

Report delivery partners







Foreword

Agriculture has honed the UK's world-renowned landscapes and shaped our cultural heritage. British produce is a source of national pride. Welsh lamb, Scottish salmon and English sparkling wines are just a few of the products which are as popular around the globe as they are at home. The agri-food value chain is worth £146.7 billion to UK plc.

And it contributes much more to societal and environmental goals ranging from clean energy generation, better health outcomes and national security to decent educational and employment opportunities and green economic growth.

Yet the supply base for the food system is in trouble. Costs of production are rising more quickly than revenue and farmers are reluctantly leaving the industry or reducing production levels to mitigate their risk. Addressing the structural constraints to profitable food production necessitates a private-public partnership. As does the development of new markets for renewables, public goods and natural capital.

Urgent action is needed from the new government, business and academia to kickstart growth in the agrifood supply chain. Farmers are resourceful. They are exploring new business models, new markets and developing new skills. However, a collaborative effort is required to create an environment which provides economic stability for farming and the confidence to invest.

Katie Tucker Executive Director, Rural Policy Group Ltd

About this report

This report is written primarily for parliamentarians and policymakers. It outlines the key challenges facing the food supply chain and establishes its significant contribution to the UK's economic, environmental and societal goals.

The thoughts and recommendations presented in this report are the result of discussions between parliamentarians, leading academics and business people who have shared their knowledge, professional insights and experiences.

"MHA has a deep understanding of UK agribusiness and through our membership of Baker Tilly International we can bring global knowledge to how we support farms and other food businesses. Our Founding Partnership with RPG enables us to advocate for systemic changes to the policy, regulatory and tax infrastructure surrounding agriculture and food, while our specialist team of accountants focus on delivering business advisory services from farms though to food manufacturers up and down the country".

Sarah Dodds Partner and Head of Agriculture, MHA

1 Agriculture in the UK Defra. June 2024



"Working with directors across the country, the Rural Policy Group is undertaking invaluable work to ensure that the food and farming sector is financially and environmentally sustainable. This report demonstrates the importance of the industry to both the UK economy, as well as its wider societal and environmental benefits."

Jon Geldari

Director General, Institute of Directors

"Rural Policy Group is reaching into food and farming businesses, parliament and academic institutions to bring together those voices in the food system which can effect change. The agri-food sector is responding proactively and collaboratively to build resilience to economic shocks such as those which have hampered the food system in recent years, and RPG is playing a key role in uniting a fragmented industry through the twin ambitions of supply chain fairness and food security".

Louise Manning

Professor of Sustainable Agri-Food Systems, Lincoln Institute of Agri-Food Technology

"Whitehead Monckton and RPG share an ambition to secure the future of farming families and their businesses. Investment in farming yields exponential benefits to society and it is important we support those who have managed the land for generations to stay on the land. The loss of skill and knowledge would be irreplaceable and the withdrawal of land from food production will have a lasting impact on our landscapes, health, environment and economy. We believe it is essential to come together to champion British food, and RPG provides that platform".

Christopher Longden Managing Director, Whitehead Monckton Quick reference guide

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"RPG shares the Slow Food in the UK ambitions to deliver good, clean and fair food for all. It is creating spaces for partners in the food value chain to consider how to deliver sustainable and affordable food to consumers, and helping to protect their financial viability so they can continue to serve the food system into the long-term".

Shane Holland Executive Chair, Slow Food in the UK

"Our mission is to transform the agriculture finance market and enable the sector's drive towards a more productive and sustainable farming and food supply chain".

lain Hawthorn Senior Agricultural Relationship Manager, Oxbury Bank Plc

Chairman's statement

We are now in our third formal reporting year. Within each report we produce a top-level financial valuation of a county to demonstrate the scale, scope and innovation in British agriculture. Policy often underestimates the power of agriculture, food and farming as a contributor to GDP and its role in the economic environment. The Surrey agriculture is worth £367 million. Collectively agriculture in the three counties we have valued to date, Kent, Lincolnshire and Surrey, contribute close to £1.2 billion to the UK economy. However, we can see how the value of farm produce is multiplied and how many other sectors are supported in the food supply chain, which in Surrey alone contributes £2.96 billion.

The current food crisis that has left retailers with empty shelves over the past 18 months continues and agriculture faces some of its biggest challenges in years. The consequences of climate change are coinciding with trade restrictions and conflict, and years of progress in the battle for a sustainable and affordable food supply are being rapidly reversed. Since the Paris Agreement from the 2015 United Nations Climate Change Conference (COP 21), stronger mitigation efforts are being embraced globally to slow down global warming. Many countries have revisited their mitigation plans to strengthen their effectiveness or to find new solutions.

The UK has led several elements of this, such as being the first country to mandate reporting on climate risk for large companies. However, the world has moved on and the UK has much to do to regain its position as a climate leader. The agriculture sector contributed £13.7bn (£11.6bn 2022) to GVA in 2023. Combined

with the food sector, the statistic bolsters to £146bn. We as a country spent £271bn on food and drink in 2023 and as a sector employs over 4.2 m people in 8,300 businesses. The food value chain, starting with those who manage the land, can make a huge contribution towards meeting green goals and altering consumption patterns for greater sustainability and resource-efficiency.

However, food producers continue to face challenges and in effect remain focused upon the 'core business' as rising costs and volatile input prices meet relatively static sale prices. Consequently, farm businesses are reducing production levels in ever growing numbers. The Rural Policy Group has recognised this and is vocal about the importance of paying the right amount for food and drink and cascading the margin through the upstream and downstream value chain. We cannot achieve food security without a viable industry of farmers and food producers. We lobby for fair value, and we encourage action amongst businesses to achieve fair value. This report is part of that process. The UK Food Valley in Lincolnshire, valued in last year's report, demonstrates the multitude of economic, environmental and social benefits that emanate from the food chain when its potential is seen and optimised through clear strategy, ambition and hard work. Relevant to RPG's pursuit of financial and environmental sustainability, is the role of agriculture, together with forestry and other land uses, contributing nearly a quarter of all anthropogenic greenhouse gas emissions (GHGs). Half of this share comes from agricultural emissions, mainly from livestock. Emission reductions from food production have so far received less attention in GHG mitigation policies than those

from energy, transport and other industrial sectors — but the perspective is now growing especially within Europe. Consequently, emissions from agriculture could become the dominant source of global emissions by mid-century. However, it is worth pointing out that UK farming is already incredibly efficient. The greenhouse gas footprint of UK beef production is half that of the global average whilst the UK dairy industry's greenhouse gas production rates are just 40% of the global average.

Therefore, meeting the Paris Agreement's target to limit global temperature increases to 1.5°C or well below 2°C, will be impossible without agriculture and farming doing its part to tackle climate change. IPCC projections show that these targets are becoming increasingly difficult to be achieve within the mandated timeframes. Our take on our Taskforce on Climate-related Financial Disclosure (TCFD) 2023 (listing rules under the Financial Reporting Council not to be to be confused with the Companies Act recently enacted requirements - climate financial disclosures (CFD)), brings this to bear and how it links into the long-term sustainable importance of this sector. We are issuing our transitional TCFD Disclosures for 2023 as part of this report.

Policies at the international, national and sector levels must work together to avoid moving carbon emissions from one place to another. The reliance on imports to help manage the emissions from UK agriculture simply shifts emissions to other territories and often those locations have less stringent environmental regulations. So, the net result is more GHGs being emitted under the one sky.

More sustainable agriculture, domestically and worldwide, can be achieved through collaboration with government, industry, research institutions and signing up to best practise (such as TCFD Disclosures and voluntary disclosures) and the sharing of data. We also need to recognise and reward positive climate action and resilience measures in policy, consumption and valuation. Finally, we call on policymakers to develop a clear and consistent long-term framework aligned with climate, agriculture, food and forestry to create a stable and enabling operating environment. Farming rotations can be longer than the political cycle and meaningful policy would give consideration to the extended timescale farmers work towards.

RPG remains firm in its objectives: (1) giving greater priority to food and farming in policy as a means of economic growth, climate and nature recovery and improving public health (2) fair distribution of the pricing margin to ensure the commercial viability of food production and (3) a more robust self-sufficiency target and strategy to achieve it.

Finally, this is my last report as Chairman. After five years at the helm it is appropriate to pass on the mantle to the next individual to drive the agenda forward. We look forward to announcing this appointment in the near future along side the new governance structure. I will remain in a non-executive capacity supporting the initiative I created to support agriculture food and farming industries, underpinned by sustainability that are so important to the UK. I hope we have and continue to make a difference.

Mark Lumsdon-Taylor Founder and Chairman Rural Policy Group Ltd



Within this purpose we advocate:



Fairness and collaboration within the food value chain.

2

A more ambitious food security target of 70% self-sufficiency by 2030. 3

Respect for British agriculture, food and farming in all policies. 4

Green innovation as the powerhouse of productivity and profitability. 5

Mainstreaming sustainable accounting and appropriate levels of ESG reporting.

Our Mission

RPG brings together a triple helix of political, industry and academic thinkers to improve the financial health of the UK's food industry. It supports policymakers in the development of a policy, regulatory and tax framework to create conditions in which businesses feel confident to invest. Equally, we work to guide businesses in translating government initiatives into action and reward while ensuring industry leaders are knowledgeable about the business benefits of sustainability and aware of the opportunities available to them in a green UK plc.

How do we do this?

1 RED Talks: through a series of online interactive rural economic development sessions, RPG facilitates dialogue between industry figures and grassroots businesspeople, parliamentarians and policy influencers and academics involved in research and innovation. These three spheres of influence converge to achieve greater alignment of ambitions and synergistic action for the food industry. RED Talks tackle the big issues in the UK's food system and promote the development of green markets for landowners' natural capital.

APPG on Fair Value in the Food Supply Chain: working with parliamentarians in both Houses RPG established an all-party parliamentary group to raise awareness amongst policymakers of the challenges within the food value chain, make recommendations to inform government policy and influence the design of national frameworks for collaboration and regulation in the supply chain.

Agri-Food Price Cluster: RPG has established a 'virtual cluster' to foster collaboration and best practice among stakeholders in the food value chain and address pinch points which inhibit food supply and food standards. The cluster investigates how we square the circle of improving profitability for businesses while maintaining affordability for consumers.

The virtual cluster is the first in a series aimed at tackling key problems with the food system.

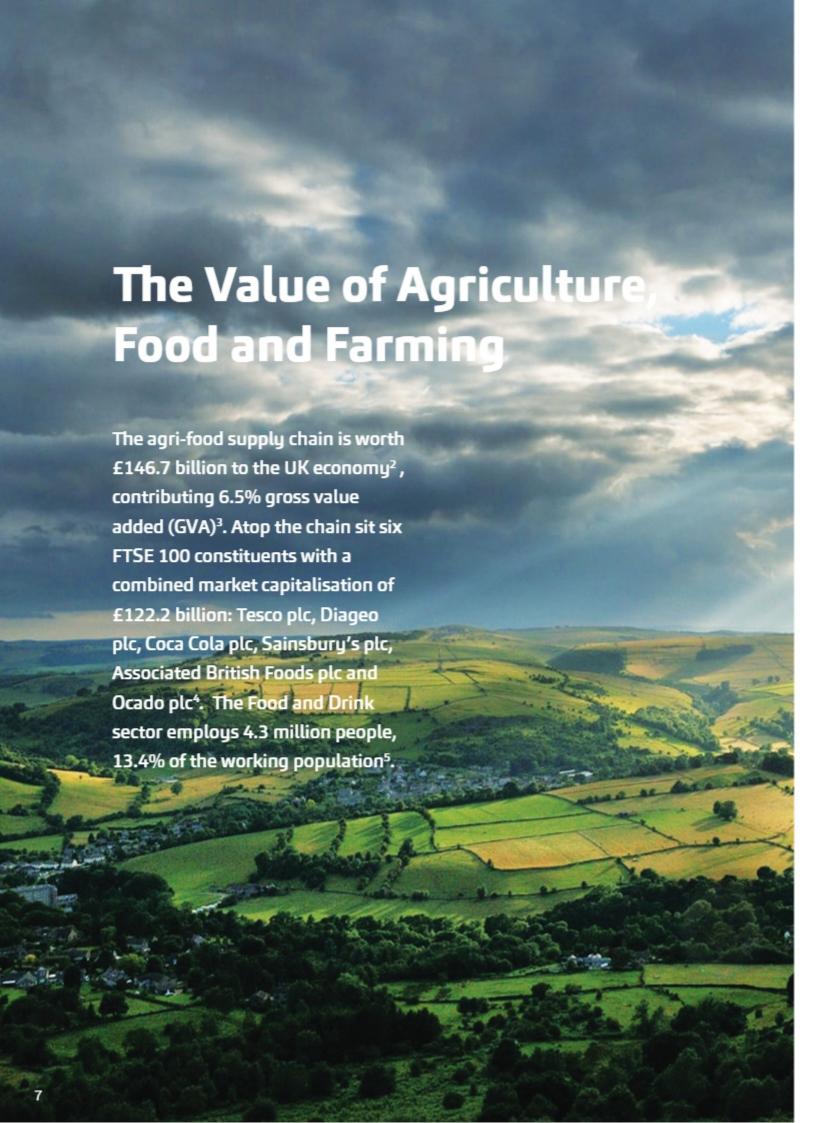
Conferences: RPG hosts seminars at high profile industry events and agricultural shows around the country, in addition to its popular Sustainable Food Conferences.

Our Background

Rural Policy Group was established in 2019 and began delivering RED Talks during the first period of lockdown to support rural businesses and examine the impacts of Covid on the food supply chain. It is backed by an Advisory Council of industry experts and receives valuable input from representatives in parliament, business and leading universities.

RPG is politically neutral and has welcomed support from the Conservatives, The Green Party, Labour, Liberal Democrats, Plaid Cymru and the SNP. This stance is respected by grass roots business and institutional audiences who value the impartial dissemination of policy innovations in a way which facilitates an actionable business response.

RPG has an international audience of over 5,000 businesses and organisations from the UK, India, Africa, the United States and Europe with interests in food, farming, land agency, climate change, nature conservancy and clean energy.



The Agricultural Balance Sheet

Agriculture's direct contribution to the UK economy grew to £13.9 billion in 2022. The £1.8 billion increase in GVA was driven by growth in both livestock and crop outputs and the expanding role of green diversification activities.6

Total income from farming was £7.9 billion in the same year, up £1.1 billion (16.6%) from 2021 due in large part to higher global commodity prices and more favourable weather conditions.7

Total livestock output was up 16.2% YOY to £19.3 billion; mainly driven by milk and beef. The value of milk rose 39.6% to £6.7 billion and farmgate prices reached a record high of 51.6p per litre before starting to normalise. Price increases were the result of increasing costs of production which forced some farmers out of the industry and milk production contracted by -0.5%. Beef also performed strongly; the high cost of feed and drought kept the price of beef on average 8.7% higher than in 2021 and it contributed an extra £409 million to the economy.

Total crop output was up 21% YOY to £13.3 billion. The effects of the war on Ukraine - supply chain disruption, volatile commodity markets and a decrease in the global supply of some crops - inflated prices for British wheat, barley and oilseed rape. Typically, wheat was the biggest contributor. Its value increased by 50.1% to £4.1 billion, due to a 35% YOY increase in unit price and higher yields from favourable planting conditions and an early harvest. Barley increased in value by £647 million to become the second largest output, partly due a resurgence in the brewing industry. Oilseed rape increased in value by £390 million (80%) due to increases in the area under production and yields combined with prices peaking after the invasion of Ukraine. Higher output for these crops offset decreases in the value of other crops such as sugar

- 2 Agriculture in the UK, Defra, June 2024
- 3 Glossary Gross Value Added is the difference between the value of goods and services sold and the cost of inputs for a given sector or industry.
- 4 London Stock Exchange, 28 May 2024
- 5 Food statistics in your pocket, Defra, February 2024
- 6 Agriculture in the United Kingdom 2022, Defra, February 2024
- 7 Total Income from farming in the UK in 2022, Defra, May 2023

These positive output growth figures mask a worrying decline in production volumes across multiple categories. Eggs experienced the largest decrease in value at -21.8% YOY. Less soft and top fruit was grown. Many herds were downsized or sold. Salad crops were not planted over winter. These contractions in response to output revenue rising less quickly than input costs and the loss of farm payments bode ill for the UK's food security and export revenues.

Subsidies decreased to £3.073 billion in 2022 in line with the progressive reduction to Basic Payment which was introduced the previous year. The average payment was -19% and accounted for a quarter of farm income. On lowland livestock farms, it rose to 64% of farm income. The continuing programme of reductions will put the future of many farms in jeopardy. Payments for agri-environment activities through ELMS are starting to filter into farm accounts although the industry is far from the point where ELMS payments offset the loss of BPS. Further, many SFI activities will sit within their own cost centres in the farm budget; payments for these schemes do not subsidise food production so it will become incumbent on policymakers to consider how the policy of extremely affordable food is delivered.

Rising input costs continue to squeeze already slender margins in an industry where selling for below the cost of production or very near to it is widespread. Inputs and other costs were £22.1 billion, up 19.2% YOY. The price of feed went up by a third and fertilizers by up to 300%, although the average was closer to 70%. The UK energy crisis bit hard too and an additional £690 million (47.6%) was spent on electricity and fuels. Energy is frequently cited as the straw that broke the camel's back in high-usage sectors such as eggs, glasshouse production and poultry.

Compensation of employees rose by £47 million, driven in part by the 20% increase in National Minimum Wage over the past two years. Farm businesses in London and South East where labour costs are typically higher than in other regions and the horticulture sector where labour costs are circa 52% of the COP were particularly affected.

While income from diversified activities is virtually unchanged, more of the output is coming from renewable energy and attempts to retain value on farm and shorten supply chains through food processing and retail endeavours. A 69% increase in diversified income on horticultural farms was due in large part to renewable energy.

Farm business models are evolving to become less reliant on supermarkets. The food service market is growing and the export market is recovering from the Brexit impact. And some farms are going down the online and on-farm retail routes. Keeping more of the added-value on farm is also an important contributor to profitability. One Kent apple grower grubbed up most of his orchards after realising that supplying a supermarket would cost him -£150,000. He retained enough trees to supply his apple juice business, used some of the land for rare breed meat and hosts regular events such as PYO days. Rental income and a farm shop have also added to his bottom line. Farm business have more leverage in negotiations when they have the option to walk away from unfavourable terms.

Liabilities across all farms increased by an average 8% to £294,000 per farm in the year to 2022/23, and the largest rise in levels of debt was seen in horticulture, which increased by 52% to an average £271,300. Unsurprisingly, given the high rate of inflation, farms were spending 2% more of their income on interest payments compared to 2021/22. The industry average was 8%, rising to 17% of income in specialist pig and poultry farms.8

Conversely, the net worth of farming has contracted by £2.6 billion (-0.8%) to £322 billion. This is largely due to a decrease in agricultural land values by -2% YOY to £277 million. Farms with a higher net worth tend to be more resilient to changes in income in the short-term as they can draw on reserves to supplement cashflow and have more funding options available if their financial position deteriorates. Consequently, the slight fall in the real terms average net worth of farms, combined with higher costs of servicing debt and erosion of profit margins, was detrimental to most farm businesses. In the exceptionally volatile

commodity markets that characterised 2022, those without the agility to buy and sell in favourable conditions could see profits wiped out.

The gearing ratio across the industry, at 12%, remains largely unchanged for the past decade. However, on taking a closer look gearing ratios rose sharply for general cropping, dairy and horticulture farms. Indicating financial stress and a putting a question mark over their long-term viability. Only specialist pigs and poultry farms saw their gearing ratio fall (-3%), although this group was also more highly geared than other farm types at 27%.

While the liquidity of farm businesses increased for the fifth consecutive year this top line statistic conceals a broad range of positions. Cereal farms had the highest liquidity ratio at 432%. Dairy had the lowest at 195% suggesting difficulty meeting financial demands. More than one in 10 farms had a liquidity ratio below 100% indicating significant financial stress; a quarter of dairy farms fell into this category along with 17% of large farms.

In England, the median return on capital employed was 0.5% in 2022/23, a fall of 0.5 percentage points compared to 2021/22. A number of sectors made a negative return: mixed farms (-0.6%), lowland grazing livestock (-1.4%), Less Favourable Area grazing livestock (-1.7%) and horticulture (-2.2%). Overall, 45% of farms had a negative return on capital employed (ROCE) and 17% of farms were unable to make a profit, almost double the 9% which made a loss in 2021/22.

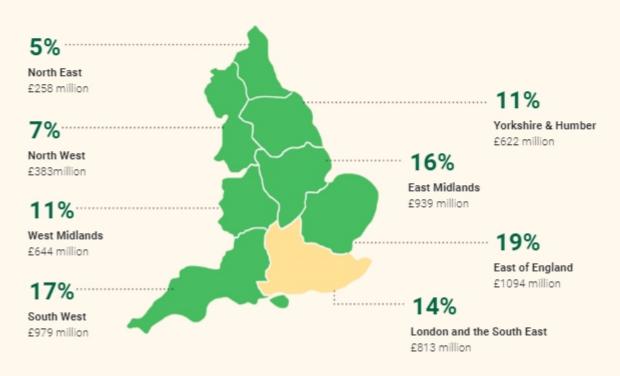
While average Farm Business Income, an approximation of net profit, increased by 12% to £96,100, the overall picture is of an industry in distress.9 Unusually high pricing disguised clear signs the industry is contracting and more farms are on a trajectory towards financial difficulty.

Agriculture represents 0.62% of GDP9 although this underplays the economic, environmental and societal multiplier effects that trickle through a sustainable UK plc. The retain and build on these benefits, it is imperative to return the agriculture to a position of strength.¹⁰

10 Total income from farming in the UK in 2022, Defra, May 2023

2019	2020	2021	2022
275,284	286,416	329,139	324,802
15,334	16,306	16,676	18,392
290,619	302,722	345,815	343,194
15,286	15,523	15,696	15,587
6,003	5,466	5,543	5,582
21,290	20,989	21,239	21,169
269,329	281,733	324,576	322,025
	275,284 15,334 290,619 15,286 6,003	275,284 286,416 15,334 16,306 290,619 302,722 15,286 15,523 6,003 5,466 21,290 20,989	275,284 286,416 329,139 15,334 16,306 16,676 290,619 302,722 345,815 15,286 15,523 15,696 6,003 5,466 5,543 21,290 20,989 21,239

Total Income from Farming (Net)11



¹¹ Agricultural facts: summary, Defra, April 2024

Balance sheet analysis and farming performance, England 2022/23
 statistics notice, Defra, April 2024

⁹ Agricultural Facts: Summary, Defra, Agril 2024



What is the food supply chain?

The food supply chain is the network of stakeholders involved in growing, processing, distributing and selling the food people eat.

Producers

Trading

Processors

Value-add processing Manufacturing Marketing & sales

Distributors

Retailing

Consumers

Consuming

Government/ NGOs/ Regulators

> Public health & safety Public policy Security (e.g. resource, land and food availability and allocation) Policy & support

As a net importer of food, the main drivers of food price have been exacerbated by geopolitical and climate considerations: import prices, exchange manufacturing and farmgate prices. Higher levels of self-sufficiency would help safeguard food prices from international influences and return a greater degree of economic stability to both consumers

The pandemic brought about greater consumer awareness of food security at a national and household level and an appreciation for food which coincided with a growth in organic sales and use of farm shops. Nine out of 10 farm shops have during the first lockdown. Alternative routes to market are taking on increasing importance to qualityconscious consumers and producers who are seeking more profitable outlets for their produce.

Imports play an important role in supporting domestic production to achieve food security. In 2022, 58% of the food consumed in the UK was produced here. The EU is still our biggest trading partner supplying 23% the world. Carefully managed international trade can enhance the UK's food supply and food security as overreliance on a single source would expose the food system to greater risk from climate extremes or geopolitical events which disrupt supply.

The Food Production to Supply Ratio, Ratio, is estimated to be 60% for all food and 73% for indigenous food.

These figures are slightly down from 61% and 74% in 2021. Self-sufficiency in indigenous foods is down from a high of over 90% in the 1980s and at the same time, self-sufficiency in all food types was close to

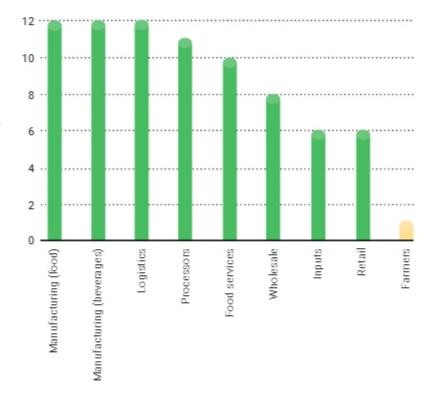
Food tastes have become more varied since the 1980s and imports provide consumers with choice as some crops do not lend themselves to the UK climate, such as bananas from the Caribbean and the perennially popular avocado. The move away from eating seasonally also contributes to the need for imports to fulfil consumer requirements, although innovation can bring production back to the UK. Scotland now grows berries for nine months of the year. >>>

> > The level of imports contributes to a significant trade gap. In 2021, the trade deficit in food, feed and drink was £25.6 billion. At the same time British production was entering into a decline. £3.5 billion worth of eggs were imported while Britain's producers paused production because they could not recoup their costs. The result is that the UK is exporting opportunity and economic growth to its trading partners.

Share of value in the food supply chain

Primary producers make lower returns in their investments than other actors in the food supply chain contributing significantly to the 52% of farms which make losses annually.¹³

Return on capital employed (%)



Food and Drink Manufacturing

The food and drink manufacturing sector was valued at £33 billion in 2022, up 8% year on year, with a total turnover of £128 billion and domestic sales of £113 billion. This sector, which contributes more to the UK economy than automotive and aerospace combined, depends on inputs from agriculture and farming. 14 The sector is an equally important contributor to green goals and improvements in public health.

CO2 emissions from manufacturing are down 61% compared to the 1990 baseline, food waste has been

reduced by a third since 2011 and there has been a 39% reduction in water consumption since 2007. The food manufacturing sector is committed to achieving net zero by 2040 across the farm-to-fork supply chain. 15

Manufacturers have been innovating since 2015 in response to consumer demand and government mechanisms to improve the nutritional composition of the food supply. The average shopping basket now contains fewer sugars, salts, fats and calories in an attempt to combat the rise of diet-related health

problems. 16 78% of respondents to a Food & Drink Federation survey were investing in healthier product development in 2023 and extending the Reformulation for Health programme would provide vital seed capital for further investment in tackling diet-related diseases. 17

Some of the challenges which affect agriculture are also omnipresent in manufacturing. The increase in production costs outpaced the increase in sale prices. Total production costs rose by 9.2% over the year to March 2023, while selling prices rose by 4.3%. SMEs saw the lowest increase in their selling prices (3.8%), an indication of the imbalance in negotiating positions. Manufacturers expect cost prices to continue rising by more than sale prices into 2025, seeing margins become increasingly squeezed. 18 As manufacturers have absorbed some of the cost increases, they have postponed or cancelled investments projects to divert money into day-to-day operations. As in agriculture, the squeeze on already tight margins has resulted in a fall in production levels for some businesses. 17% of manufacturers have experienced a contraction in output. On a more positive note, 72% are confident of increasing production volumes in the year ahead.

Poorly designed and implemented regulation is a deterrent to investment and unnecessary costs for ill-thought through policies and additional red tape are likely to hinder growth. For example, "Not for EU" labelling will require manufacturers to run separate production lines for GB and EU markets at a cost of £25 million per year. The second phase of the Border Target Operating Model (BTOM) which came into effect on 30 April 2024 is also a concern with new fees and charges which will significantly increase costs for companies bringing in mixed loads.

The farm-to-fork food chain employs over four million workers and 456,000 work specifically in food manufacturing. Labour shortages in food and drink manufacturing stood at 5% compared to 2.7% in the

- 13 National Food Strategy, 2021
- 14 Our Industry at a Glance 2022, Food & Drink Federation
- 15 Our Industry at a Glance 2022, Food & Drink Federation
- 16 Our Industry at a Glance 2022, Food & Drink Federation
- 17 State of Industry Report Q1 2024, Food & Drink Federation 19 State of Industry Report Q1 2024, Food & Drink Federation
- 19 State of Industry Report Q1 2024, Food & Drink Federation
- 20 State of the Industry Report Q1 2024, Food & Drink Federation



wider manufacturing industry and 2.9% nationally. Most manufacturers reported vacancies (61%) and the vacancy rate is estimated at 6.3% in SMEs, 3.7% in midsize businesses and 5.7% in large businesses.¹⁹

Unfilled vacancies simultaneously put a downward pressure on productivity and an upward price pressure on wages. In contrast to the perceived 'unskilled' vacancies in agriculture, vacancies in manufacturing affect a wide range of roles including engineers, agronomists, warehouse and factory operatives, packers and software developers. 36% of manufacturers are considering automation as means of solving the high cost of labour and persistent shortages.

The sector is increasingly taking advantage of opportunities to collaborate with third parties, including universities, UK Research and Innovation (UKRI), supply chain partners and other manufacturers. It is an approach designed to attract new investment and advance technological progress for the delivery of strategically important environmental and health goals for UK plc and to nudge the country towards greater self-sufficiency.

Manufacturers looking to rebuild their margins and cash reserves will need to invest in volume growth at a time when consumers are cutting back spend on essential goods. Despite this, the majority of manufacturers (84%) are primarily focused on growing sales in the UK and new product development (53%). However, nearly a third will be considering a restructure to remain competitive and profitable.

Business confidence is returning to the manufacturing sector in 2023/24. However, businesses remain cautious about investing. 50% of manufacturers plan on maintaining broadly similar investment levels and just over 40% plan to increase their investment. The changing business environment, demand uncertainty and the cost of finance are the leading causes of suppressed investment.²⁰

The Grocery Market

In 2022, expenditure on food and drink rose by £33 billion to £508 billion at constant prices, up from £475 million in 2021^{21} .

The UK grocery market is dominated by a small number of supermarkets. The Big Four – Tesco, Asda, Sainsburys and Morrisons – had a combined market share of 64.9% in September 2022, with Tesco controlling 26.9% of the market. The three largest discounters – Aldi, Lidl and Iceland – had an 18.8% share of the market. This powerful group of buyers hold a significant amount of influence over retail pricing and its impact on supply chain partners.²² It is often said food price policy has been outsourced to the private sector and the free market and with a staggering 83.7% of the market concentrated in just seven retailers it would be hard to disagree.

Fierce competition in the grocery sector to win value conscious customers continues to suppress pricing throughout the supply chain. Aldi Price Match and loyalty card pricing are indicative of the tactics retailers employ to attract consumers who are accustomed to spending a lower percentage of their income on food and those who are experiencing household food insecurity. In 2022, 7% of households were food insecure and the free market delivery system supports these families in the absence of mechanisms to address the root causes of poverty.²³ However, we need to balance the needs of consumer and producer to protect the domestic supply base from further shrinkage.

For retailers, the relentless price war drives innovation in their propositions as consumers' shopping preferences switch to own label and value ranges in an effort to manage household budgets. For those in the downstream supply chain this can mean selling for below the cost of production or very near to it, a situation which is seeing farmers exit the industry, redeploy land to more profitable uses or bank it for development.

Working Together to Improve Food Supply Chain Resilience

Volatility and a rapid succession of economic shocks are becoming a marked feature of the business environment in which the supply chain operates. The pandemic, geopolitical challenges, Brexit, input cost increases, unprecedented inflation, high interest rates, climate events and the cost-of-living crisis have compounded one another to stress test global supply chains, and they are creaking.

One of the biggest challenges is that risk and investment are frontloaded onto farmers; it can take years to bring a crop to fruition while most buyers work on a seasonal cycle of less than a year, leaving the burden of risk and financial outlay solely with the farm business until the retailer accepts delivery.

Another challenge is the replacement of short-term trading model in which prices reflected supply and demand on a week-by-week basis with long-term fixedprice contracts which can span multiple growing seasons. These contracts are not suitable for all types of produce. Particularly where shared risk or greater reward would encourage investment in innovation to increase the competitiveness of UK producers vis a vis imports. As we have seen with blueberries, a growth category can quickly fall into decline if it is deterred from investing by cheaper imports. With prices fixed up to nine months in advance of the harvest, economic conditions, geopolitical conditions and the weather compounded the risk to a level which is increasingly unacceptable to farmers and fixed price contracts have become harder to manage profitably.

The transition to longer term contracts hasn't spread to Europe where prices move in response to supply and demand pressures, usually on a weekly or monthly basis. This model is creating two main problems for UK food supply. (1) It is increasingly difficult to secure import deals at the prices retailers are able to pay, particularly in times of scarcity. (2) Farmers are managing their risk by producing less and employing their assets elsewhere.

Empty shelves and rationing are becoming are becoming more commonplace as the loss of domestic supplies is not easily replaced with imports.

In early 2022, 51% of egg farmers told the British Free Range Egg Producers Association that they were seriously considering pausing production until they are paid a fairer price. Similarly, ADAS reported the average free range egg farms was on course to lose £382,000 per flock as output price failed to keep pace with the rise in input prices. In July, consumers were paying £0.20 more for a dozen eggs while only £0.04 made its way back to the producers and by November supermarkets were faced with empty shelves. Recognising the importance of security of supply, retailers began offering support packages for egg producers. Those investing in supply chain resilience in 2022/23 included Tesco (£37.5m). Aldi (£38m) and Lidl (£40m). As this example demonstrates, fair margin distribution and fair terms within the supply chain underpin national food security ambitions and consumer choice.

Salad growers are similarly unable to produce for the prices buyers are offering. British producers warned that energy costs prohibited planting in glasshouses over winter and the supply of home grown salads was severely disrupted. Weather conditions in the Mediterranean Basin compounded supply issues; scarcity in the region reduced the volume available for export and UK buyers struggled to secure deals at the prices they could achieve. The ability to negotiate prices more frequently and have input costs more accurately reflected in sale prices would have encouraged more UK producers to invest in production and averted the rationing that ensued.

Repairing the food supply chain starts with sharing risk. Long Term Agreements (LTAs) whereby retailers front some or all of the costs of production and build in price flexibility help protect both parties against volatility and lock in supply for the retailer. In 2022, Waitrose committed to covering the costs of rearing and producing pigs and similar agreements already exist in milk, eggs and beef. In 2023, conversations about LTAs in horticulture were opened. These agreements incentivise production by giving security to farmers in volatile markets and ensures a good return. Retailers are competing for suppliers with food service and export markets, both in a phase of growth, which are often more profitable and easier to access.

²¹ Food statistics in your pocket, Defra, February 2024

²² Food statistics in your pocket, Defra, February 2024

²³ Food statistics in your pocket, Defra, February 2024



Specifications in the UK are tighter than anywhere else in the world and often they do not add value to the customer or deliver a better product. These specifications add another laver of risk to growers and add to the problem of food waste. The growing popularity of 'wonky' fruit and vegetables should encourage retailers to loosen their specifications. A change which would improve returns to farmers and improve the UK's relationship with exporters.

The disparity in size and concentration of businesses creates a power imbalance between farmers and large retail buyers. The 2001 Curry Report discovered that over 95% of consumers do their main shopping in supermarkets. This gives supermarkets, multiples and major manufacturers significant influence over consumers and farmers. Leadership teams understand the importance of strong relationships as evidenced by the proliferation of brand positions and marketing campaigns centred on farmers and sustainable British production. However, this value is not reciprocated in aggressive negotiations to secure the most competitively priced products for budget-conscious consumers. The need to suppress retail prices while negotiating with suppliers who have seen exponential increases in the cost of production is deepening the disconnect between partners in the value chain. While margins at the bottom of the supply chain have been eroded by higher costs rising quicker than sale price, retailer profits are faring better with margins of up to 50% for some no-added value categories. Restoring balance requires a mindset shift on all parts.

Farmers and producers have been further entrenched in the position of price takers with the introduction of 'service providers'. Unlike marketing desks service providers do not always consult with producers before offering a price to their retail partner. A system of intermediaries and buyers with more farming knowledge would support growers and build resilience into the supply chain. Buyer inexperience is one of the main causes of tension within the producer-retailer relationship. According to the Grocery Code Adjudicator's Survey in 2023, one respondent cited "the standard of buying in the retail trade is at the lowest ebb I have seen in 40 years". Buyers move between categories more quickly and buyers coming into a new category could be supported with improved handovers and thorough

training. Valuing long-term relationships and collaborative conversations need to replace the increasingly aggressive tactics employed by some

How farmers and producers work with retailers needs to change. The dairy sector is a great example of how collaboration can achieve higher prices. If one supplier is unable to sell at a given price, it is their problem. If 1000 suppliers are unable to sell at a given price, then buyers will work harder to secure their supply. Farming is quite a fragmented sector, and we need to reframe competitors as colleagues. Horizontal collaboration gives the supply base greater strength by offsetting the discrepancies in business size and negotiating power.

Business models also need to move. A model based on 'just enough' rather than the traditional oversupply transfers risk upstream which in turn motivates partners to value the primary producer, particularly where weather events reduce output or soaring costs pose a threat to production levels. Pricing will start to more closely mirror costs and risks if there is only just enough to go round.

The focus on being better farmers often translates into being better growers rather than better business skills. Enhancing the business skills of the farming sector would equip suppliers with the tools to retain more of the value in their produce. A recent paper from the Oxford Farming Conference²⁴ discussed the need for farming to adopt a more corporate approach to doing business, to engage with commercially aggressive retailers on their own terms.

There is still a relaxed approach to accounting is some parts of the farming sector while others are taking a more corporate line on their management accounts and sales forecasting. Weekly sales meetings, monthly finance meetings to review the accounts, profit and loss broken down by each part of the business, detailed cost analysis are becoming more commonplace. One farmer has 13 separate cost centres for arable, pigs, rental income and so on while many reported their costs and pricing is now calculated to three or four decimal places. Keeping such a close eye on the numbers is helping these businesses to identify problems earlier, identify which parts of the farm are performing well and which aren't and take action accordingly.

We are seeing a more sophisticated approach to

24 Is the Food Supply Chain Broken? Oxford Farming Conference, January 2024



branding produce. Farm businesses are understanding the power of name recognition and consumer loyalty to their product. Pink Lady apples were one of the most popular brands in the fruit sector and they can retail for up to double the price of a non-branded variety. Developing a brand gives the supplier a point of difference and a voice in negotiations with retailers as well as a healthier margin. Branded produce has definite growth potential and in the US cartoon figures on packaging are being used to encourage young children to eat a more nutritious diet.²⁵

Farmers and producers need teams of trained negotiators who can confidently negotiate with buyers. These multi-skilled sellers who understand their category, their product and how to secure a good deal would help to level the playing field with the buying Goliaths.

Investing in advice to help manage specialisms such as energy costs and navigate ESG compliance is becoming as business-critical as trusted partnerships with accountants, lawyers, land agents and tax specialists.

Understanding the business impacts and opportunities from climate change is part of the 2024 operating environment for astute farmers and growers. Retailers are increasingly focusing on integrating ESG (environmental social and governance) into their operations and reducing their Scope 3 emissions through their upstream and downstream value chains. Compliance with these initiatives adds cost and complexity to working with retailers as do the numerous other audit requirements. However, working with sustainability advisors can smooth these requirements and positively influence the producers business operations, such as lowering energy costs through the use of renewables or landowning businesses diversifying into the carbon market, solar panels or SFI activities.

Farm business models which are less reliant on retailers are more likely to confidently negotiate a fair return for their produce. Exploring opportunities in export markets and food service as well as diversifying into value-added products and shorter supply chains can provide robust alternatives to improve profit and

reduce risk. One Kent farmer established a flourishing online retail business during the pandemic and hasn't looked back.

Government is an important partner and uniquely positioned to unlock the industry's growth potential. Business to business collaboration is necessary but not entirely sufficient for supply chain resilience and growth. International trade agreements which give greater consideration to UK agriculture would support fair pricing in the UK and boost exports. Cooperation between the Department for Work and Pensions and the Home Office would ease the labour shortages until automation is ready to be more widely adopted. Farm businesses struggle to recruit domestic workers and increases in the national living wage in 2023 (9.7%) and 2024 (9.8%) to £11.44 per hour are being absorbed on farm. On some types of farm labour can account for 52% of costs and a 20.4% increase in NLW over two years has decimated margins. Lower rates of interest would encourage investment in agritech. There are a multitude of ways government mechanisms could support the UK supply chain to become more competitive and resilient.

Seasonal labour requirements must not be conflated with uncontrolled migration. Labour shortages resulting from the loss of a skilled regular labour force from Europe have pushed the agri-food industry into contraction. Collaboration between government departments can resolve the restrictions around visas and quotas for the benefit of a more resilient food supply chain which contributes to economic growth, public health and environmental recovery.

A government which champions farmers in national policy and advocates for British produce on the world stage can reverse the declining levels of production with supportive policies which motivate investment in sustainable practices. And a more collaborative value chain has the potential to establish an ecosystem in which to address real world challenges through innovation in technology, business models and production methods. It would be nurtured by partnerships between business, universities, policy influencers and government to achieve synergies which drive progress, resilience and growth.



Sustainability Report

Farmers are under increasing pressure from the supply chain and government to reduce their emissions. Behavioural change to improve environmental performance comes with the need to measure, manage and report on a new set of metrics.

Business reporting since our last report has accelerated faster than in living memory with adoption of key regulations in Europe and beyond. China, India and other countries are now considering some form of reporting requirements. Why? To remain competitive in a global market.

Whilst many businesses are considering how to be more efficient and focus on their route to being greener or indeed driving their agenda to becoming net zero the robust reporting on climate considerations is becoming a must. The Task Force on Climate-related Financial Disclosures (TCFD) only relates to large listed entities (£500m turnover and 500 staff, or 500 staff only for AIM). However, these regulations are being cascaded through the business 'food chain'. Reporting is more than a tick-box exercise for a company's annual report, TCFD reporting provides consistent, decision-useful and forward-looking information on the material financial impacts of climate change. From 2023 reporting, non-listed entities with £500m turnover and 500 staff are now in scope for climate related financial disclosures (UK CFD).

Both frameworks are designed to reshape business and provide the gold corporate standard on sustainability related financial disclosures. Nearly 60% of the world's 100 largest public companies support the disclosures or reporting in line with the TCFD recommendations and various countries are taking steps to encourage TCFD implementation and in the UK, the Financial Conduct Authority and UK Government have set a path to mandatory TCFD

reporting. With the government pledge that by 2025 all companies will be reporting some form of climate analysis, and with the EU committing to an abridged version of Climate Sustainability Reporting Directive (CSRD) for companies with turnover over 40m Euro.

These standards are coming down the track; reporting aside, they provide a framework for business benefits. TCFD disclosures can help pinpoint how climate change could affect revenue and costs, and challenge long-held assumptions of future value – both where value might be eroded and where it can be created. These insights help inform strategic decision-making and the choices needed to be made to grow your organisation. Elements of the TCFD framework can be applied industry-wide, regionally or even nationally where there is systemic cooperation to model the cost of carbon, costs and ultimate impact on the profit and loss account of business.

Therefore, TCFD disclosures start to provide a clearer understanding of where and how to make low-carbon investments, and often kickstart broader strategic discussion on the optimal business model design to succeed in a climate-compatible future. It provides a confidence boost for stakeholders. Finally, as we expect, assurance can help support strategic objectives and risks associated with unchecked ESG claims and 'greenwashing' considerations. It's likely that external assurance over TCFD disclosures will soon become mandatory and the evaluation of the agriculture, food and farming GVA can in fact take the lead by reporting at a level exceeding current legal requirements. One of RPG's two core principles - food security for the UK of no less than 70% by 2030 - has now entered the mainstream.

By agriculture and food businesses using the TCFD Principles of Climate, Risk, Metrics & Governance to manage their corporate business in a different way – the way in which collectively the UK rural economy can positively contribute to the government's ambitious strategy and be both coordinated and measured with clearly reported outcomes.

Key points to consider:

The food value chain must be fully committed to the low carbon transition and to enhancing their financial climate-related disclosures.

The value of disclosure as a vital input to decisionmaking and working towards providing climate-related financial information that will support informed and efficient capital-allocation decisions by management and investors needs to be recognised by government and stakeholders.

Integrating how climate-related issues are being managed across internal governance and risk management processes and how strategic changes to maximize potential opportunities associated with the low-carbon transition should be disclosed.

Practical steps that could further enhance climate-related financial disclosure include:

- Integrated risk management: climate-related risks have unique characteristics and challenges that require assessment according to a wide range of criteria, techniques, perspectives and approaches.
 Climate related financial disclosure and underlying preparatory work could be enhanced through development of robust methods to assess and respond to dynamic, multi-faceted and uncertain climate risks.
- Scenario analysis and decision-making: The application of scenario analysis as a key tool for supporting complex decision-making is challenging. Consistent approaches are needed to identify key assumptions and inputs and the resulting implications of scenario analysis – including impacts, dependencies, trade offs, and decisions.
- Financial focus: Current financial disclosures include R&D expenditure on and investment in climate effective strategies, products and services, associated expected financial performance including

sales, EBIT, returns, market size, and growth and financial sensitivity to particular variables. Interpretation here is key.

- Value chain perspective: While individual corporate action is vital, the most effective and scalable climate solutions will be reached through collaboration between companies, their customers and suppliers. Disclosures can describe and explain the contribution made by such collaboration and the enabling role of a given company in a wider system
- Food, agriculture and forest products are susceptible to both the transitional and physical impacts of climate change. Business responds to immediate threats.
- There will be change inherent in the move from business-as-usual to a low carbon economy while regulation, markets and consumers will shape operational practices and product offerings. Long term temperature change will impact agricultural and forestry yields and extreme weather events have the potential to cause disruption across value chains.
 For companies to develop and maintain resilience in the context of climate change, production and consumption must adapt and transform.

The food value chain needs to reduce emissions and become a net carbon sink – restoring the environment, enhancing biodiversity and improving soil health. Food production systems must transform to achieve greater productivity, resource efficiency and resilience to climate variability. These imperatives create business opportunities for companies to provide solutions and those who capitalize on them while adapting and transforming to mitigate the risks will be most resilient in an uncertain future.

Agriculture and farming are on the front line of climate change. They are susceptible to both the transitional and physical threats, and those threats demand a response. Long-term temperature change will impact yields and extreme weather events have the potential to cause disruption across value chains. Securing profitability and a reliable, affordable food supply requires immediate action.

Change will be inherent in the move from business-asusual to a low carbon economy while regulation, markets and consumers will shape operational practices and product offerings. Food manufacturers have worked tirelessly on sustainable product innovation in response to government nudges and consumer demands and have reduced the amount of water and plastics used in the supply chain. For companies to develop and maintain resilience in the context of climate change, production and consumption must adapt and transform.

In summary, collective responsibility and opportunity for enhancing disclosure are game-changing opportunities for the modern farm and food business. The commitment enhancing climate-related disclosures through continued collaboration with other leaders, businesses (our RPG Advisory Council included) and with users of disclosed information. In common with other companies, we contend that individual, corporate and global goals to address climate change and associated disclosures will be most effectively achieved through collaboration. We call for collaborative efforts to develop complex decision-making techniques using scenario analysis by sharing knowledge and data and building communities of practice.

We also urge government to recognize and reward positive climate action and resilience measures. Finally, we call on policy makers to develop clear and consistent long-term frameworks aligned with climate, agricultural, food and forestry science to create a stable and enabling operating environment aligned to European standards and set out a roadmap to support businesses from the SME through to the Listed entity. This will allow companies to optimize both business and climate performance.

RPG's climate related disclosures

This report sets out our climate-related financial disclosures under a transition lens, which have been drafted to demonstrate our progress towards alignment with TCFD from financial year 2022/2023. This is an outline report marking our intention as RPG to build clear and well-structured proper disclosures serving as best practice for the sector.

We have done this to demonstrate, both internally and externally, the importance of climate-related issues within our broader sustainability program as a membership organisation, and also to generate the internal momentum to ensure that we are in a position to produce high-quality disclosures in future years at a county level. We recognise that this is a complex issue and the TCFD recommendations are stretching and continue to be so. For the business to report more accurately, it needs to build a compliance framework that provides the Board and the Council with the assurance that disclosures are robust.

This is complicated by the fact that the majority of the commitments involve medium- to long-term forwardlooking statements and, therefore, tracking progress against future targets will be vital. As a result, in this first TCFD report, we have attempted to explain our position, state our expectations for the future and, importantly, identify where additional work is required for us to disclose fully against all TCFD recommendations in the future. This is a 'national' report - spanning the county of Surrey and is attempted to be indicative.

It is also recognised that we are transitioning in this space for a 'county' report of this nature. There are key elements that ensure a transition report is credible:



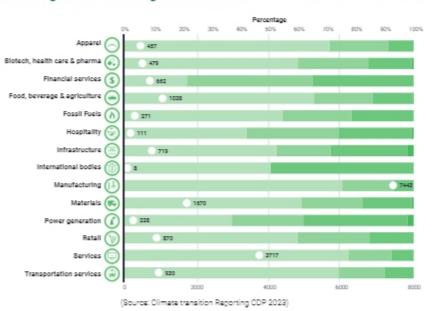
[Source: Climate transition reporting CDP 2023]

A climate transition framework is a time-bound action plan that clearly outlines how an organization will achieve its strategy to pivot its existing assets, operations and entire business model towards a trajectory that aligns with the latest and most ambitious climate science recommendations, i.e. reaching net-zero by 2050 at the latest, thereby limiting global warming to 1.5°C.

Industry broken down by disclosure tier

This is due to the urgency of the climate crisis, the increasing demands from stakeholders, and the forthcoming introduction of new regulatory obligations and reporting requirements.

We are going to plan for the development and research of the Food & Agriculture Climate Framework (FCF) for the food and farming sector, to measure and manage a broad spectrum of issues with climate change and the environment at the forefront.



Furthermore, we have identified the need to better understand transition risks as a consequence of increasing regulation and changing societal expectations. This will be the focus of our scenario analysis work in 2023/24. which will be carried out to update our understanding and quantify the impacts of climate-related transition risks, as well as physical risks and market opportunities in line with the TCFD

recommendations. It is

Globally, Food, Beverage & Agriculture still has a way to go in terms of reporting. Environmental disclosure alone is not enough - it needs to lead to accountability and transformation; hence the relevance of climate transition plans as part of a business's strategy.

A strategy for the future

The newly formed RPG Board has considered climate change as an emerging risk for a number of years. However, it has previously concluded that it should not be a standalone principal risk as the impacts, and therefore mitigations, are better served by incorporating climate change into other existing principal risks. This year, the Board, with input from the Advisory Council and newly formed supporting thought leaders have concluded that, while this overall approach remains correct, RPG should be more overt in positioning climate and thematic transitional risk.

our intention to work with stakeholders and take action to address the long-term implications of climate change on our corporate reputation, regulatory environment, physical assets, supply chain continuity and impacts for products and services.

Future Transitional Milestones in our Climate Change Journey 2024

- · Full submission with national data on ESG Metrics and Emissions for the 3 counties RPG has financially valued to date: Kent, Lincolnshire and Surrey.
- · Establish our Food & Agriculture Climate Framework (FCF) in line with TCFD requirements.
- · New targets approved by the Science Based Targets Initiative.
- · Sign up to British Retail Consortium's Climate Action roadmap which will align to the wider approach for regions.

Government data below shows the national picture regarding GHG emissions, which clearly indicates the importance of segmentation of emissions as well as the relevance of CO2 and methane in the agriculture and food value chain mix. The level of understanding and knowledge in terms of businesses addressing these matters, further highlights why RPG reporting and recommendations are important.

As with all matters delegated by the Board, from 2024 the Executive Director and the President are ultimately tasked with the delivery of the organisation's ESG alignment and promotion of best practice. To effectively discharge these duties the Board has

responsibilities, particularly in this area of increasing

focus and regulation.

effectively discharge these duties the Board has collective responsibility for the delivery of the ESG targets for each county that has been, as approved by a newly formed ESG Committee on behalf of the Board

Other**, 4% & Council. Waste 4% Agriculture & Transport, 26% LULUCF*, 11% Total Domestic GHG Emissions in 2021: 426.5 MtCO2e Residential. 16% Energy Supply, 20% Business, 18%

While the detailed delivery plan and means of measurement underpinning a realistic ambition on emissions reduction and future TCFD statements will be developed in 2023/24 work is already under way to develop and agree short- and medium-term targets for areas within the reported counties as well as the structure to aggregate them at a 'listed' reporting level. Performance against these targets will be tracked by the ESG Committee with quarterly reports being provided to the Council (as resources and funding permits) and at least annually to the Board.

[UK DEFRA = Agri climate report 2023 statistical Government Data 2023]

Enhancing Governance

At the end of 2023, in response to increasing stakeholder interest and pressures relating to environmental, sustainability and governance matters, the RPG has evolved. We intend to set up a Committee on ESG. While the creation of this new Committee provides enhanced visibility at the top of the organization and what we do, it is only part of the wider governance arrangements in place to support the Committee, and ultimately the Council in leading the RPG response to these issues and discharging our

Gas emissions, chemical use, soil and crop management and transportation contribute to climate change



Climate changes impacts on temperature, rainfall and pollution negatively impact agriculture production

[UK DEFRA = Agri climate report 2023 statistical Government Data 2023]

Addressing risk

RPG is establishing a risk management framework that allows consistent adherence to, and application of, risk management principles, with each report that is produced having its own risk register for identifying its specific risks. Climate change is to be considered within two principal risks in the Group risk assessment: "societal license to operate" has been identified as a new principal risk and we have specified a further specific risk concerning "future compliance with mandatory TCFD reporting in our reporting for the RPG & the Businesses that generate in scope GDP".

At a functional level, climate change considerations are integral to RPG's two core principles of fair distribution in the food supply chain and self-sufficiency. The structure of RPG means that as the organisation becomes more structured, best practice will be cascaded out to the leading businesses and industries in parallel to increasing legislation.

As required by the UK Corporate Governance Code, listed entities are tasked with ensuring the effectiveness of the risk management process, as well as confirming that the principal risks and uncertainties of the business are appropriately disclosed externally.

Metrics and Targets: what's the plan?

With the FCF, we will make targeted commitments as part of the 2024/25 program of work. We will also introduce planning for our science-based targets. The final suite of metrics would need to be agreed by business and government, but we would propose the following agroecological markers for consideration:

- Bird numbers Tree numbers
- · Water function of soils · CO2 balance
- · Pest abundance · Air quality
- Water quality
 Farm profit

Our strategic ambition is to enhance our climate change commitments by a realistic and structured program of reductions across the counties we report upon. As a 'PLC' report we are responsible for ensuring that we are meeting this obligation in a logical and transparent way.

We have not yet stated whether operations today will be net zero emissions by 2035 or any other year. Over the course of the next 12 months, we will set out what we mean by and the role that reductions, renewable energy and removals (offsets) play in meeting the overall ambition for agriculture food and farming. The results from scenario analyses will also inform our proposed metrics and actions to be taken on climate-related risks and opportunities.



Conclusion

Since 2019 when RPG was set up we made it clear that we needed to raise the profile and in turn value of the food supply chain. RPG has done this through a programme of Sustainable Food Conferences, an All-Party Parliamentary Group on Fair Value in the Food Supply Chain, Rural Economic Development Talks to tackle the big industry and environmental issues and a virtual Agri-Food Price Cluster welcoming all parts of the supply chain to come together in collaboration.

During the movement reporting details of a credible climate transition plan, it is clear that better quality disclosure is needed, but pivoting towards a 1.5°Caligned trajectory is a journey.

We are committed to ensuring the GDP that we report upon as a PLC financial statement is climate risk transparent and this report acts as developing best practice for business to report clearly and to show the role that food and farming has in the UK business consciousness and works tirelessly to support customers, businesses collectively to deliver the food and farming industry's emissions reductions and beyond the baseline.



Surrey is an affluent county with a high population density and closely connected to Greater London, both in terms of commuting, markets for food and drink and the development pressures that come with being adjacent to a global city. This gives Surrey's farmers and food businesses a high value consumer market, both in the County and in London to exploit but also makes it an expensive place to be based.

Surrey's 951 farms are typically smaller than those found across the South East or at the England level, with many small farms having survived.

However, about 71% of the farmland is now managed by just 155 farms, which are focused mainly in the cereals and dairy sectors. In contrast most of the smaller farms focus on lowland grazing and horticulture.

The County also has a high degree of focus on farm diversification as the population density and accessibility to London and the wider South East makes farms in Surrey very accessible to a large affluent population. Activities such as the Surrey Hills Artisan Trail promote links to farms and small food producers to exploit this.

Surrey has a small food processing sector, but is more active as a base for importers and some major international food chain businesses who have their UK headquarters in the county.

Major food chain companies include the global headquarters of Nomad Foods (£3bn annual sales and 7,900 staff) and Compass Group (£31bn turnover and 564,000 staff), as well as UK headquarters for Saputo Dairy, KFC UK, Krispy Kreme, Asahi and offices for Unilever and Cargill. Surrey also has multiple importers supplying a wide range of global foods to the UK market.

The food chain accounts for 9% of Surrey's businesses, but over 19% of small, 11% of medium and 12% of larger business units, showing that it is more important to the economy for businesses employing over 10 staff. Surreys' food chain has a GVA of nearly £3billion, but this is dominated by the consumer end of the food chain with a GVA of £2.6billion, with under £0.4billion in food production (farming and food processing).

In employment terms, agriculture and food processing is only 1.4% of employment in Surrey compared to 3.1% nationally, supporting a total of 5,900 jobs. However, given its large consumer base, if the consumer end of the food chain is added (food retail and hospitality) total employment rises to 71,500, or 12% of employment which is nearly the same as the national average. This shows that in Surrey the industry is skewed towards consumer facing activities.

Surrey is a national and international expertise, innovation and teaching in animal health, with Pirbright Institute, the University of Surrey Vet School and the Animal and Plant Health Agency (APHA) all having made substantial investments alongside government and industry. APHA are working with government to invest £1.4billion in a National Science Centre for Animal Health in Weybridge, which will be a leading global centre for animal health research.

26 Surrey - a great place to do business | Surrey Business (businesssurrey on uk) Surrey University is also ranked 2nd nationally for food science and with Merrist Wood College, Surrey is well served by an academic, education, innovation and research cluster to support the agriculture and food sector.

1. Context for the Surrey Agri-Food Sector

Surrey is an affluent, densely populated and relatively small county on the South West edge of London with 1.2 million residents and 110,000 businesses. ²⁶ Surrey is an attractive county, with rolling hills and generally small fields interspersed with areas of woodland, hedges and areas set aside for nature and recreation.

56% of the population have L4 qualifications and above, well above the English average of 47%. This is closely correlated with higher incomes with Surrey residents earning an average of £812/week in 2023 compared to £683/week across England. This high income consumers, many of whom have busy lives as commuters or in professional jobs, Surrey's consumers are able to spend more on food and drink, but want to experience distinctive products and put an emphasis on local sourcing, taste and health. In addition to favouring local food producers, they are also prepared to spend on convenience, eating out and food and drink experiences. This creates a very fertile environment for specialist food and drink producers and wholesalers.

Furthermore, through its proximity to London and with excellent national connectivity, Surrey is an ideal base for those looking to serve the food and drink market in London as well as national distribution. The county therefore has a cluster of food importers, attracted by this easy market access and connectivity to the UK's two largest airports at Heathrow and Gatwick, both of which neighbour the county (Surrey goes to the boundary fence of both airports). Surrey is also on the routes from major food ports including Southampton, Portsmouth, Dover and the Channel Tunnel.

For farmers and food businesses Surrey can be an expensive location to be based, as land costs, buildings, wages and many other inputs are more expensive than other areas of the UK, but this is offset by its strategic location and very affluent consumer

²⁷ Labour Market Profile - Nomis - Official Census and Labour Market Statistics (nomisweb.co.uk)

base. Being adjacent to the UK's only global city, with London the centre of UK hospitality and retailing, means the food and drink sector in Surrey has focused on the full consumer value chain from production to consumption.

Surrey's agriculture is supported by a thriving agritech and skills sector, with the Animal and Plant Health Agency (APHA), developing a new £1.4billion National Science Centre for Animal Health in Weybridge and the Pirbright Institute providing national and international capability in livestock health.

APHA and Pirbright work closely with the University of Surrey, which as well as large programmes in veterinary health and food science, have invested in the growth of the space sector including applications focused on agriculture. Merrist Wood is a leading agricultural and horticultural college based at Worplesden, which supports the industry with skills development.

a. Farming in Surreu

Surrey has a diverse range of agricultural activities and farm sizes. Smaller farms, with a size of around 20 hectares, reflect the agricultural history of the county and Surrey retains more small farms than most other counties. It has an average farm size of 66 hectares, significantly lower than the regional average of 87 hectares in the South East region²⁸, which has an average farm size almost identical to the English average of 85 hectares.

The reasons for the retention of smaller farms is complex, but is believed to relate to the more diversified nature of farm businesses in Surrey and the ability to target high value direct to consumer markets which rely on personal service rather than always chasing economies of scale. The markets also include farm diversification as well as food production.

The high levels of land development pressure in Surrey means that most farmland sold has multiple potential uses and buyers, with commercial food producers often priced out by competing lifestyle buyers or those seeking to use the land for a non-agricultural purpose. This means the trend to farm amalgamation seen in other regions has not occurred to the same extent in Surrey. Development pressure also incentivises farming families to retain their land in the hope that some form of diversified land use can be achieved at some point in the future

Smaller farms have often diversified into farm shops. farmers markets, agritourism, and educational programmes. They also engage in value-adding activities such as production of speciality foods as well as running consumer facing events such as festivals. farm-to-table dinners and direct sales. The Agricultural Census²⁹ shows that 36% of farms in Surrey are rented, significantly higher than the national average

This diversity of farms is a real strength given the many challenges impacting the industry and the rapid changes in the economic and political context which is creating exciting new opportunities for agriculture.

b. Farm diversification

Entrepreneurial farmers in Surrey have adapted to change by focusing on diversification including opening farm shops, farmer's markets and agritourism venues to engage with consumers, offer value-added products and create novel farm experiences30.

The NFU for example argues that for farmers in the South East keen to stay ahead of market changes, the key is to 'prioritise investment in products where demand is expected to grow, or where the region has particular advantages, such as the large growth potential in viticulture, growing demand for fruit, ornamentals, other glasshouse crops and naturallygrazed meat and dairy products.31

The Agricultural Transition Is helping support farming in protected landscapes. For example, the Farming in Protected Surrey Landscape (FiPL) programme³², which runs until March 2025, supports farming in

Surrey's Areas of Outstanding Natural Beauty (AONBs). This programme gives grants to farmers and land managers via Surrey Hills Trust³⁵ to: support nature recovery; mitigate the impacts of climate change; provide opportunities for people to discover, enjoy and understand the landscape and its cultural heritage; and. to protect or improve the quality and character of the landscape or place. More broadly the Environmental Land Management Scheme (ELMS)34 supports farmers across Surrey to adopt sustainable land management options and the linked Farm Investment Fund35 supports Investment in productivity growth.

c. Food processing

Surrey has a strategic location, adjacent to London, with excellent connectivity and easy access to multiple international gateways. This has made it a key location for company headquarters for the food industry and Surrey is the global headquarters of major food chain companies including:

- · Nomad Foods36 (which includes Findus, Birds Eye, Igloo, Green Cuisine, Ledo, Aunt Bessies, Belviva. Goodfellas, La Cocinera, Frikam) with £3billlon of annual sales and 7.900 staff of whom over 1.500 are in the UK (2023).
- Compass Group³⁷ is headquartered in Chertsey, Surrey and is Europe's largest contract catering company with a turnover of £31billion (2023) and 564.000 staff.
- Kingfisher Foods Limited^{SS} are based in Redhill and are now the UK's biggest own label supplier of canned fish and the largest Pole & Line and FAD Free tuna supplier, with a turnover of £75m.

28 DEERA 2023

29 DEFRA Agriculture in the UK 2021



³⁰ Surrey Hills Society, 2016

³¹ NFU, Fertile Ground: An Agenda for Growth in the Regional Agri-Food Sector, January 2021 NFU_A4 Report_Fertile Ground (nfuonline.com)

³² Surrey Hills Farming in Protected Landscapes (FIPL) grants - Surrey County Council (surreyec.gov.uk)

³³ https://surreyhills.org/trust-fund/ 34 Environmental land management in 2024; details of actions and payments - Ferming (blog.gov.uk)
35 Ferming Investment Fund (FIF) - GOV.UK (www.gov.uk)

³⁶ Home | Nomad Foods



It is also the UK headquarters of a wide range of other major food chain companies including:

- Unilever UK and Ireland³⁹ is headquartered in London with its team also based in Leatherhead and Richmond. Unilever is one of the largest food companies in the World with a global turnover of €60 billion and operating in 190 countries, with 128,000 staff. The UK and Ireland business has 80 brands, over 6,000 staff and its products are in 98% of UK and Ireland households.
- Saputo Dairy UK⁴⁰ (formerly Dairy Crest) is part of the Canadian owned Saputo group and headquartered in Surrey, with a £627 million turnover in the UK (FY 2023) and 1,246 staff, focused on a wide range of diary products.
- Compass Group UK&I | Market Leading Catering & Support Services (compass-group.co.uk)
- 38 Home | Kingfisher Foods
- 39 https://www.unilever.co.uk/
- Producer of leading British food brands and value-added ingredients.
 Seputo Dainy UK
- 41 KFC | Find a Restaurant & Order Online for Takeaway or Delivery
- 42 https://www.krispykreme.co.uk/
- 43 Asahi UK | Bringing discovery and experience to every occasion. (asahibeer.co.uk)
- 44 Weybridge | Cargill United Kingdom

- KFC UK⁴¹ is headquartered in Woking, Surrey.
- Krispy Kreme UK⁴² is headquartered in Camberley, Surrey.
- Asahi UK⁴³ is headquartered in Woking, Surrey with brands including Asahi, Peroni, Fullers London Pride, Grolsch and Cornish Orchards.
- Cargill⁴⁴ has had a presence in Surrey since 1991
 and a team in Weybridge since 2015, which houses
 Cargill's corporate functions including finance,
 information technology, law, human resources,
 corporate affairs, and is the European hub of our
 Global Treasury. It is one of the largest global food
 companies, with 155,000 employees in 70 countries.

Other major food producers in Surrey include:

- Kallo Foods⁴⁵ in Camberley is a £121million turnover (2023) food manufacturer with 234 staff. It makes rice cakes, stocks and gravies, puffed cereals and veggie dips.
- Venchi UK⁴⁶ in Richmond is part of the international Venchi group set up in 1878, which makes Italian gelato, chocolate, nougat and other sweet dishes.

 Lantemannen Unibake⁴⁷ Ltd has a site in Bagshot, which specialises in pastries with a new factory developed in 2012. The business is part of an international bakery business with 6,000 staff in 34 bakeries in 21 countries and turnover of €1.2billion. The business is owned by 27,00 Swedish farmers.

Surrey's location also means it is a major centre for a wide range of food import businesses, meaning the County acts a gateway for foods from virtually every part of the World to the UK market. The businesses based in Surrey in this trade include:

- Golden Acre Foods⁴⁸ Chertsey, who import a wide range of food in dairy, plant based, pastry, cooked meats as well as Polish, Romanian and South Asian foods.
- Circle Foods⁴⁹ in Redhil who operate globally from Surrey, Wales and New Zealand, offering a full range of foods across dairy, meat, fish, poultry, dry foods, fruit and veg and potatoes.
- Atlantico⁵⁰ who are based in Croydon and import
 Portuguese and Brazilian foods into the UK via their
 business in Surrey.
- Just Gourmet Foods⁵¹ in West Byfleet, who specialise in Italian food, was formed in 2018, is growing quickly and now represents 20 Italian food producers in the UK.
- Manning Impex⁵² is based in Camberley and was established over 30 years ago. It is a leading importer of Asian foods, offering over 100 brands from Thailand, Philippines, Singapore, Indonesia, and Malaysia, with over 1,000 product lines stocked.
- 45 Kallo
- 4δ Venchi Italian Chocolate & Gelato Since 1979 Venchi
- 47 Lantmännen Unibake United Kingdom I (lantmannenunibake.com)
- 48 Golden Acre Foods groud to be a B Corp™ Certified company
- 49 https://circlefoods.co/
- 50 https://www.atlantico.co.uk/about-us
- 51 https://justgourmetfoods.co.uk/
- 52 https://www.manningimpex.com/
- 53 https://www.zainofood.co.uk/
- 54 https://www.koreafoods.co.uk/about/ 55 https://surreyhills.org/love-local/surrey-hills-enterprises
- 56 NFU, 2023

- Zaino Food Service UK²³ are a Mitcham based importer of Italian food. The business can trace its roots back to 1950, became Zaino Foods in 1982 and set up its UK arm in 2016. It supplies food to 25 countries, with a range of 7,000 products from 500 suppliers.
- Korea Foods⁵⁴ in New Malden, was established in a garage in 1999 to import Korean food. It now has 40,000sqft of warehousing and has 250 staff, serving over 100,000 customers a week. As well as its own stores it has products in Morrison, Asda and Tesco.

d. Local Food SMEs

As well as larger food processors, Surrey has a thriving network of small and medium sized (SME) food and drink producers who produce a very wide range of products. The Surrey Hills part of the County in particular has been promoting local small and niche food and drink producers under their Surrey Hills Enterprises' membership brand.

The Surrey Hills Trade Mark is used by a wide variety of member businesses, many of which are farmers and food producers.

Some producers have

Some producers have developed joint marketing

campaigns, such as Surrey's five vineyards to attract other local businesses with complementary product offers. Surrey Hills Enterprises organise or supports promotional events and festivals at larger rural venues and town centre street festivals.

As consumer preferences increasingly prioritise the provenance and traceability of food, South-East farmers are uniquely positioned to support a vibrant and distinctive food economy by building on their ability to access high value markets in Surrey and neighbouring counties including the UK's largest food market in London. Leveraging the region's rich food heritage and culture, farmers and growers can cater to the evolving demands of consumers, fostering innovation and differentiation in the marketplace⁵⁶.



Local food and drink is also an important part of the tourism economy, with growing evidence that a distinctive food and drink offer can help to attract higher spending tourists who place a premium on speciality food and drink.

A good example of catering to this market is the Surrey Hills artisan trail, which includes 15 businesses of whom⁵⁷: 4 are vineyards; 1 is a brewery; 1 is a distillery; 1 is a bakery; 1 is a honey producer; 1 is a curry manufacturer; and, 1 is a cheese maker, with a further 2 making products from local wood.

This means 12 of the 15 producers promoted by the artisan trail are either directly involved in agriculture and the food sector, or use land based products grown on farms.

e. Ornamental Horticulture

Surrey is important to the ornamental horticulture sector, flowers, garden plants etc. because it has a large number of plant nurseries and garden centres to service its large affluent population.

This part of the industry is also closely linked to nationally important gardens such as Wisley⁵⁸ run by the Royal Horticultural Society (RHS), which is one of the World's leading gardens and centres for horticultural training and eduation.

455 (470) - 66----

a. Agriculture59

2. Industry Metrics

Surrey had 915 farms in 2021:

 155 (17%) of farms are over 100 hectares with 41,806 hectares (71%) of the farmland. These farms are mainly specialist cereal or diary farms, with the 16 dairy farms having the largest average size of 191 hectares, whilst Surrey's specialist cereal farms average 170 hectares.

- In contrast 50% of the farms, 457 farms, are smaller than 20 hectares but only account for 3,626 hectares (6% of the farmland area).
- The smaller farms in Surrey are predominantly: 448 lowland grazing farms with an average size of 47 hectares; 53 specialist horticulture farms with an average size of 27 hectares; and 10 specialist poultry farms with an average size of 22 hectares.

The county has a very diverse cohort of farms, from large arable and dairy farms to hundreds of smaller, specialist farms. In grazing livestock the small average size and the low output per hectare which typifies these farms, means some have no full time staff (including the 'farmer'), but are run on a part time basis alongside other businesses or employment. The presence of a large cohort of smaller farms means that the average size, at 66 hectares is well below that found in the wider South East region or across England (table 1).

Farms in Surrey allocate their land differently to the South East or England averages, with less land used for cereals and other crops including horticulture, but more land used for grazing livestock. It has no specialist pig farms and only a small number of poultry producers. Land use for dairy farming is typical of the South East, but lower than the average across England (table 2).

Farmland Area - Table 1

	Surrey		England		
Total farmed area	58,866 hectares (0.6% England's farmland)	1,133,816 hectares	8,975,549 hectares		
Average farm size	66 hectares	87 hectares	85 hectares		

Land Use on Farms (hectares) - Table 2

	Cereals	General Cropping	Hortic.	Specialist Pigs	Specialist Poultry	Dairy	Grazing Livestock	Mixed	Total area farmed
Surrey	13,240 22%	13,183 22%	1,406 2%	0 0%	221 0%	3,058 5%	21,058 36%	5,992 10%	58,866 100%
South East	46%	13%	3%	1%	1%	5%	21%	11%	100%
England	32%	17%	2%	1%	1%	9%	28%	10%	100%

⁵⁹ DEFRA (2024), Structure England June 2021: English Geographical Breakdowns - County/Unitary Authority tab from: Structure of the agricultural industry in England and the UK at June - GOVUK (www.gov.uk)

⁵⁷ https://surreyhills.org/discover/artisan-trail/

⁵⁸ RHS Garden Wisley: Days and events in Surrey / RHS Gardening

Surrey is in common with the South East more wooded than the rest of England with 6,336 hectares of farm woodland or 11% of the farm area. This significantly higher than the 8% of farm area used for woodland in the South East region and 4% across England.

Nationally a lot of farm woodland was neglected and unmanaged for decades until the 2000s, but the last 20 years have seen a renaissance in the role of woodland, with more investment, new markets being developed (e.g. carbon markets) and expansion of existing markets for woodfuel and the use of wood in construction. The South East has been at the forefront of this renaissance and with government committing to billion. trebling the English woodland area is well placed to lead this growth in the importance of woodland.

If the 'house' value is excluded, values suggest an average of £20,000 per acre or nearly 50,000 per hectare. This suggests based on 58,866 hectares a 'bare land' value of £2.94 billion, but once linked residential property (e.g. farm houses) and buildings are added, the total is estimated to be double this, or at least £6 billion.

Nationally, DEFRA records that 19% of total farm assets are tenant capital crops, buildings, livestock, machinery, suggesting that a further £0.69 billion of tenant capital is likely to be on Surrey farms (based on the farmland value of £2.94 billion), giving a total valuation of £6.7

Farm Workforce in Surrey - Table 3

Farmers, partners, directors & spouses		Salaried		Regular workers	Casual workers	Total
FULLTIME	PART TIME	managers	full time	part time		Labour
648	776	164	455	316	220	2,580

Including farmers and their spouses, the industry employed 2,580 people in 2021 (table 3), 0.9% of the English farm workforce, which is higher than the 0.6% (table 1) of the national farmland area it manages. This suggests the industry is less mechanised and uses more labour per hectare than in typical nationally, reflecting the focus on smaller farms, more grazing livestock, with smaller field sizes and more diversification

Farmland in Surrey is valuable because of the location and the potential for multiple other uses, from equine. to leisure or development. Evidence from UK land and farms⁶⁰ shows that most farmland in Surrey is linked to larger houses, is marketed as suitable for alternative uses, or even when only used for agriculture and in the green belt, is worth considerably more than the national average.

With average borrowings in UK agriculture of 6.5% of asset value, this suggests borrowings of £0.44billion and a net value of £6.3billion. This means the industry is well capitalised and this supports investment and borrowing both in farm production and farm diversification.

b. Food Chain Businesses

In 2023, Surrey had a total of 850 business units⁶¹ in agriculture, forestry, and fishing, with a further 160 food and drink manufacturing business units; as can be seen in table 4 below.

2023 Agri-food Chain Business Unit Count in Surrey (ONS Business Units Count)

2023 Agri-food Chain Business Unit Count in Surrey (ONS Business Units Count) - Table 4

Industry	Total	Micro (0-9)	Small (10-49)	Medium (50-249)	Large (250+)
01: Crop and animal production, hunting and related service	710	670	35	5	0
02: Forestry and logging	120	105	10	0	0
03: Fishing and aquaculture	20	20	0	0	0
Agriculture, forestry & fishing (A) (1-3)	850	795	45	10	0
10: Manufacture of food products	125	95	30	5	0
11: Manufacture of beverages	35	30	5	0	0
12: Manufacture of tobacco products	0	0	0	0	0
Food and Drink Manufacturing (10-12)	160	125	35	5	0
161: Sawmilling and planing of wood	5	5	0	0	0
Core Agri-Food Inputs, Machinery & Services Provision (2015, 202, 283, 2893, 4611, 462, 4661, 64201)	70	45	5	0	0
Partial Agri-Food Inputs, Machinery & Services Provision (2222 (50%); 2812 (50%); 2822 (50%); 2829 (25%); 29202 (50%); & 3312 (25%))	28	21	8	0	0
75 : Veterinary activities (20% allocation)	40	29	10	0	0
Provision of Temporary Labour (782 & 78109) (5% allocation)	50	40	8	2	1
Agri-Food Inputs and Service Provision Total	188	135	30	2	1
Core Agri-Food Industry (Production and Inputs)	1,203	1,060	110	17	1
(Agri-)Food Retail, and Wholesale (4617, 463, 4711, 472, 4776, & 4781)	1,705	1,280	330	70	20
56 : Food and beverage service activities	3,300	2,270	950	70	5
Freight Logistics & Warehousing (492, 4941, 502, 504, 5121, 52101, 52102, 52103, 52211, 52219, 52241, 52242, & 52243) 30% allocation Agri-food	224	192	21	8	2
Agri-Food Retail, Wholesale and Logistics	5,229	3,742	1,301	148	27
Total Agri-Food Industry	6,431	4,802	1,411	165	27
Total all broad industrial groups	69,950	60,925	7,300	1,500	220

⁶⁰ https://www.uklandandfarms.co.uk/

⁶¹ NB DEFRA 951 farms and ONS 950 farms, differ due to differences

As shown, the total agri-food industry in Surrey in 2023 This multiple is also larger than that seen nationally, including related and supporting enterprises operated from more than 6,400 business units, or 9% of Surrey as many business units involved in the distribution and business units. Of note, is the larger proportion of small retail of food and drink as those involved in its primary (19%) medium (11%) and large (12% of larger units) sized business units in the agri-food chain, in particular within the food and beverage service activities sector as compared to all sectors. The lower percentage of total business units is because compared to the economy as a whole agriculture has fewer micro businesses.

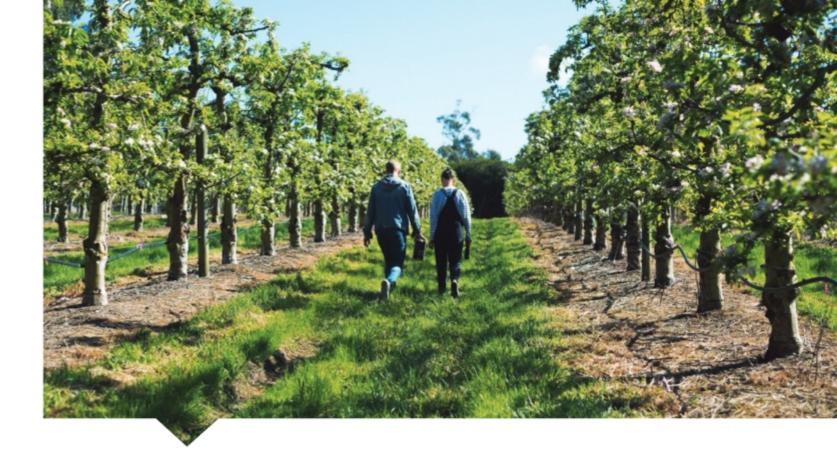
It can also be seen that the number of units after the farm and factory gate, involved in the distribution and retail of food and drink was more than 4 times those involved in the primary production of food and drink either directly or indirectly in Surrey.

where across England there were just under 2.5 times production and processing and linked support services.

This disparity can be seen in the following tables 5, 6



Total	Micro (0-9)	Small (10-49)	Medium (50-249)	Large (250+)
95,405	91,430	3,460	445	70
11,440	8,045	2,245	805	345
10,791	8,042	2,189	496	59
117,636	107,517	7,894	1,746	474
93,510	69,410	20,385	2,895	805
168,210	119,505	45,075	3,515	115
19,692	17,144	1,917	522	107
281,412	206,059	67,377	6,932	1,027
399,048	313,576	75,271	8,678	1,501
2,737,105	2,315,540	340,550	70,325	10,690
	95,405 11,440 10,791 117,636 93,510 168,210 19,692 281,412 399,048	95,405 91,430 11,440 8,045 10,791 8,042 117,636 107,517 93,510 69,410 168,210 119,505 19,692 17,144 281,412 206,059 399,048 313,576	(0-9) (10-49) 95,405 91,430 3,460 11,440 8,045 2,245 10,791 8,042 2,189 117,636 107,517 7,894 93,510 69,410 20,385 168,210 119,505 45,075 19,692 17,144 1,917 281,412 206,059 67,377 399,048 313,576 75,271	(0-9) (10-49) (50-249) 95,405 91,430 3,460 445 11,440 8,045 2,245 805 10,791 8,042 2,189 496 117,636 107,517 7,894 1,746 93,510 69,410 20,385 2,895 168,210 119,505 45,075 3,515 19,692 17,144 1,917 522 281,412 206,059 67,377 6,932 399,048 313,576 75,271 8,678



England Business Unit Count 2023 Proportion - Table 6

Industry	Total	Micro (0-9)	Small (10-49)	Medium (50-249)	Large (250+)
01 : Crop and animal production, hunting and related service activities	3.30%	3.74%	0.94%	0.61%	0.65%
02 : Forestry and logging	0.12%	0.14%	0.07%	0.02%	0.00%
03 : Fishing and aquaculture	0.06%	0.07%	0.01%	0.00%	0.00%
1 : Agriculture, forestry & fishing (A)	3.49%	3.95%	1.02%	0.63%	0.65%
Food and Drink Manufacturing (10-12)	0.42%	0.35%	0.66%	1.14%	3.23%
Agri-Food Inputs and Service Provision Total	0.39%	0.35%	0.64%	0.71%	0.55%
Core Agri-Food Industry (Production & Input)	4.30%	4.64%	2.32%	2.48%	4.44%
Agri-Food Retail, Wholesale and Logistics	10.28%	8.90%	19.78%	9.86%	9.60%
Total Agri-Food Industry	14.6%	13.5%	22.1%	12.3%	14.0%

Surrey 2023 Business Units Count Proportion - Table 7

Industry	Total	Micro (0-9)	Small (10-49)	Medium (50-249)	Large (250+)
01 : Crop and animal production, hunting and related service activities	1.02%	1.10%	0.48%	0.33%	0.00%
02 : Forestry and logging	0.17%	0.17%	0.14%	0.00%	0.00%
03 : Fishing and aquaculture	0.03%	0.03%	0.00%	0.00%	0.00%
1 : Agriculture, forestry & fishing (A)	1.22%	1.30%	0.62%	0.67%	0.00%
Food and Drink Manufacturing (10-12)	0.23%	0.21%	0.48%	0.33%	0.00%
Agri-Food Inputs and Service Provision Total	0.27%	0.22%	0.41%	0.13%	0.23%
Core Agri-Food Industry (Production and Inputs)	1.72%	1.74%	1.51%	1.13%	0.23%
Agri-Food Retail, Wholesale and Logistics	7.47%	6.14%	17.82%	9.83%	12.05%
Total Agri-Food Industry	9.2%	7.9%	19.3%	11.0%	12.3%

Logistics Businesses

Table 8 shows the number of freight and logistics business units operating in Surrey in 2013, 2018, and 2023, by the employment size band.

As shown over the 2013 to 2023 period, the number and proportion of total business units within freight logistics decreased, however, the proportion of medium and larger sized business units in the industry increased.

As noted in section 2c below, approximately 30% of road freight in the UK is related to the agri-food industry. Consequently, 30% of the 745 business units active (or 224) within freight and warehousing within Surrey in 2023, are estimated to be food chain businesses. This logistics sector employment can be compared to England over the same time period as shown below.

In contrast to Surrey, across England freight logistics and warehousing increased significantly in the last decade, with a 79% increase in the number of total business units in these industries, driven in large by the 90% growth of micro business units, with medium business units seeing growth of only 24%. These logistics sector increases are significant when compared to the overall growth of business units across all industries of 22.5% across the same decade period.

Freight Logistics Businesses by Business Unit Count, 2013, 2018, and 2023 - Table 8

Year	Industry	Total	Micro (0-9)	Small (10-49)	Medium (50-249)	Large (250+)
2013	All Industries	63,405	54,750	6,950	1,500	210
	Freight Logistics & Warehousingez	960	870	75	20	-
	Freight Logistics & Warehousing (% all industries)	1.51%	1.59%	1.08%	1.33%	0.00%
2018	All Industries	72,700	63,590	7,380	1,520	215
	Freight Logistics & Warehousing	840	740	70	25	-
	Freight Logistics & Warehousing (% all industries)	1.16%	1.16%	0.95%	1.64%	0.00%
2023	All Industries	69,950	60,925	7,300	1,500	220
	Freight Logistics & Warehousing	745	640	70	25	5
	Freight Logistics & Warehousing (% all industries)	1.07%	1.05%	0.96%	1.67%	2.27%



Growth of UK Freight, Logistics and Warehouse Sector - Table 9

Year	Industry	Total	Micro (0-9)	Small (10-49)	Medium (50-249)	Large (250+)
2013	All Industries	36,615	30,070	4,915	1,400	230
	Freight Logistics/Warehousing	2,234,320	1,851,625	307,530	65,210	9,950
	Freight Logistics/Warehousing (% all industries)	1.64%	1.62%	1.60%	2.15%	2.31%
2018	All Industries	66,000	58,560	5,520	1,620	300
	Freight Logistics/Warehousing	2,697,205	2,283,480	333,240	69,955	10,520
	Freight Logistics/Warehousing (% all industries)	2.45%	2.56%	1.66%	2.32%	2.85%
2023	All Industries	65,640	57,145	6,390	1,740	355
	Freight Logistics/Warehousing	2,737,105	2,315,540	340,550	70,325	10,690
	Freight Logistics/Warehousing (% all industries)	2.40%	2.47%	1.88%	2.47%	3.32%

⁶² Defined as industry sic codes: 492, 4941, 502, 504, 5121, 52101, 52102, 52103, 52211, 52219, 52241, 52242, & 52243

c. Employment

As shown in the table 10, agriculture and related primary production provides 0.51% of total employment within Surrey, as compared to 1.22% nationally. Similarly, examining the whole core agrifood industry to the farm or factory gate, (including the activities of input and service providers, e.g., food packaging, veterinary, agricultural or food machinery providers, etc), then this industry provides 1.42% of Surrey employment, against more than 3.1% nationally.

The primary production component of the Agri-food chain therefore has a local quotient for employment of 0.4.

In spite of this locally weak primary production, the proportion of the local economy (by employment) relating to the retail sale of food or food and beverage service activities is broadly in line with the national average, showing how local production is more highly leveraged towards direct-to-consumer sales.

ONS BRES Table of Agri-Food Employment in Surrey and England⁶⁰ - Table 10

Employment Measure 2021, 2022 Average [™]							
Industry	Su	пеу	Engl	and			
	Count	%	Count	%			
01: Crop and animal production, hunting and related	3,000	0.51%	342,000	1.22%			
service activities							
02: Forestry and logging	650	0.11%	12,500	0.04%			
03: Fishing and aquaculture	113	0.02%	3,750	0.01%			
Primary Agri-Food Production (1-3)	3,763	0.64%	358,250	1.28%			
10: Manufacture of food products	1,750	0.30%	327,500	1.17%			
11: Manufacture of beverages	400	0.07%	33,000	0.12%			
12: Manufacture of tobacco products	-	0.00%	200	0.00%			
Food and Drink Manufacture (10-11)	2,150	0.37%	360,700	1.29%			
161: Sawmilling and planing of wood	20	0.00%	4,750	0.02%			
Core Agri-Food Inputs, Machinery, and Services Provision (2015,202, 283, 2893, 462, 4661, & 64201)	443	0.08%	54,938	0.20%			
Partial Agri-Food Inputs, Machinery and Services Provision (2222 (50%); 2812 (50%); 2822 (50%); 2829 (25%); 29202 (50%); & 3312 (25%))**	531	0.09%	37,500	0.13%			
75: Veterinary activities (20% allocationss)	450	0.08%	12,800	0.05%			
Provision of Temporary Labour (782 & 78109) (5% allocation*7)	950	0.16%	44,625	0.16%			
Agri-Food Inputs and Service Provision Total	2,391	0.41%	152,238	0.54%			
Core Agri-Food Industry (Production and Inputs)	8,324	1.42%	875,938	3.13%			
(Agri-) Food Retail and Wholesale (4617, 463, 4711, 472,	25,438	4.34%	1,273,750	4.55%			
4776, & 4781)							
56: Food and beverage service activities	35,500	6.06%	1,764,000	6.30%			
Freight Logistics and Warehousing (492, 4941, 502, 504, 5121, 52101, 52102, 52103, 52211, 52219, 52241, 52242, & 52243) 30% allocation to Agri-food	2,225	0.38%	209,910	0.75%			
Agri-Food Retail, Wholesale and Logistics	63,163	10.77%	3,247,660	11.61%			
Total Agri-Food Industry	71,487	12.19%	4,123,598	14.74%			
Total all broad industrial groups	586,250	100.00%	27,983,500	100.00%			

d. GVA Employment and GVA in the agri-food chain within Surrey and England in 2022 - Table 11

	Agri-F	ood Chain G	VA® Within	Surrey and	England 2022	(£2022°°)		Ŋ
Industry		Sui	пеу			Eng	and	
	Employment 2021/2022	%	GVA (£m)	*	Employment 2021/2022	*	GVA (£m)	%
Primary Agri-Food Prodn (1-3)	3,763	0.64%	86	0.17%	358,250	1.28%	13,539	0.70%
Food & Drink Manuf (10-12)	2,150	0.37%	115	0.22%	360,700	1.29%	27,847	1.44%
161: Sawmilling of wood	20	0.00%	1	0.00%	4,750	0.02%	194	0.01%
Core Agri-Food Inputs, Mach &	460	0.08%	47	0.09%	57,313	0.20%	4,990	0.26%
Services Provision ⁷⁰ Partial Agri-Food Inputs, Mach & Services Provision ⁷¹	531	0.09%	49	0.09%	37,500	0.13%	2,919	0.15%
75: Veterinary (20% allocation)	450	0.08%	33	0.06%	12,800	0.05%	1,060	0.05%
Temporary Labour ⁷²	950	0.16%	35	0.07%	44,625	0.16%	1,424	0.07%
Agri-Food Inputs & Service Provision Total	2,391	0.41%	164	0.32%	152,238	0.54%	10,394	0.54%
Core Agri-Food Industry	8,324	1.42%	367	0.72%	875,938	3.13%	51,973	2.68%
Food Retail & Wholesale ⁷²	25,438	4.34%	1,343	2.62%	1,273,750	4.55%	59,390	3.06%
56: Food & beverage services	35,500	6.06%	1,103	2.15%	1,764,000	6.30%	43,376	2.24%
Freight Log & Warehousing ⁷⁴	2,225	0.38%	151	0.29%	209,910	0.75%	10,245	0.53%
Food Retail, Wholesale Logistics	63,163	10.77%	2,597	5%	3,247,660	11.61%	113,012	5.82%
Total Agri-Food Industry	71,487	12.19%	2,964	5.78%	4,123,598	14.74%	164,985	8.50%
Total all broad industrial groups	586,250	100.00%	51,306	100.00%	27,983,500	100.00%	1,940,267	100.00%

- 64 This table provides data on the BRES employment measure averaged over the 2021 and 2022 years.
- δδ. Allocations are based on the estimated proportion of these sic codes which relate to the agri-food industry.
- 66 Approximately 30% of UK veterinary practices are large animal practices, with large animal practices also providing equine veterinary services, approximately 2/3rds of large animal vets are believed to be engaged on livestock wholly or at-least partially. In Surrey the figure is inflated compared to agriculture's scale by the presence of vet and animal health facilities with a national remit
- 67 Authors estimate of proportion of temporary employment within the agri-food industry as a whole (including both farm labourers, and temporary food and drink manufacturing workers).
- 63 ONS Business Register and Employment Survey: open access (2015 to 2022) 69 GVA figures retrieved from ONS | 2024 | Dataset | Regional gross value added (balanced) by industry: all ITL regions with figures for industries 10-12, 56, and 75 for Surrey retrieved from table 3c, and summated (for ITL regions EastSurrey and West Surrey), whereas for all other industries, figures were estimates retrieved from table 2c (for the ITL region of Surrey, East and West Sussex) under an industry agglomeration, with a proportion of the GVA of these agglomerations (e.g., sic: 16-17) assigned to the relevant Surrey agri food chain industry components using an employment measure assignation. (As such figures for industries which are multi number sic code industries, e.g. 16.1, are the average that would be expected for those industries agglomerated GVA reporting group, e.g. 16-17). For England, figures are from table 1c, and have reduced uncertainty, as GVA regorting was available for more industries at a granular level (1-9, 10-12, 56, 75) and agglomerated GVA reporting groups were less diverse, i.e. 16.1 was derived from the average of sic code 16. Where necessary employment figures were used to extrapolate GVA estimates for sub-sectors.

As shown in table 11, core agri-food production in Surrey, contributed less than 1% (0.72%) of GVA in 2022, generating a GVA per job of around half of that in the wider Surrey economy. The low GVA relative to employment is due to the fact that in Surrey there is relatively little food processing which has a higher GVA

per employee than other parts of the food chain.

Regarding the agri-food chain as a whole, across

England it contributed 8.5% of total GVA, versus 5.8% of Surrey's GVA, due to the concentrated presence of higher productivity industries within Surrey, and the lower total employment within Agri-food in Surrey.

GVA per worker (2022) in the agri-food chain in Surrey and England - Table 12

GVA Per Worker 2022 (£2022)						
Industry	Surrey			England		
	Employment	GVA	GVA/Job	Employment	GVA	GVA/Job
Primary Agri-Food Production (1-3)	3,763	86	£22,969	358,250	13,539	£37,792
Food and Drink Manufacture (10-12)	2,150	115	£53,488	360,700	27,847	£77,203
161 : Sawmilling and planing of wood	20	1	£63,853	4,750	194	£40,743
Core Agri-Food Inputs, Machinery and Services Provision	460	47	£101,908	57,313	4,990	£87,074
Partial Agri-Food Inputs, Machinery and Services Provision	531	49	£91,671	37,500	2,919	£77,851
75 : Veterinary activities (20% allocation)	450	33	£73,778	12,800	1,060	£82,828
Provision of Temporary Labour	950	35	£37,333	44,625	1,424	£31,908
Agri-Food Inputs and Service Provision Total	2,391	164	£68,685	152,238	10,394	£68,275
Core Agri-Food Industry (Production and Inputs)	8,324	367	£44,084	875,938	51,973	£59,335
(Agri-) Food Retail and Wholesale	25,438	1,343	£52,784	1,273,750	59,390	£46,626
56: Food and beverage service activities	35,500	1,103	£31,070	1,764,000	43,376	£24,590
Freight Logistics and Warehousing	2,225	151	£67,820	209,910	10,245	£48,808
Agri-Food Retail, Wholesale and Logistics	63,163	2,597	£41,110	3,247,660	113,012	£34,798
Total Agri-Food Industry	71,487	2,964	£41,456	4,123,598	164,985	£40,010
Total all broad industrial groups	586,250	51,306	£87,516	27,983,500	1,940,267	£69,336

As shown in table 12, Surrey as a whole had a significantly (26%) higher GVA per worker (employment measure) than that seen across the UK, due to its higher LQ of high GVA industries. However, Surrey's total agri-food chain, had a GVA per worker just 3.6% above the English level, facilitated primarily by its significantly (26%) higher GVA per worker within the food and beverage service activities industry which

add more value per worker due to the higher prices commanded by food service in an affluent part of the country. Also of note is the high GVA per worker, within the provision of core services, machinery, and inputs to the agri-food industry, (e.g., food processing or agricultural machinery, agro-chemicals, etc.), generating a GVA per worker above the average across Surrey's economy.



3. Skills and Innovation

a. Skills

The University of Surrey has a large investment in food chain related courses, research and innovation and is ranked very highly for food science: 2nd in the UK by the Times and The Sunday Times Good University Guide 2024; 4th nationally by the Complete University Guide 2024⁷⁵; and, 6th nationally by the Guardian 2024.⁷⁶

The Food Sciences⁷⁷ provision is focused on the Department of Nutrition, Food and Exercise Sciences, whose research mission is to understand human metabolic demands for nutrients and to optimise their provision as safe and appropriate food.

The University also has a Veterinary Pathology Centre⁷⁸, which is housed in a new £11m centre and one of the UK's largest veterinary pathology centres. This offers high-containment post-mortem examination facilities providing pathology research, education and commercial activity. It also includes genomic, phenotyping and imaging laboratories.

Merrist Wood has 2,500 students across the landbased sector. The 400-acre estate includes woodlands, wetlands, livestock, gardens and grasslands and

the land-based industries.

wetlands, livestock, gardens and grasslands and includes a fully functioning farm with rare breed sheep and cows, pigs, goats, llamas, donkeys, chickens and ducks.

Merrist Wood College⁷⁸ is located near the University, just outside Guildford and is based on a 400-acre farm. It is a multi-award-winning college that specialises in

b. AgriTech

Surrey is a major national and international centre for agri-tech, focusing on animal health. This leadership on animal health has been recognised by the government through the High Potential Opportunity (HPO) status conferred on the area for Animal Health with the opportunity described as: 'Opportunity to meet the growing demand for animal health innovations across surveillance, disease detection and intervention, animal wellbeing, and clinical services'. This status was recognised across the former Enterprise M3 LEP area in Surrey and Hampshire.

There is also an Animal Health Innovation Network^{ao} run from the University of Surrey Vet School which includes the High Potential Opportunity core partnership and other partners in the region.

⁶⁹ GVA figures are given for 2022, in 2022 values. Since 2022, inflation within the UK has totaled just under 10% (9.7%) according to the Bank of England | Inflation Calculator. As such the value of this GVA in current nominal prices would be c.10% higher.

⁷⁰ SIC Codes: (2015,202, 283, 2893, 4611, 462, 4661, & 64201)

⁷¹ SIC Codes: (2222 (50%); 2812 (50%); 2822 (50%); 2829 (25%); 29202 (50%); 8.3312 (25%))

⁷² SIC Codes: (782 & 78100) (5% allocation)

⁷³ SIC Codes: (4617, 463, 4711, 472, 4776, & 4781)

Key national assets in animal health include:

· The Pirbright Institute⁸¹ is a national resource for the livestock and animal health sector. It is a centre of excellence in virus research and vaccine development and is heling establish the UK as a world leader in the rapidly growing field of novel livestock vaccine development capability. Pirbright includes a new £40m UK Animal Vaccine Manufacturing and Innovation Centre to accelerate the delivery of novel vaccines for emerging diseases.

Pirbright also hosts a new containment laboratory for research of exotic viruses to create insights to prevent and detect future outbreaks, which can deliver in in vivo viral disease experimentation for large animal species including cattle, pigs, sheep and goats for high containment work

The Pirbright Institute have been awarded £40m for the UK Animal Vaccine Manufacturing and Innovation Centre, jointly funded by Government and the Bill and Melinda Gates Foundation.

The Pirbright site also includes co-located businesses including:

o 272BIO Ltd is a growing biotech company focussing on animal health, which uses cutting-edge discovery and production platforms, together with VHH antibody technology to develop state-of-the-art antibody therapeutics for animals. 272BIO has a UK Discovery Lab at The Pirbright Institute, choosing to co-locate with The Pirbright Institute to enable collaboration with Pirbright's scientists, as well as serving as a bridge to bring academic discoveries to the market.

- o Boehringer Ingelheim Animal Health is the World's second largest animal health business, with sales of 4.1 billion euros in 2020. They deliver a large and innovative portfolio of products and services to prevent disease and improve the health and productivity of animals. Their Animal Health manufacturing site in Pirbright, holds the industry's biggest portfolio of vaccines to help control infectious animal diseases such as foot-and-mouth (FMD) and rabies.
- Animal and Plant Health Agency (APHA)82 APHA is the UK government's primary science capability for animal health and works with international partners.

A £1.4billion government investment programme will enable its Weybridge site to upgrade its specialist research and diagnostic laboratory facilities to create a new National Science Centre for Animal Health in Weybridge. The Animal Health and Plant Agency (APHA) offers laboratory testing and diagnostic services through its specialist high containment laboratories and animal facilities.

 The Veterinary Health Innovation Engine (vHive)⁸³ vHive, was formed in 2015 as a £8.5m collaboration between Zoetis' Centre for Digital Innovation and the University of Surrey's School of Veterinary Medicine dedicated to the development and adoption of new digital technologies in animal health.

Amongst its many collaborative achievements, vHive contributed to ALPHA (African Livestock Productivity and Health Advancement initiative), co-funded by Zoetis with a grant of \$14m from the Bill and Melinda Gates Foundation. ALPHA promotes livestock health to positively impact farmers' livelihoods by increasing access to veterinary medicines and services, diagnostic laboratories and animal health training in sub-Saharan Africa.

vHive is also spearheading the development of the DIHAH - the Data innovation Hub for Animal Health enabling collaboration on animal health datasets.

4. Local Policy Alignment

The former Enterprise M3 LEP championed the economy in Surrey and Hampshire until March when its responsibilities transferred to Business Surrey®4 and Hampshire County Council.

The LEP promoted agricultural education and supported overseas connections for its agritech sector, e.g. hosting Chinese visitors to the animal health cluster and HPO in 2023.05

Enterprise M3's last delivery plan for 2022/2386 recognised Surrey's ground-breaking work in the space and animal health sectors. It also recognised further potential to be tapped in these sectors; for example, the combination of 6G innovation capabilities and ultralow Earth orbit satellite technology which can have applications in agritech.

Invest in Surrey²⁷ promotes the food and drink industry as one of nine priority sectors, recognising the strength of the local industry for food and drink production, based on strong local supply chains and demand, linked to a strategic location for food and drink logistics and a cluster of animal health innovation and research. Invest in Surrey stresses that the industry has strengths at every scale of agri-food business including:

- · International Brands with Surrey serving as a hub for international food and drink brands including KFC, Krispy Kreme and Asahi with headquarters in Surrey
- National Brands including Hogsback Brewery, RE:NOURISH and Silent Pool Gin.
- . The Surrey Hills which offer a thriving food and drink landscape, with artisanal producers, farm-to-table restaurants, and picturesque vineyards.

97 investinsurrey.co.uk/sectors/food-drink/



⁷⁴ SIC Codes: (492, 4941, 502, 504, 5121, 52101, 52102, 52103, 52211, 52219, 52241, 52242, & 52243) 30% allocation to Agri-food

⁷⁵ www.thecompleteuniversityguide.co.uk/league-tables/rankings/food-science

⁷⁶ www.thecompleteuniversityguide.co.uk/league-tables/rankings/food-science 77 www.surrey.ac.uk/news/meet-department-nutrition-food-and-exercise-sciences

⁷⁸ Veterinary Pathology Centre | University of Surrey

⁷⁹ merristwood.activatelearning.ac.uk/about-us/

⁹⁰ Animal Health Innovation Network

⁸¹ www.pirbright.ac.uk/

⁸² www.gov.uk/government/organisations/animal-and-plant-health-agency

⁹⁴ www.businesssurrey.co.uk/

⁹⁵ enterprisem3.org.uk/news/em3-gromates-world-leading-agri-tech-chinese-investors

⁸⁶ enterprisem3.org.uk/sites/default/files/2022

^{06/}Delivery%20Plan%202022_23%20PUBLISHED%2022062022.ndf



In 2023 it became clear that the status quo in agri-food could not continue. Net zero targets are impacting how supply chains think. Competing priorities and income streams are nudging land out of food production. Global commodity markets are in flux. New patterns of consumer demand are emerging amidst a cost-of-living crisis. Unseasonal weather and water scarcity are limiting the availability of crops at home and abroad.

The net result is the UK is growing less and investing less. This landscape, shaped by economic shocks, presents opportunities for government and industry to work more collaboratively to fix the fundamentals of food production, explore new markets and unlock the potential of land.

Some of the biggest businesses in the UK are barely making a profit since the withdrawal of basic payments began. Government strategy for the ELMS transition has focused on encouraging farms to diversify into private markets for natural capital. Opening up new income streams is welcome but has missed the point about farm funding being used to subsidise food production. Many farms will only earn half what they were getting under BPS, before the costs associated with taking part in the schemes. Savill's undertook research that showed a theoretical lowland arable farm could almost fully replace

BPS with ELMS if it was fully regenerative. Such sweeping change in farming models would involve a cultural shift, significant re-skilling, management capability, new data and redeploying assets.

Through dialogue with farmers and landowners, government has made huge strides to preserve the primacy of food production on farmland and improve access to the schemes. Monitoring and feedback will continue to be important as the schemes bed down, as will support for emerging workforce and technology requirements.

Food pricing has been outsourced to a small number of powerful retailers. Commerce is delivering extremely affordable food as part of the government's social welfare policy. We cannot talk about farming without addressing the societal need for a healthy and accessible diet. However, aggressive price competition limits the scope to reflect rising input costs in sale prices throughout the supply chain and is the biggest push factor for declining production levels.

Poll:

What keeps you
up at night?

46% - the high rate
of inflation

Answers from our audience on Zoom

50% - the high rate
of inflation

Answers from X

The UK's low food prices also hinder our ability to import food. The argument that it does not matter if we produce less as we can import more to compensate does not stand scrutiny. The UK is not a preferred trading partner for many countries. The need for low retail prices and lack of competition among UK buyers has led to less favourable pricing and contract terms than can be negotiated with buyers in other territories, and the UK can struggle to secure deals.

Governmental commitment to fairness in the supply chain is critical to securing both home-grown and imported food supplies. The alternative is food scarcity in times where domestic and international supply chains are disrupted by economic shocks, conflicts and climate events.

Margin distribution is suppressing productivity. The impact on working capital, the lifeblood of a company, is one of the most hard-to-manage effects of low margins. Businesses cannot manage spend and in a seasonal industry the ability to buy inputs in favourable commodity markets can be the difference between profit and loss, the ability to access funding and the ability to invest in production and productivity.

A sustainable UK PLC needs every business and every region across the UK harnessing their unique assets to increase economic output. The rural economy is 18% less productive than the national average. Closing that gap could be worth up to £43bn in England alone. The revenue of the UK food market is estimated to be just over £157bn. Targeted government mechanisms to unleash investment in food production and manufacturing will deliver a more secure, sustainable and competitive food supply with ripple effects through the wider economy and increase the sector's contribution to GDP and tax receipts.

The government must utilise its role as a green market maker. It is in a unique position to coordinate joint public — private initiatives to establish markets for natural capital and green energy. ELMS recognises the public goods which can be leveraged from a well-managed landscape, and this is just the start of engaging the agricultural sector in the transition to a sustainable UK plc. With a cohesive package of market mechanisms, policies, smart taxation and roadmaps the UK can capture green growth and unlock investment in the food economy.

Labour shortages require interdepartmental collaboration. Seasonal labour is an essential part of food production, and it will take the combined efforts of Defra, the DWP and the Home Office to help fill those vital roles. The UK continues to lose a staggering amount of salad production due to the loss of skilled seasonal workers from Europe, a situation echoed across many areas of production including eggs, poultry and fruit.

When designing a labour policy, we need to start with what the economy needs. It is politically important to share the narrative that a well-managed foreign labour supply contributes to the British economy and puts affordable food on tables. SAWS has been helpful to a degree, although tweaks are needed to get the right people in the right jobs at the right price.

The challenge for some potential domestic recruits is the temporary nature of many roles being incompatible with the benefit system. Flexible policies such as benefits holidays which incentivise claimants to take temporary employment and facilitate a more agile workforce would enable the unemployed population to consider taking up lucrative seasonal roles. This flexibility would generate tax for the Exchequer, reduce demand on the benefits system and grow the food economy.

Supply chain fairness is the biggest influencer of farm businesses' capacity to invest. Closely followed by the ability to fill vacancies and access additional income from their land. Government has the unique ability and responsibility to re-shape the food supply chain and the environment it operates in to create a food system that works for consumer, business and country.

Key recommendation:

Continue the work of the EFRA Committee and APPG on Fair Value in the Food Supply Chain to move towards greater fairness and collaboration within the value chain to secure the future of British farming.



£56bn

The investment needed from public and private sources to meet our nature and climate ambitions.

Green finance, with government leadership and business innovation, is how we accelerate the environmental transition. The complex task of reaching net zero by 2050 asks for cooperation on a national scale and business-appropriate ESG strategies at the micro level.

Food pricing is fundamentally changing farm business behaviours. Growing less food and redeploying land into more profitable ventures are hallmarks of the agricultural landscape in 2023. Up to 20% of farm businesses across the UK are considering whether they can continue and 40% of livestock farmers have already planned to reduce their holdings. It is a worrying scenario because we need a sustainable food system and green investment into the landscape and environment. The relationship between landowner, banker and government is the holy trinity of developing our green infrastructure.

The challenge for farming businesses is what to do now; delivering environmental outputs through the higher tiers of ELMS involves taking on liabilities, planning permissions, land value considerations and adapting business models. Businesses need to be healthy to consider taking on finance.

The immediate concern for farms is replacing basic payments on the balance sheet. The longer-term perspective might be that subsidies stifle innovation and diverting government funds into opening up markets for green products and services will drive productivity and growth. Public goods is one such market, another is green energy.

Modern farm business models increasingly include generating clean energy for their own use and selling back to the grid. The government has helped develop the market, private finance has contributed to the investment capacity and farms are delivering the infrastructure.

Together, the three entwined partners have catalysed the UK's progress towards net zero, while providing farmers with an income to prop up food production.

Over the past 12 years agriculture has been the largest investor in renewables. Government mechanisms to encourage uptake, along with the availability of green finance and falling payback times on installations have made green energy more interesting to those with land and roof space.

Green finance is motivated to lend although some institutions still adhere to old-style thinking; they lend on security, stability and affordability. Other banks are less risk averse and are willing to lend against benefits to the business. However, this needs people who understand how funding interacts with business operations and the realities of a low margin business. It needs people who understand the nuances of horticulture or dairy or poultry to make informed decisions.

Green finance also needs to be able to evidence the lending is being used to deliver environmental initiatives. Trusted standards for disclosures and metric-driven analysis become important tools in accessing finance. In the EU there is a now a taxonomy to report in terms of climate-related disclosure, we are still waiting for the UK taxonomy. Germany has introduced due diligence

legislation to supplement the taxonomy and there are now significant drivers for businesses in Germany to demonstrate climate-related performance.

Environmental disclosures are often met with claims of green washing or green wishing. A clear set of metrics would help protect sustainable businesses from allegations and articulate the unreported good work being done on farms. Data can also be used to secure preferential rates on lending as banks are able to make more detailed risk assessments and reward impactful activity.

The Green Finance Institute has recommended a national baselining project to start this process. Baselining, data, metrics, sustainable accounting is absolutely going to improve the availability and quality of finance on offer.

The value chain is another important determinator of green investment. Supermarkets face huge pressure to reduce their scope three emissions (indirect emissions that occur in the value chain of the reporting company) and this is being passed down to the agricultural sector. Nature-friendly farming and clean energy support the relationship with buyers whilst also helping to reduce input costs, but financing and cashflow are often barriers to getting started.

Major buyers in the value chain are raising their expectations around what suppliers should be doing in terms of their environmental impact and have the resources to support supply chain initiatives. They can put processes and procedures in place to support the smaller businesses below with their buying power, specialist knowledge base and connections. Supermarkets are

benefiting financially from the environmental credentials of their supply chain and consideration should be given to how that added value is rewarded.

Not all actions to reduce emissions incur a cost. Donating food surplus to a food redistribution charity such as City Harvest can save the cost of having it taken away and the greenhouse gas can be offset against the donation. Being part of the scheme would also improve the farm's proposition to a supermarket looking to reduce their scope three emissions.

The Green Finance Institute estimate that we will need to invest circa £56bn over the next 10 years to meet our nature and climate goals. To get farmers investing we need to:

- Promote farmer-to-farmer education to demonstrate nature-friendly best practice and its benefits, including the financial benefits.
- Create a forum for banks, farmers and other players in the value chain to agree a set of farm standards to avoid farmers being pulled in multiple directions.
- Clarity on how public money can most effectively be used to attract private finance and investment.
- Tenancy agreements adapted to enable tenant farmers to make long-term investments in improving the land and receive their fair share of benefits.
- Use the public estate to boost demand for produce from nature-aligned farms.
- · Phase out petrol and diesel vehicles.

Not going green is not an option. With so many pressures on farming we need to frame investment against business benefits, set environmental performance measures, develop green markets and remove the main barrier to innovation, the health of the core food business. It is essential to the long-term health of the food system as in years to come it will be harder to get credit if you cannot demonstrate your environmental performance.

Key recommendation:

Develop a set of metrics to measure environmental output and green asset value for the agrifood sector.



The Internet of Things in agrifood relies on the use of technology to do two main things. To collect data from across our food supply chains. To analyse that data in decision-making which affects economic output, food supply and environmental impact. Technology becoming increasingly accessible and more diverse in its uses has an impact on designing new agricultural policy and how it is implemented.

Technology has positive implications for farm operations and how farms engage with the wider supply chain. On farm applications enable businesses to manage costs and deliver a competitively priced food supply at a fair profit. In May 2023, 25% of Londoners were experiencing food insecurity. This is a shocking statistic which indicates just how important investment in producing affordable food is critical to health and social goals in a just UK.

The benefits of agritech can be quite mundane but collectively add up to deliver the big social, economic and environmental ambitions. Planning field layouts in response to animal behaviour data enables the farmer to reduce water usage and limit soil degradation. Sensors which alert when gates are left open prevent injury to livestock.

Key to maximising the benefits of the IoT is linking systems on farm and between actors in the value chain. The interoperability of systems opens up a world of possibility for efficiency, productivity, and profitability but relies on transparency and cooperation between commercial partners to improve supply chain agility.

Technology is also beneficial in managing labour requirements. The data collected can inform when to hire seasonal labour and where to employ them. For example, if you can accurately forecast your crop of apples and know which orchards are performing best, you can put your bins out, inform your retail partner and ensure you've got enough labour to pick them at the optimal moment.

We need the IoT to be something that aids humans rather than replaces us. There are a lot of very good hybrid systems coming through where the use of autonomous picking platforms supports a lower number of people to help ease persistent labour shortages. Younger farmers are excited by the new technologies and their applications for sustainable farming and the data collected is integral to the management of the modern farm business. Data is an important function of a farm's risk management system whether it operates on a conventional or agroecological model. It can support business decisions around how the way the environment is behaving in response to what we're trying to extract from it. The environmental metrics tech can supply are needed to evidence the delivery of public goods, demonstrate compliance with supply chain contracts, manage efficient use of inputs and achieve optimal value from a crop.

New STEM roles created by the IoT will be important for nudging a cultural revaluation of farm careers and encouraging the public to perceive it as higher value and higher skill. Consequently, it has the potential to entice new entrants to the industry. The IoT can aid knowledge and performance, but it cannot be system critical. The food system has to be resilient when the net goes down. When 80 John Deere tractors were stolen in Ukraine, the company shut them down. While this offers owners protection, it also exposes the food supply chain to cyber attacks. At the same time, a lack of connectivity and stable connectivity across most rural areas slows the speed at which new tech can be adopted. Twenty-four hour engineering support, stringent cyber security measures, a secure supply of microchips and National Grid stability are also essential to ensuring technology contributes to food security.

Agroecology is an extremely resilient and stable model of farming grounded in hundreds of millions of years of evolution of natural systems. We need technology working in harmony with those natural systems and human knowledge passed down through generations of farming families. Rather than thinking in terms of individual plants, we need to see each apple tree as an ecological system. We need computer programmes that think broadly about the interactions of thousands of organisms.

When thinking about productivity in a business sense, in terms of the size and value of a crop, we must remember the environmental productivity supporting rich biodiversity. Destroying the productivity of our ecosystem will result in more expensive inputs and technologies. Unless we respect the biological richness of our system it will become increasingly fragile and inefficient. The more we understand about food grown without soil, the better we

understand soils themselves and the desperate need to rebuild soil health.

Technology complements how we farm; it is not a substitute system. It would be reductive to associate the IoT with conventional or industrial agriculture; it is a tool that enables digitalisation to be used in any type of farming system. It is being used to scale up agroecological farming to a level where it can provide food security for a larger proportion of the population than the people undertaking it. Not everything can be scaled although technology although it does provide a pathway to achieving more sustainable agricultural systems. It will enable progression of industrial farming to maintain its scale and achieve more sustainable outcomes.

Technology has the power to propel farming towards greater profitability and productivity while securing an affordable food supply for the UK and export markets. It is our best chance to square the circle of creating a food system which delivers competitively-priced food to consumers and fair reward to producers.

Key recommendation:

Encourage collaboration between the public and private sectors to develop an interoperable technology infrastructure that serves the food supply chain from farm to fork.





In 1947 there were 1.27 million people employed in agriculture, today the figure is a third of that and casual labour makes up half the non-managerial workforce.

LEAF research in 2023 stated that 82% of young people do not know how to access a career in agriculture. 74% of those questioned said they would consider or choose to study agriculture if they knew more about it. Modern agriculture needs to do better at selling itself as a high skill, high value industry. Courses listed on the ACAS website paint a very traditional picture of agriculture and obscure the diverse range of careers and skills which would attract more people without a farming background. We are unwittingly perpetuating the misunderstandings about the agrifood sector and fuelling the image problem.

University data points to more people studying agriculture, although those figures are driven by international students. These students could be a potential source of new employees if the visa system was more supportive; it is hard to find work with two-year work visas. Input from the Home Office to support postgraduate routes into employment would help plug vital skills gaps.

Apprenticeships also offer a good route into food and farming jobs. The challenge is that many people who want to study subjects like animal welfare or biological sciences do not know they exist. They do not know that sustainable farming can help solve some of the world's biggest problems and a career in agriculture can take them all over the world. We need to encourage people to think laterally around careers with nature and animals

because farms are crying out for people with these interests

A generation of farming influencers on social media opening up the world of farming and giving the idea that country life is cool. There is an energy around sustainability and regenerative agriculture, and this is where we can pull people into the industry. We can design new courses and attract new skill sets. It becomes a turning point for the industry; for economic growth and environmental benefit. Leaving the European Union gave us the ability to re-calibrate our agricultural-environmental policies and the ability to focus public money in ways which maintain heritage landscapes, value nature restoration and address climate change while we produce food. As farm businesses diversify into green markets with more explicitly environmental agendas they will attract a more diverse range of candidates, who may not previously have thought of entering the industry.

Plenty of investors are attracted to the sustainability element of agriculture and fresh produce. Funds understand people are going to be pivotal and they are building their operations around talent.

As an example, one investor is in the process of building a fresh produce system that is going to self-generate energy and aims to grow 10% of the UK's salad requirements for one category. The site is close to an area of high unemployment and they are looking to collaborate with other local businesses to drive efficiencies in energy, logistics and human resources. This collaborative, outward-looking business model has the potential to drive

change through the food value chain and create decent work opportunities.

The green evolution is not the only change to bring vibrancy to the industry. Sophisticated branding techniques to create consumer demand and, more importantly, consumer loyalty is being transferred from FMCG food brands. Redesigning how we brand fresh produce will help our nation's health, protect the NHS and generate a better margin return for farmers. It has the power to drive societal change in perceiving agrifoods as an exciting food and career choice. There is space for government and big retailers to support the branding of fresh produce with their platforms, marketing expertise and knowledge of consumer behaviour.

Unfilled vacancies are a business risk which farmers are building into their strategy; reducing production in line with the predicted availability of labour. Labour is also one of the most significant costs of production and a motivation for change. Technology-driven efficiencies are not just about replacing labour with automated systems; they have a role in supporting people to be more productivity. Around 10% - 20% of time on a fruit farm is spent walking around. A robot could pick and deliver the fruit so workers can focus on other tasks. Al will help agronomists make better decisions earlier.

The skill set of the workforce needs to evolve to keep pace with changing tech to facilitate decision-making based on more/different data delivered in real time and manage advanced systems and equipment. The future workforce will also have a better understanding of the increased environmental legislation and its business impact. However, it is equally important we value and retain traditional farming skills. Once that 'corporate knowledge' of the land is gone, it will be impossible to revive.

Business viability is demotivating the Poll: Have you experienced labour shortages in your business?

2/3 have experienced labour shortages.

40% have experienced severe labour shortages.

> need to be vibrant to attract top talent, it needs to be able to offer competitive packages, a degree of stability and good prospects.

next generation of family farmers who

elsewhere and discouraging top talent

from entering the industry. Improving the financial prospects for farms

through investment in productivity.

the development of new markets for

their natural capital, reviewing supply

chain fairness and creating demand for

British produce will all help to resolve the

recruitment crisis. Not only does an industry

pursue (perceived) better options

It is important to view the attractiveness of farm careers in the context of hollowed out rural communities. Workers need affordable housing, reliable public transport, healthcare, schools and other amenities. There is a role for policy in making rural jobs more accessible. Interventions which would encourage investment in industry and a community to support it. Planning authorities sympathetic to the redevelopment of farm buildings to provide housing for workers or as a home for the retired farmer to enable succession. Wales has an interesting One Planet Scheme to facilitate the repopulation of the countryside. You can build a house in a rural area if you can show that a business is associated with the house. The family living in that house and working for that business will support the local shop, the pub and have children in the village school.

It has been said food security is not the government's job although the annual Farm to Fork Summits started under Rishi Sinak's Prime Ministership signal a welcome change in thinking. We are moving towards an acknowledgement that educational attainment, economic productivity and public health are a function of nutritional security. And they are the job of government. As are many other benefits of a food secure nation: national security, environmental security and green growth.

Key recommendation:

Work with educators and influencers to raise awareness of agriculture as a high value and high skill career, misperceptions of agriculture are one of the biggest factors contributing to labour shortages and limiting the industry's ability contribution to the national economy.

The report has been developed with the expert opinion and insights from speakers representing the triple helix of politics, academia and business.



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Natalie Bennett Baroness Bennett of Manor Castle Green Party Peer, House of Lords



Sarah Calcutt CEO, City Harvest and NED, Covent Garden Market Authority



Charlene Cranny Co-Founder, Bankers for Net Zero



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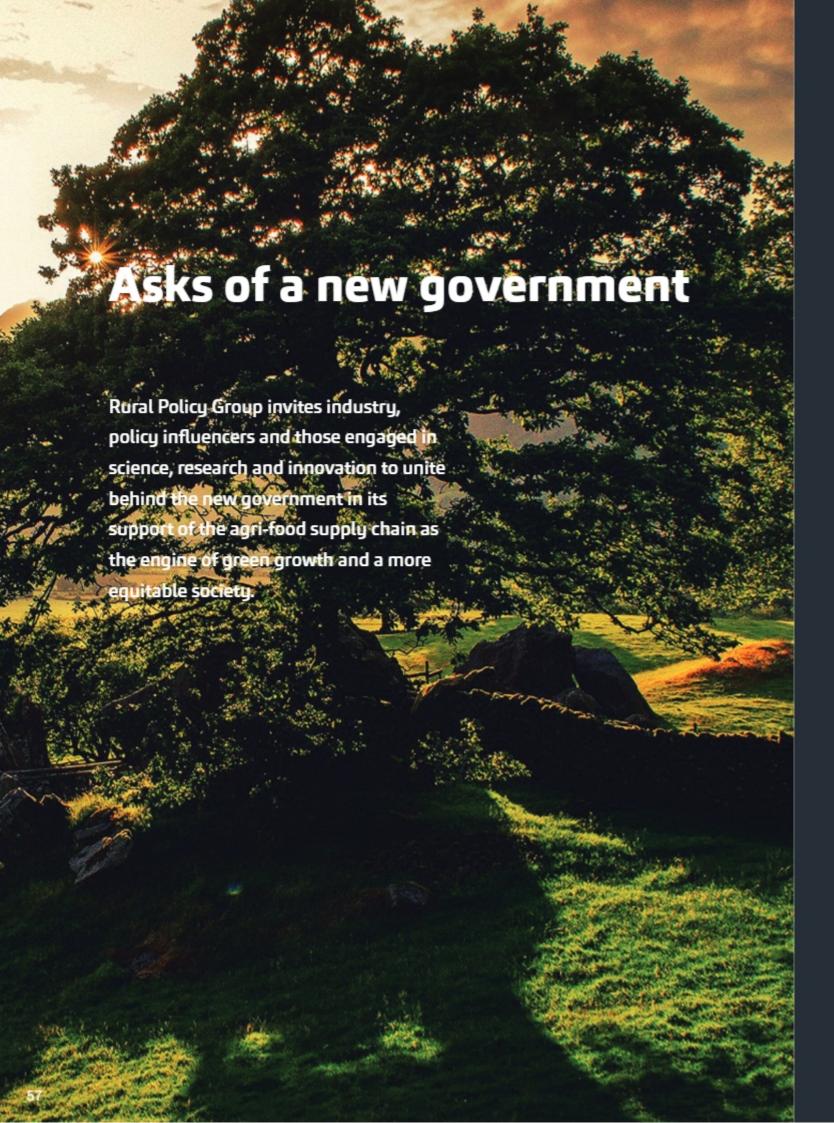
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Shadow Environment Minister and
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RPG encourages policymakers to view the following as pre-requisites for achieving the type of profitable and productive food value chain which can deliver on economic, societal and environmental goals:

- Strengthen food security ambitions to make the UK 70% self sufficient in food production by 2030.
- Collaboratively work towards fair value and fair dealing in the upstream and downstream food supply chain.
- Agree a standardised baseline set of metrics against which farms can measure and manage their environmental progress.
- Incorporate environmental metrics such as biodiversity in land valuations, similar to the role soil quality plays in asset values.
- Invest in reversing the decline in agricultural production and create the conditions to stimulate private investing.
- Encourage the consumption of British-produced food within the public estate and by consumers.
- Level the playing field for imports with equivalence of standards for environmental protections, animal welfare and food quality.











































Our Founding Partner



Rural Policy Group exists to enhance the financial and environmental sustainability of agriculture, food and farming sector. It is about to embark on the next phase of action to advocate for fair value and food security and we are inviting applications for sponsorship and other forms of partnership from organisations and individuals who share our ambitions for British farming.

Discover more about the work of Rural Policy Group, its campaigns and future initiatives.









