year-ago levels
- Is this due to feed/costs?
- Forecast based on improvement trend over last 5 years
- Forecast was done in April 2021

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The [Dairy markets homepage](#) will signpost you to the industry data, analysis and insights from the dairy sector to help inform your business decisions. Our industry experts will guide you through the [market movements](#) and provide a clear, impartial view on what it all means.



The [latest pig prices](#), and industry essential [trade data](#), are the cornerstones of the Pork market website pages. There is also the [latest analysis and insight](#) to provide you with a clear and impartial view.



Our [trade and policy](#) resources focus on the future changes in domestic policy and trading relationships to help farmers and growers explore how these will affect their business. There is also a dedicated [Consumer and Retail Insight](#) team who look at the needs of the modern consumer as well as their attitudes towards cooking, buying and eating food.

A vibrant landscape of a green field at sunset. The sun is low on the horizon, casting a warm glow over the scene. The sky is filled with soft, colorful clouds in shades of orange, yellow, and blue. A path of tall green grass leads from the foreground towards the horizon. In the distance, there are rolling hills and a few buildings. The overall mood is peaceful and inspiring.

**‘Inspiring our farmers, growers
and industry to succeed in a
rapidly changing world’**