

2 March 2022

# AHDB milk forecasting forum

AHDB Market Intelligence

<https://ahdb.org.uk/dairy-markets>

# Have you registered to vote?

A photograph of a man with a beard and short brown hair, wearing a dark jacket, standing in a field with cows in the background. The image is partially covered by a blue and green graphic element consisting of several curved lines.

## Shape the future of dairy

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to have your say

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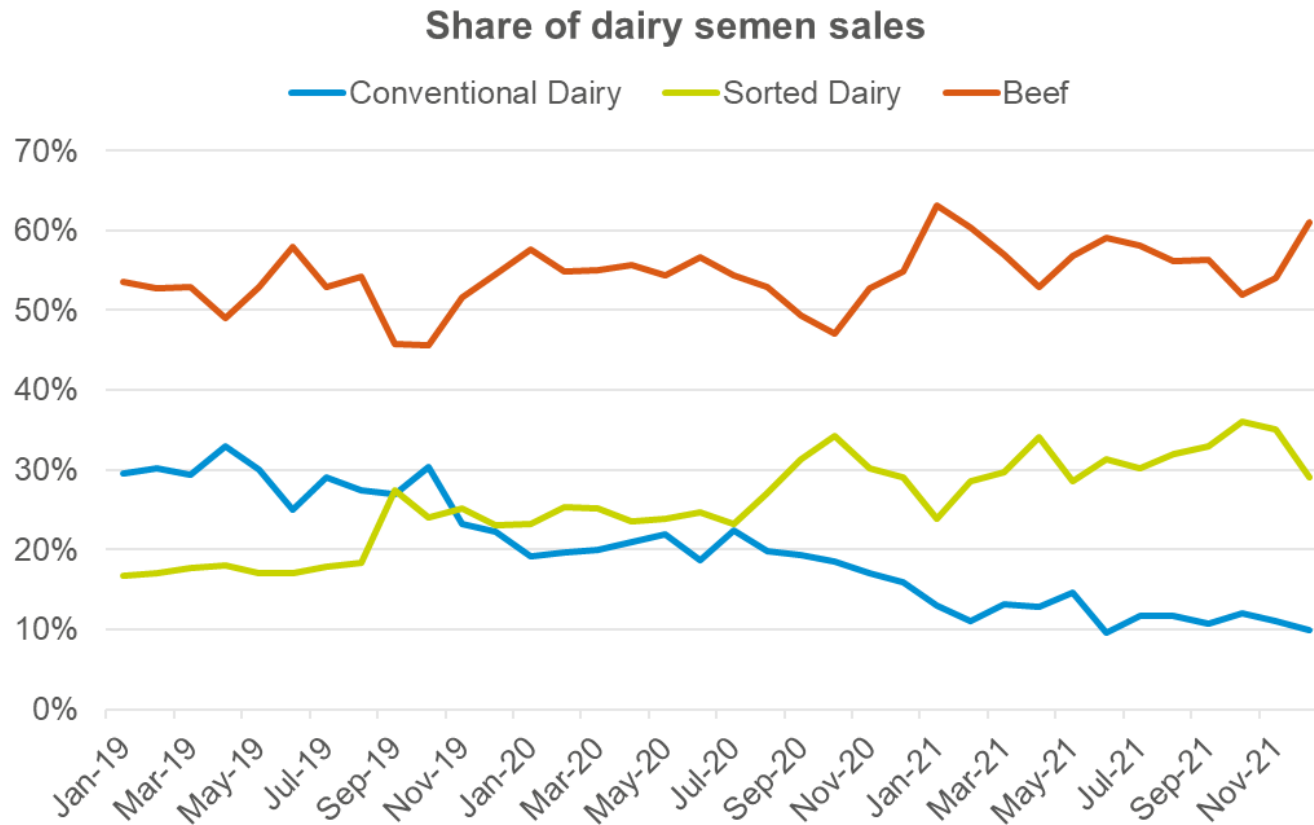
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# Contents

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

# Inseminations, calvings and herd size

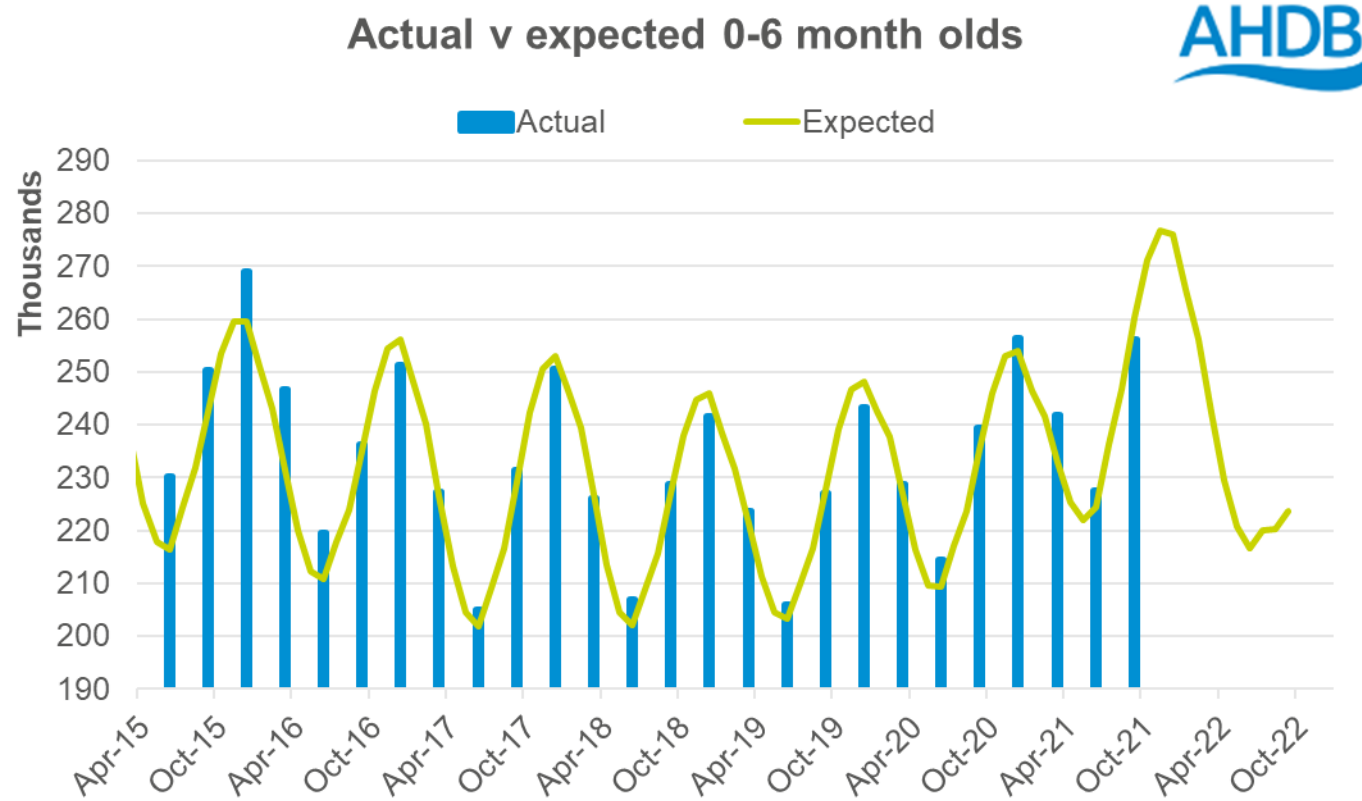
# Semen sales continue to drive replacements



Source: Genus

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

# Expected dairy replacements



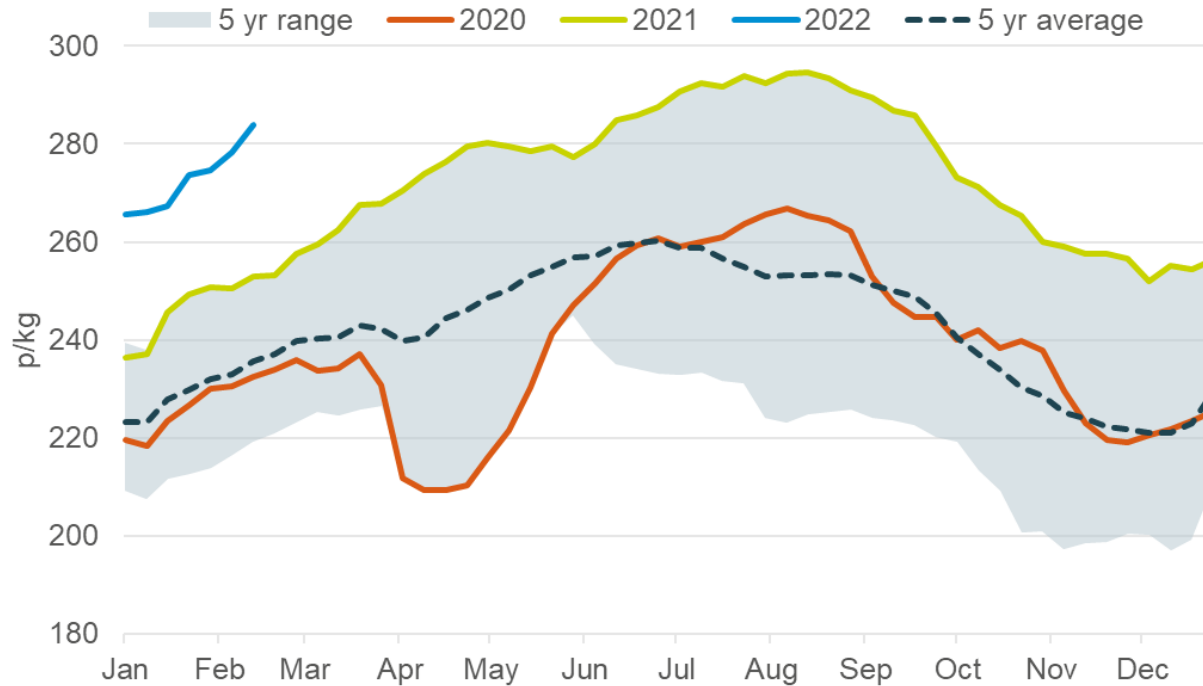
Source: AHDB, BCMS

- 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



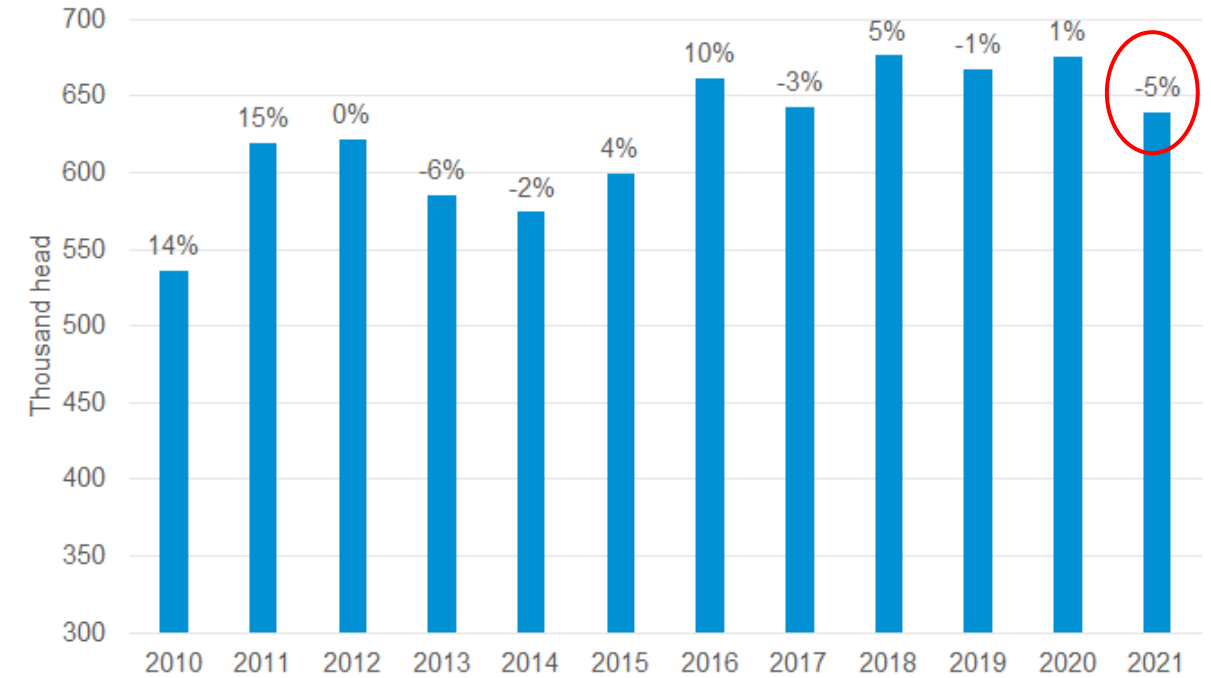
# Cow prices have been high but cow slaughter low

GB overall average deadweight cow price



Source: AHDB

UK annual cow slaughter

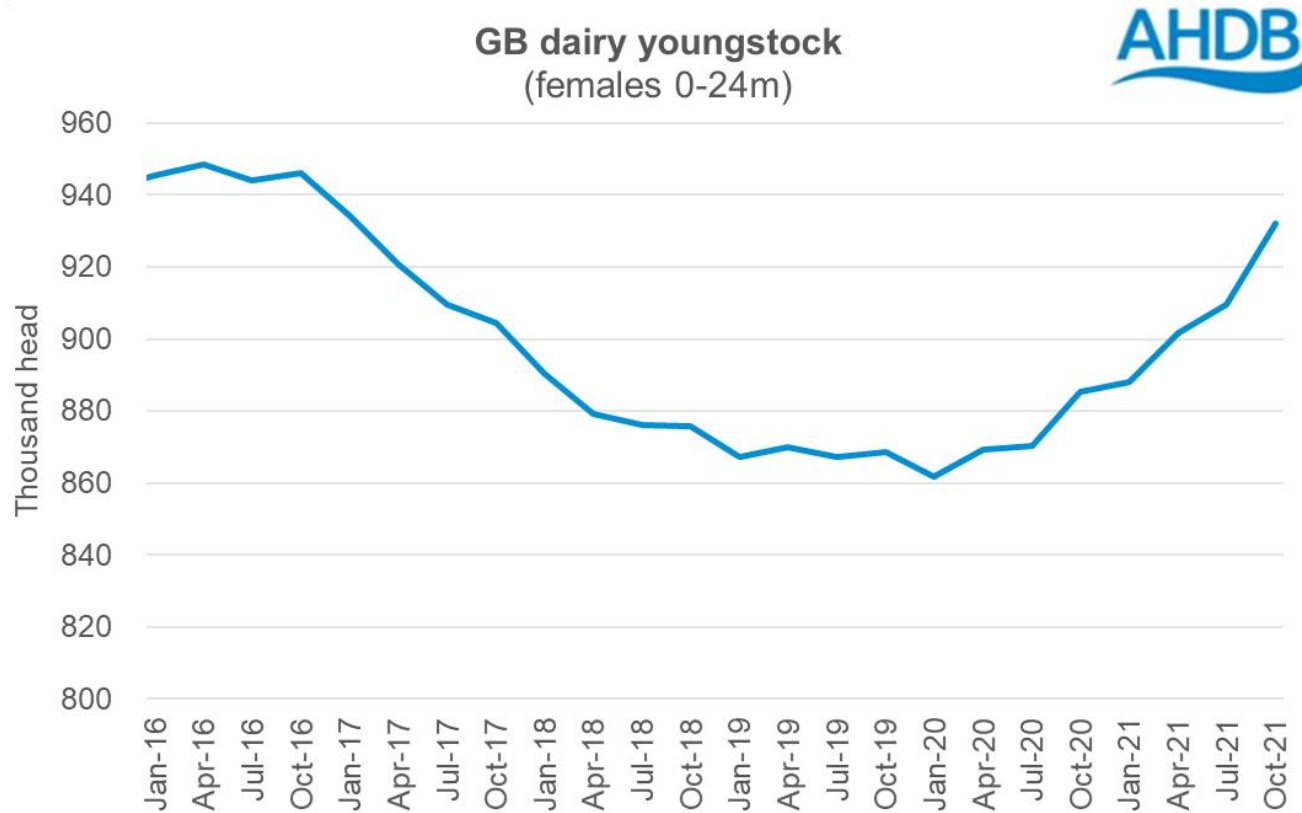


Source: Defra

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

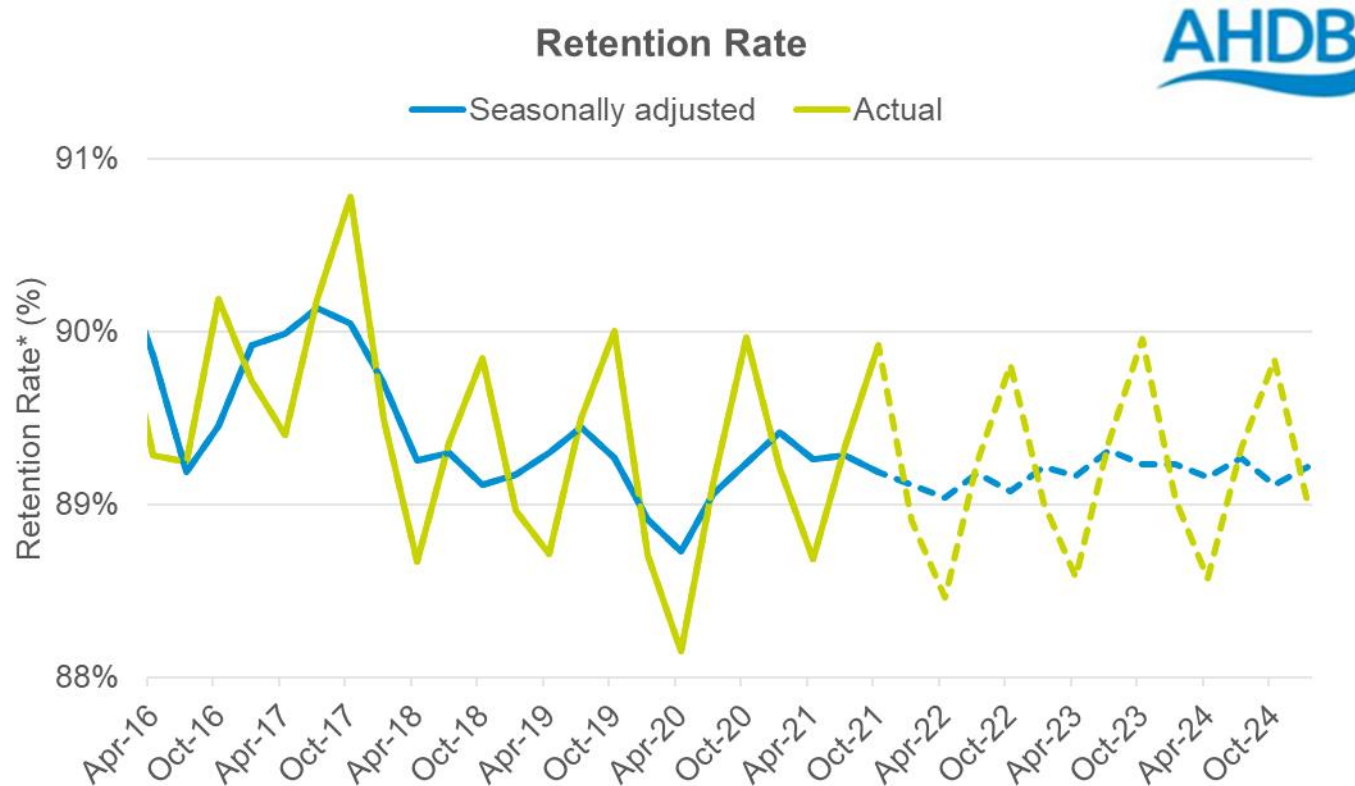
Quick calculation:

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

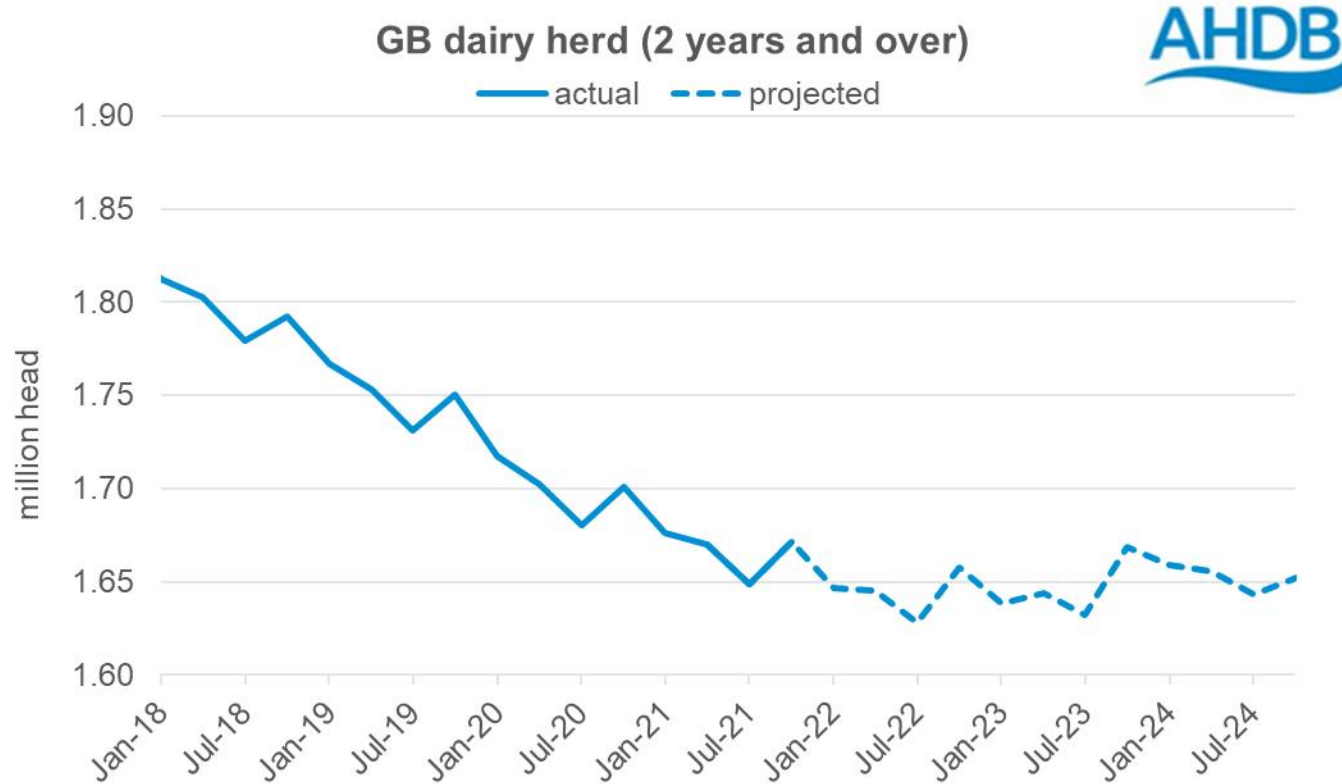


Source: BCMS, AHDB

\*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



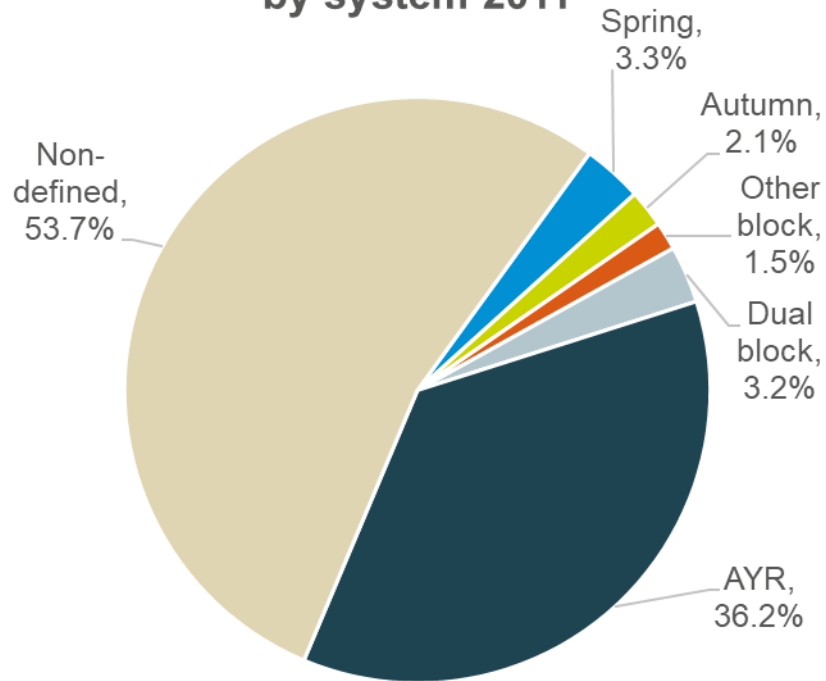
Source: BCMS, AHDB

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

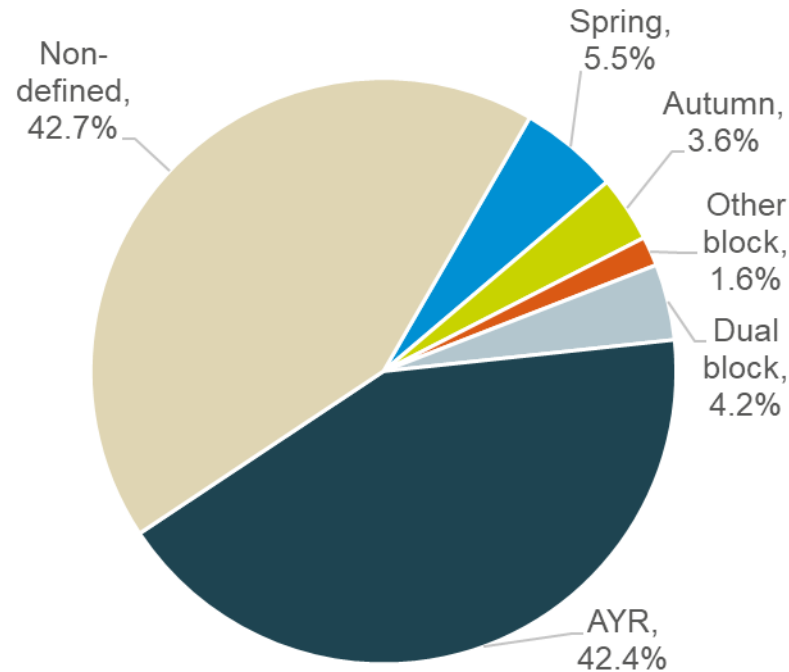
# Calf registrations by calving system

Breakdown of GB dairy calf registrations by system 2011



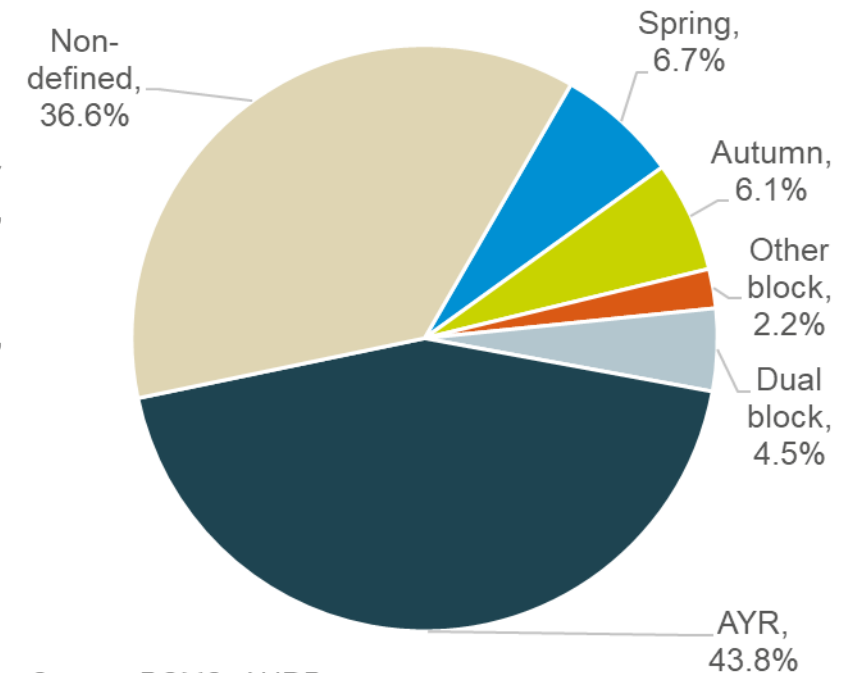
Source: BCMS, AHDB

Breakdown of GB dairy calf registrations by system 2016



Source: BCMS, AHDB

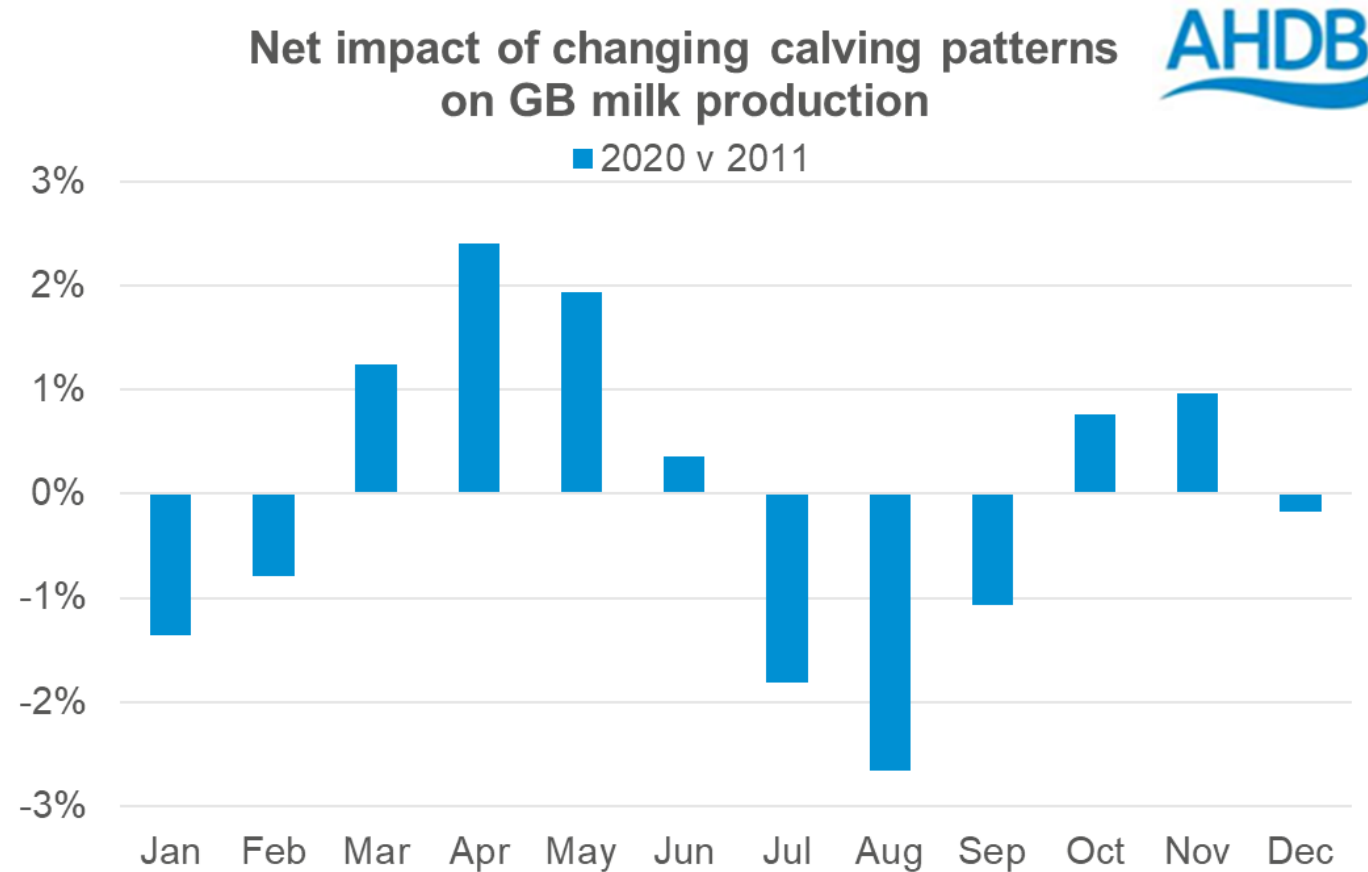
Breakdown of GB dairy calf registrations by system 2020



Source: BCMS, AHDB

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

# Seasonal profile of milk production



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

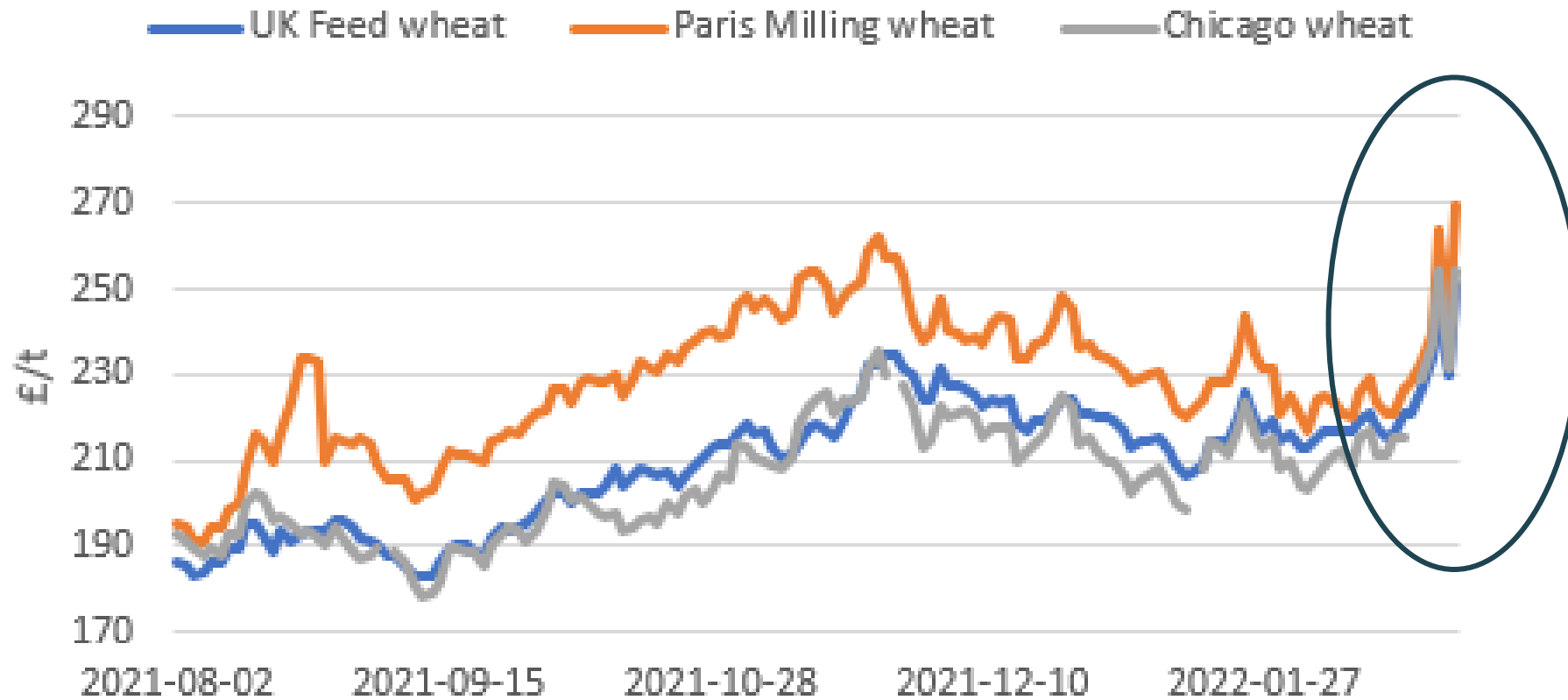
# Feed market update: where are prices heading?

Vikki Campbell, Senior Market Specialists Manager



# Nearby contracts at record highs

## Nearby contracts hitting record highs

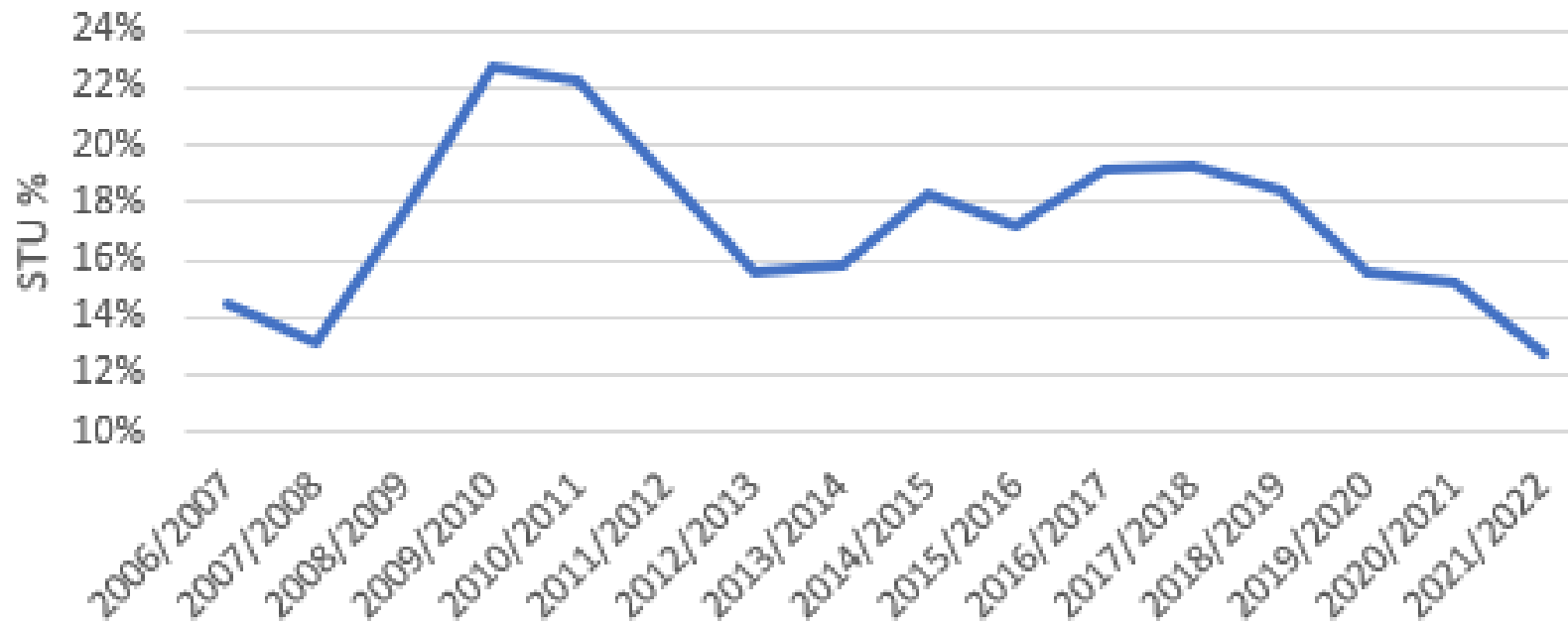


- Nearby prices soaring to record highs on Russian invasion of Ukraine
- Exacerbating already tight global supply
- Volatility set to remain while conflict ensues



# A very tight global outlook for wheat

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



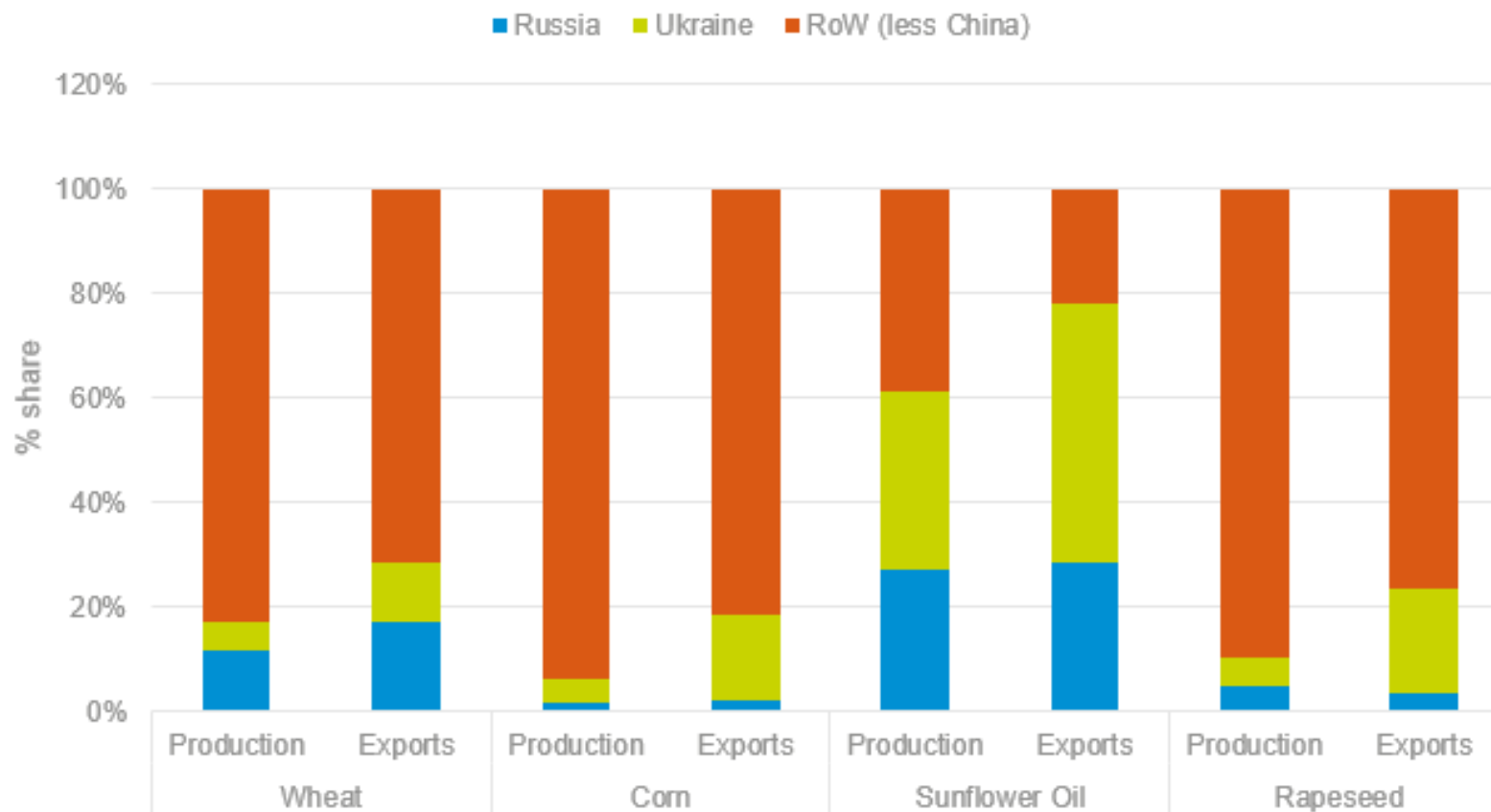
\* Argentina, Australia, Canada, EU, Kazakhstan, Russia, Ukraine, US

Source: USDA

- 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?

# The impact of restricted exports from the Black Sea

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



Source: USDA

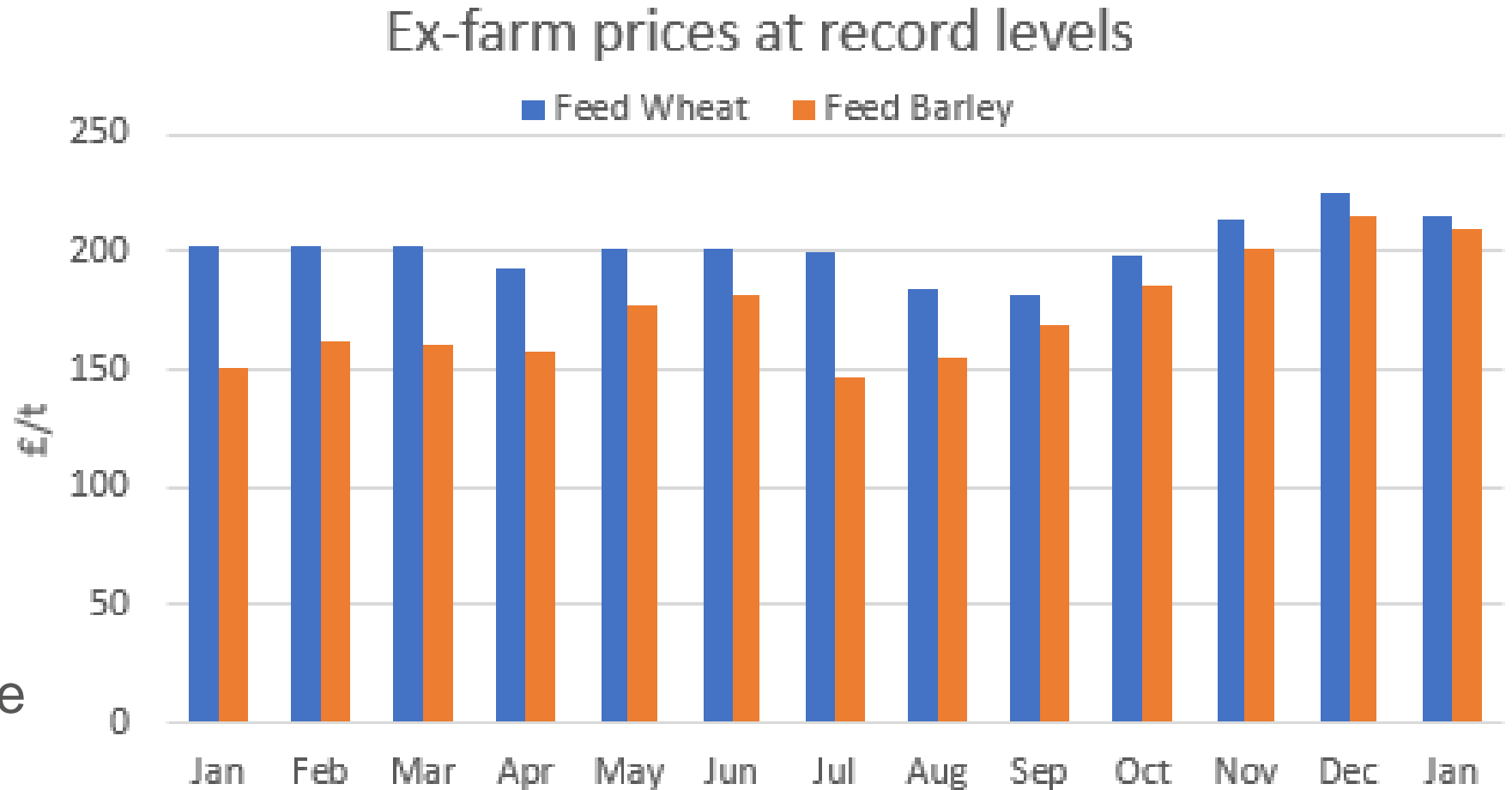
- So far this season (Jul-Feb 21<sup>st</sup>), Ukraine has already exported 18.5Mt\* wheat (77% of USDA projection) and 19.8Mt\* corn (59% of USDA projection)
- Between Jul-Dec, Ukraine had exported 87% (2.7Mt)\*\* of USDA projected rapeseed exports
- Over the same period, 39% (2.6Mt)\*\* of the USDA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



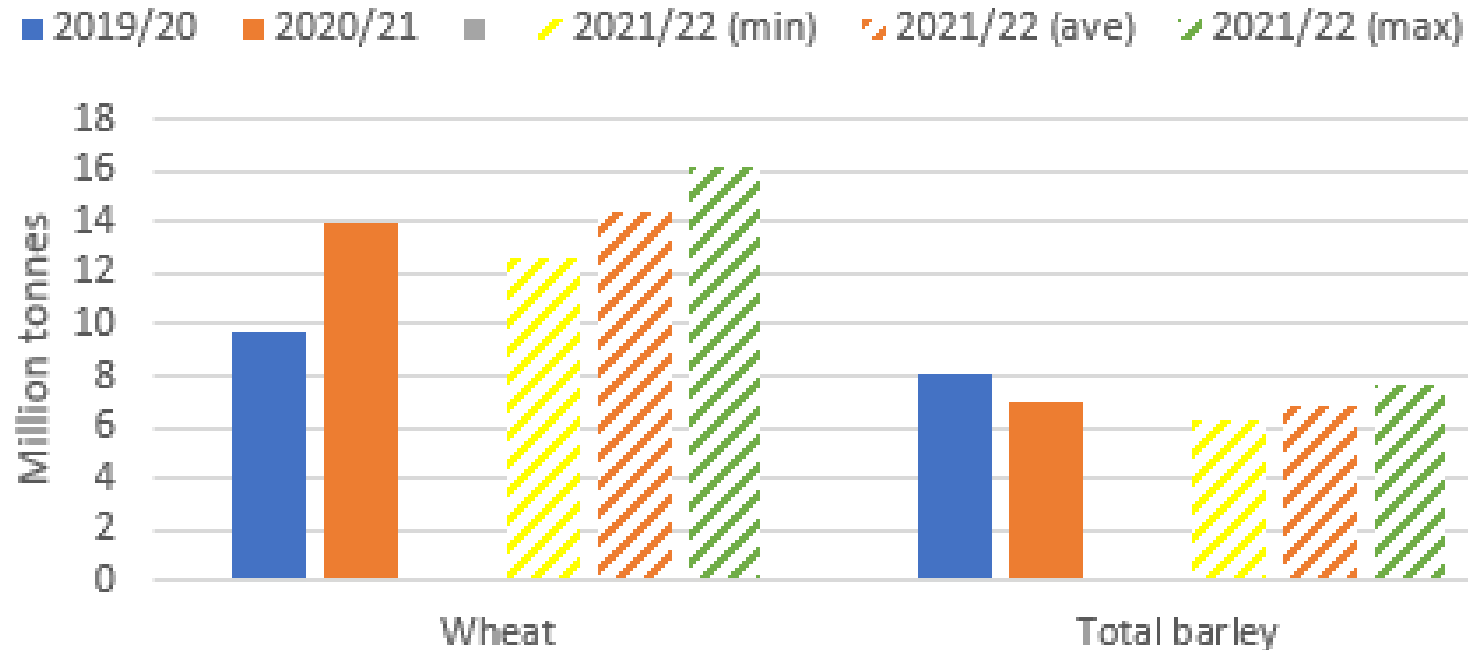
- US wheat area up on year
- Some key growing states have dryness concerns



- 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



Source: Defra, AHDB, Andersons

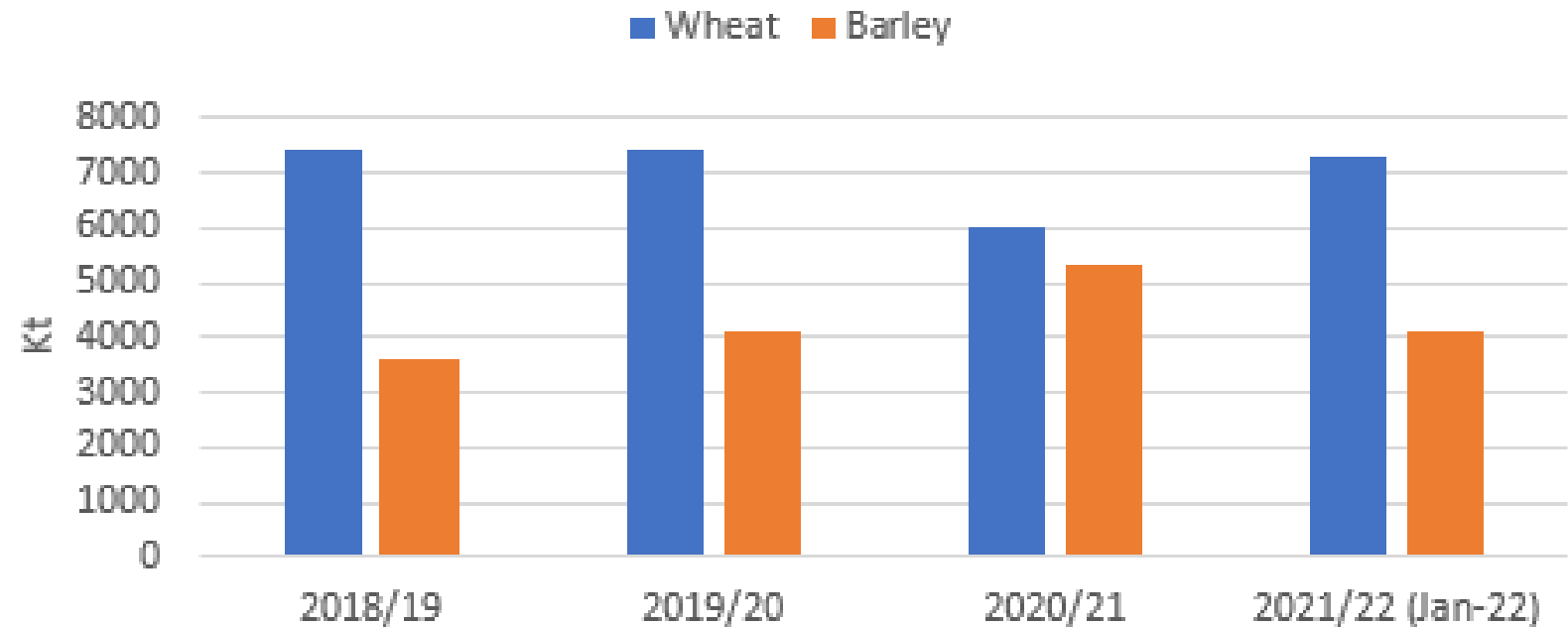
Production estimates based on min/max/average yields from past 5 seasons

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

# 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

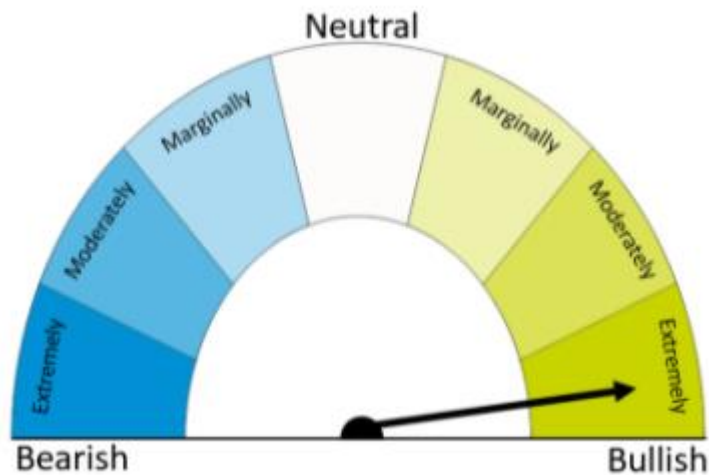
Wheat use for animal feed to recover this year, while barley back to 19/20 levels



Source: AHDB

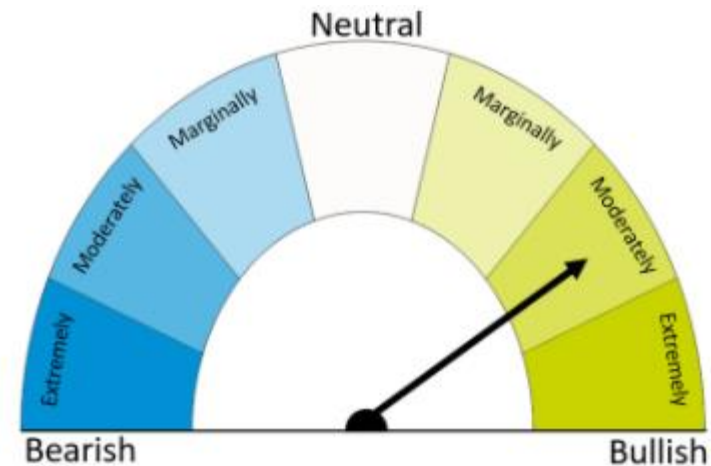
# Where now?

## Wheat



- 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



- 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**

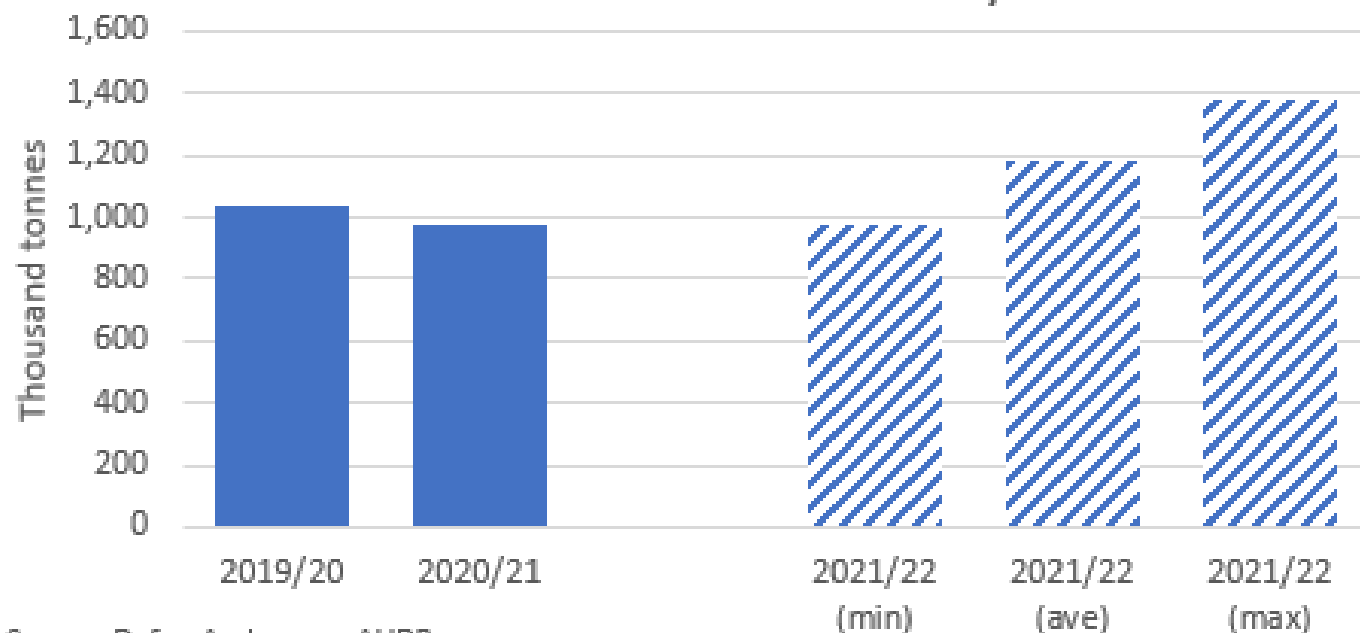


**Export restrictions causing palm oil prices to jump**



# 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)

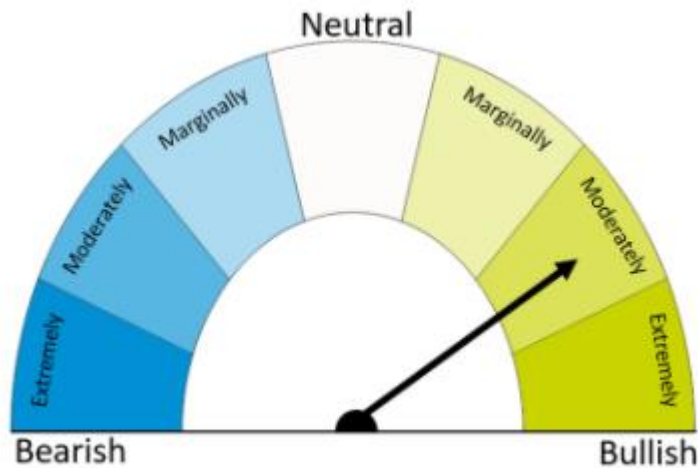
Tight supply & demand picture

Imports up 134% on the year, 45% Ukrainian sourced

Crush margins and volumes may ease but to remain strong

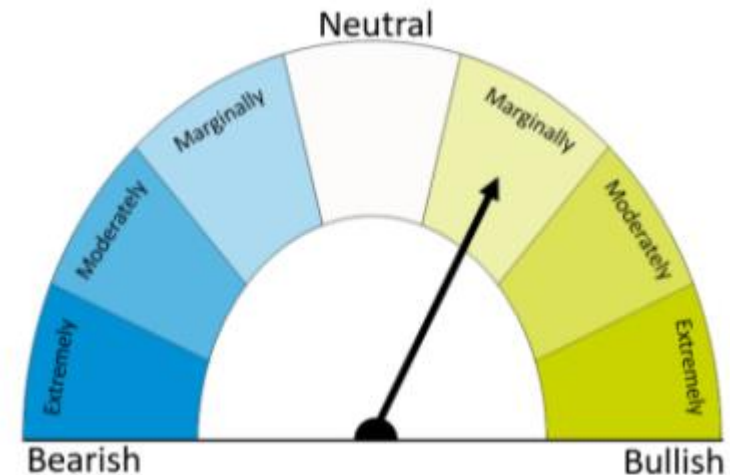
# Where now?

## 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

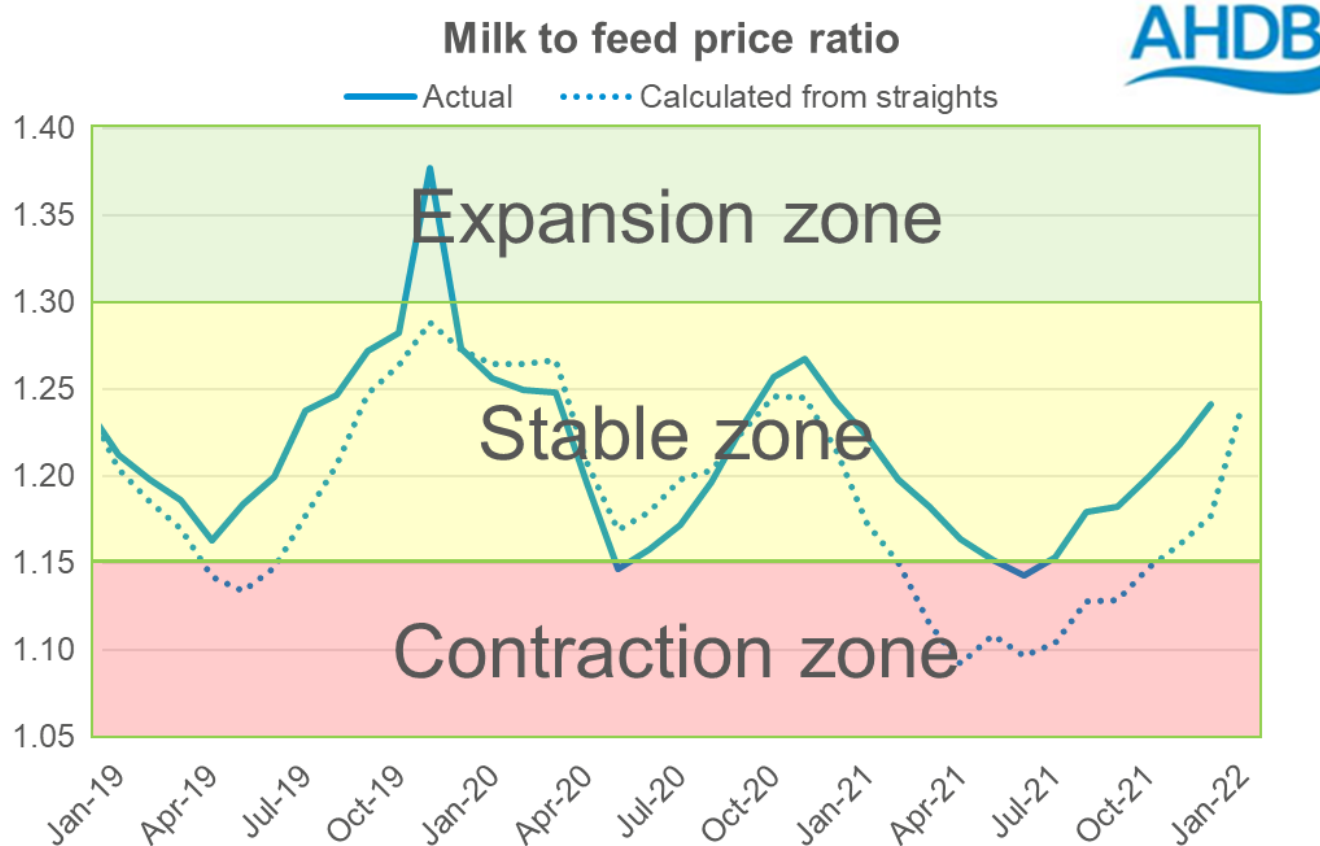
## Soyabeans



- 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

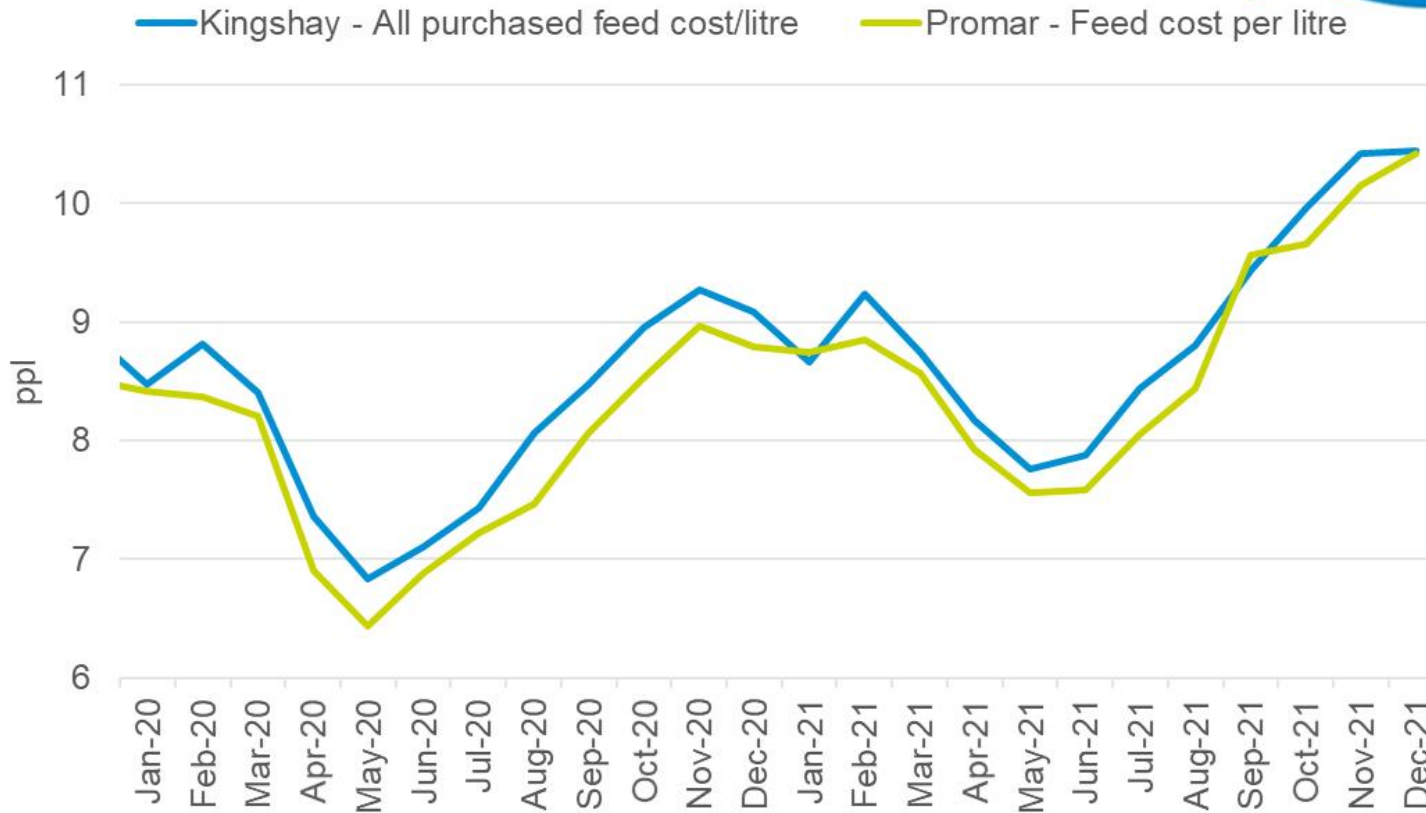
- Actual concentrate costs lower than the calculation from straights
- The efforts to keep cost increases to a minimum has kept our Milk to Feed Price Ratio in the stable zone.
- If only concentrate costs considered, we avoided a significant period inside the contraction zone.
- Recent increases in milk 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

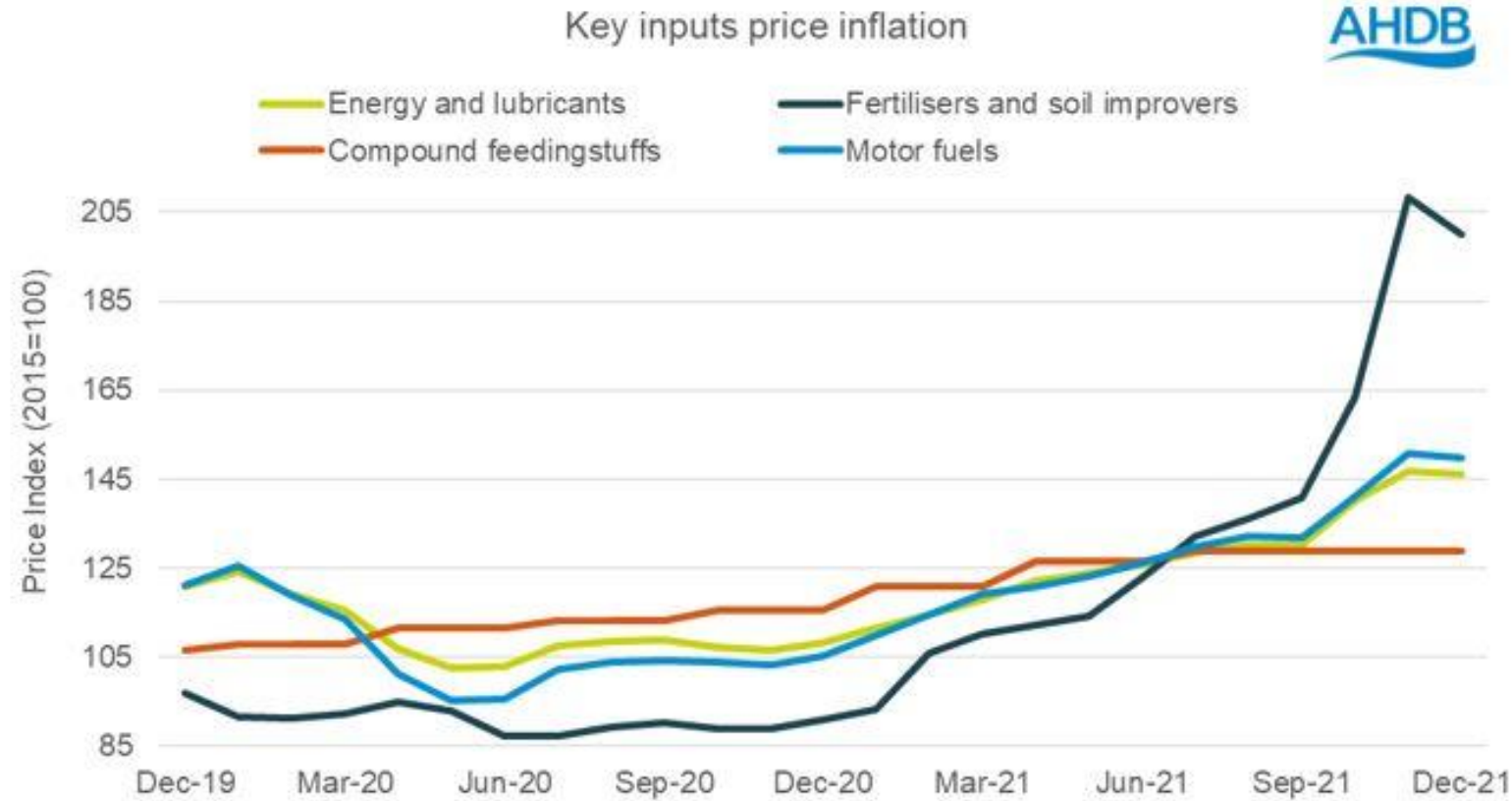


- Still only purchased feed costs
- Cost of producing own forage not be accounted for.



Source: Kingshay, Promar

# Other costs

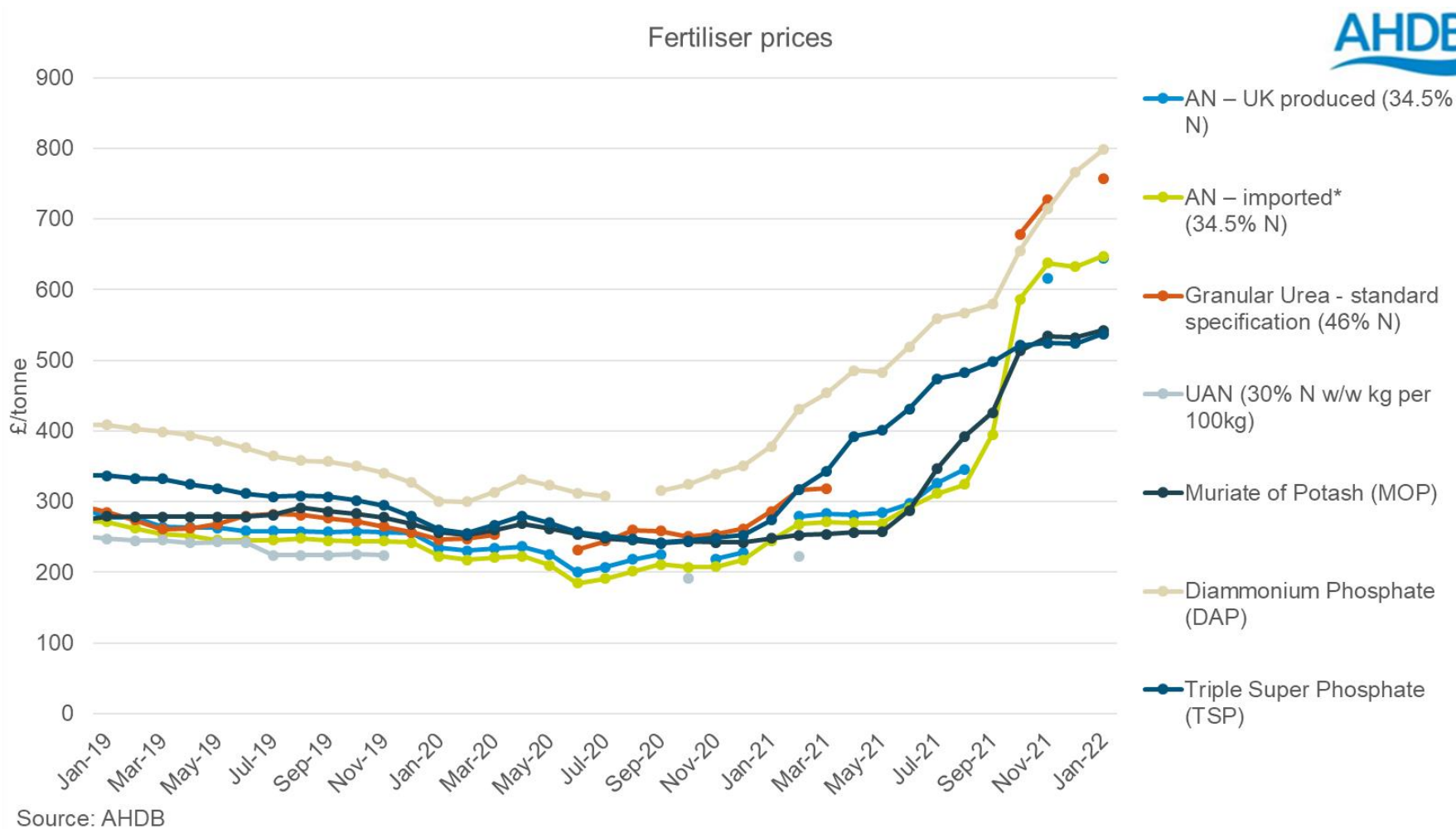


Source: Defra

- 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



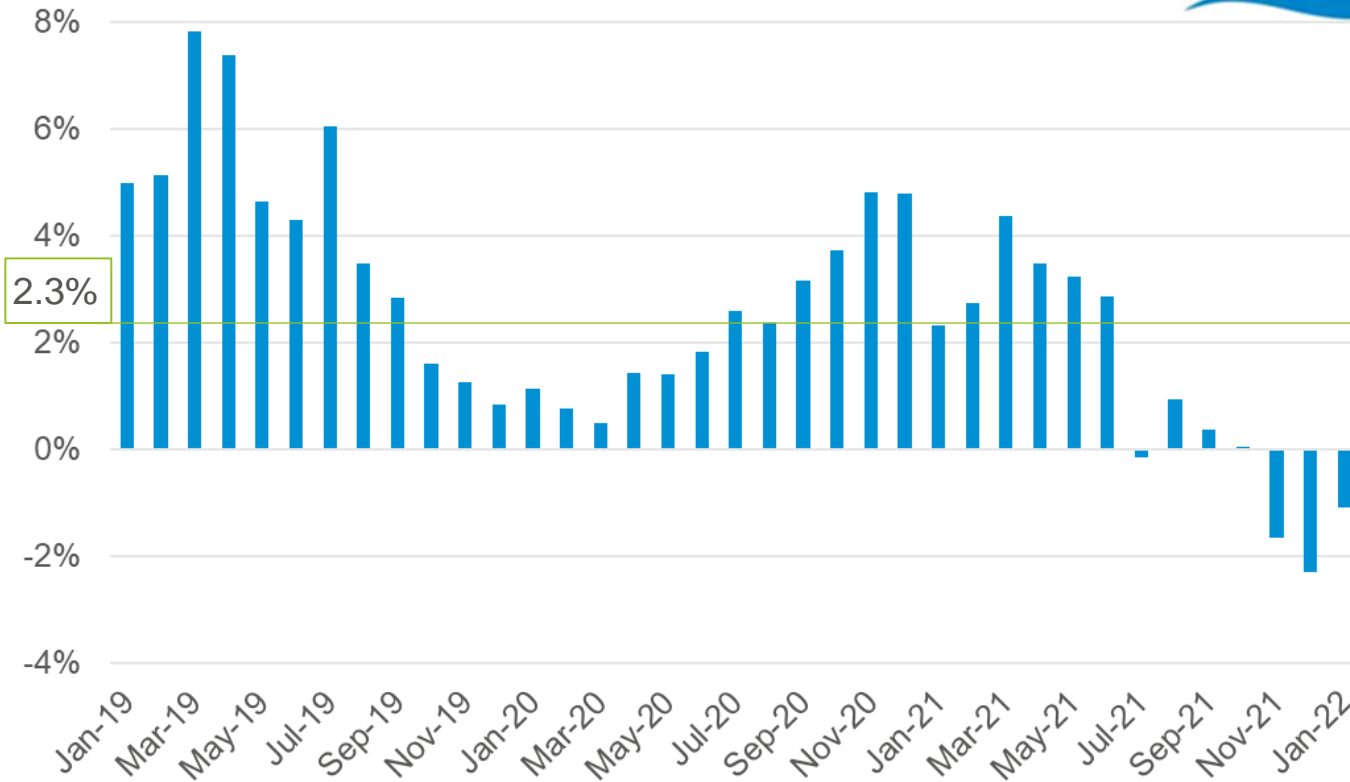
# Fertiliser prices



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

# Impact on yields

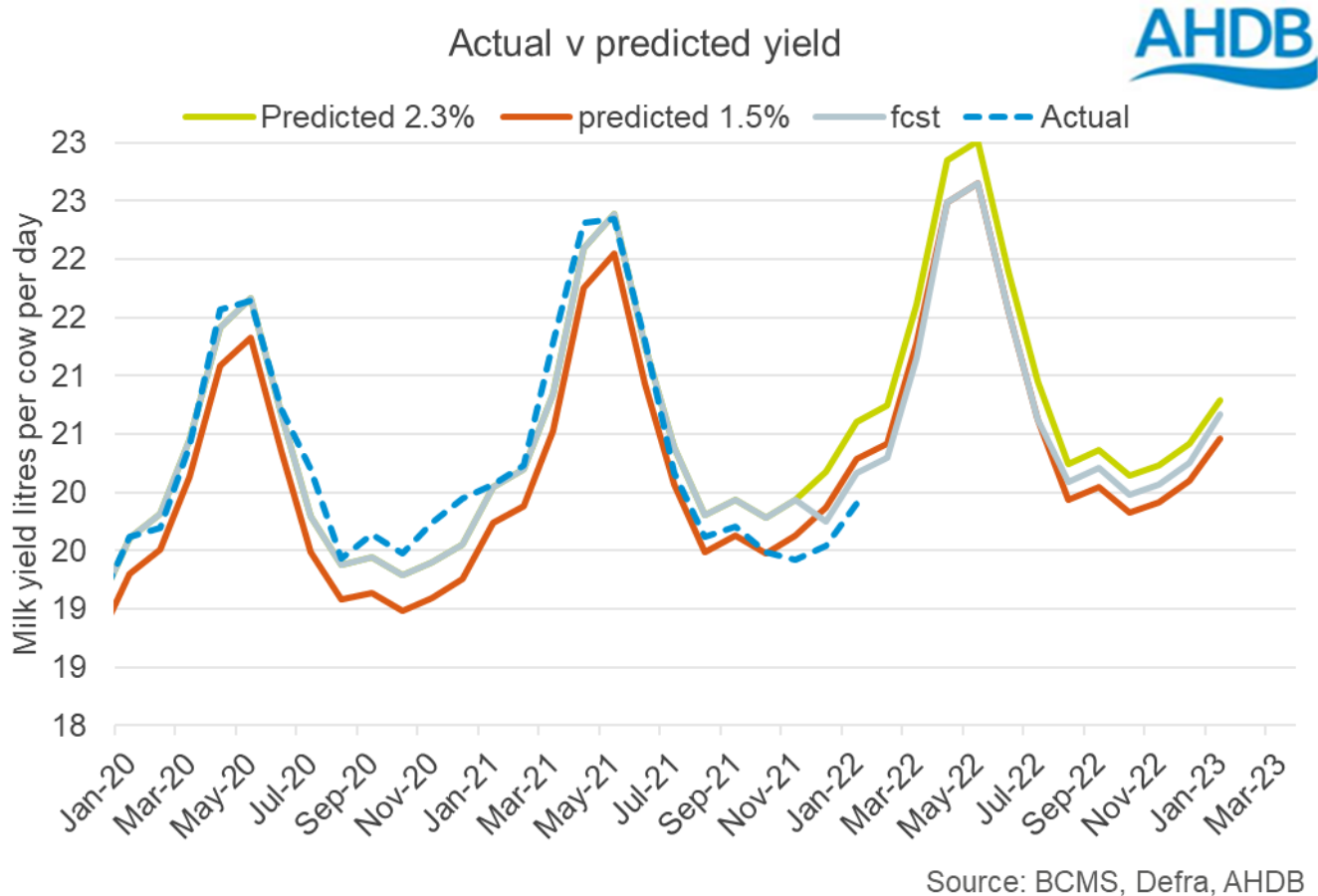
Year-on-year change in milk yields



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

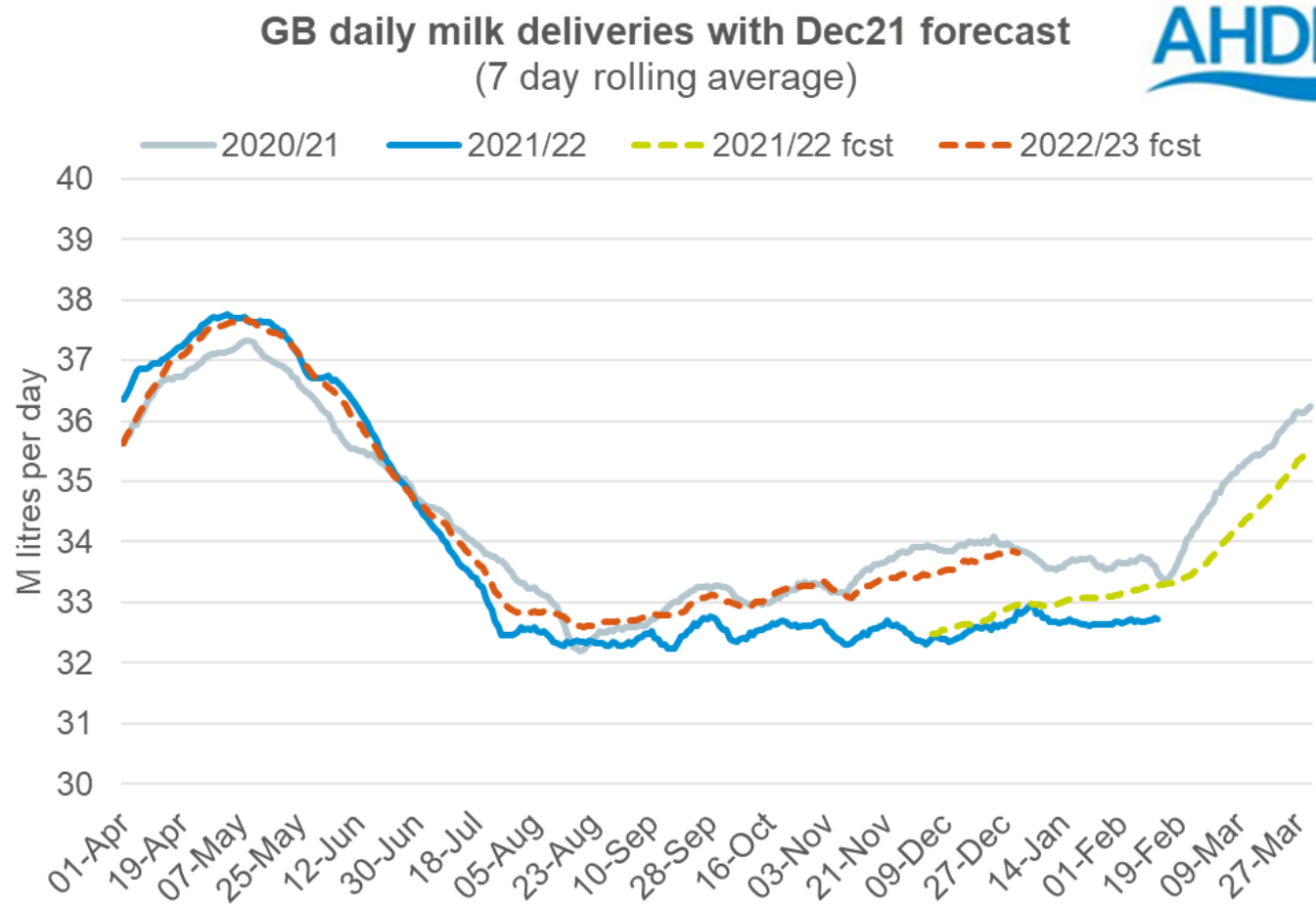
# Yield forecast



- 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

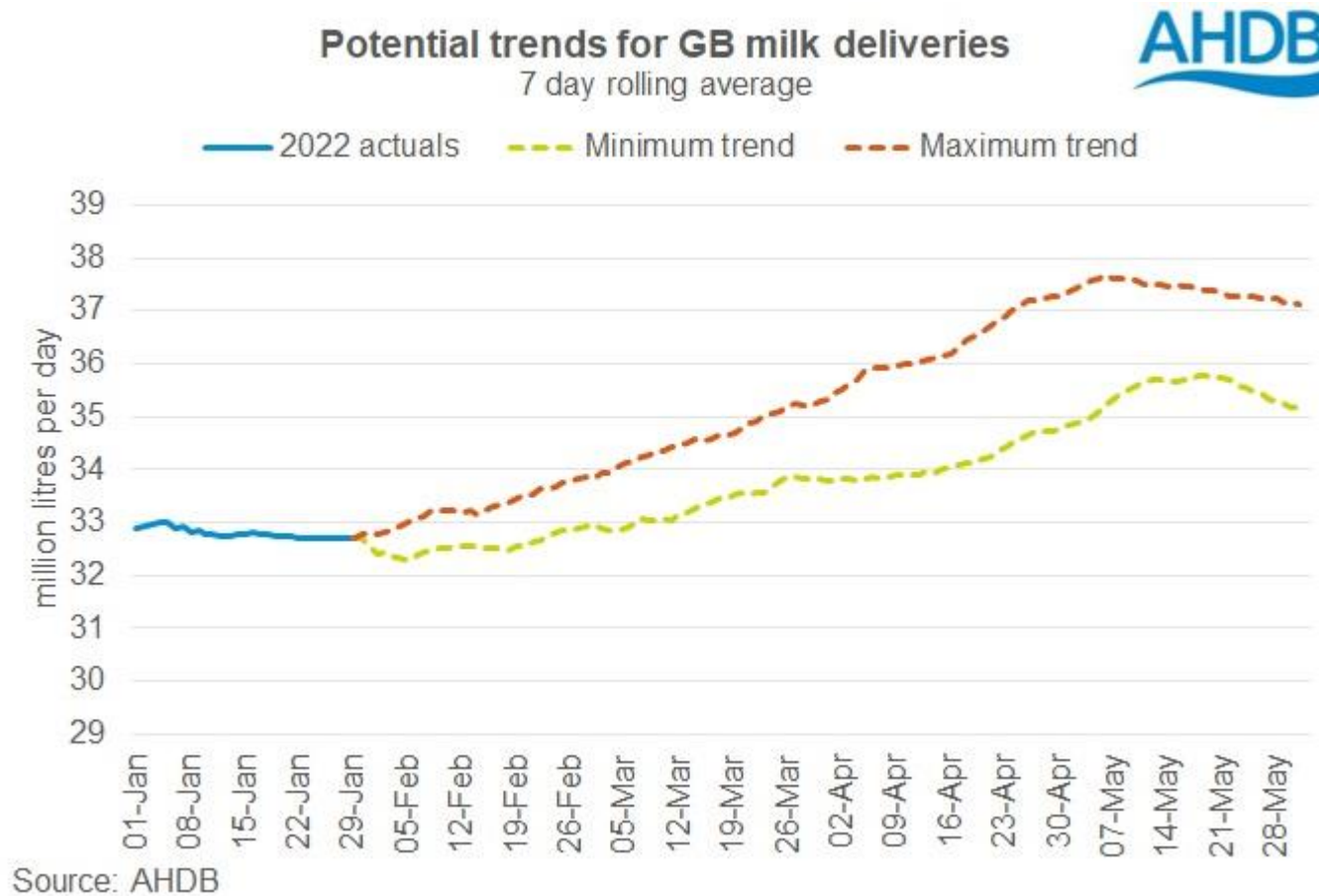
# GB milk production – Dec forecast 2022/23



Source: AHDB

- 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

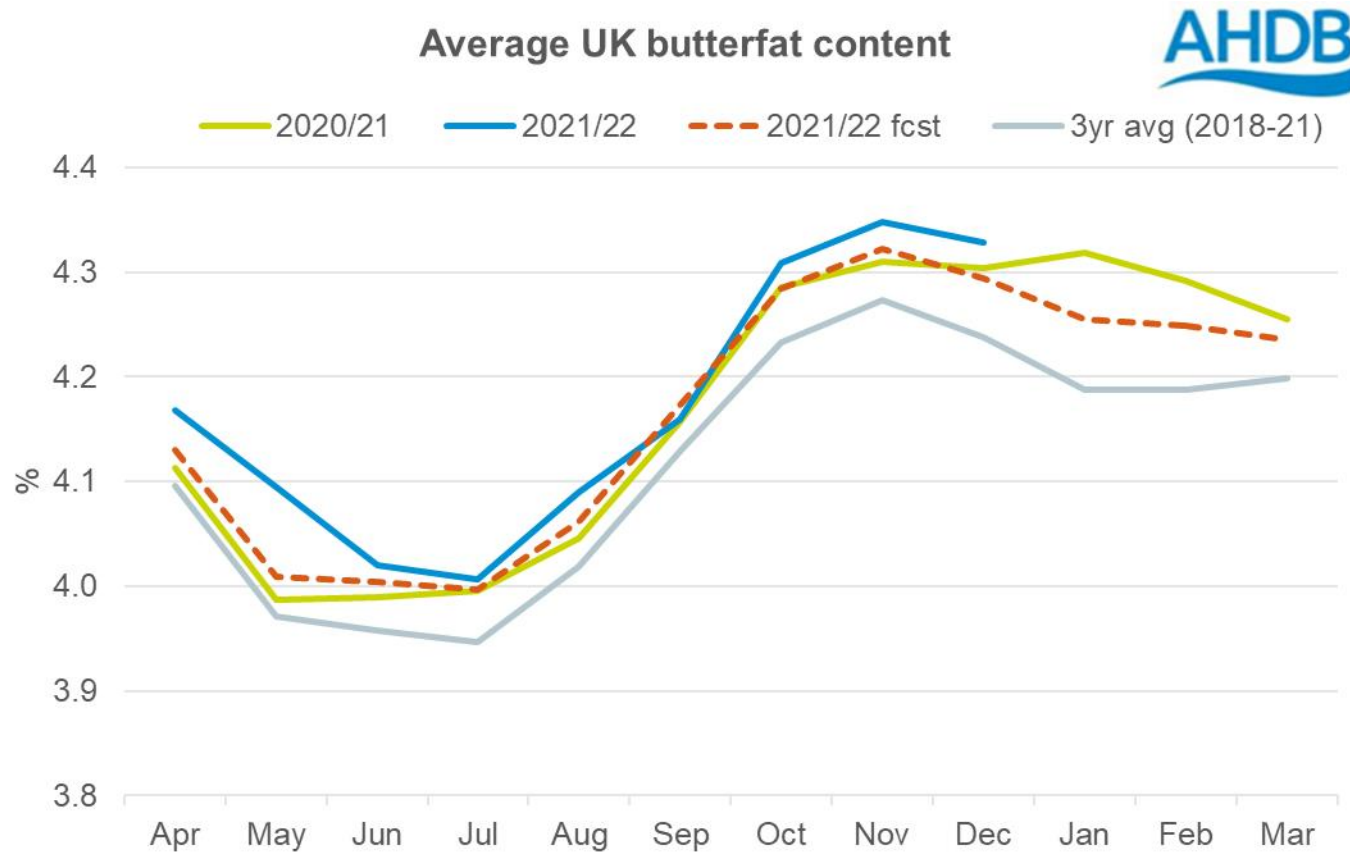


- Back in June we forecasted a 2022 peak of 38.2ml, pushing processing capacity
- Low production since then has brought expectations back
- Graph based on peak trends from the last 7 years applied to Jan production
- Dec forecast ran similar to max trend
- Continued low production brings down peak expectations

# Compositional quality



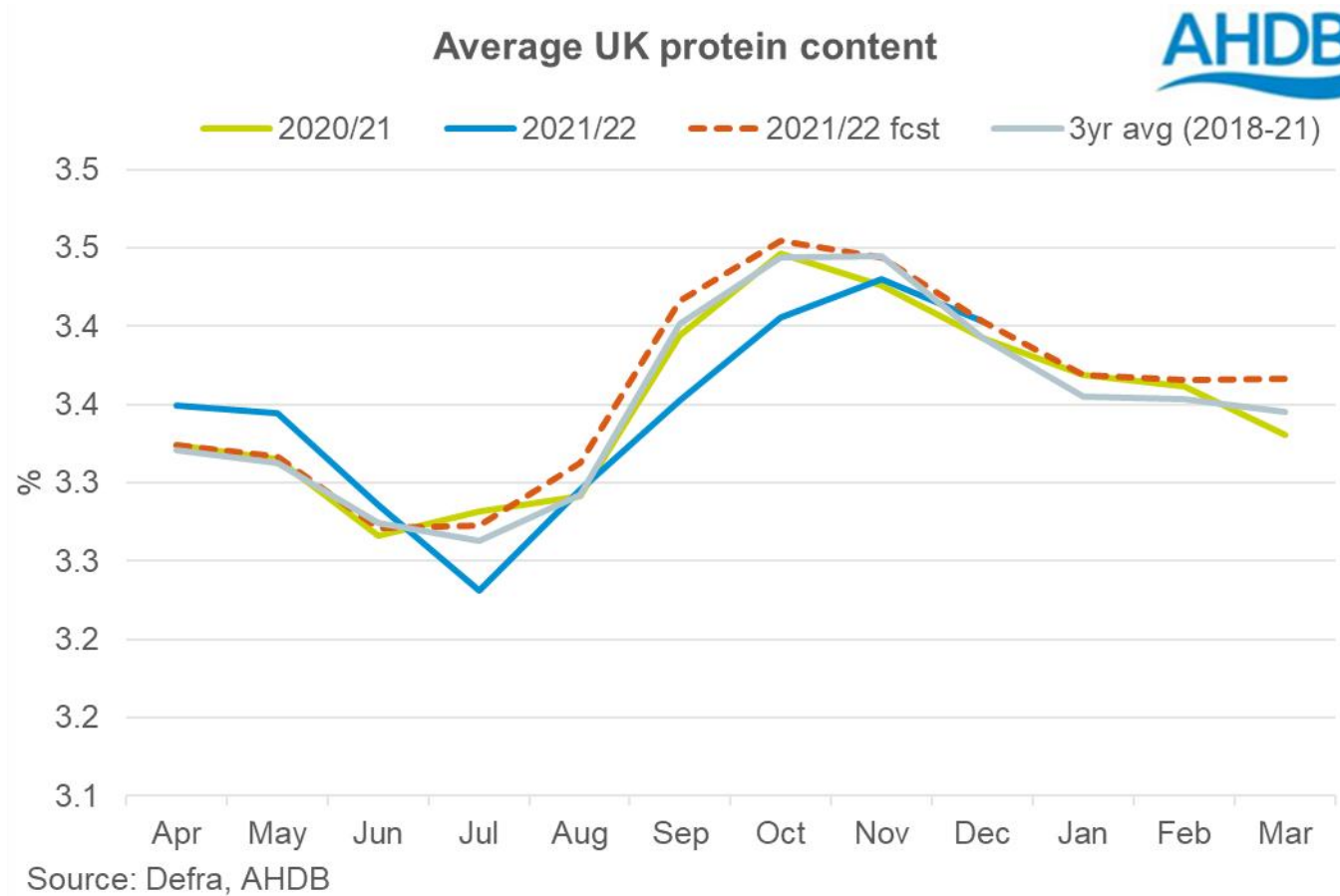
# Latest butterfat vs forecast



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. A path leads from the foreground towards the horizon where the sun is setting, creating a warm, golden glow. The sky is filled with colorful clouds, and the field is lush and green. The text is overlaid in the center of the image.

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