Harvesting the future for young farmers

How we enable them to thrive

February 2017

NatWest

Contents

1. Foreword

There is a generational crisis in farming. According to Defra the percentage of farmers under the age of 45 had fallen to just 13% in 2015, down from 18% in 2003. At the same time, we know from our young farmers that they are more than willing to put in the hard yards needed to secure the future of farming in the UK. Millennial farmers bring fresh eyes, new ideas and ambition for the sector, but they need help to make their goals a reality. We have time to turn this situation around and to ensure a positive future for the rural economy. However, if we are to do so, we first need to properly understand the situation and then actively address every issue.

This report, Harvesting the Future for Young Farmers, commissioned by NatWest, is based on a landmark study of over 500 young and potential new entrant farmers in Britain combined with insights and an economic analysis of the future for the industry. For the first time, at a practical and policy level it enables us to understand the economic and the human challenges and opportunities facing Britain's young farmers and it informs the road map of policy asks we set out for the future. This is particularly important given the changes that Brexit might bring about, although for many young farmers Brexit was just another of the many and varied challenges they had to manage.

There is no silver bullet, nor any one authority, that has the power to solve the issues at hand and to unlock the full potential of this community. However, aspirant young farmers identify a number of key areas whereby real change could be achieved. That is why we are calling for enhanced recognition of the agricultural economy within Government through a new Cabinet Committee, one that is expressly supported by an inclusive Better Brexit Farming Strategy Taskforce. Serious obstacles also remain for young farmers in terms of barriers to entry, and again we have outlined a number of actions that could be taken now, starting with a Succession Summit. Access to funding and enhanced business skills also need more forensic attention and we suggest a number of actions ranging from loan guarantee schemes, off the shelf diversification funding products, through to the inclusion of business planning in farming apprenticeships, to kick-start this process.

"It's a bit like trying to predict who's going to win a horse race without knowing who is running. We can all have ideas but no one actually knows. It's about being flexible and making the best of the situation according to one young farmer."

The report is not going to deliver a seismic shift in Britain's global economic performance, nor is it intended to do so. That is not to diminish the sector's contribution - farming remains a critical sector to the British economy, generating around £23.4bn of revenue, employing almost half a million people and managing a vast swathe of our invaluable natural resources. However, the issues we need to address are found most tellingly at the front line, at a local, personal level, where what appear to be small, incremental improvements can be transformative in enabling a farmer to sustain or grow their business.

Three big themes emerge from the research and are explored on the following pages in more detail:

For the vast majority, farming provides a modest income. Supplementary income, improvements in productivity, new technologies and diversification all enable the young farmer to improve resilience, with improved adaptability and strategic flexibility. This is particularly important in tough times when global commodity prices fall or input prices rise. Farmers don't need a strapline such as the squeezed middle, or JAMs (just about managing), to know that they bear the brunt of economically challenging times, or indeed in the good times when deflation, as a result of the transition to more open markets and global economies of scale, drives down the commodity price.

Our research shows that with just a small increase in investment almost 20,000 new development and diversification projects would be undertaken with an average annual return of almost £11,900 in additional income for each of those farms. A number that looks small on a macroscale, but at nearly £1,000 per month, this income could make the difference between a stressful and more comfortable life in normal times, but also income that can sustain a business when the going gets tough.

Despite the benefits of being your own boss and the ongoing technological innovations, farming is not a career for those who are not willing to work hard. It involves long hours, physical and psychological stresses and strains, and, depending on the year, there are certainly easier ways to make money. Given the above and the decline in young farmers actively farming, it would be easy to conclude that the next generation is not up to the hard graft. This is absolutely not the case. Our research uncovers another side to the millennial era. As one young farmer described it: "I got stuck in, worked hard, took control. I questioned why we did things certain ways and proved how doing it another way would be beneficial."

Young farmers are a high-tech, highly skilled, highly motivated group of young people who hold a realistic picture of farming in their heads while wanting a career on the land. They are however, seriously constrained in a number of ways and despite more applications to colleges, their numbers are falling. If we are to unlock this potential, then there are a number of actions to be taken and issues to be overcome.

Our aspiration for this report is that it inspires the industry to turn these challenges into opportunities, an action plan that is achievable. As we set out, some require relatively modest improvements and change, whilst others demonstrate the need for joined-up thinking, longer term investments, or represent problems that have increased over time and that for some look intractable. For example, just untangling the complexity of farming succession leads us to uncover issues ranging from family, inheritance and taxation, all the way through to land prices and availability, housing costs and the planning system.

As the Head of Agriculture at NatWest, I am certain that to enable many of the opportunities to flourish we must continue to address questions around the availability of funding. We must adapt and adjust our products and models to fit the industry – for example, to coincide with the seasonal nature of farming or to allow the farmer to weather a short term drop in a commodity price.

It is incumbent on all of us – banks, government, local government, families and communities – to come together and ensure today's young farmers are able to harvest their own futures.

Ian Burrow

Head of Agriculture

NatWest

Case Study - Supernature Oils

Lynn Mann and her husband Chris are founders of Supernature. Since 1852, their family have been tenant farmers at Carrington Barns Farm. “We were looking for a new business idea, and Chris mentioned cold pressed rapeseed oil, and how it was healthier than olive oil,” she recalls. Lynn was soon smitten with the idea of tapping into the growing rapeseed oil market, and Supernature was born. “It all started by selling at local farmers’ markets and shops just a few years ago. From there, and with the support of the bank, we’ve built something special. ”

As a bank customer, Lynn found out about our partnership with the free business accelerator Entrepreneurial Spark. The hubs are based in the bank’s buildings across the UK and provide office space, resource and support– all free of charge. “The bank helped me beyond just traditional banking facilities. I joined their Entrepreneurial Spark programme and learned a huge amount about scaling-up a business and being an entrepreneur. I also tapped into the bank’s networks and connections which are just as important as funding for a start-up.”

Lynn was introduced to various bank suppliers – including Baxter Storey, one of the biggest food service companies. “It’s great that the bank is willing and able to make the most of the breadth of their contacts like this to benefit small businesses like ours. It adds huge value to our relationship with the bank.” Lynn commented.

As well as gaining business mentoring and advice, Supernature has also benefitted from access to funding indirectly supplied by the bank including £38,000 from the Scottish EDGE fund which was set up and funded by the bank. This helped them buy a second oil press and doubled their output.

Supernature now has more national awards than any other UK producer of cold pressed rapeseed oil and has received various glowing testimonials from Michelin-starred chefs. Their products, made on their small family farm, can now be found in Harrods and as far afield as a supermarkets in Borneo, Hong Kong and Qatar.

Case Study - Our Cow Molly

"Our Cow Molly" is a family run dairy farm in Sheffield. Hector Andrew established it in 1947 with just 10 cows for milk production and delivery to local shops and doorsteps. They have now expanded to an 84 strong herd but they face the huge challenges which have been affecting the dairy sector for some time.

The eldest son Eddie, who studied engineering at Reasheath agricultural college, said: "The reality is that dairy farmers are really suffering. We are the last dairy farm left in Sheffield bottling our own milk. There is little confidence in young farmers to carry on dairy farming and the fact is that few, if any dairy farmers are actually covering their costs. Young farmers need to see something that works, and the fact that most dairies are currently loss making is very uninspiring."

Eddie and his family had to diversify to survive. They did this by offering customers something the big retailers could never do – #SuperFreshMilk. With the help of NatWest they bought pasteurising equipment, storage tanks, a milk filling line, cooling tanks and a generator and they now work through the night to deliver the freshest possible milk to their customers the following morning. Their hard work has earned them the BBC Food and Farming Future Food Award for convincing local businesses to pay more for their super fresh 'Made in Sheffield' milk and was highlighted as a model that would help save many more of the UK's struggling dairy farmers.

"Our customers include families as well as larger organisations like the University of Sheffield and the Co-op. We have forged a new way of working and we believe this type of relationship can be developed between other dairies and local businesses and institutions, enabling customers to have access to much fresher milk direct from the farm, which is an asset to the community."

"We need banks that have a good understanding of businesses like ours and that can provide funding solutions that meet our business goals, if we don't we will carry on seeing one dairy farm close every day which is exactly whats happening. How can you expect banks to lend to loss making businesses? It's a really tough environment but we need to get an agreement for companies not to buy milk that sees a dairy farmer not cover the cost of producing that milk, its up to us all to ask what the dairy farmer is paid for his milk before we go with a milk supplier."

"Our Cow Molly" continued to diversify and started a new enterprise to produce ice cream. The farm now has its own ice cream parlour which also distributes products to around 100 independent businesses in the Sheffield area.

"The successful future of farming is not just a positive future for our rural economy. Our rural business massively benefits Sheffield city businesses. Blowplast make all our milk bottles, Crown Labels make the bottle labels and Tavern Service Station look after all the delivery fleet. 100% of the money Sheffield folk spend on our Sheffield milk stays in Sheffield. A positive future for a rural economy is positive for urban & city economy too."

2. The Emerging Themes

Succession and Barriers to Entry

Barriers to entry exist across the farming sector for young farmers. Some of these relate specifically to farming, such as the increasing cost of capital intensive production (machinery, technology, etc.) through to the associated costs of farm land and rural housing. In addition, access to land is a significant challenge with issues around the availability of farming tenancies and contract farming, but most crucially 'dead man's shoes' syndrome whereby there are limited succession opportunities, often combined with the complexity of family dynamics and intergenerational issues. Succession can also become increasingly difficult as a result of estate planning and taxation following the death of a parent. Young farmers were increasingly looking for new ways to access farming, such as share farming, but with ever larger farms in the UK, this was proving difficult.

Productivity

Productivity has been rising in farming at an average of around 1.5% per annum. In the oldest economic segment this is in itself a remarkable achievement. The enhanced investment scenario combined with the ambition of young farmers demonstrates what could be achieved even with modest improvements. These farmers remain at the forefront of the move to drive increased returns from available resources and assets, whether that is from core farm development through capital investment, the introduction of new ways of working and new technologies, or looking for wider sources of available income.

- Core Farm – the analysis shows that even quite limited investment in new costly equipment can significantly enhance the productivity of the farm and improve the long term prospects for the business. However, the cost of equipment is continuing to rise and the payback is often over many, many seasons. On that basis, young farmers can be disproportionately disadvantaged as they lack an asset base against which funding can be secured.

- Innovation and Technology – this is a key driver for many young farmers who have identified new systems and technologies and ways of working to improve productivity on farms. It can range from the adoption of drones for monitoring crops, the electronic identification of livestock (EID), precision farming techniques assessing soil quality and introducing highly specific fertilisers to increase arable yields, through to back office online IT systems that enable the farm to run more efficiently. Again, access to these new technologies – physically unavailable because of poor rural connectivity, or as a result of funding issues – can be a significant barrier to delivering improvements.

- Diversification – as the research demonstrates, additional income from diversification (from leisure and tourism, renewables, glamping, to bee keeping and viticulture) can be a lifeline for many farmers as global commodity prices and farm input costs fluctuate. A significant proportion of young farmers have already diversified their businesses in some way, and 52% have viable plans to expand their operations in new ways in the future. However, while the majority envisage launching these plans over the next two years, the lack of land and financial resources is the main factor holding them back.

Funding Availability and Business Skills

Banks remain the major source of funding for farmers in all age groups, with 76% of young farmers relying on bank loans and 70% on overdraft facilities to further their operations. Many remain significantly resource constrained with available finance being seen as the biggest obstacle (by 43% of the young farmers) to investment and growth opportunities. Young farmers are demonstrating resourcefulness and flexibility, with 28% turning to peer-to-peer Lending and 20% crowdfunding. Beyond the funding challenges, almost a fifth of young farmers acknowledged that their business skills, such as drafting business plans, were an issue and that additional support and advice would be welcomed. Whilst the majority are college educated and have confidence in their abilities, many also believed that the advisory and support networks had degraded somewhat and were not as available as they used to be, particularly for young farmers.

An Action Plan - Harvesting the Future

The following section sets out, in summary, an action plan to address the needs of young farmers, based on the more detailed findings of the report. Young farmers are keen to get on, do the hard graft and advance their sector. What they need is a joined-up, cross government, farming sector and finance framework that enables them to realise their goals by helping to removing many of the obstacles and barriers while actively encouraging productivity and hence greater economic stability. The action plan sets out the high-level asks of all those with a stake in farming.

Action plan timescale

Succession and Barriers to Entry
Succession Summit with farming bodies and local and national authorities, to tackle farming succession planning
Government review of taxation, planning and local housing costs for farming communities
UK-wide roll-out of the Forestry Commission's Starter Farms programme
Productivity
Core Farm
UK Government to create Cabinet Committee on Economy and Industrial Strategy (Agricultural Economy) to enable the farming community to make the most of Brexit
Committee to be jointly chaired by the Secretary of State for Environment, Food and Rural Affairs and the Chancellor
Better Brexit Farming Strategy Taskforce to inform Cabinet Committee with representation from the farming community (including young farmers), banks and funding bodies, food and retail, Government, local government, International Trade – identifies further opportunities to promote British food and farming and capture UK and global trade audiences
Innovation and Technology
Farming specific USO (universal service obligation) for connectivity, with a dedicated action plan on mobile and broadband
Annual UK Farmtech Conference – Showcase best of precision farming, technologies and equipment used in Britain
UK FarmTech - Connect UK-leading farming universities and colleges with technology companies such as Google and Facebook to drive community engagement and innovation
Action plan for *Open Source farming equipment* and tools to enable collaborative innovations and development
Continued government funding for agricultural research grants following exit from the EU
Diversification
Create specific, off the shelf diversification funding products with access to a mix of finance providers to enable better access to new money
Raise awareness of permitted development rights – e.g. one wind turbine, availability of land for tourism, etc.

Funding Availability and Business Skills

Funding Availability

A working group should be created to explore new loan guarantee facilities specifically targeted towards new entrants and young farmers

Business skills

Business Planning to become part of core curriculum for Farming Apprenticeships and enhanced in agricultural colleges, plus online courses for existing farmers

Succession planning modules should be developed for inclusion in agricultural college programmes to improve ease of generational transfer

NatWest to ensure that its free business accelerator network is available to farming and rural businesses and we will work to improve access to our entrepreneurial communities through remote and virtual hubs

3. Future of Farming Enterprise

Introduction

3.1. This report focuses on identifying the scale of the potential financial and economic value that could be captured by the UK economy if the creative, productive and entrepreneurial potential of the UK's younger farmers – and expected new entrants to farming – could be harnessed in full.

3.2. Even before the EU membership decision was taken, the UK agricultural sector was already facing a series of unprecedented challenges, including accelerated globalisation, increasing price volatility, changing consumer preferences and expectations, increasing separation between food producers and the ultimate consumer, and also challenges brought about by technological change and innovation.

3.3. Some of these pressures will drive growing demand for the UK's agricultural products and food, and will in the longer term provide support for prices.

3.4. However, in the short term many farmers face a set of totally different challenges and pressures. This volatility is exemplified by the fact that the total amount of income generated by farming at a national level in 2015 was about 29% lower than in 2014.

3.5. The degree of change and levels of uncertainty facing the sector have been compounded by the result of the UK's decision to leave the EU. UK agriculture now faces a series of threats and challenges, such as:

- The introduction of a global (rather than European) marketplace both for exports and imports, potentially trading under WTO rules.
- Post-Brexit, the UK will be responsible for negotiating its own bilateral trade deals. There is also the possibility that other countries will demand greater access to UK markets for their agricultural products in return for access to their own markets for UK manufacturers and/or services providers.
- Loss of EU subsidies in the medium term, and the potential loss of EU protection schemes.
- The potential impact on availability of additional seasonal labour, particularly in the horticulture agriculture, pigs and poultry sectors.

3.6. Yet, despite all of this uncertainty there are also a number of positives and opportunities for farming outside the EU:

- The recent weakening of Sterling is making the UK significantly more competitive in export markets, and is also supporting an upswing in commodity prices for UK farmers.
- The decision to leave the EU also means that for the first time in over 40 years the UK has the potential to create its own policy framework for the development of agriculture.
- It is also important to recognise that the next 5-to-10 years will also provide an extensive set of new opportunities for UK farmers, such as an enhanced ability to promote the "Britishness" of food in domestic markets, the potential for new export opportunities and the potential for accelerated productivity growth via the introduction of new technologies.

3.7. One of the key opportunities available to UK agriculture is the latent – and as yet not fully exploited – entrepreneurial dynamic that exists amongst the UK's younger farmers, and the highly skilled, enterprising and tech savvy new entrants to farming that are expected to join the industry over the next decade or so.

3.8. A key goal of this report is to identify, highlight and assess the emerging enterprise trends within the UK agriculture sector that will influence the performance of the UK's agricultural industry as a whole over the next 5-to-10 years, and to quantify the potential additional contribution that younger farmers can make through enhanced levels of enterprise development and diversification.

3.9. In particular, the report focuses on the opportunities (and challenges) facing UK agriculture that are especially relevant to younger farmers and would-be entrants to farming, including:

- The attraction – and retention – of talent into the industry.
- Barriers and challenges to career progression.
- Opportunities to invest in new technologies and skills.

- Opportunities and challenges relevant to agriculture business diversification.
- Sources of advice and support for business planning and development.

Key messages from our research programme

3.10. The findings of this report are built upon a three stage process of evidence gathering which involved the following inter-connected workstreams:

- **Desk-review:** First, there was a desk-based review of existing policy documents, research and data that considered some of the key challenges and opportunities facing UK agriculture.
- **Survey:** The second element of the research programme was an online survey of young farmers and would-be entrants to farming, which generated responses from 517 young farmers and potential entrants aged under 45 from around the UK.
- **Stakeholder consultations:** Third, there was a focused programme of consultations with 10 organisations with a remit or responsibility for relevant policy and strategy areas. A list of these consultees is appended to this document.

3.11. Across each of the three research workstreams, six key threads (or themes) emerged, as follows:

Attracting and retaining talent

3.12. The policy and literature review suggested that attracting talent remains a key challenge for the UK's agriculture sector. According to Defra's 2013 Future of Farming report, there is considerable uncertainty with respect to the number of new entrants, graduates, postgraduates, skilled and unskilled farm workers that the sector will need over the next 10-15 years. However, in its ten-year projection to 2021 (published in 2011), LANTRA (the Sector Skills Council for land based industry) estimated that 194,000 new entrants would be needed in England alone.

3.13. The views of stakeholders were more mixed, with several highlighting current strong levels of interest in agricultural college courses. Several consultees highlighted that the likely trend was towards further extensification of agriculture, meaning that in future there was likely to be a steadily shrinking number of farm units in total. However, it was also pointed out that the extensification trend could help create an expanded role for part-time and niche farming, providing possible new avenues for would-be entrants to the industry as well as increased opportunities for salaried managers.

3.14. The results of the survey of younger farmers and would-be entrants indicated that inheritance continues to be the primary entry route into the sector for young farmers. However, it was also notable that 20% of responses (from those currently farming) indicated that they had entered via share-farming, a partnership, a joint venture or contracting.

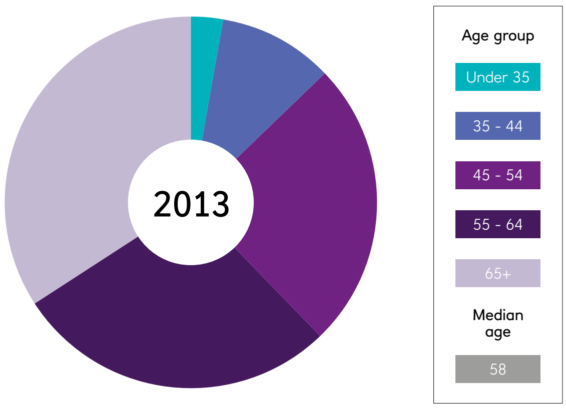
3.15. Of those not currently farming, a selection of responses identified the factors that were constraining potential entry into the sector. The most frequent responses of this type included the following:

- Non-competitive earnings/return on investment (64%).
- No farm available to inherit (55%).
- High levels of capital investment required (45%).
- No farm available to let (36%).
- Not enough support from within the family (18%).

Barriers and challenges to entry and progression

3.16. Defra data confirms that only 13% of farm holders are aged under 45, and that this proportion has reduced (from 18%) since 2003[1]. Several consultee stakeholders highlighted that the challenge of succession – entwined as it is with family dynamics and personal emotions – is a more formidable challenge than attracting new entrants.

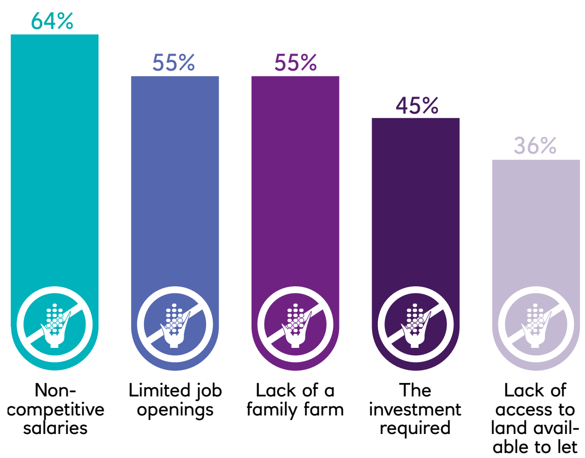
Fig 1: Age of UK farmers (2013)



The survey conducted for this study asked those who had not yet entered the industry (but who wanted to): "what were the main factors that were holding them back?"

3.17. By far the most frequently cited reason was non-competitive salaries (64%), followed by "limited job openings" (55%) and "lack of a family farm" (55%).

Fig 2: Barriers of entry into farming



3.18. Given the challenges faced by many entrants, the survey also asked an open question about how the initial challenges were overcome. Some of the most interesting responses are set out below:

I joined the Young Farmers, networked and made new contacts, did work experience, went on any relevant training course I could find and just kept asking everyone I met that I was looking for land and to gain more experience

Working long hours, living on the bread line as all money was ploughed back into farm.

Careful finance management of any loans and business risks taken to start off.

By having a working overdraft and term loan and taking no personal drawings from the business.

Grit and determination and possibly stupidity, and a lot of unsecured borrowing!

Determination, hard work, stubbornness

Talked through all possible solutions with family and advisors.

I took out a loan to help with funding and got a part time job to bring extra money in to live on and pay the bills whilst the farm paid for the farm.

I got stuck in, worked hard, and took control. I questioned why we did things certain ways and proved how doing it another way would be beneficial.

I got a lot of support from family and family friends to help get the farm back up and running better after my father passed away.

1 Defra: Agriculture in the UK, 2015 (Table 2.6)

Opportunities to invest in new technologies and skills

3.19. The dominance of micro-businesses in agriculture means that skills development and career progression is often more of a challenge for agriculture that in many other industries. Bigger farm businesses naturally create more opportunities. However, a growing proportion of entrants to the sector are college graduates, and many have advanced technical, IT and business skills.

3.20. Several stakeholder consultees highlighted the shortage of apprenticeship opportunities as a constraint on the sector, a view that is also expressed in various policy and strategic reviews. A number of consultees also highlighted accelerated career progression opportunities offered by corporate farms, especially in high demand sectors such as pigs and poultry.

The expanding role and opportunities offered by digital technology was also highlighted by many consultees.

3.21. The participants in the survey were also asked to what extent they consider themselves equipped with the skills that may be needed in agriculture over the next 5-10 years. Overall, the respondents to this question considered themselves well equipped, with 57.5% saying they felt either well equipped or very well equipped. Only 6.3% said that they felt either badly or very badly equipped.

3.22. When asked about proficiency in aspects of business planning skills, the most frequent response that indicated a gap in skills concerned balance sheet preparation (with a total of 29% expressing some level of skills gap).

Opportunities and challenges relevant to agriculture business diversification

3.23. According to Defra, around 57% of farms in England have already diversified in some way such as tourism, and even when property development (i.e. the letting of redundant farm buildings for commercial purposes) is excluded the proportion is 37%.[2]

3.24. This 37% still represents a significant increase compared to the equivalent figure of 26% recorded by the same survey in 2009/10.[3] The average annual value of diversified income generating activity projected by that study was £14,500, and the aggregate earnings of the industry from this activity were estimated to be worth £490 million.

3.25. Additional potential for diversification derives from an increasing trend for consumers to be concerned about food provenance – i.e. an increasing proportion of consumers want to know where their food is coming from and how it is produced.

3.26. For example, data from Defra indicates that the UK market for 'ethically produced' produce has doubled between 2008 and 2013, and was worth £8.4 billion in 2013.[4] The same data source suggests that demand for 'ethically produced' produce has been growing at an average rate of around 17% per annum since 1999.

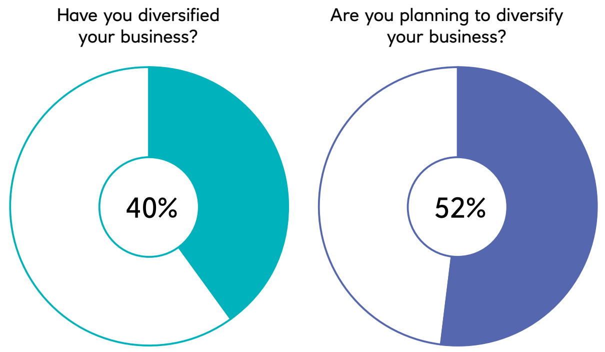
3.27. In addition, there is also evidence that an increasing proportion of consumers would prefer to buy British wherever possible.

3.28. This consumer driven trend provides a potential boost for UK production to meet demand for customers who, for example, require their meat, dairy products or eggs to be produced at higher welfare standards and/or who want to consume food that has been produced sustainably.

3.29. The responses from stakeholder consultees also highlighted the importance of diversification in cushioning farming businesses from the increasing volatility of agricultural market prices.

3.30. A significant number (40%) of responses to the survey of younger farmers came from those who had already diversified their business in some way, and others highlighted as yet unrealised opportunities for new or additional diversification or farm development.

Fig 3: Levels of diversification



2 Defra Farm Business Survey, 2013/14
3 Defra Farm Business Survey 2009/2010
4 Defra Food Statistics Pocketbook, 2015, Figure 2.7

3.31. When asked about the types of activities that were being considered, the most popular themes that respondents identified were tourism and leisure related (such as providing accommodation or providing an attraction – such as off-roading or equestrian-related activities). A total of 28% of proposed activities were of this type, with glamping (20%) being a particularly popular business idea, as 10% more UK travellers embarked on a 'staycation' in the UK in 2016 than in 2015.[5]

3.32. Another key area was renewable energy, with 10% of respondents indicating plans for diversification (or further diversification) in this area. It is interesting that this level of interest persists, despite the removal of government incentives. The preferred choice for renewable energy will vary by farm type and location: on arable land it is more likely to be energy crops, while on a dairy or pig farm it is more likely to be anaerobic digestion. Wind energy, even just a single turbine, would also be of interest to many.

3.33. Also popular as diversification themes were agricultural contracting (16%) and on-farm property development (such as the letting of redundant or under-used farm buildings for commercial or residential purposes). It is also worth noting that 7% of respondents were considering off-farm employment either for themselves or another family member.

3.34. When asked about the main barriers to further diversification activity, a shortage of some types of business planning skills were highlighted by a minority of respondents. A number of consultees also highlighted the quality of broadband and mobile connectivity in remoter rural areas as a hindrance, both to the introduction of more advanced farming technology (such as precision farming) and as a constraint on diversification such as a responsive website for tourists to make online bookings.

Fig 5: Barriers to diversification

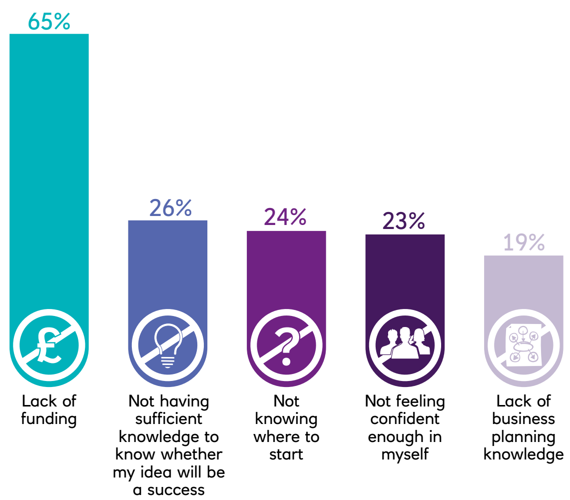
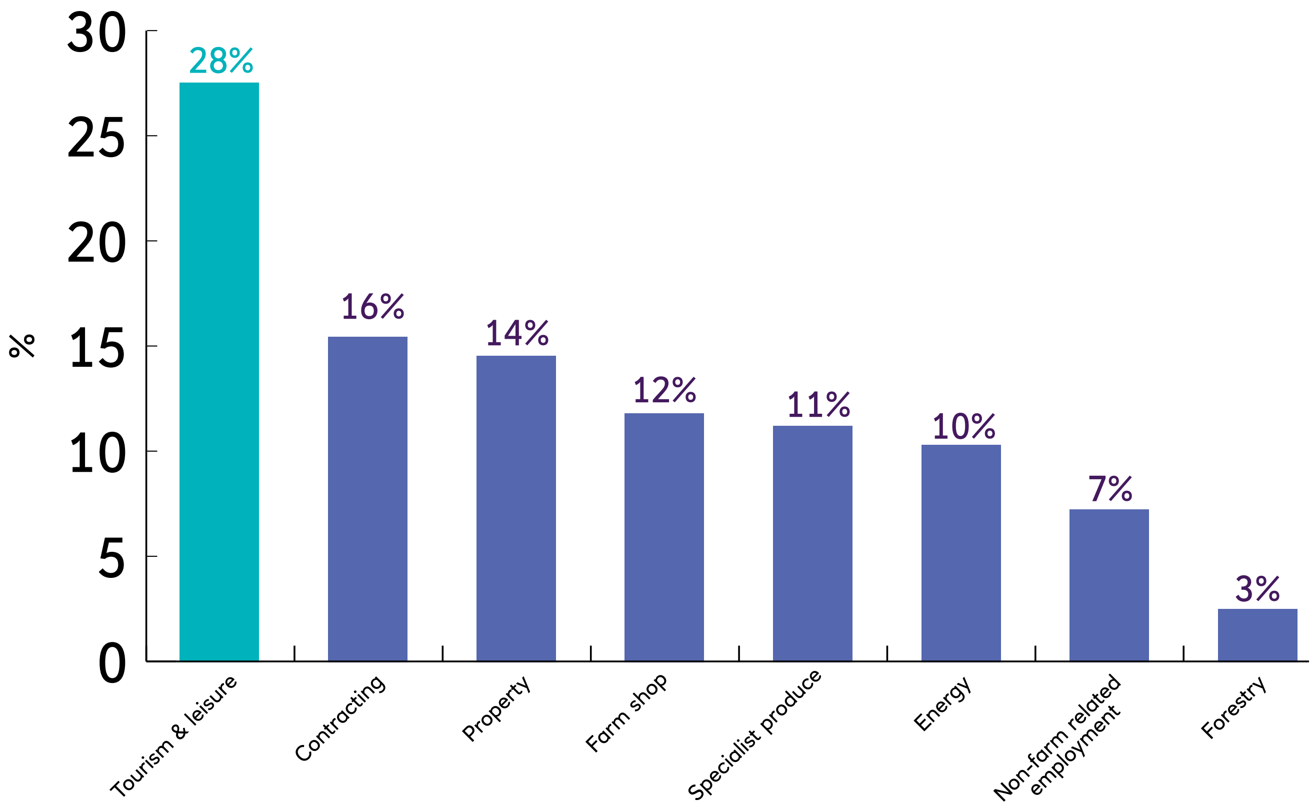


Fig 4: Types of diversification planned



5 Visit England 2016, http://www.telegraph.co.uk/news/2016/07/21/staycation-boost-to-uk-economy-as-millions-of-families-shun-fore/

3.35. The survey also asked an open question about how the challenges of achieving successful diversification were met. The following responses were typical:

Good communication with others and attending regular meetings and talks.

Being persistent and lots of planning!

By working hard and showing it can work.

Having the confidence to approach a variety of potential customers.

Working hard to achieve the funding.

Sources of advice and support for business planning and development

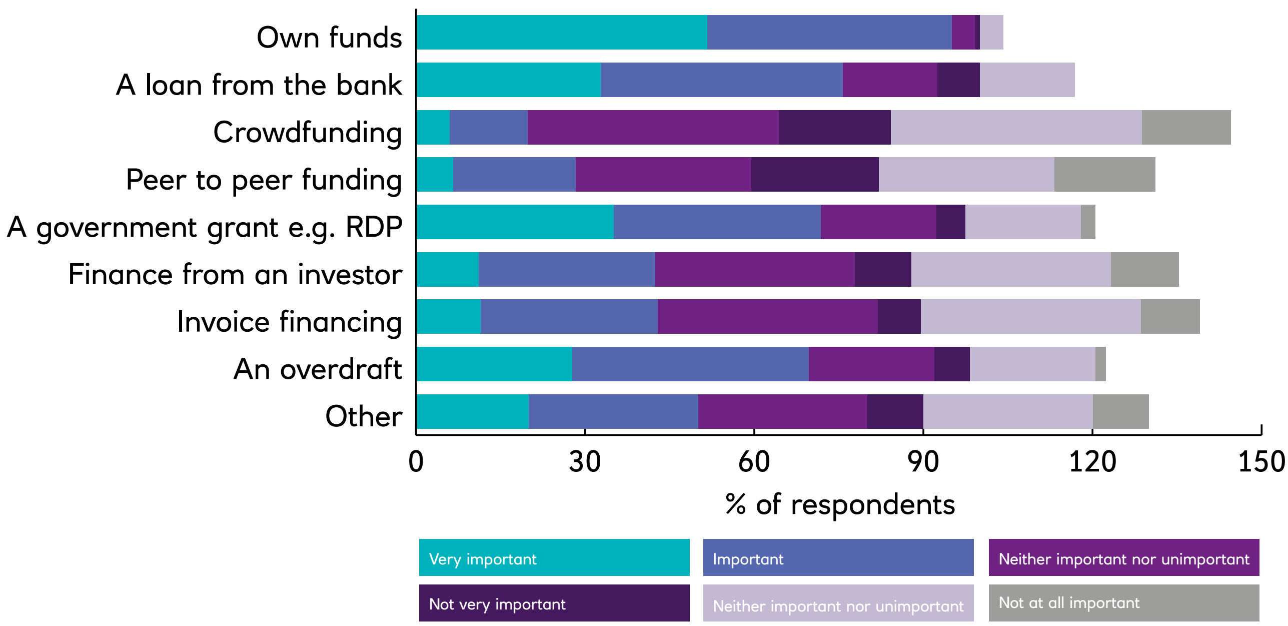
3.36. A number of government-funded initiatives to support new entrants and diversification exist in each of the four countries of the UK. There is also an extensive network of private sector organisations, ranging from banks and accountants through to consultants specialising on themes such as renewable energy, tourism and environmental matters. Consultees also highlighted the growing role of informal and peer advisory networks, including online and social media.

3.37. The survey asked to what extent should young farmers be able to rely on a range of various potential sources (mostly organisations) for guidance, advice and non-financial support to help them grow and diversify their businesses. The most frequently cited source that respondents thought they should be able to rely on to either a 'very large' or 'great' extent was family & friends, with 79% of responses citing this source. Peers and colleagues were also cited by 75%.

3.38. Survey participants were asked if they considered they had access to sufficient advice and resources for the purpose of developing and/or diversifying their business. Of the 118 responses to this question, about two-thirds (64%) said that they did have access to adequate advice and resources, but 36% said that they did not. The most frequently used sources of guidance and support came from Farming Unions and Young Farmers' networks, banks and other finance providers and various Government agencies (including in some cases local government). Over 40% of survey participants also use the internet and social media as a source of advice and guidance.

3.39. The survey participants were asked about the relative importance of various funding sources. There were a total of 123 responses to this question, with 95% of respondents indicating the importance of their own savings or other assets as a source of finance for their venture.

Fig 6: Sources of funding



3.40. A range of other funding sources were also highlighted, including:

- A bank loan (76%) or overdraft (70%)
- Government grants or other forms of public assistance (72%)
- Investment from Angels, business partners or other investors (42%)
- Invoice financing (43%)
- Peer-to-peer lending (28%) and crowdfunding (20%).

3.41. The extent of recognition of alternative sources of finance – peer-to-peer lending and crowdfunding – was slightly surprising. Peer-to-peer (P2P) finance is the linking of savers and borrowers without the use of an official financial institution as an intermediary. Peer-to-peer finance has the benefit of removing 'the middleman' from the lending/borrowing process, but it may involve more time and effort and the process may involve more risk.

3.42. Survey participants were also asked about the barriers they have faced when trying to secure finance from institutions or other sources. Nearly 40% said that the biggest barrier was finding a suitable external source of lending or other finance. Other responses included:

- Not knowing where to go for finance (30%)
- Inadequate security for a loan (23%)
- Inability to service a loan (19%)
- Deficiency in the business plan for the project (18%).

3.43. In addition, 13% said that they had difficulties in convincing potential funders about their business development idea or opportunity.

Brexit: threat or opportunity?

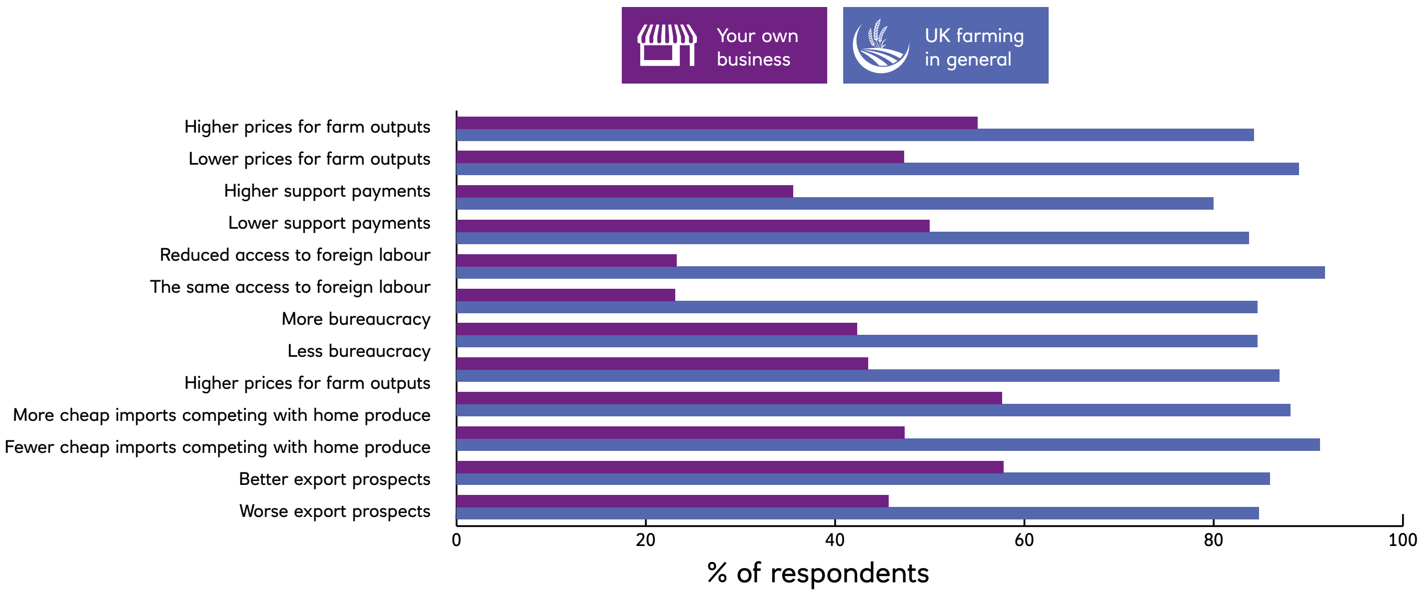
3.44. There was no clear consensus from stakeholders about what Brexit might mean for the future of agriculture in the UK. However, a number highlighted that the UK faces a unique, once-in-a-lifetime opportunity to re-set the support, policy and strategic framework for the agriculture sector, and it is vital that the UK gets its response right.

3.45. It is also notable that the majority of the responses to the survey conducted for this study were expecting Brexit to lead to both improved prices for UK agricultural products and improved prospects for the exporting of UK farm produce.

The following response from a survey participant seemed to sum up the general mood:

> *It's a bit like trying to predict who's going to win a horse race without knowing who is running. We can all have ideas but no one actually knows.*
>
> *It's about being flexible and making the best of the situation.*

Fig 7: Young farmers' views on expected impacts of Brexit



Future scenarios for the industry

3.46. Building on the evidence gathering undertaken for this study (outlined above), the next stage in the research programme was the development of alternative future scenarios for the UK agriculture sector.

3.47. The possible future scenarios for the further development and diversification of the UK's agricultural and farming sector that have been considered are as follows:

- **Scenario 1: Reference Case.** The first scenario assumes that medium term trends for UK agriculture (in terms of farm incomes, productivity, overall value of output and employment, etc.) continue to progress along recent trajectories, and that future trends for indicators such as Gross Value Added and employment will be in line with current (post-EU referendum decision) independent econometric forecasts. Under this scenario, there would be no fundamental changes in underlying trends facing UK agriculture, and in particular there would be no overall change in the level of public funding support for the sector. (That is, it is assumed that the potential loss of EU subsidies and support would be compensated for by equivalent provision by the UK Government). Given the changes in agriculture policy support that may occur in a post-Brexit environment, this scenario is not presented as a likely outcome, but it nevertheless provides a necessary benchmark or baseline against which the potential effects of enhanced levels of farm-based enterprise and/or diversification can be measured.

- **Scenario 2:** Enhanced investment in enterprise and diversification. The second scenario assumes that there will be enhanced levels of interest in agricultural enterprise and diversification on the part of UK farm-based businesses, and that there would be sufficient provision of lending and other forms of credit from UK financial institutions to support additional investment by UK farming businesses to exploit market and other opportunities (such as increased investment in technology and/or investment in diversification). In addition, it is assumed that public sector support for development and diversification will be maintained (but not increased).

3.48. Compared to the Reference Case scenario, the Enhanced Investment scenario assumes a greater volume of investment by farm-based businesses in the development of agricultural and/or non-agricultural activities, involving one or more of the following:

- Investment in new machinery or equipment
- Expansion or improvements to farm buildings (for agricultural or diversification purposes)
- Enhanced use of technology to gather and analyse data to help make informed business management decisions
- Product and/or process development
- Marketing campaigns
- Management or workforce training or skills development.

The Reference Case Scenario

3.49. The Reference Case scenario assumes that medium term trends for UK agriculture (in terms of farm incomes, productivity, overall value of output and employment) continue to progress along recent trajectories and as per current forecasts. As has been stated above the Reference Case scenario acts as a benchmark from which we can forecast growth in the UK's agricultural economy should all things remain equal.

3.50. The assumed growth trajectory for the UK economy under Scenario 1 has been sourced from the July 2016 edition of the Oxford Economics econometric model of the UK economy. Under this model, the annual growth rates for agriculture sector Gross Value Added (the contribution to the UK economy) are expected to average 0.65% per annum over the 2016-2026 period. This compares to anticipated average growth of 2.16% p.a. for the overall UK economy under the same model.

3.51. Meanwhile, overall employment in the agriculture sector is expected to decrease under this model, by an average of 0.86% p.a. Conversely, for the UK economy as a whole employment is expected to increase by an average 0.47% p.a. under this scenario.

3.52. The results of the modelling for the Reference Case scenario are as follows:

3.53. The value of agriculture sector production is expected to amount to £24.992 billion by 2026 in terms of 2015 prices (that is, an increase of

4.8% over baseline), while GVA is expected to amount to £9.11 billion in the same year (also in 2015 prices), representing real growth of 7.2% over baseline.

3.54. The overall level of employment (workforce jobs) in the UK agriculture sector under Scenario 1 is expected to decrease from 487,000 in 2016 to 447,000 by 2026, representing a decline of 40,000 (8.2%).

Enhanced Investment scenario

3.55. The second scenario assumes that there will be enhanced levels of interest in agricultural enterprise development and diversification on the part of UK farm-based businesses, especially those managed or owned by younger farmers, and that there would be sufficient financial and other forms of support on the part of UK financial institutions to fund this additional investment.

Evidence

3.56. This scenario builds on evidence sourced from both the stakeholder interviews (and in particular) the survey of farmers that revealed that there is considerable untapped productive and investment potential among younger UK farm-based entrepreneurs, both in terms of agricultural markets and in terms of opportunities for further diversification.

Logic Model

3.57. Compared to the Reference Case scenario, the Enhanced Investment scenario assumes a greater volume of investment by farm-based businesses in the development of agricultural and/or non-agricultural activities, including: investment in new and more efficient machinery or equipment; expansion or improvements to farm buildings or premises, either for agricultural purposes or for diversification purposes; investment in product development and other forms of innovation; the launching of local marketing campaigns (such as the targeting of local retailers, restaurants and hotels, etc.) and/or workforce training or skills development.

3.58. The logic behind this scenario is that this investment in new capital equipment, premises, skills and/or product development and marketing would be expected to lead to the creation of additional value via agricultural production or diversified income on the part of the farm-based businesses.

3.59. A significant proportion of participants in the survey of younger farmers conducted for this study indicated that they had unrealised plans and projects for further development of their farm's agricultural potential. The most popular themes underpinning proposed diversification activities included tourism and leisure related projects (28%), property-related projects (14%), farm retailing (12%) and specialist food produce (11%).

3.60. Moreover, a significant number of survey respondents indicated that they had unrealised plans and projects for further development of their farm's potential as a tourism or recreation services asset. Activities of this type that were cited by respondents to the survey included various types of accommodation (farm cottages or other ways to convert redundant or under-used farm buildings, through to camping/glamping or provision of caravan sites, etc.) and a wide range of recreational activities (e.g. glamping, equestrian activities, clay pigeon shooting, off-roading, etc.).

3.61. Investment in either enhanced agricultural productive potential or diversified income streams would, in both cases, lead (on average) to enhanced business turnover, profits and GVA. This is because additional business investment (in equipment, machinery, technology, vehicles, premises, skills & training, marketing and/or product development) would typically result in either increased business turnover or reduced levels of cost per unit of output (i.e. efficiency and productivity gains).

3.62. Enhanced financial turnover and/or productivity gains would also be expected to result in greater levels of business profitability. Raised profits would in turn contribute directly to increased levels of Gross Value Added (GVA), as company profit is a direct and important component of GVA contributions by businesses and sectors, including farm-based businesses.

3.63. Moreover, an increase in the overall level of salaries and other earnings by workers in the sector is a further source of additional GVA.

3.64. In some cases, such investment may lead to additional employment, but this aspect needs to be approached with caution, as some types of investment may result in a reduced need for inputs of labour. On this basis, additional investment in agricultural productive potential anticipated under Scenario 2 is assumed to be largely neutral for labour, but investments in some types of diversified revenue streams for farms (e.g. for tourism and leisure, but not for property development) are assumed to result in a small net positive demand for labour.

3.65. The investment in productive potential should also help to maintain or enhance the agriculture sector's economic competitiveness, through a process of more effective competition against imported agricultural products (i.e. import substitution) and/or enhanced performance in export markets for UK agricultural products.

3.66. The expected downstream result of increased domestic production and/or enhanced import substitution and/or boosted export competitiveness would also be for increased UK farm-based GVA and (but to a lesser extent) less of a decrease in UK farm-based employment.

3.67. In the case of employment, under the baseline scenario there is expected to be a net reduction in farm-based employment. In the case of the Enhanced Investment scenario, there is expected to be a small increase in employment compared to the Baseline situation, but the overall trend for employment is still expected to be negative. However, the employment losses under the second scenario will be somewhat smaller in scale compared to the Baseline scenario.

3.68. Given the significant numbers of as yet unrealised development and diversification opportunities that have been revealed by the survey in particular, Scenario 2 assumes that there are significant numbers of untapped opportunities for the unlocking of enhanced levels of investment in agricultural enterprise and diversification on the part of UK farm-based businesses.

3.69. It is also assumed that the necessary levels of financial support – as well as advice, guidance and mentoring – would be available from UK financial institutions as well as other networks (young farmers clubs, farming unions, consultant advisers, family networks, informal local networks and online networks) to support the additional investment.

3.70. It should also be noted that the modelling of the additional economic impacts expected to be generated under the Enhanced Investment scenario also includes an allowance for the generation of supply chain and multiplier effects throughout the rest of the economy.

3.71. For example, a farm-based business that expands its diversified income – for example, in providing an increased level of tourism related services to staying or day visitors – as a result of additional investment would, in turn, most likely need to purchase more goods and services from its suppliers in order to respond to growing demand for its own products or services. This additional procurement will in turn create additional demand further down the supply chain.

3.72. In addition, extra earnings from employees (either from boosted household income, and/or additional overtime hours and/or bonuses paid to staff and/or new hires) will in turn lead to additional economic stimulation throughout the economy as the extra earnings are spent in shops and other service outlets.

3.73. All of these additional ripple effects can be measured through indirect and induced multipliers, and standard assumptions have been used here to measure these effects using assumptions based on an input-output model of the UK economy. The anticipated effects on supply chains and wider economic multiplier effects have been reflected in boosted sect0ral level growth rates across the UK economy.

Assumptions

3.74. Under the Enhanced Investment scenario it is assumed that the trends for the population of farm holdings and area farmed will be the same as per the Reference Case scenario. While it is possible that additional investment may affect the overall numbers slightly, the expected differences are very small and would not affect the baseline predictions significantly.

3.75. Essentially, under Scenario 2 it is assumed that by 2026 around 19,200 additional development and diversification projects initiated by younger farmers will have been financed by UK financial institutions and other sources of finance – such as Peer-to-Peer lending & crowdfunding – over and above the levels assumed in the Reference Case scenario. The breakdown of the expected number of projects is summarised in the table below:

Table 2-2: Scenario 2 (Enhanced Investment) – Holdings undertaking development & diversification activity 2017-2026

Size-band of holding (ha)	Development projects ('000s)	Diversification projects ('000s)
Under 20	2.1	3.4
20 to <50	1.6	2.0
50 to <100	1.5	1.9
100 or more	3.1	3.5
Total	8.4	10.8

3.76. The average amount of additional farm income yielded per project is, in effect, assumed to be around £11,900 (based on 2015 prices). This is a cautious assumption, and is around 18% lower than the average additional value yielded by diversification projects according to the annual Defra farm business survey.

Scenario Results

3.77. In cumulative terms, the overall additional GVA (output minus costs of production) expected to be delivered by enhanced investment by younger farmers to deliver additional farming development and diversification projects is anticipated to amount to £538 million over the 2016-2026 period. Whereas overall farm output (income) is set to rise cumulatively to £929 million.

3.78. The key wider economic effects (i.e. across the UK economy as a whole) expected under Scenario 2 – over and above those expected under the Reference Case scenario – are set out in the table below.

3.79. Hence, under the Enhanced Investment scenario, by 2026 there would be expected to be – compared to the Reference Case scenario – an additional £132 million per annum of GVA benefiting the UK economy accruing through direct, indirect and induced effects (2015 prices).

3.80. This total includes £83 million p.a. of direct effects, and £49 million p.a. of indirect and induced effects.

3.81. The overall extra employment associated with the additional agricultural development and diversification activity would be expected to amount to just over 1,400 safeguarded jobs – compared to the Reference Case scenario – across the UK by 2026.

Table 2-3: Scenario 2 (Enhanced Investment):
Additional direct, indirect and induced effects compared to the Reference Case

GVA	2026 only £millions (2015 prices)	2016-2026 cumulative effects £millions (2015 prices)
Direct GVA (Agriculture only)	83	339
Indirect and Induced GVA (UK economy including agriculture)	49	199
Total Effect (UK economy including agriculture)	132	538
Employment	**By 2026 (‘000s)**	
Direct employment (Agriculture only)	1.0	
Indirect and Induced GVA (UK economy including agriculture)	0.4	
Total Effect (UK economy including agriculture)	1.4	

Harvesting the Future: Recommendations

3.82. The analysis in the preceding confirms that agriculture continues to be a dynamic and important sector for the UK economy as the cornerstone of the wider food industry. It also confirms that the further development and diversification of agriculture – particularly on the part of young farmers and new entrants to the industry – has the potential to generate significant levels of net new economic value for the UK economy.

3.83. However, the research evidence gathered for this study has identified a number of barriers or challenges that will likely need to be addressed or mitigated before the potential additional value added that stands to be generated by agriculture can be captured in full.

3.84. The following are recommended steps or actions that need to be considered in order that the sector can realise its full potential:

Unlocking technology and innovation potential

3.85. Both the stakeholder consultations and young farmer survey highlighted that very significant opportunities exist for enhanced farm viability/profitability through greater use of information technology, innovation and knowledge transfer. A number of constraints do exist however, including technical, IT and business planning skills amongst both long-established and younger farmers.

3.86. For these reasons there needs to be more emphasis (on the part of agricultural support agencies & programmes; and farmers themselves) on investing in – or supporting the development of – business management, technical and IT skills so that farm businesses can better exploit the potential for technology and so enhance productivity, farm viability and diversification potential.

3.87. Several consultees also highlighted the fact that the coverage and quality of mobile communications coverage in some areas was a limiting factor for more widespread use of digital technology (e.g. in precision farming). Moreover, it is estimated (by Visit Britain) that around 40% of smaller accommodation providers are unable to offer online bookings, increasingly an important route for international and domestic customers: this is a particular concern because interest in tourism-related diversification was one of the key themes highlighted by the survey.

3.88. Government, the communications industry regulator and the telecoms infrastructure and service providers themselves therefore also need to put more emphasis on extended 3G and 4G mobile coverage further into rural areas in order to allow farm businesses to capitalise more fully on technology potential. In addition, these stakeholders need to ensure that rural areas are not excessively disadvantaged when 5G technology begins to be introduced from around 2020 onwards.

The planning system

3.89. One of the themes that emerged from the different workstreams was the constraint on farm development and diversification that are imposed by planning laws and regulations. There are a number of aspects to this issue, including housing, telecoms infrastructure and renewable energy development.

3.90. Restrictions on housing development in rural areas has contributed significantly to price increases for rural housing, which was repeatedly identified as an obstacle to efficient farm succession. A number of stakeholders mentioned that the Welsh Government had taken steps to alleviate this issue through changes to (devolved) planning policy, but that these changes were in many cases still not being properly implemented at a local planning authority level.

3.91. The industry should therefore continue to lobby for a relaxation of overly restrictive policies that hinder efficient succession on many farms across the UK as a whole.

3.92. A number of consultees also mentioned that, despite the permitted development rights, navigating the UK's planning system is expensive for many farmers, and too often the outcome of a planning application is unpredictable (and the appeal route is too expensive for many farmers to contemplate). More needs to be done by Government to speed up the application determination process, and also to consider less expensive mechanisms whereby farmers can appeal against refusals.

3.93. Several consultees also highlighted that farmers face uphill struggle to obtain permission for some forms of diversification activity, such as quad-biking, off-roading and activities to do with country sports (e.g. clay pigeon shooting). Government needs to make clearer the circumstances when these types of projects should face a presumption of approval rather than (what appears to be) a current presumption of refusal.

3.94. The more efficient functioning of the planning system also has a part to play in the roll out of a more competitive mobile telecommunications infrastructure serving rural areas. Planning authorities still place too much weight on the views of those who do not wish to see more (or taller) masts in their areas, rather than considering the needs of the whole community.

3.95. Finally, in terms of renewable energy, one consultee suggested that every farmer should be able to install one turbine without needing to seek planning permission. While a blanket policy of this type may not be suitable for farms located near to settlements or in sensitive areas (such as near to airports, in military training areas, or in areas with the highest levels of landscape protection designation) Government should consider identifying rural areas where such a policy would be acceptable.

Access to advice, support and finance

3.96. The survey revealed that bank loan and overdrafts continue to be the most important sources of finance for farm development and diversification projects, supplementing savings and resources made available by family and friends. The survey also revealed a surprising level of knowledge and use of alternative sources (e.g. Peer-to-Peer lending and crowdfunding).

3.97. The survey also revealed that just over a third of participants considered that they did not have access to adequate advice and financial resources, and 40% of survey participants identified that securing external sources of finance was the biggest barrier they face in terms of implementing a business development or diversification idea.

3.98. However, nearly one-fifth of these acknowledged that part of the problem was a deficiency in their business plan, suggesting that additional advice and support for business planning continues to be an issue for a significant minority of young farmers.

3.99. Moreover, a weakening of advisory and support networks available to farmers was identified as an issue, albeit this has been counterbalanced to some degree by the growing role of informal and peer advisory networks, including online and social media.

3.100. On this evidence, more needs to be done by financial institutions, Government and other stakeholders (such as the farming unions) to strengthen and support advice networks that are available to farmers. In addition, more emphasis needs to be given to strengthening business planning skills on the part of younger and less experienced farmers so that they are better able to present their business ideas to potential funders and, if their plans have weaknesses, to access advice that enables their projects to become more viable and capable of attracting funding support.

3.101. As our survey shows young farmers need more support to diversify and while the entrepreneurial ideas may be there the support networks could be improved. The bank will ensure our free business accelerator network is available to farming and rural communities across the UK to provide support such as connectivity and mentoring and we will work to improve access to these communities through remote and virtual entrepreneurial hubs.

4. Summary and conclusions

4.1. The UK agriculture sector is already a strong contributor to the UK economy. Even under the conditions of the baseline scenario, by 2026 the sector is expected to generate nearly £25 billion of output and over £9 billion of Gross Value Added (all in 2015 prices) and support nearly 450,000 jobs directly.

4.2. The UK's decision to leave the EU will bring about additional change to a sector that is already facing a set of short-term and longer-term challenges. But the decision also brings with it a once-in-a-lifetime opportunity to re-set the policy and strategic framework for the support and development of agriculture in the UK.

4.3. It is also notable that the majority of the responses to the survey conducted for this study were expecting Brexit to lead to both improved prices for UK agricultural products and improved prospects for the exporting of UK farm produce.

4.4. The survey also revealed that there are large numbers of talented, skilled and enterprising young farmers that are entering the UK agricultural sector via both traditional and non-traditional avenues.

4.5. Moreover, many of the younger farmers recently recruited to the sector have identified viable but as yet unrealised development and diversification projects. If these viable development and diversification ideas were enabled, the benefits to the UK's agriculture sector, rural economy and economy more generally could be substantial, potentially generating significant amounts of net additional Output, GVA and employment.

- In terms of the net additional output effects, the annual value generated by enhanced investment would be expected to amount to £229 million per annum (2015 prices) by 2026.

- In cumulative terms, the overall additional GVA that stands to be delivered by enhanced investment by younger farmers in delivering additional farming development and diversification projects would be anticipated to amount to £538 million over the 2016-2026 period. The additional direct output (farm income) would be expected to amount to £929 million over the 2017-2026 period.

- By 2026 it is expected that there would be an additional £132 million per annum of GVA benefiting the UK economy accruing through direct, indirect and induced effects (2015 prices). This expected total includes £83 million p.a. of direct effects, and £49 million p.a. of indirect and induced effects.

- The overall extra employment associated with the additional potential agricultural development and diversification activity would be expected to amount to just over 1,400 safeguarded jobs across the UK by 2026.

Appendix:
List of Organisations Consulted

The following organisations provided consultations as part of this study. In each case the interviews lasted around one hour with comments received on a non-attributable basis.

- Central Association of Agricultural Valuers
- Farmers Union of Wales
- Forestry Commission
- Harper Adams College
- National Farmers Union
- National Federation of Young Farmers' Clubs
- NFU Scotland
- Scottish Agricultural Organisation Society
- Scottish Association of Young Farmers
- Tenant Farmers Association.

NatWest