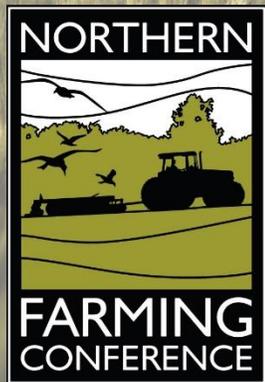


# Northern Farming Conference 2025

People, Planning and Profit:  
Building a Resilient Future for Farming

Wednesday 5<sup>th</sup> November





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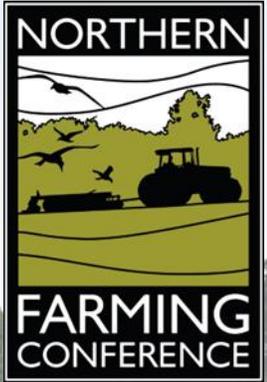
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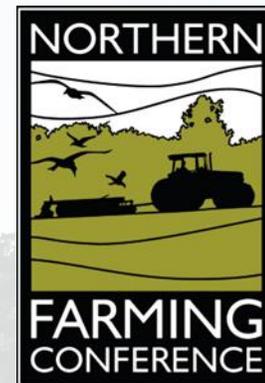
**Welcome**

**Samantha Charlton**

Northern Farming Conference  
Committee Chair

Beef & Lamb Sector Director  
AHDB

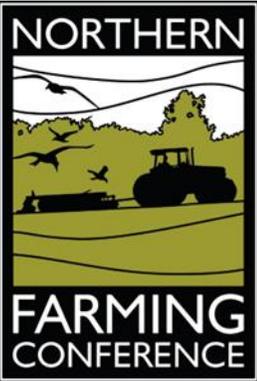




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unless you choose to submit your name



# Speaker Session

Chaired By:

## Lord Curry of Kirkharle

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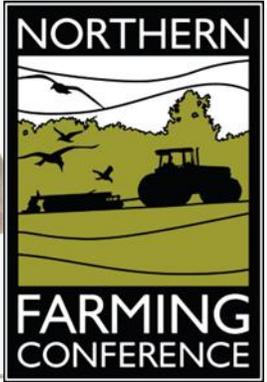
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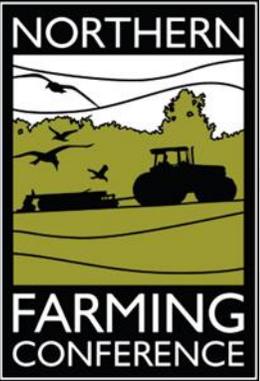
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# Alistair Carmichael

MP & EFRA Select Committee Chair



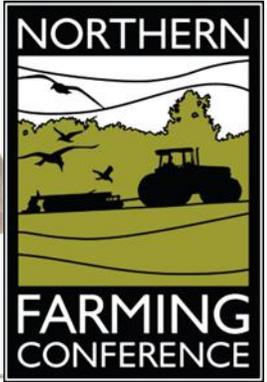


# Jeremy Moody

Secretary and Adviser for  
The Central Association of  
Agricultural Valuers

# Baroness Minette Batters

Former NFU President, farmer and  
appointed by DEFRA to lead the  
Farm Profitability Review





# Minette Batters



Farmer & former President  
of the National Farmers' Union

**SUNDAY**  
WITH LAURA KUENSSBERG

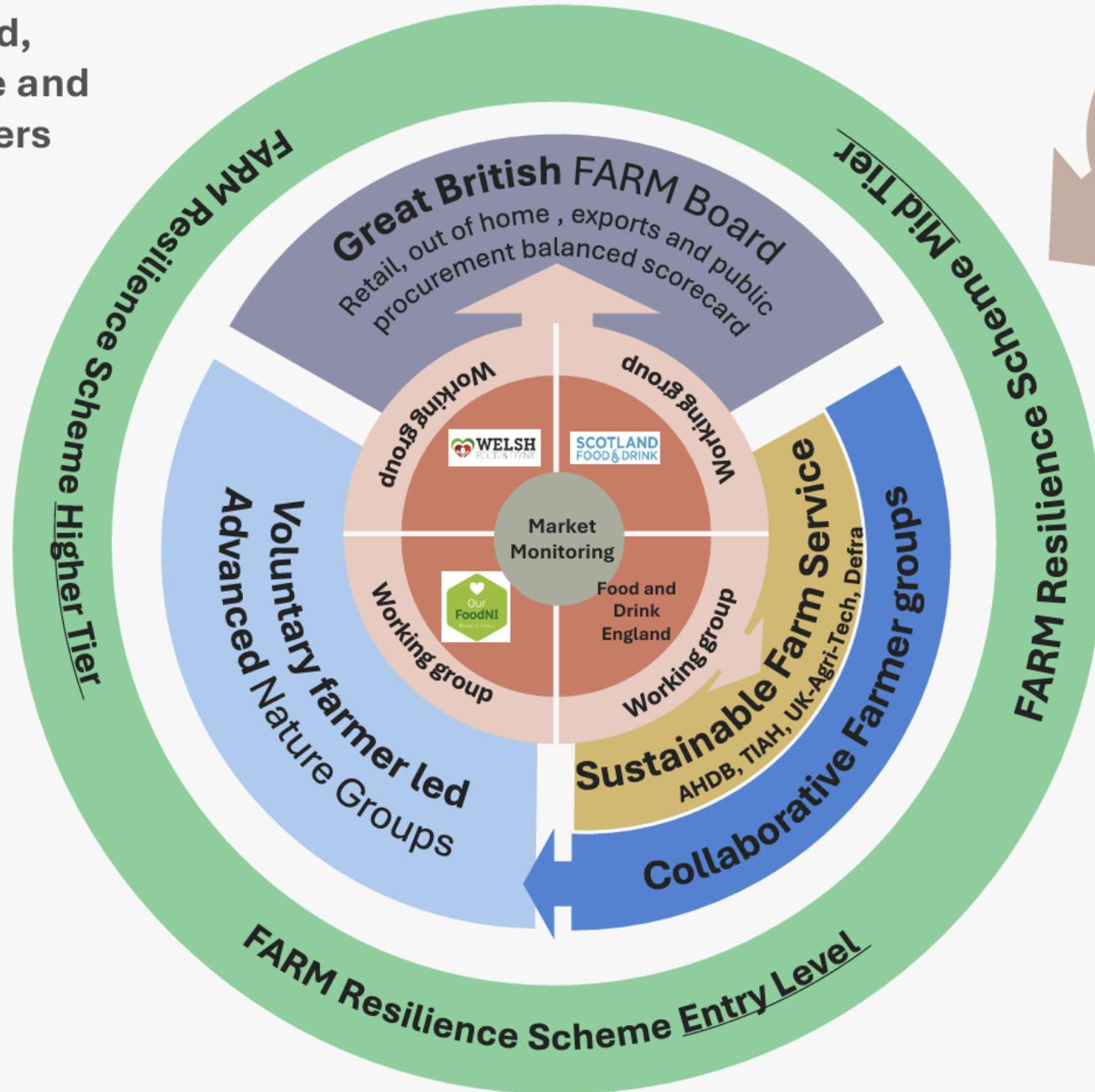




# Four Prime Ministers in Six Years



# FARM: Food, Agriculture and Rural Matters

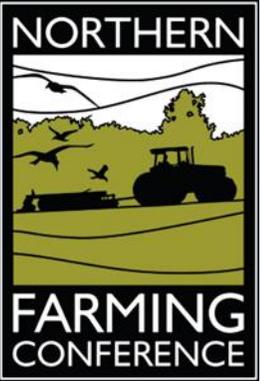


Grocery Code Adjudicator and Agricultural Supply Chain Adjudicator

**Thank you for listening**  
Questions?

[minette@barfordparkfarm.co.uk](mailto:minette@barfordparkfarm.co.uk)

 [@minette\\_batters](https://twitter.com/minette_batters)



# Panel Questions

Facilitated by

**Lord Curry of Kirkharle**

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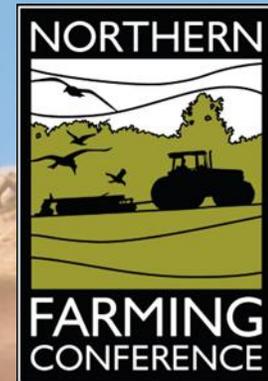
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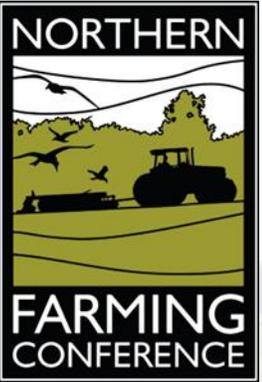
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# Coffee Break



[Link to Speaker Bio's](#)



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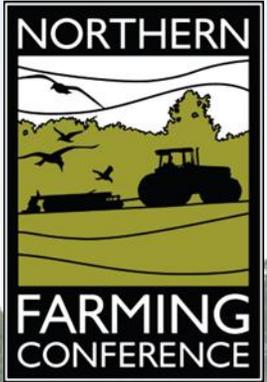


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# Samantha Charlton

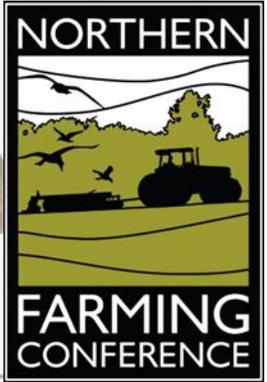
Northern Farming Conference  
Committee Chair

Beef & Lamb Sector Director  
AHDB



# Professor Paul Wilson

Professor of Agricultural  
Economics at Nottingham  
University and President of the  
Agricultural Economics  
Association





University of  
Nottingham  
Food Systems Institute

# Resilient Farming Futures?

**Professor Paul Wilson**

**Director, Centre for Food Policy and  
Foresight and President of the  
Agricultural Economics Association**

**With evidence from Sarah Baker, Head of  
Economics AHDB**

Sowing ideas, cultivating solutions





# Farming is .... complex



# Farming is .... important

37% of global land use  
26% of global workforce  
9% of world undernourished  
25% of total GHGs

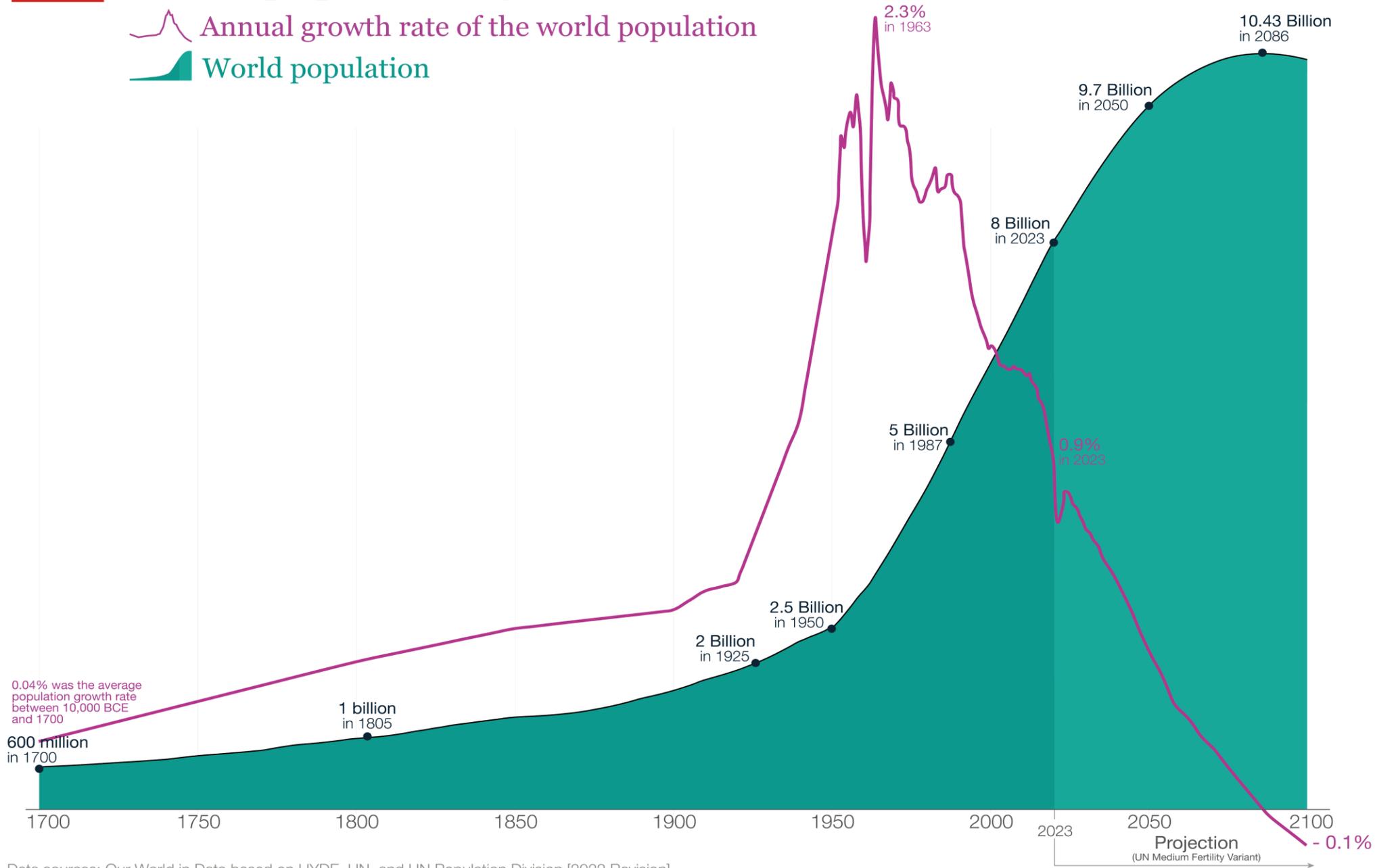
70% of global water use  
4% of global GDP  
8.2bn people rely on for food  
8% of all trade is for food





# World population growth, 1700-2100

Annual growth rate of the world population  
World population



Population growth increase is slowing

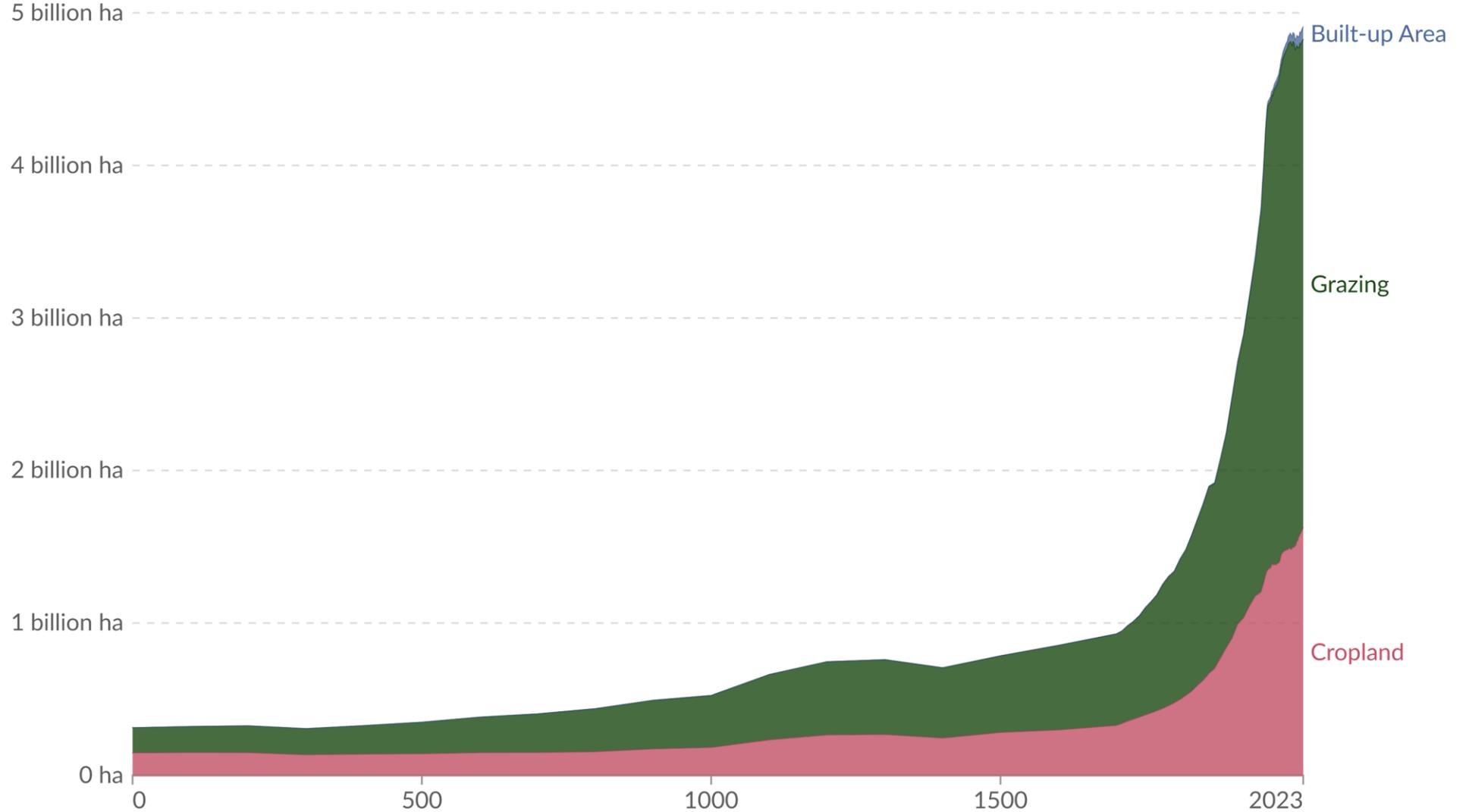
Source: our world in data



We use more land for agriculture than we have ever done

# Land use over the long-term, World

Total land area used for cropland, grazing land and built-up areas (villages, cities, towns and human infrastructure).



Source: HYDE (2023) – [with minor processing](#) by Our World in Data



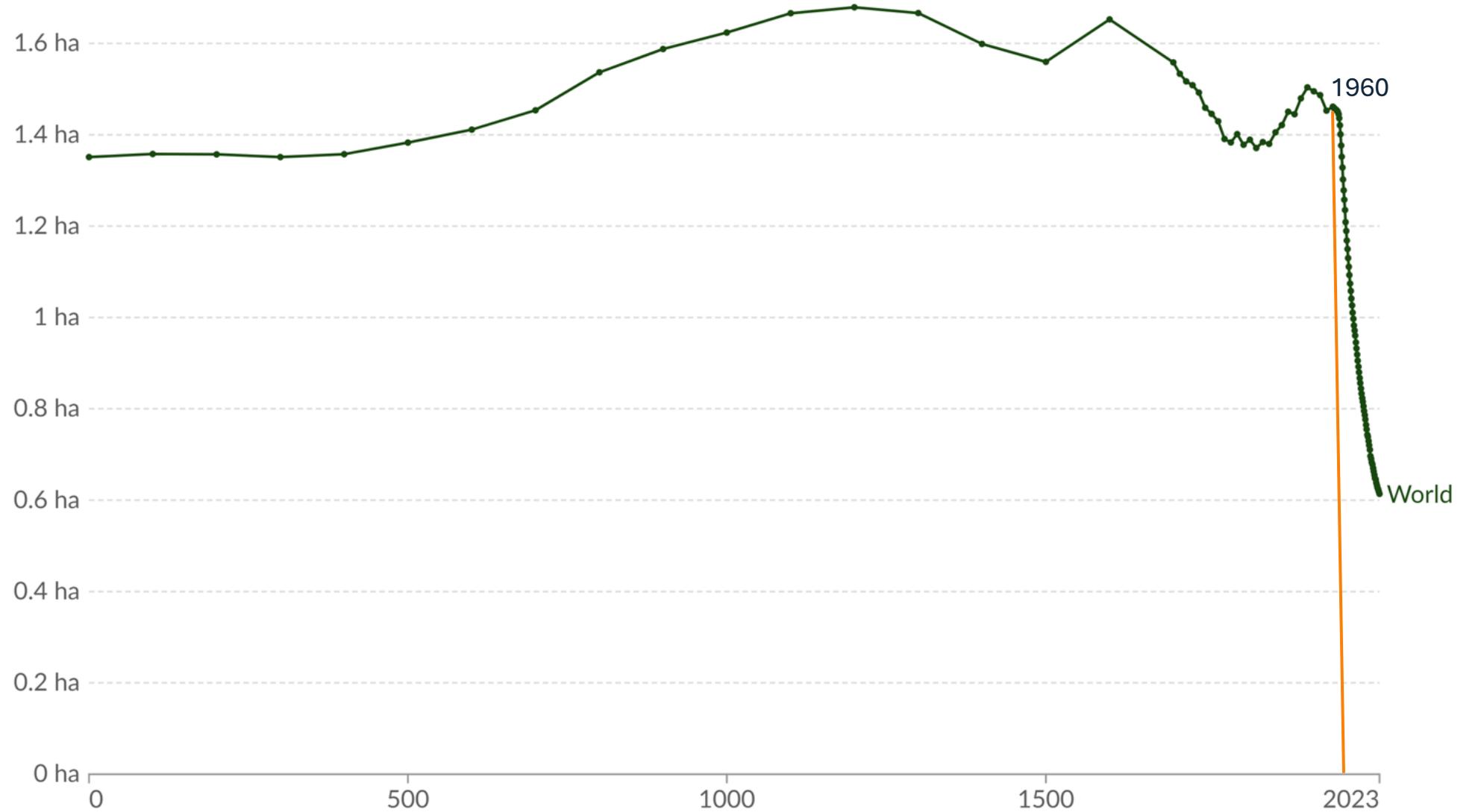
## Farm Performance Metric [FPM]?

We use less land per person than we have ever done

Source: HYDE (2023) – [with minor processing](#) by Our World in Data

# Agricultural land use per person

This dataset is showing estimates of the total agricultural land area – which is the combination of cropland and grazing land – per person. It is measured in hectares per person.

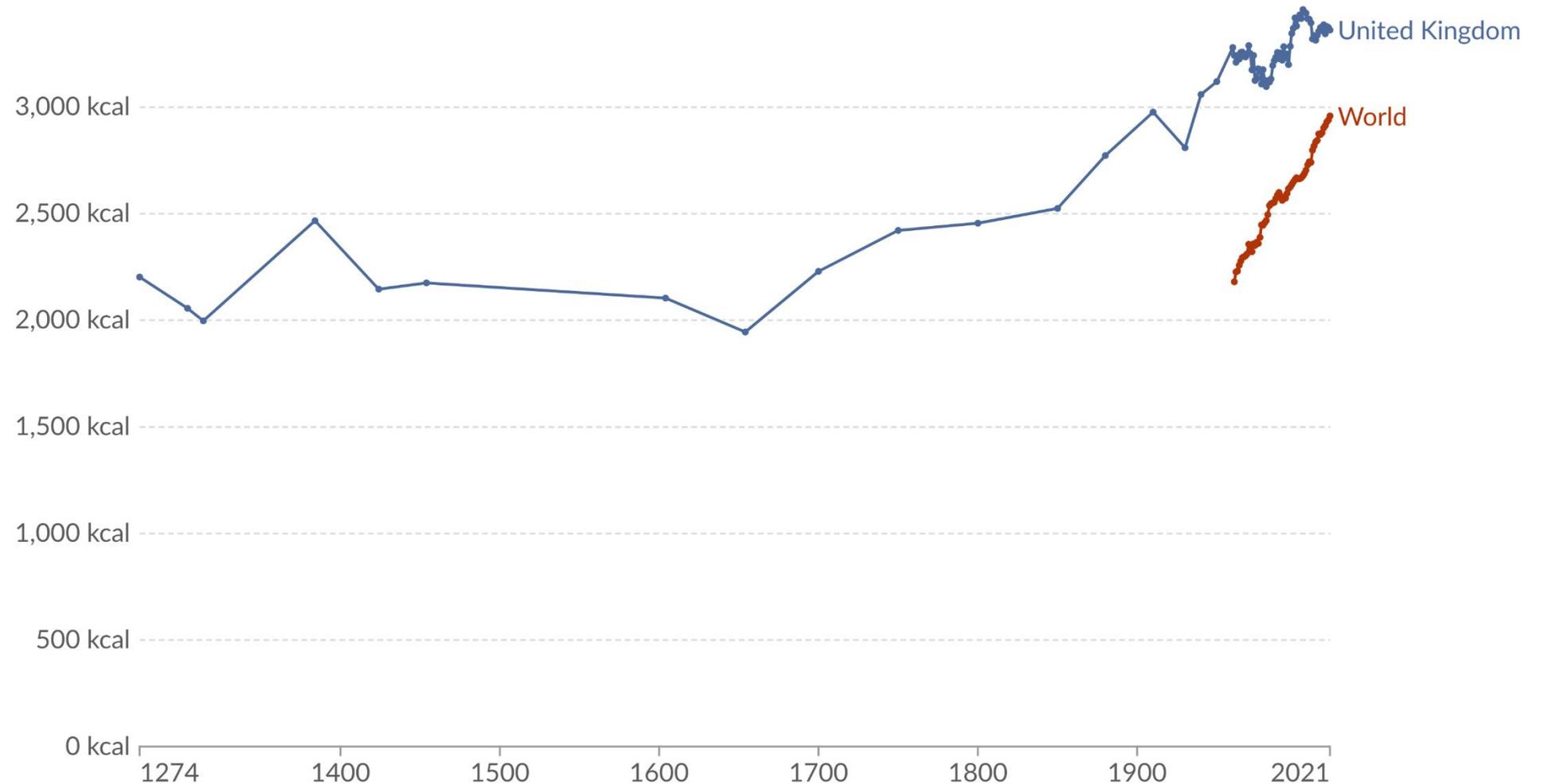




Globally we are supplying the most calories per day ever

# Daily supply of calories per person, 1274 to 2021

Measured in kilocalories per person per day. This indicates the calories that are available for consumption, but does not necessarily measure the number of calories actually consumed, since it doesn't factor in consumer waste.



Source: Food and Agriculture Organization of the United Nations (2023) and other sources with major processing by Our World in Data

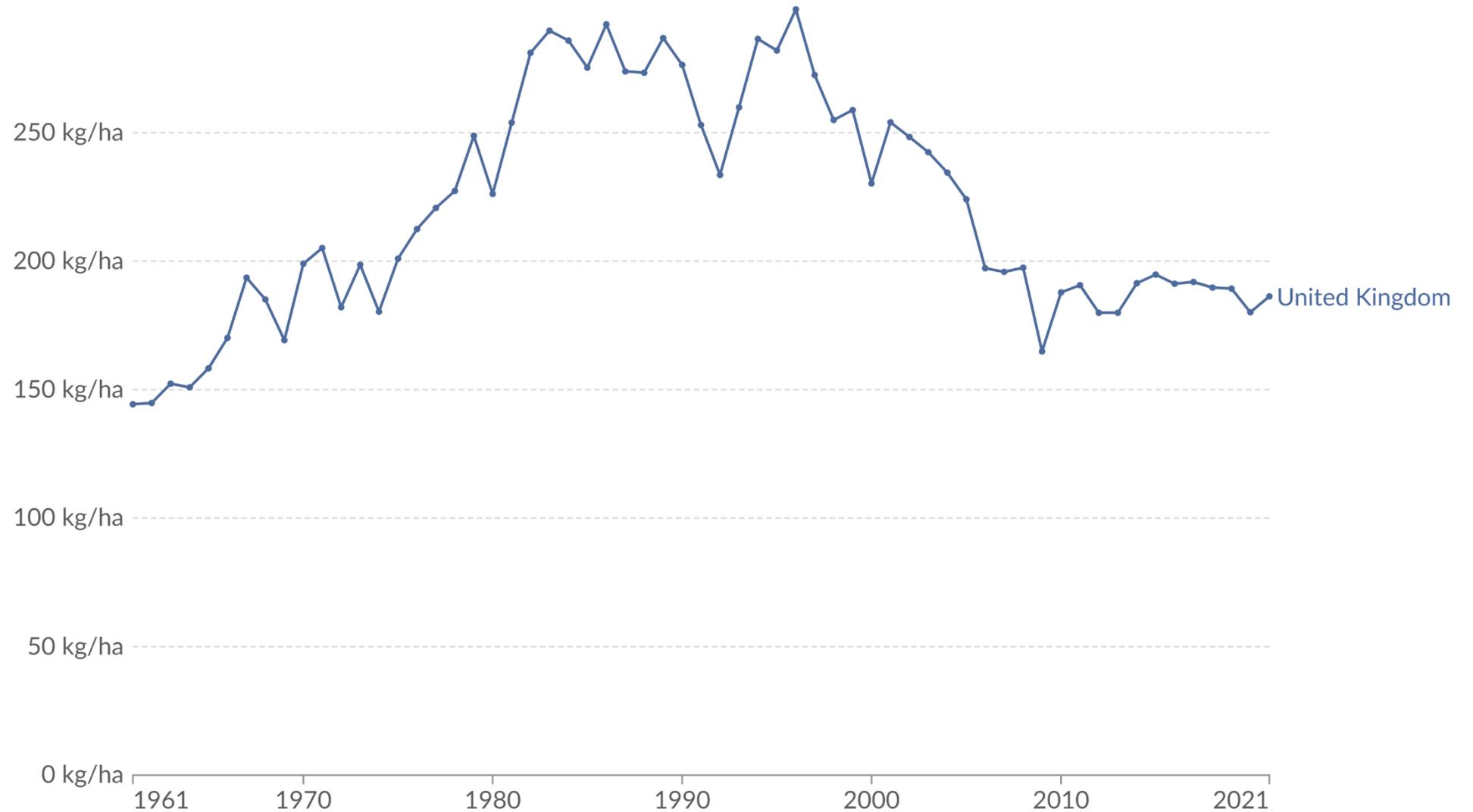
Data source: Food and Agriculture Organization of the United Nations (2023) and other sources  
OurWorldinData.org/food-supply | CC BY



# Fertilizer use per hectare of cropland, 1961 to 2021

Application of all fertilizer products (including nitrogenous, potash, and phosphate fertilizers), measured in kilograms of total nutrient per hectare of cropland.

In the UK  
we are  
applying  
much less  
fertiliser  
per ha than  
30 years  
ago



Source: Food and Agriculture Organization of the United Nations (2023) – with major processing by Our World in Data



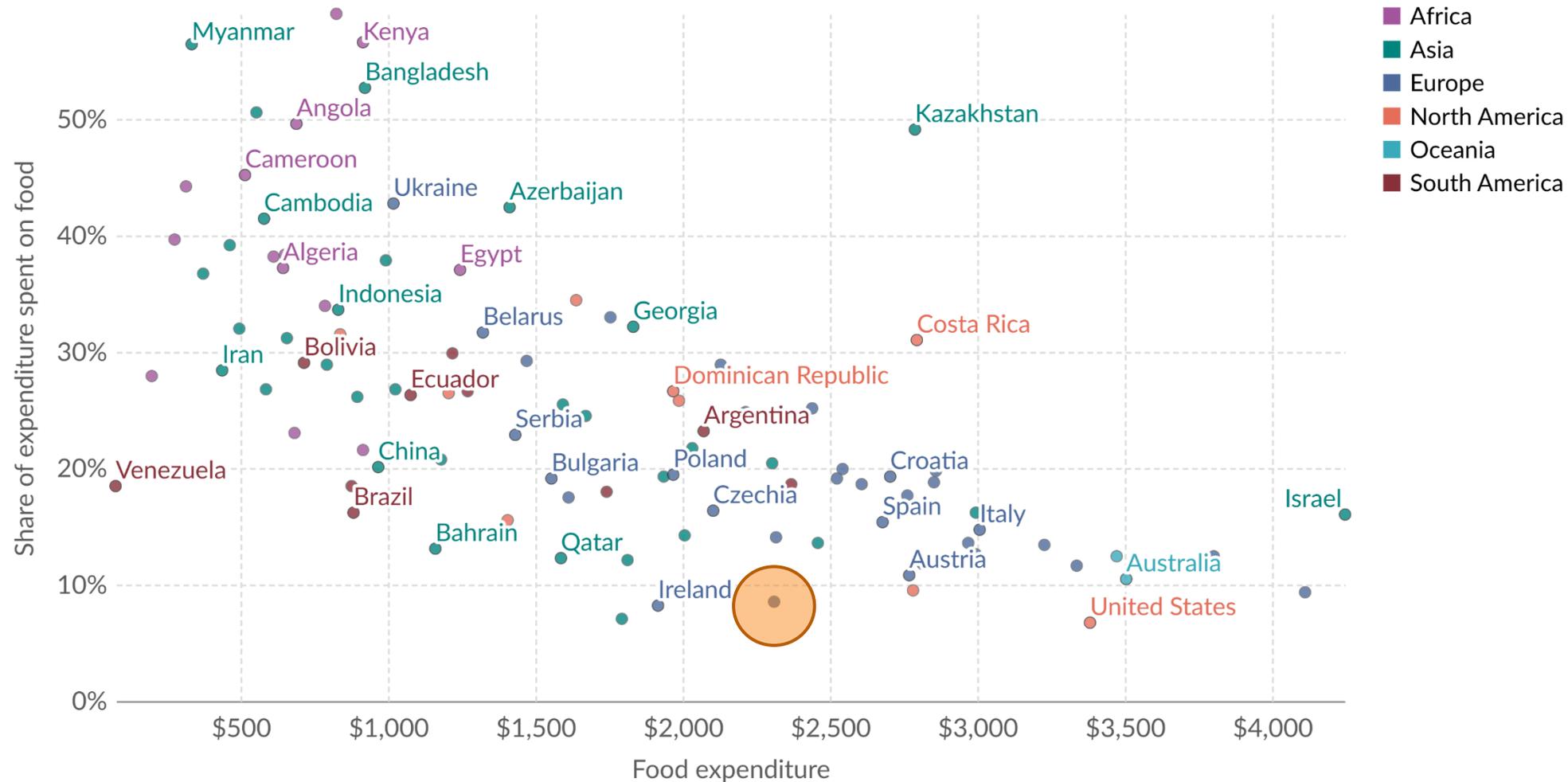
Developed country expenditure on food is low – driven by agricultural advances that have allowed economic development

Source: USDA Economic Research Service (ERS) (2023)

# Share of expenditure spent on food vs. food expenditure per person, 2022

2022

Food expenditure only includes food bought for consumption at home. Out-of-home food purchases, alcohol, and tobacco are not included. Food expenditure is expressed in US dollars per person. It is not adjusted for inflation or differences in the cost of living between countries.



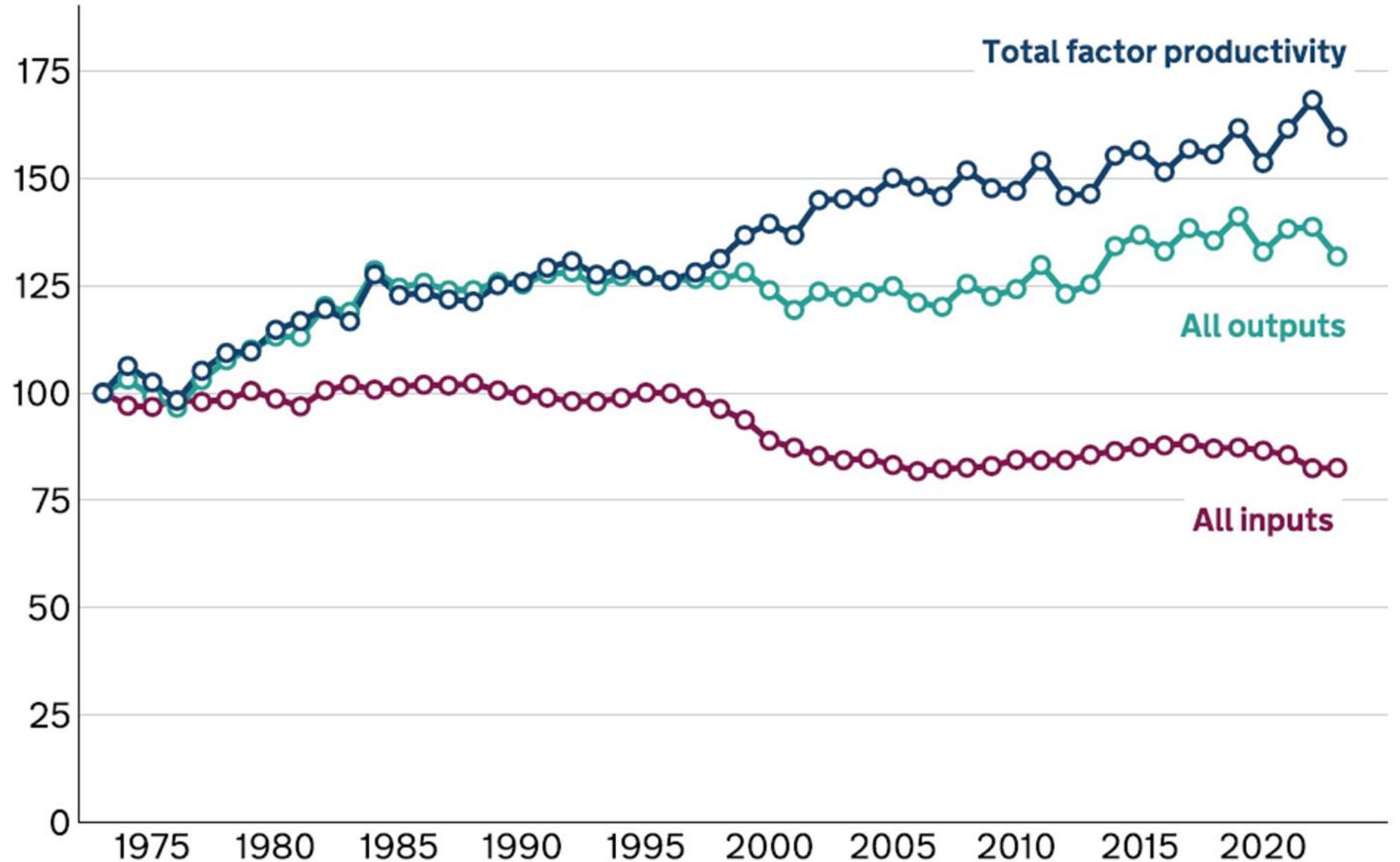
Data source: USDA Economic Research Service (ERS) (2023)

OurWorldinData.org/food-prices | CC BY



TFP growth  
driven by  
lower inputs

Figure 2: Long term trends in TFP of the UK agricultural industry (1973 = 100)



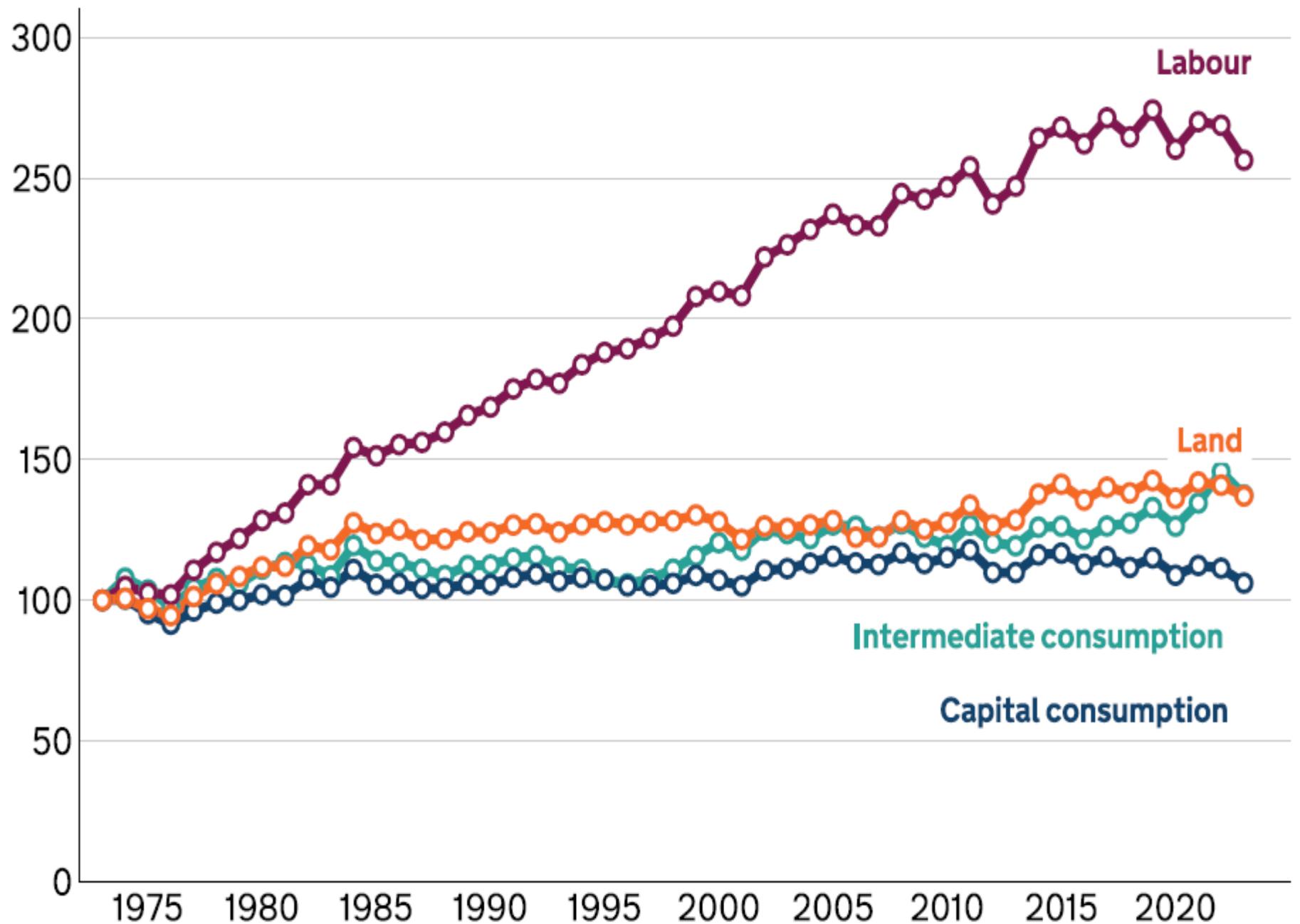
Source: Defra © Crown copyright

Source: Defra  
<https://www.gov.uk/government/statistics/total-factor-productivity-of-the-agricultural-industry/total-factor-productivity-of-the-united-kingdom-agricultural-industry-in-2023>



TFP growth  
driven by  
lower  
labour use

Source: Defra  
<https://www.gov.uk/government/statistics/total-factor-productivity-of-the-agricultural-industry/total-factor-productivity-of-the-united-kingdom-agricultural-industry-in-2023>



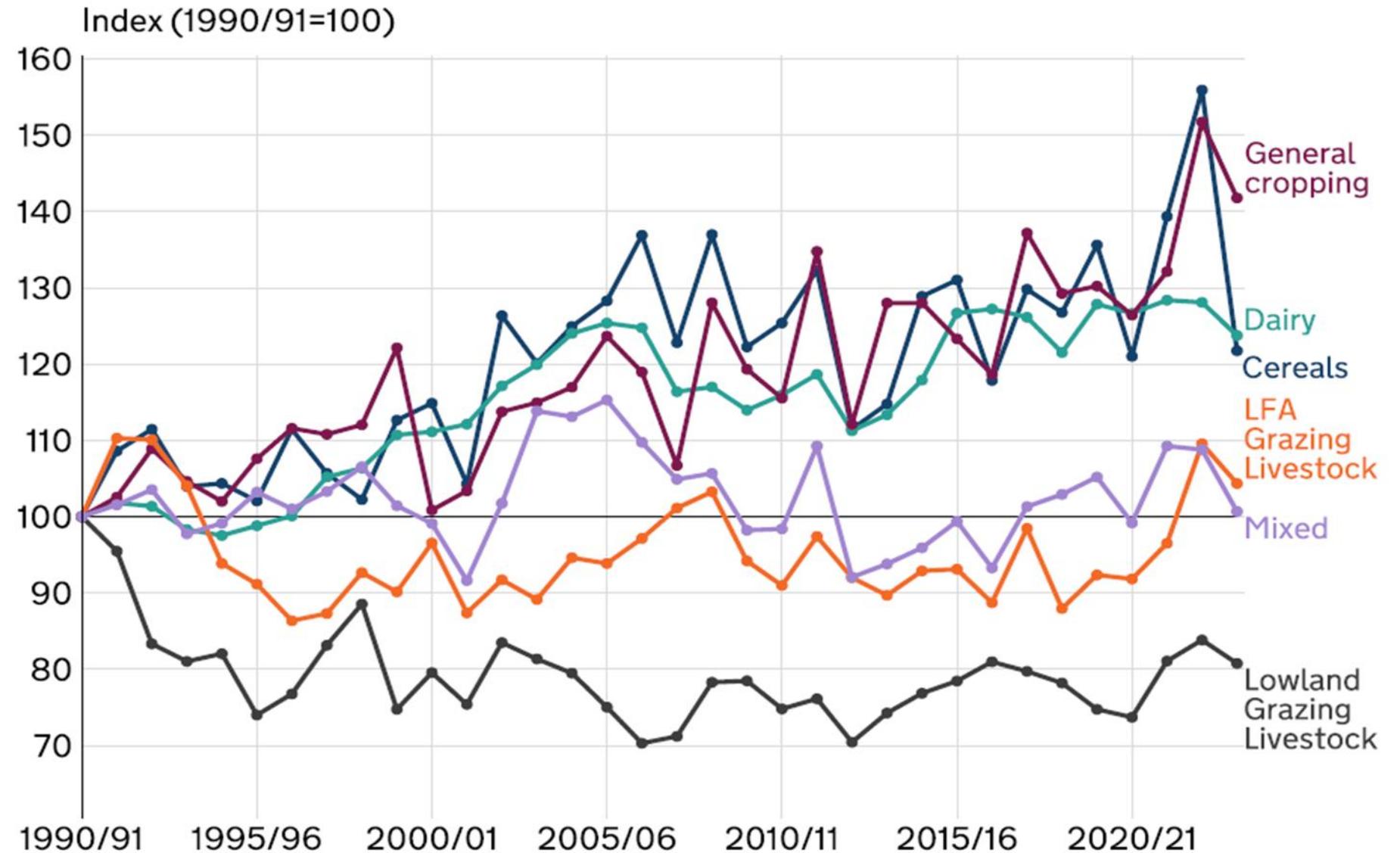
Source: Defra © Crown copyright



TFP growth varies by farm type – labour productivity is key

Source: Defra  
<https://www.gov.uk/government/statistics/total-factor-productivity-for-england-by-farm-type/total-factor-productivity-for-england-by-farm-type-199091-to-202324-statistical-notice>

**Figure 4: Total Factor Productivity for farms in England by farm type, 1990/91 to 2023/24**



Source: Defra, Farm Business Survey





What about farm  
level profit?

# What are the top performers doing?



1. Minimise overhead costs
2. Set goals and budgets
3. Compare yourself with others and gather information
4. Understand the market
5. Focus on detail
6. Have a mindset for change and innovation
7. Continually improve people management
8. Specialise

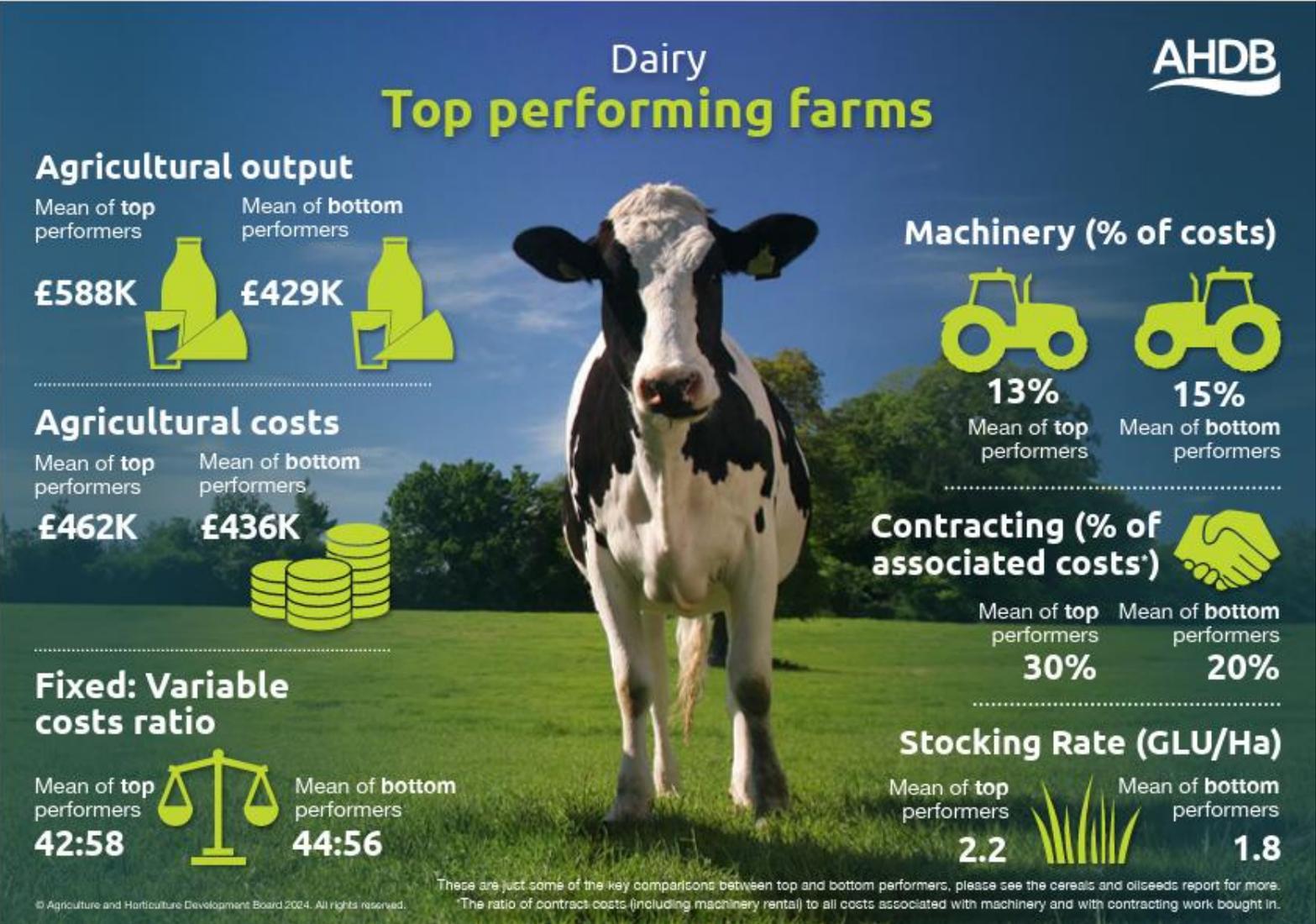
# Characteristics of top performing farms



## Eight comparisons between top and bottom performing beef and sheep farms

1. Economic size
2. Fixed and variable costs
3. Tenure
4. Unpaid labour
5. Stocking rate
6. Diversification
7. Contract rearing out
8. Proportion of fatstock

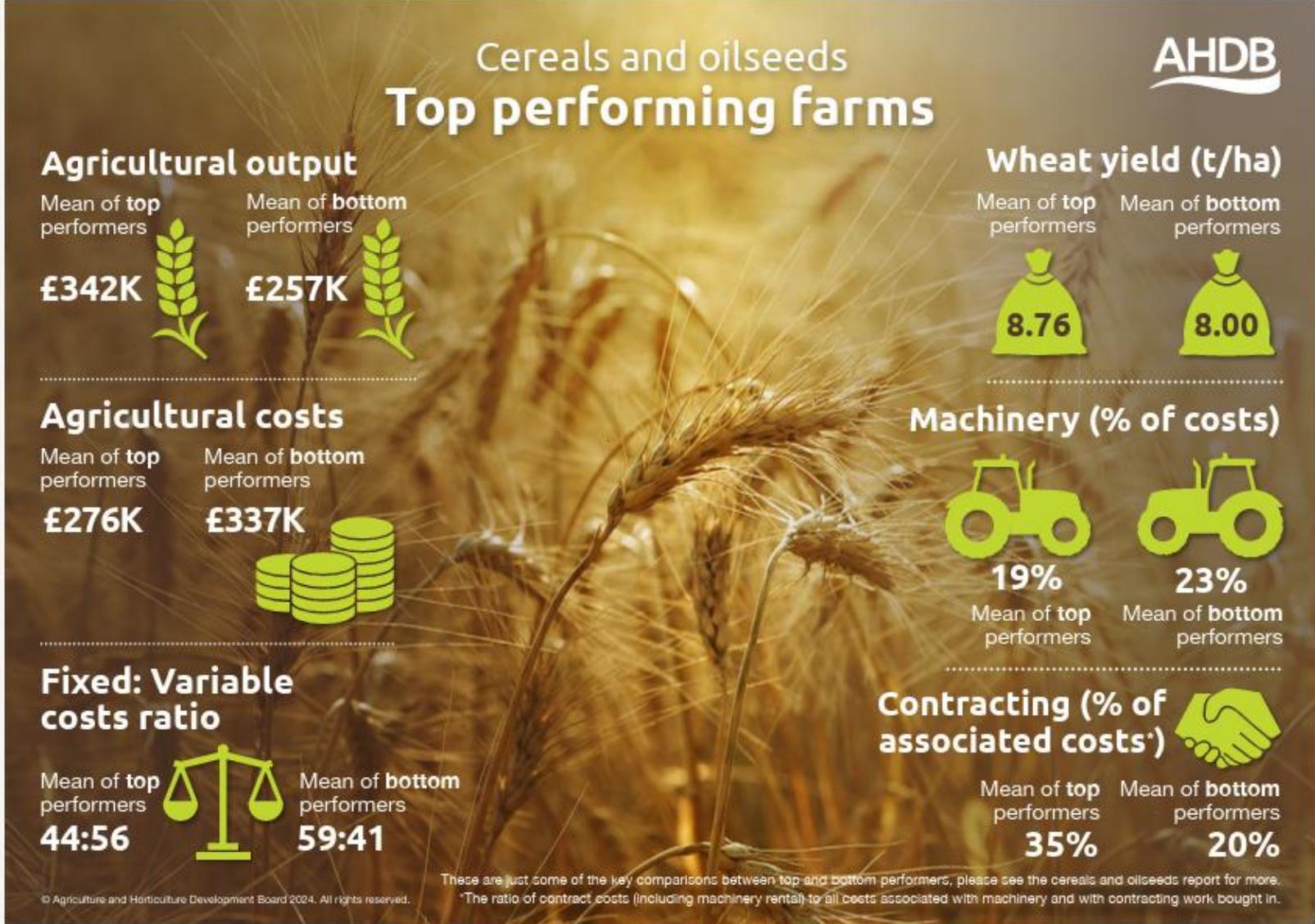
# Characteristics of top performing farms



## Eight comparisons between top and bottom performing dairy farms

1. Agricultural costs
2. Agricultural output
3. Contracting
4. Farm area
5. Stocking rate
6. Mix of enterprises
7. Milk price
8. Agri-environment schemes

# Characteristics of top performing farms



## Eight comparisons between top and bottom performing cereals and oilseeds farms

1. Agricultural costs
2. Contracting
3. Debt
4. Agri-environment schemes
5. Agricultural diversity
6. Wheat price and yield
7. Agricultural output
8. Attitude to change



Success?  
Perhaps only in part



# Net Zero - Complexities

- Agriculture large impact on global GHGs
- Extensive farm level variation
- System and product GHG variation
- Scope 1, 2, 3 emissions
- Agriculture offers the “big win” to reduce GHGs – Scope 3 for the Food Industry
- **Ag Input Carbon Border Adjustment Mechanisms (CBAM)**





# Ag-CBAM

Agricultural Carbon Border Adjustment Mechanism (**Ag-CBAM**) needed for level playing field

Ag-CBAM to support global **Net Zero** ambitions

Climate agreements need to include **carbon consequence of food consumption**



## Ag-CBAM Critical to Meet Net Zero Goals

### Executive Summary

Agriculture accounts for nearly one-third of global greenhouse gas emissions. Under the Climate Convention, countries have committed to net zero targets to reduce these emissions.

However, there is a growing risk of carbon leakage, where agricultural production—and its associated emissions—shifts to countries with weaker climate policies. This occurs because emissions are measured where food is produced, not consumed, undermining mitigation efforts.

An Agricultural Carbon Border Adjustment Mechanism (Ag-CBAM) can help address this issue by ensuring fairer competition for domestic producers, subject to carbon pricing while discouraging the export of unregulated emissions-intensive products to regulated regions.

This policy brief highlights why Ag-CBAM should be part of international climate agreements and provides key recommendations for COP29 policymakers to effectively mitigate carbon leakage in the global food sector.

### Policy Recommendations

- Incorporate Ag-CBAM into climate agreements: Ensure Ag-CBAM is formally recognized to support global net zero efforts.
- Target high-leakage sectors: Focus on emissions-intensive products like livestock and fertilizer-intensive crops, where carbon leakage is greatest.
- Use transparent carbon pricing benchmarks: Implement sector-specific benchmarks to assess GHG emissions in imports, ensuring fair competition and incentivizing low-emission practices abroad.
- Foster global collaboration: Harmonize carbon pricing mechanisms across countries to prevent market distortions and ensure fair competition.
- Support developing countries: Provide assistance and differentiated benchmarks to help them transition to lower-emission practices.

Professor Paul Wilson's expertise in sustainability metrics is delivering new thought-leadership approaches to how we balance food production and environmental protection.

✉ [paul.wilson@nottingham.ac.uk](mailto:paul.wilson@nottingham.ac.uk)

🌐 [notts.ac.uk/fsi](https://notts.ac.uk/fsi)





# Farming just got **more** complex





# Sustainable Food Futures (SFF)

## Can we simplify?

### **Sustainable**

Carbon, Biodiversity, Water, Soil

### **Food**

Nutritious, Available, Production Growth  
Security

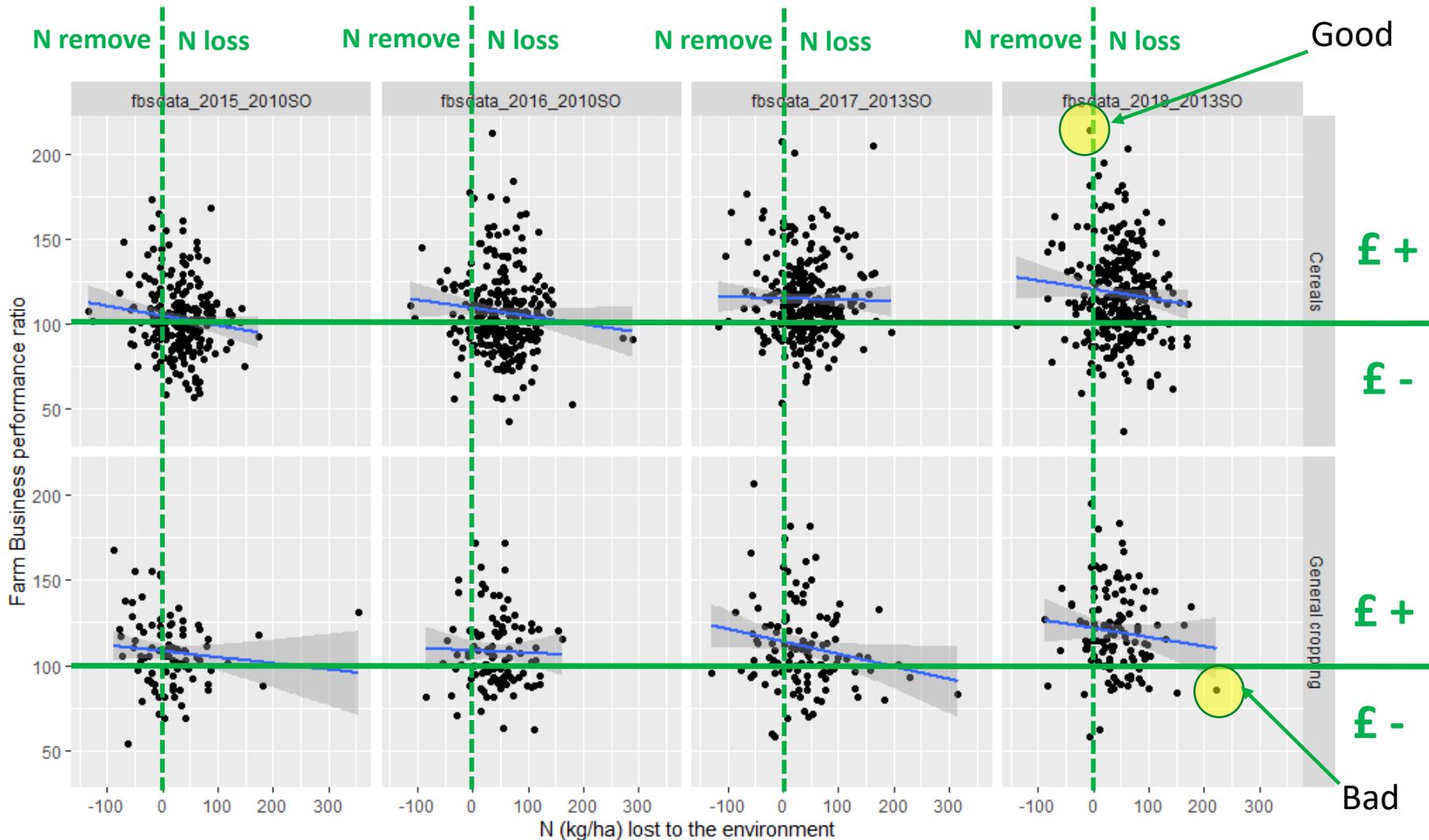
### **Futures**

Affordable, Farm profitability, Social  
acceptance



What's the evidence  
we can deliver on  
profit and the  
environment?

# How is farm gate N balance related to economic performance?



## General Cropping

Farms that lose most N to environment (>60kg/ha) are **poorer £ performers**

Own **FACTS** advice leads to **better £ performance**

No link between N-loss to environment and source of fertiliser advice

**Resource Use Efficiency Matters and is a win-win opportunity.**

Gray Betts, C., Hicks, D., Reader, M. and Wilson P. (2023). Nitrogen balance is a predictor of farm business performance in the English Farm Business Survey, *Frontiers in Sustainable Food Systems*, 7:1106196 <https://doi.org/10.3389/fsufs.2023.1106196>



# Confused?



**Let's simplify**

# RBR

Rural Business Research

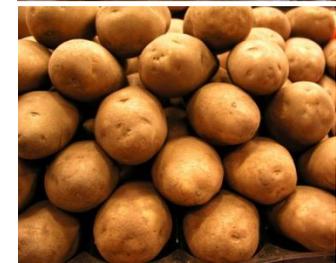
## Paul Wilson's 10 key drivers of farm business performance



University of  
Nottingham  
UK | CHINA | MALAYSIA



- Typically larger farm size
- Educational attainment
- Information seeking
- Environmental objectives
- Specialisation
- Focus on Margins (*not yields*)
- Cost control
- Attention to detail
- Open to new opportunities
- Business planning





University of  
**Nottingham**  
Food Systems Institute

# Thank you



bb-food-systems@nottingham.ac.uk



Food Systems Institute at the  
University of Nottingham



@foodsystemsinst



Sowing ideas, cultivating solutions



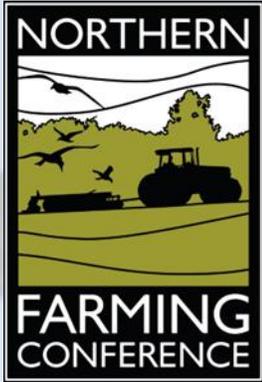
Sustainability



Community



Nutrition



# Questions

Facilitated by

**Samantha Charlton**

Northern Farming Conference

Committee Chair

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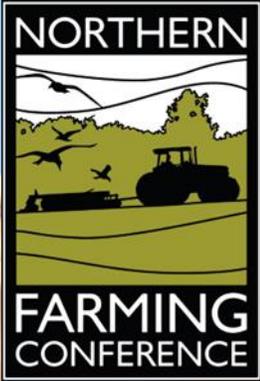
[www.menti.com](http://www.menti.com)

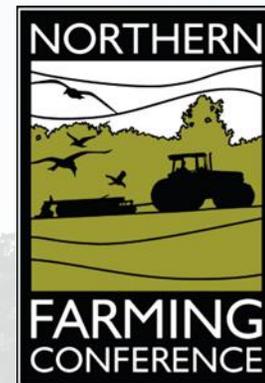
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# Lunch Break





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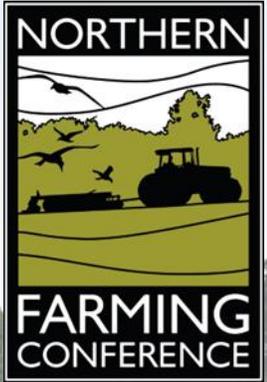


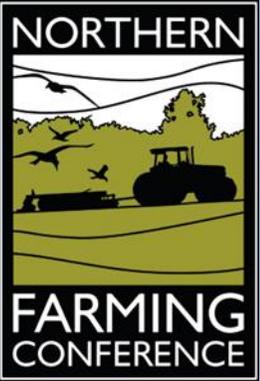
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# Matt Wallace

Northern Farming Conference  
Committee Vice Chair

Agricultural Relationship Manager  
HSBC



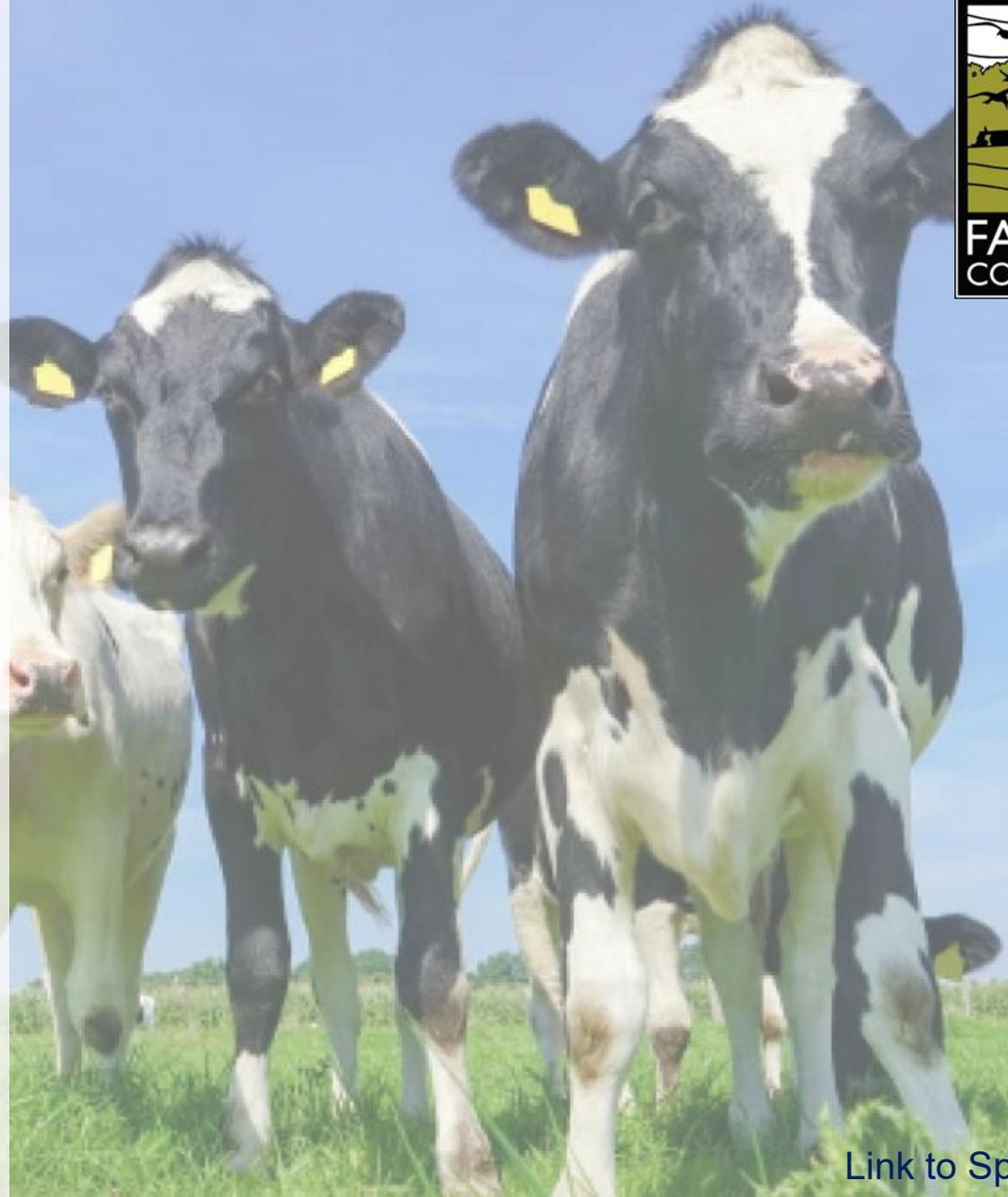


# Panel Questions

Facilitated by

**Jenny Oglesby**

Farm Trader & Small Seed Lead, ADM



[Link to Speaker Bio's](#)

# Farmer Panel

## Duncan Morrison

Livestock (Aberdeen Angus) farmer,  
Aberdeenshire

## Graham Rutherford

Northumberland beef and lamb farmer,  
Longhorsley

## Helen Marsden

Livestock farmer, Dumfriesshire

## Thomas Todd

Farmer at Barelees Farm,  
Cornhill on Tweed



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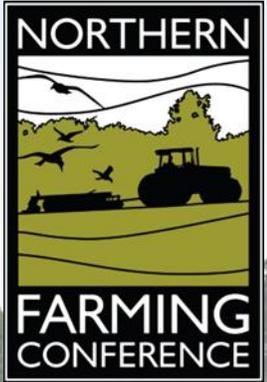
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# Matt Wallace

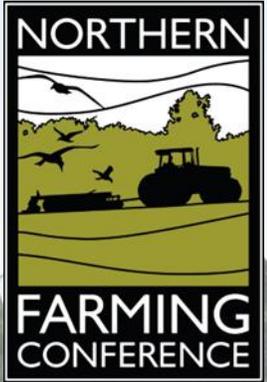
Northern Farming Conference  
Committee Vice Chair

Agricultural Relationship Manager  
HSBC



# Kat Thorne

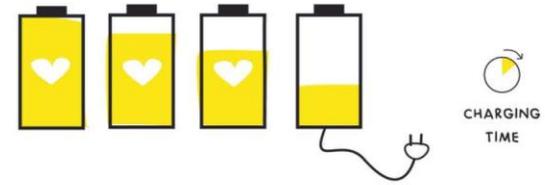
The Morning Gamechanger



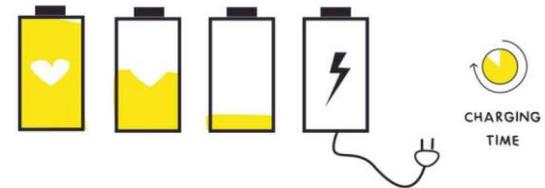
# One small habit changes your day.

*Kat Thorne*  
**THE MORNING GAMECHANGER**

WHEN WE SHOULD TAKE CARE OF OURSELVES



WHEN WE ACTUALLY DO



**Imagine the feeling**

**you would experience after being  
on a week's holiday...**

**Now imagine how long that  
feeling would last for...**

*Kat Thorne*  
**THE MORNING GAMECHANGER**

**What if there was a way to  
experience that  
energy, positivity and resilience  
for the other 51 weeks of the  
year?**

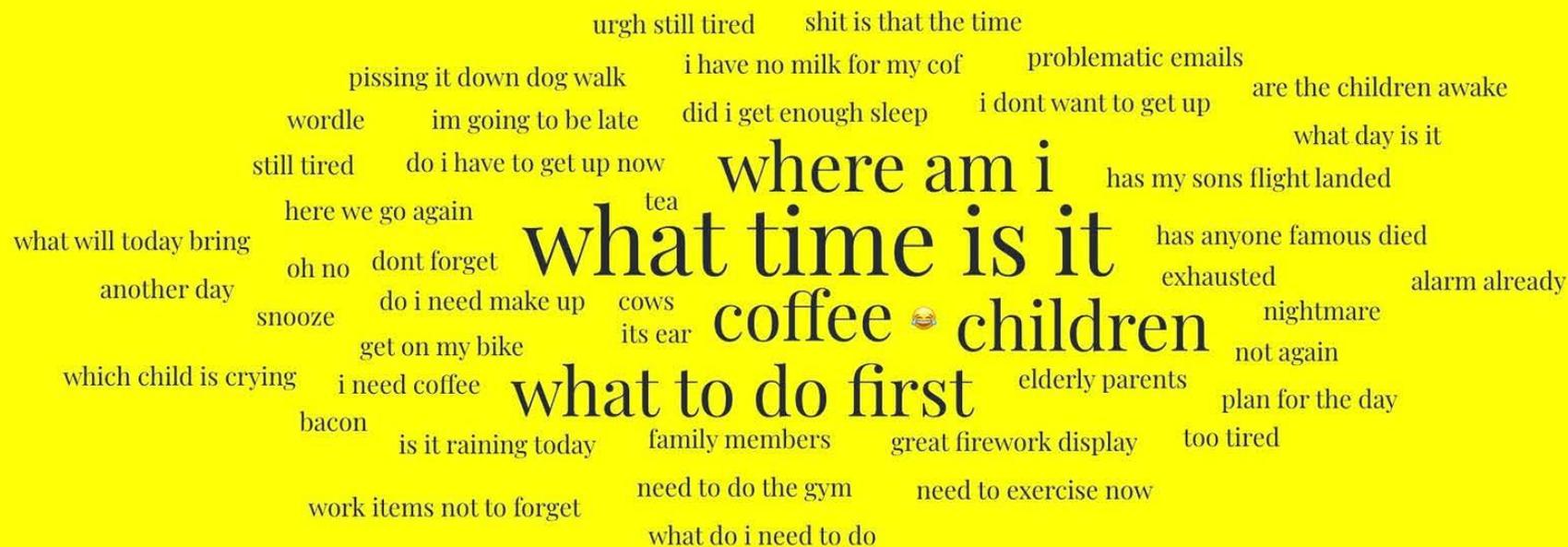
**Many  
organisations are  
working hard to  
improve employee  
performance and  
resilience.**

**But PEOPLE are  
still stressed....  
94% of them.**

**The UK scored second worst out of 71 countries for mental wellbeing in the latest global findings.**

MENTAL STATE OF THE WORLD REPORT, 2023

# What was your first thought you had this morning?

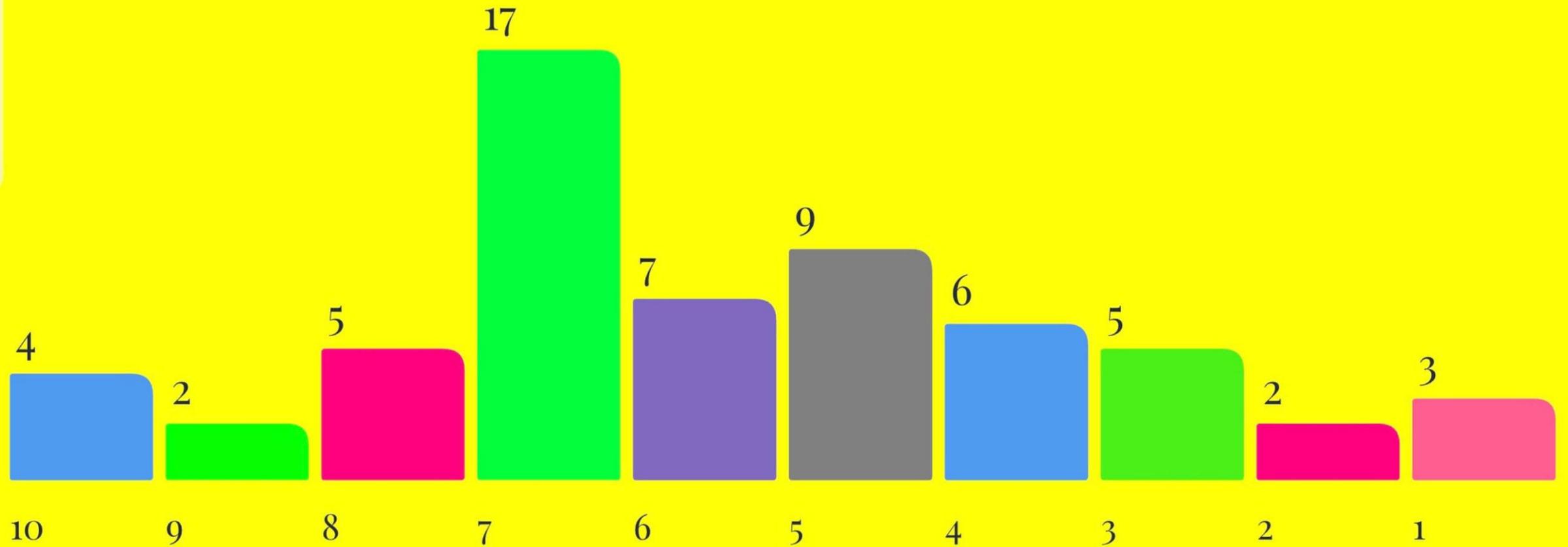


**Life is a rollercoaster.**

*Kat Thorne*  
**THE MORNING GAMECHANGER**

**The actual answer to a  
mentally strong and resilience  
workforce starts with  
one small positive habit change.**

# How well are you looking after yourself?



**The better people look after  
themselves the higher they  
perform at work and home.**



*Kat Thorne*  
**THE MORNING GAMECHANGER**

# Autopilot

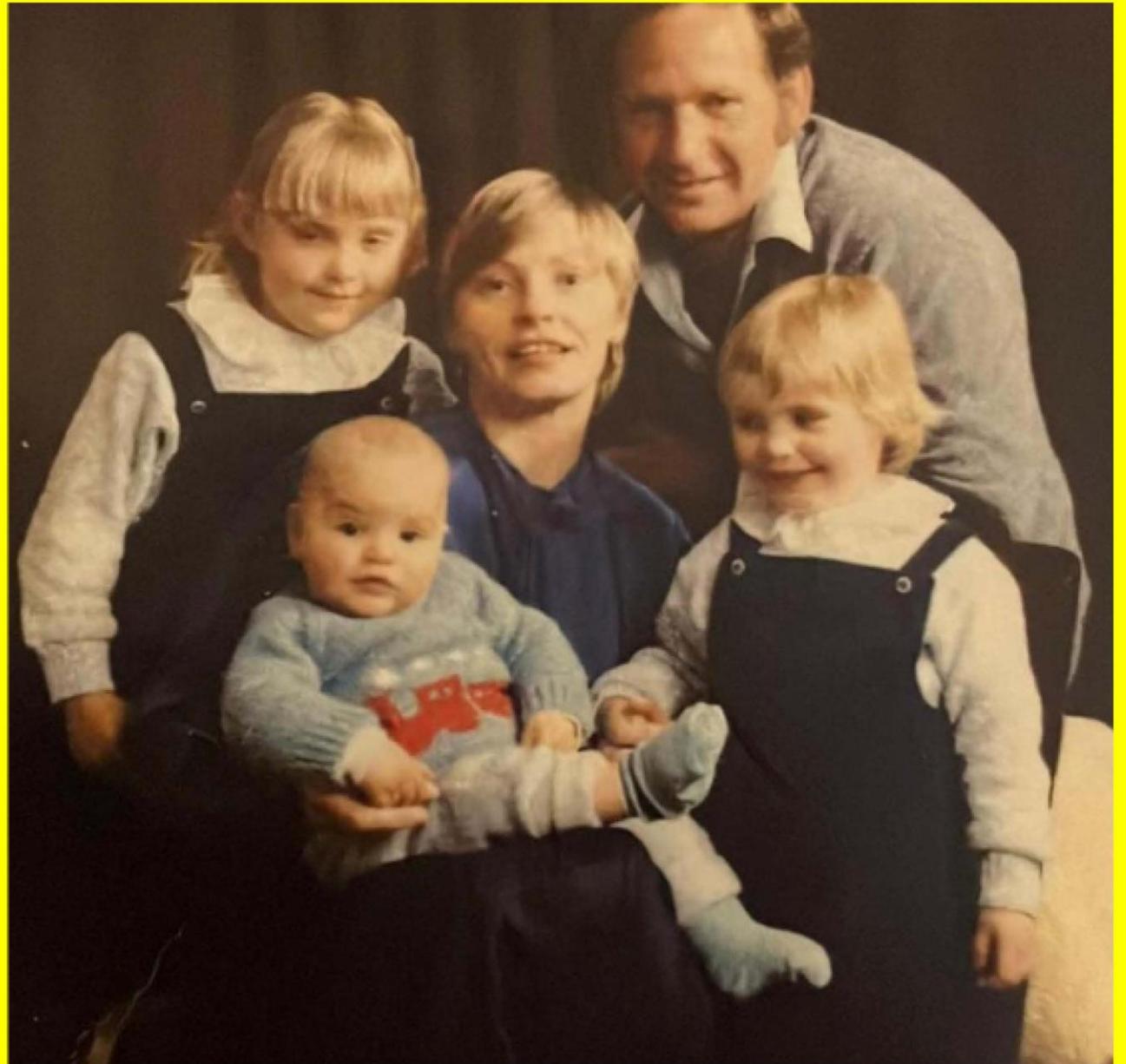


*Kat Thorne*  
**THE MORNING GAMECHANGER**

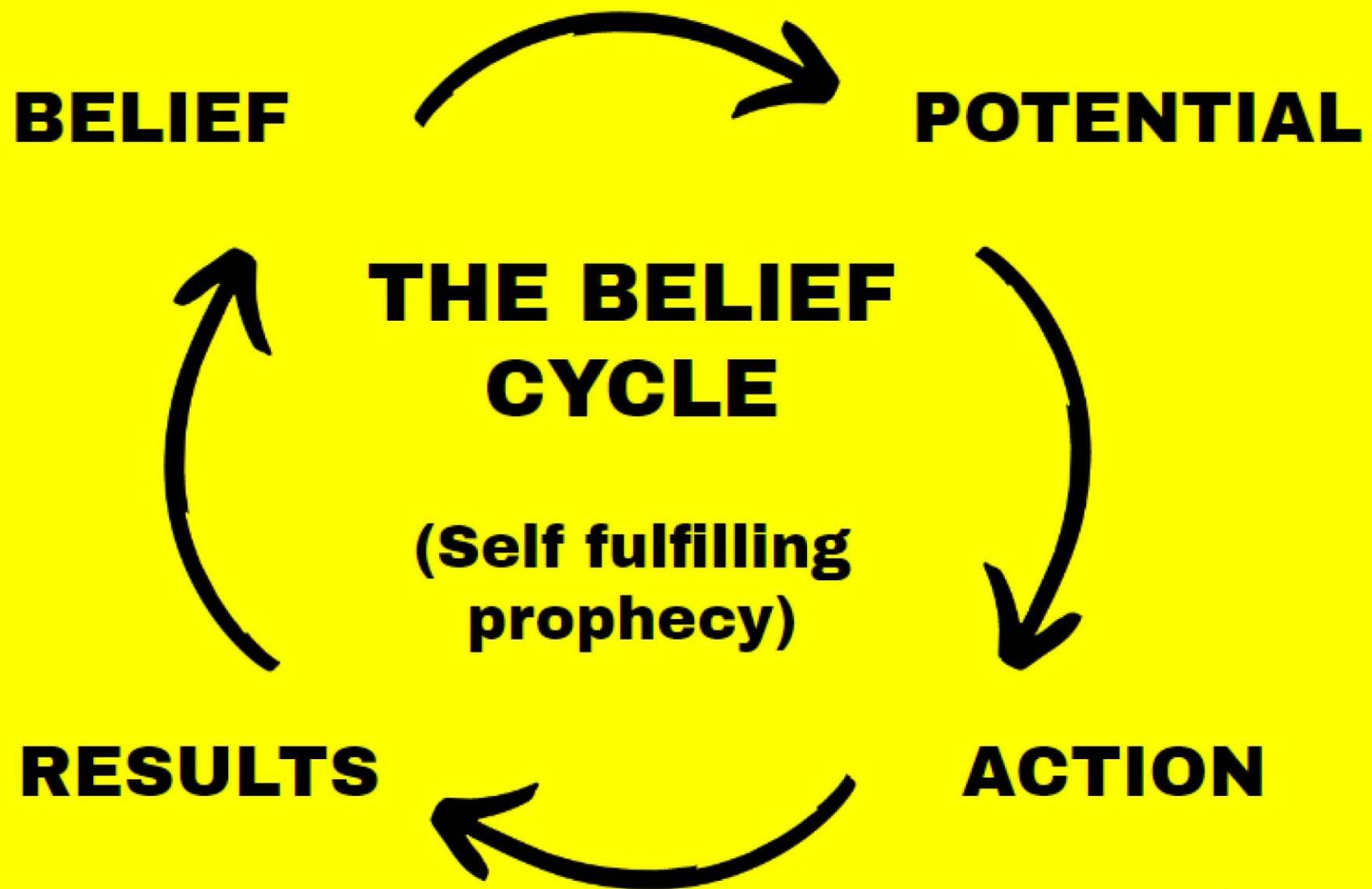
**Your life is the  
result of your habits.**

*Kat Thorne*  
**THE MORNING GAMECHANGER**

**Where it all  
starts...**



*Kat Thorne*  
**THE MORNING GAMECHANGER**



# Self-limiting beliefs



*Kat Thorne*  
**THE MORNING GAMECHANGER**

**Imagine a day in  
your life...**





**What you  
can control**

**What you  
can't control**

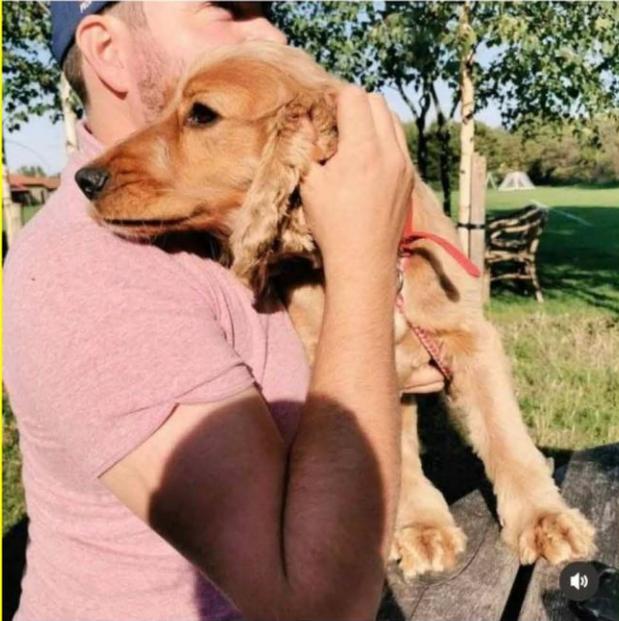
**Did you know **80%** of people who own smartphones check their devices within 15 minutes of opening their eyes?**



# The 10 minute habit advantage

*Kat Thorne*  
**THE MORNING GAMECHANGER**

Posts  
thriveinfarming



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thriveinfarming 3 Simple things you can do this evening if the week ahead feels overwhelming...

1. Write shit down. Get the thoughts out of your head and on paper. Map out the week. Time block important stuff (that can be **WHATEVER** is important to you, not just work stuff).
2. Tell your partner, parents, children etc what you hope the week will look like. What it will look like if everything pans out how you want it too. Getting others on board, and aware of your vision, will help keep you accountable and more likely to get the support you need.
3. Finish the weekend with a solid last couple of hours. Put the phone away. Read. Walk the dog. Exercise. Wind down in the garden, shoes off and connected to the ground.

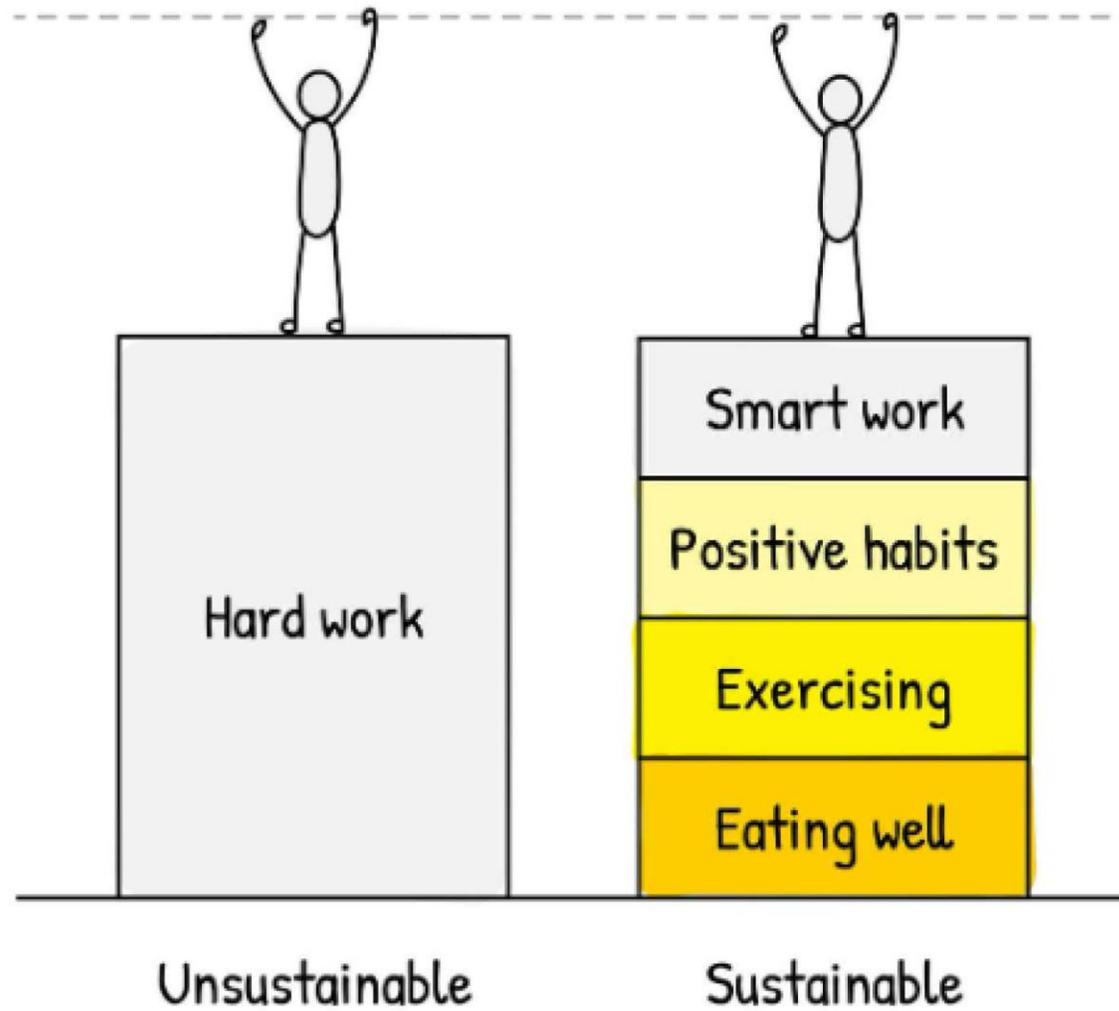




**Sharp**  
**Energetic**  
**Positive**  
**Productive**  
**Focused**

*Kat Thorne*  
**THE MORNING GAMECHANGER**

Success





Home for your phone



Read 10 mins



Healthy breakfast



10 mins of movement



Set bedtime

**One  
small  
habit  
change**

# What is the one small habit change you'd like to make?

Less screen time

10 minute kitchen disco

10 minutes of movement

10 minute run

1 minute plank

Eat cake

Chris Hemsworth

Early bedtime

Less alcohol , more exercise

Food

Home for phone

Reading before bed

Eat more fruit

Exercise

Phone out of bedroom

# What impact do you think it will have?

Feel brighter

Better abs

Better sleep, less anxiety

Give me a sense of achievement

More energy

Feeling good

More energy

More energy

Less sluggish

Happy wife happy life

I'll be happier

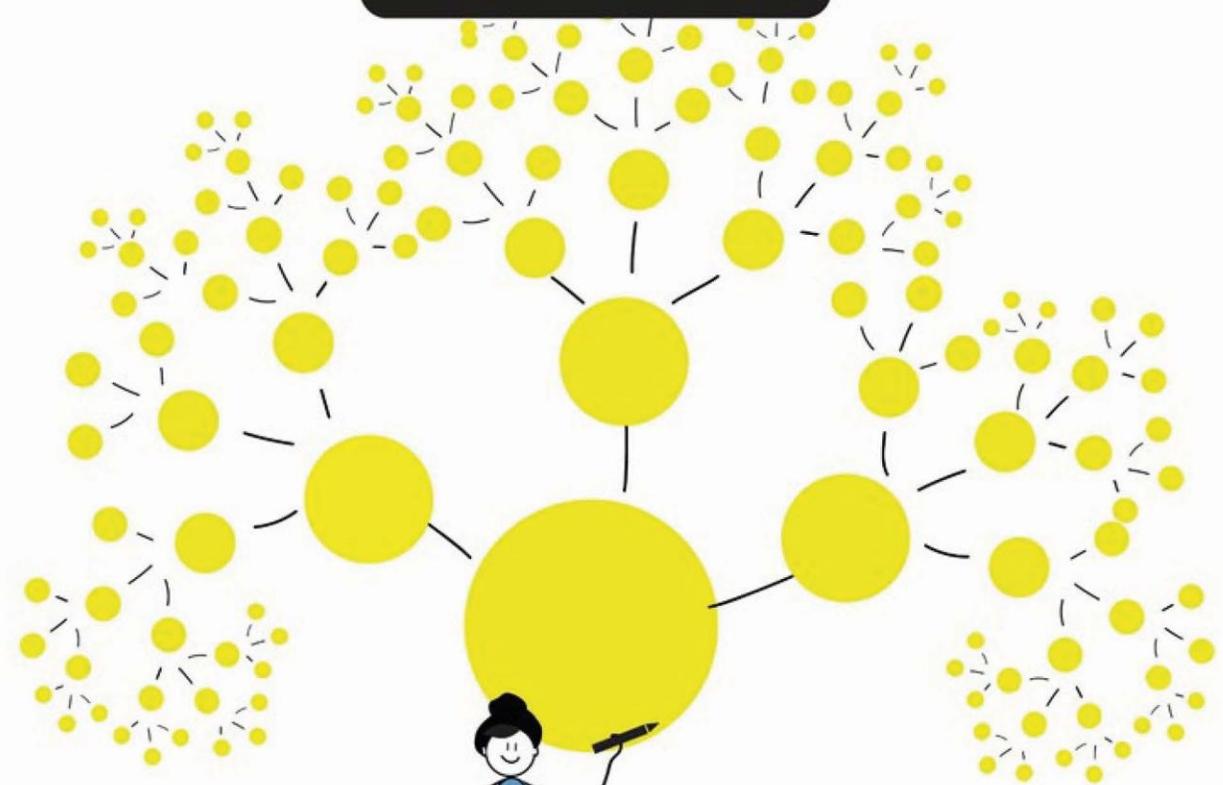
More energy.

Healthier lifestyle and work life

Will live longer

More focussed

THE POWER OF ONE SMALL  
POSITIVE HABIT CHANGE



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Kat Thorne  
THE MORNING  
GAMECHANGER

**THE BETTER PEOPLE LOOK AFTER  
THEMSELVES THE HIGHER THEY  
PERFORM AT WORK AND HOME.**

# ONE SMALL CHANGE IMPACT



**One Small Habit = 15% increase in productivity**

 **Priority List = 20%**

  **Movement = 20%**

 **30 second cold shower = 30%**

 **Digital detox before bed = 30%**



**FENDT**

728 VARIO

CP  
China & Pakistan

**One small habit will change your day.**

**Your week.**

**Your month.**

**Your year.**

**Your life.**

**You only get one.**



**Kat Thorne**



**the\_morning\_gamechanger**

*Kat Thorne*  
**THE MORNING GAMECHANGER**

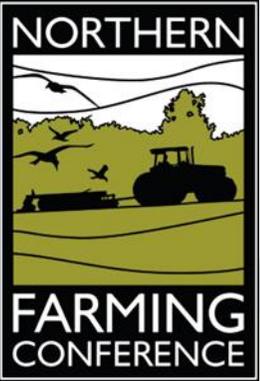
**LET'S BUILD A  
RESILIENT.  
FOCUSED.  
HIGH-PERFORMING  
TEAM.  
TOGETHER.**



**SCAN ME**



*Kat Thorne*  
**THE MORNING GAMECHANGER**



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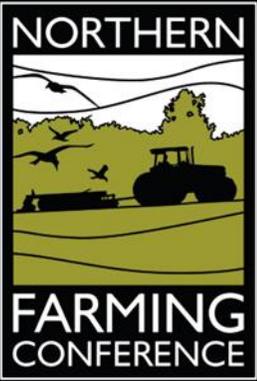


**Thank you**

**Samantha Charlton**

**Northern Farming Conference  
Committee Chair**

**Beef & Lamb Sector Director  
AHDB**



# Thank You For Attending

