

VISION FOR THE FUTURE OF FARMING

DOMESTIC AGRICULTURAL POLICY

Productivity



Environment **Volatility**

Improving agricultural productivity

FOREWORD

The country is experiencing a productivity problem. Overall levels of productivity across the economy are at or slightly below where they were before the financial crisis of 2008. Agriculture is affected by this too, with productivity in the sector continuing to lag behind other G7 countries.

The NFU and its members are clear; we must use the opportunity of Brexit to create the conditions for a productive, resilient and sustainable agricultural sector. Increasing productivity is at the heart of this. The NFU vision is to improve and maintain productivity by including ways to support efficient, competitive and resilient farm businesses in future Domestic Agricultural Policy.

We are advocating an ambitious productivity programme providing targeted investment, supporting research and development and incentivising the adoption of technical advances that strengthen resilience within farming sector. The provision of training, advice and encouraging collaboration would all form part of this programme.

This report sets out the NFU's latest thinking on the future of agricultural policy once we leave the European Union. It builds on the Domestic Agriculture Policy Vision document published in early 2017 and comes ahead of government plans to publish an Agriculture Bill in Parliament shortly. The document provides a framework for continued consultation with members as well as being a useful guiding document for policy makers as they set about the task of drafting the government's future Agriculture Bill.

NFU VISION FOR A DOMESTIC AGRICULTURAL POLICY

Once we leave the EU we will have the opportunity to develop a new deal for British farming – one in which farm businesses are provided with the incentive, support and means to become more productive and resilient, and to better meet the expectations and needs of society at large.

To facilitate the development of a future agricultural policy, we are proposing a framework formed of three constituent parts:

- Productivity measures and business resilience
- Volatility mitigation measures and risk management tools
- Environmental measures

Farm businesses should be able to draw down bespoke assistance from across a range of measures within each of these three cornerstones, potentially in different proportions depending on both individual and wider economic circumstances. Crucially these measures are not mutually exclusive; they all work together to enable farming to be competitive, profitable and progressive, and an integral part of a dynamic UK food supply chain.

Transitional Arrangements

The government has stated that it wants to deliver a smooth exit from the EU and that it wants to “avoid a disruptive cliff-edge”, acknowledging the potential need for phasing in any new arrangements. The NFU believes it is crucial that transitional arrangements are agreed at an early stage to ensure continuity and certainty for farm businesses when we leave the EU.

In order to minimise disruption at the moment we leave the EU, we believe there should be a gradual transition from the current structure of farm support to a new agricultural policy over a period of years. Exactly how many will depend on a number of variables, including the future shape of the CAP and the support framework of farmers in the EU; the shape of future trade agreements with the EU and subsequently third countries; and other policy priorities of the UK government such as immigration and access to labour.

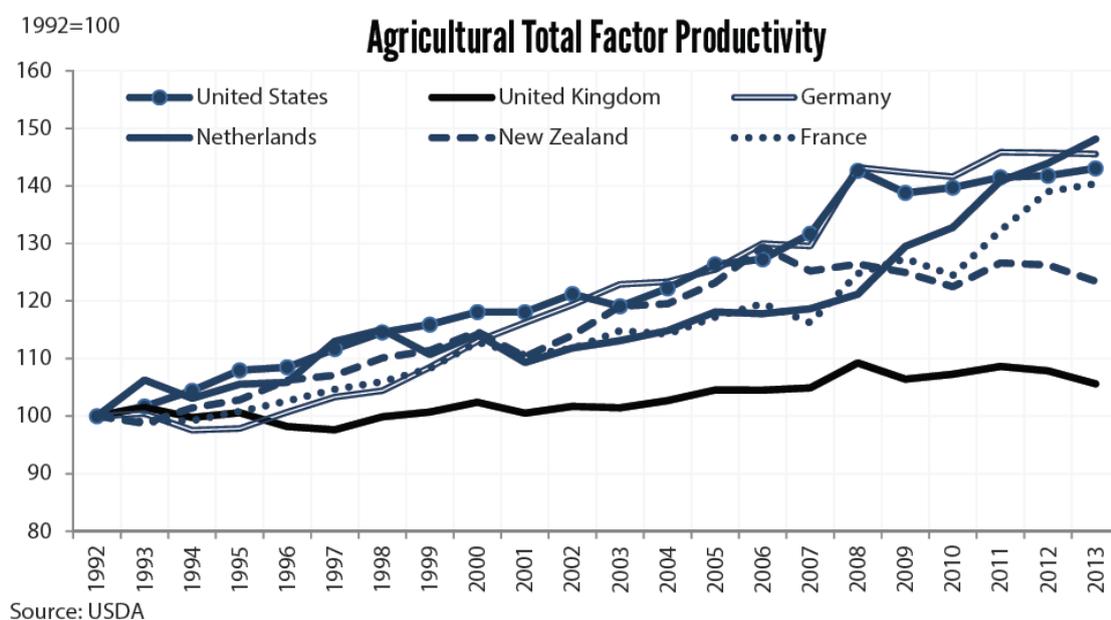
Productivity



Environment Volatility

WHY AGRICULTURAL PRODUCTIVITY IS IMPORTANT

Agricultural productivity is a measure of the amount of agricultural output, for a given amount of inputs, including labour and capital giving an indication of the efficiency and competitiveness of the industry. Evidence suggests an increasing gap in agricultural productivity growth rates between the UK and other developed nations with the gap having widened considerably since the turn of this century.¹ Despite advances in labour productivity, reasons cited for the drag in overall productivity improvement are attributed to a number of causes. Falling rates of publicly funded Research and Development (R&D), reductions to the patenting of private R&D and problems in the take-up and transfer of advances in farm practice are all attributed.² Difficulty with the implementation of improvements in science and innovation through knowledge exchange is also a significant contributory factor. For example – in 1984 the UK and France had the same agricultural Total Factor Productivity³; by 2013 France's productivity growth was 37% greater than the UK. If rival countries are improving their productivity, the UK must therefore become more productive to maintain or improve its competitive position. This is especially true in agriculture where global innovations ultimately reduce commodity prices over the long term.



It is important to also recognise that stagnant or even falling productivity is not a problem isolated to the agricultural sector. Before the financial crisis of 2008, overall UK productivity was growing by around 2% per year. Nearly ten years later, average labour productivity levels across the economy are still 0.4% below the pre-recession peak⁴. Moreover, the majority of UK economic sectors have seen a decline in productivity growth since then (for agriculture it is a reduction of 0.5%). UK productivity in 2015, measured by output per worker was 16.6% lower than the average of the rest of the G7 countries.⁵ However, a small number of sectors in the UK show positive growth, with one them being food and drink manufacturing, worth £109bn to the economy and employing 3.8m people.⁶

According to the Farm Business Survey, in 2015/16 the average farm in the UK made a loss of £5,500 from their direct agricultural activities.⁷ While the reasons for this are numerous, and the figure is highly variable between sectors, improving productivity would be one important way to address this and raise returns through efficiencies and lowering costs. However, and crucially, a more productive farming sector in the UK is not just of benefit to those that operate in it, but also for the consumer, the wider economy and the environment too.

The NFU has heard time and again through consumer surveys that the British public seeks to buy home grown produce as much as possible. However, food produced elsewhere can be more competitively priced. If British farming were more productive and efficient it follows that more consumers would be able to enjoy quality British food at the high standards to which it is produced and at a fair price.

Greater market opportunities at both at home and abroad gained through advances in competitiveness will lead to improved farmer incomes. This, on top of productivity efficiencies themselves, will allow farmers to invest more in their own businesses. Higher and more stable farm incomes and greater investment will mean that businesses are better placed to weather price volatility, which has been significant since 2008.⁸ This in turn stands to benefit the local and wider economy. Productivity measures do have a role to play in the management of volatility and can complement other methods as outlined in the NFU's paper on Volatility. More competitive primary production in the UK would further attract investment in the onward stages of the supply chain. This again will stimulate wider economic activity and generate more jobs.

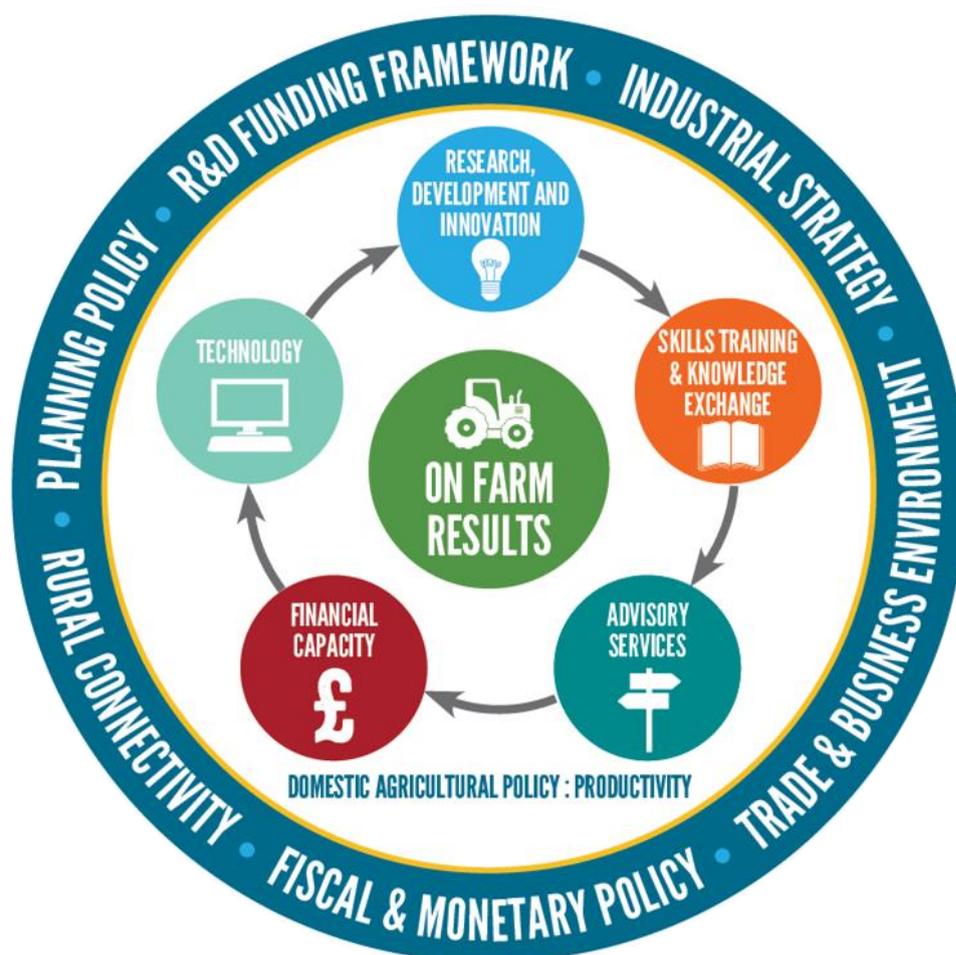
The benefits of improving productivity should however not be defined as simply producing more. As productivity improvements can be achieved through a more efficient use of farm inputs, this clearly applies to natural resources. Growing the same or more crop with less water, or achieving a better feed conversion rate in beef production are examples of making a better use of the environment's resources, while also being economically beneficial. As outlined in the NFU's paper on the Environment, improving productivity can actually be done in a way that helps work to enhance the environment.

DEVELOPING AN INTEGRATED PRODUCTIVITY PROGRAMME

The need to address the issue of farm productivity is nothing new, but is arguably more crucial today as the UK prepares to exit the EU. After recognising the nature of the problem, we must also know what it is we want to achieve and how. In our view, the following interlinked key areas encompass our approach to meeting the vision of increasing agricultural productivity:

- Fostering **knowledge exchange and innovation**;
- Enhancing the **viability and competitiveness** of all sectors;
- Promoting **innovative farm technologies** and practices;
- Promoting **food chain organisation, animal welfare and risk management**;
- Restoring, preserving and enhancing **farm ecosystems**;
- Promoting **resource use efficiency**;
- Supporting the shift toward a **low-carbon and climate-resilient economy** in the sector.

Improving productivity, as one of the three cornerstones of a Domestic Agricultural Policy, can be achieved through targeted and tangible measures, none of which sit in isolation – the diagram below outlines what this would look like. Equally important to its success are other policy initiatives such as a supportive regulatory environment that includes fiscal incentives and planning law improvements, of which all can be directly applied to productivity measures as part of the Domestic Agricultural Policy.



PRODUCTIVITY MEASURES IN A DOMESTIC AGRICULTURAL POLICY

As described, it is key to distinguish between funding and policy for productivity improvements that is within a future Domestic Agricultural Policy and other policies outside of it. This section outlines features of the former.



FACILITATING RESEARCH, DEVELOPMENT AND INNOVATION

Agricultural R&D is essential to enabling the industry to make productivity gains through the development of new practices, tools and technologies. A key driver of Total Factor Productivity is well targeted R&D, which leads to new knowledge about agricultural systems and underpins adoption of new tools and practices that increase productivity through higher output and/or lower input use⁹. A review study ascertained the internal rates of return for combined research and development are high, regardless of the type of research (e.g. basic or applied) or research focus (e.g. wheat, horticultural crops, livestock etc)¹⁰. Yet research can only make an impact on farm performance if it is put into practice. Although pinpointing the exact link between academic research and agricultural performance is sometimes difficult, it is clear that innovation is crucial to profitable, productive and progressive businesses. This goes beyond core farming activities and extends to improvements to infrastructure and in wider associated industries. A 2013 study by the OECD¹¹ made several key conclusions that are relevant to the R&D in the UK:

- The performance of a sector is improved by the advancement of the “productivity frontier” by the top performers through R&D and new technology.
- The dissemination of existing technology, best practice and resource reallocation to the non-pioneers can lead to significant improvements in the overall sector performance.
- The importance of removing “impediments to structural adjustment” and implementing measures to facilitate adjustment, including regulation and taxation to facilitate land transfer.

Productivity funding in the domestic policy should therefore be aimed at ensuring R&D findings are disseminated, understood and implemented by farm businesses. There must also be opportunity for involving farmers and growers in the research process to help keep projects relevant to the commercial context. Increasing both the impact of research and the levels of adoption can in part be achieved through fostering better links between farmers, researchers, advisers and technicians in what is a complex agricultural research landscape. In practical terms, the European Innovation Partnership initiative under the existing RDPE provides a good starting point for a future scheme in a Domestic Agriculture Policy. Having innovative practices and technologies developed and tested with farmers has the potential to lead to more rapid and sustained productivity gains.



SKILLS, TRAINING AND KNOWLEDGE EXCHANGE

Equipping farmers with the right skills, training and knowledge is crucial for potential productivity gains to be felt and for innovations to be adopted more widely and rapidly. Knowledge exchange and training initiatives tailored to sector needs should form part of a new Domestic Agricultural Policy. This could include funding to facilitate farmer to farmer learning, not just focusing on applying new tools, but also spreading existing best practice. Transferring practices should feature more in future training and skill programmes, with more emphasis on hands-on experience in applying new methods. To this end demonstration farms, farmer led day visits and encouraging continuous learning from other practitioners through innovative platforms on social media and online delivery should all be encouraged and could form part of the new Domestic Agricultural Policy framework.

Beyond pure farming practice, training and knowledge exchange should be provided in the area of business management to reflect the growing complexity of farm businesses. The same holistic approach should apply to provision for skills training too.

The NFU is a founding member of the AgriSkills Forum, which published its strategy 'Towards a New Professionalism' in 2010 and revised this in 2013 to outline what the industry can do to improve skills in the workforce and to recognise and reward professionalism.¹² Many of the steps outlined in that report remain valid, including promoting continuous professional development; and working to develop a website and online tool to enable individuals and employers to access information and advice to support lifelong learning and skills development. Encouraging new talent into the industry is also key to its success. Domestic policy provides an appropriate vehicle for funding and support to achieve these objectives



ADVISORY SERVICES

Good advice at the right time can be crucial to businesses taking actions that lead to productivity gains. We wish to see advisory services continue, which should have stakeholder engagement at its heart to ensure continuing relevance to the industry and therefore maximum effectiveness. The service should be easy to contact and not just distance-based, but with the ability to organise visits to enterprises to provide more in-depth, tailored advice where appropriate. Advice could be available via:

- An advisor with full access to up to date specialist, technical and research information
- Access to farm walks, demonstrations and public events
- Development of communication and digital technology: online hub, smartphone app and social media
- Facilitation of discussion & farmer-led groups

An advisory service should have at its heart stakeholder's involvement to ensure continuing relevance to the industry.

Unlike some other countries including the US and France, the UK does not have an explicit publicly funded extension service. The AHDB, while a Non-Departmental Public Body, is funded through statutory levy. A Pro-AKIS (Agricultural Knowledge and Information Service) report published last year reported "public policy on agricultural advice is fragmented, with no overarching national policy"¹³. It pointed out that the advisory system was increasingly separated between devolved countries, partly because of advice policy but also agricultural policy differences. The report also concluded that commercial advice was good but very often farmers most in need of advice do not access it.

We ask for a nationally coordinated Advisory Service that seeks to provide services to all farmers. Its primary purpose would be to improve the competitiveness of the agri-food sector and support sustainable farming and the environment. Such a service would include:

- National coordination of all farm advice. This coordination would be supported by public funding. This would ensure all training and knowledge exchange opportunities and services are accessible to all, whether government funded or otherwise.
- Publicly funded advice covering all aspects of a future domestic policy so that farmers are clear of government measures available to improve their productivity. This should encompass advice on navigating grant funding and provide guidance on how best to make productivity gains.
- Support from AHDB through its research and knowledge exchange strategy¹⁴.
- The advice provision of commercial partners, including agronomy and crop protection companies, and industry organisations and initiatives.



FINANCIAL CAPACITY

Removing financial barriers to aid the ability of farm businesses to invest in productivity improvements is arguably the most tangible element of the future programme we foresee and from a farmers' perspective one of the most crucial. Grants alongside other methods of financing investment are central in any future programme. Even if credit is freely available, keeping up repayments can be difficult in volatile market conditions. Loans with repayment frequency and amounts linked to changing business returns may therefore unlock further investment. Equally, public bodies could offer guarantees for private investment that may reduce risk levels to allow credit to be provided to the industry that otherwise wouldn't be. However it is essential to recognise that assistance should be seen as a means to make farms less reliant on requiring further support in the future. Finance should be accessible to all farmers and the system by which it is obtained timely and un-bureaucratic.



FARM TECHNOLOGY

New technologies have always played a role in improving agricultural productivity. The needs of each sector are different, but investments should meet the broad aims of improving resource efficiency, saving labour, improving animal health and welfare or adding value to raw products. Investments themselves could be in a variety of assets including buildings, machinery or software systems. Overly prescriptive lists of items are unhelpful and farmers should be able to make a case for any investment that they can show will bring measurable gains. However, consultation with our members has provided some ideas of the technologies that farmers are interested in investing in:

Arable and horticultural enterprises have expressed interest in a number of precision technologies, including GPS hardware to aid the planting of seed and the application of inputs such as fertiliser and plant protection products. For arable farms, investment in conservation and zero-tillage equipment that can lead to higher yields and improves soil health would be supported. Improving field drainage would also be beneficial for many enterprises. Precision harvesting, picking and crop analysis technologies to achieve the best possible yields are important to all forms of crop growing business. Automation was a focus among horticulture operations, with machinery to complete tasks such as in-field grading and packing, as well as harvesting and weeding, being suggested.

Dairy, livestock and poultry businesses all share a common desire for aid to replace or refurbish housing for animals and systems used to handle them. This would improve the health and growth of stock, bringing welfare as well as productivity benefits. Electronic identification equipment, along with herd and flock management software, would help identify where efficiency gains can be made. Automation of the milking process was suggested for investment as well as technologies that monitor animal health while they are being handled or housed. Equipment to test and monitor grassland, as well as improved drainage, could improve the quality of forage. Assistance with fencing solutions would also improve grazing management and biosecurity, aiding productivity.

Resource efficiency is a common theme across all sectors, with good opportunities to improve this, with many of the examples above essentially aiming at this goal. However, further investment in on-farm renewables has been raised by members, including use of biomass and anaerobic digestion, and heat exchange installations to convert heat from greenhouses, crop drying machinery or livestock sheds into power. Slurry and manure storage equipment, including covers and separators, as well as low emission spreading machinery would also be useful for making better use of these resources. On-farm reservoirs for water storage were raised as a key way for farms to be more efficient and productive with their use of this resource.

While by no means exhaustive, the technologies above underline the clear desire among farmers to improve performance. It is however essential to recognise that valuable investment is not limited to cutting edge technology. Rather identifying the needs of individual farms is the most important step and supporting investment even if it is a case of implementing existing practice.

Although the provision of rural connectivity infrastructure as a whole would sit outside of the productivity programme of the Domestic Agricultural Policy, it is key to putting farmers in the best possible position to make the most of new technologies. It must also be recognised that fully connecting farm premises, which are often remote, to superfast networks does present specific challenges. Therefore targeted aid to help holdings connect themselves to the national infrastructure network is something that agricultural productivity policy could include.

SUPPORT FROM THE WIDER POLICY AND INFRASTRUCTURE LANDSCAPE

Underlying the direct productivity programme as part of the domestic policy, there are a number of areas where government policy can assist with creating an environment that is conducive to improved productivity within agriculture. Outside of the Domestic Agricultural Policy other regulations can play a role in helping farms to improve productivity:



Planning Policy. Planning permission influences farm productivity. For example, housing that improves animal health and welfare or packing facilities for produce are examples that have a direct bearing on productivity. The planning system needs to be able to address key issues such as appropriate siting, design and access in a timely manner and not to provide a regulatory burden or a hindrance to development. There is an increased role for permitted development rights to free up the planning system, while ensuring there is appropriate control.



Industrial Strategy. The NFU supports the case for the agri-food sector to be recognised for its contribution to growth across the whole of the UK, adopting new technologies as well as building upon its traditional strengths. The Government's new Industrial Strategy must ensure 'rural-proofing' of government policy to achieve the aspiration of spreading wealth across the whole country. It must build upon existing policy, including the 2013 Agri-Tech Strategy, to support transformative advances in autonomous vehicles and robotics, biotechnology, data science and the bio-economy. Harnessing the huge potential of 'agri-renewables' is very much in the national interest, contributing to national energy security and bringing additional benefits to farm businesses and the environment. We strongly back Defra's stated ambition for the UK to become one of the most resource-efficient, resilient, sustainable, low-carbon economies in the world.



Rural connectivity. In order to best exploit new technologies, particularly those that are increasingly data driven, a high standard of rural connectivity is essential. However, a NFU Survey in 2016 found that 83% of farmers had broadband upload speeds of 2mbps or less and only 6% had access to superfast broadband.¹⁵ Britain's industrial strategy needs a digital backbone, but the current level of government ambition is disappointing with a potential promise of 10 mbps per second by 2020. The target is notably 30 mbps in the same period for the EU.¹⁶ UK farmers and rural communities must not be left behind and wider strategies to connect rural areas will ensure that farm businesses can fully exploit new technologies and seek new and enhanced business opportunities through diversification. A comprehensive policy to fully connect rural Britain will be of great support to agricultural productivity.



Fiscal and Monetary Policy. The farming sector, like most economic sectors in the UK, will be looking to the government and institutions such as the Bank of England to provide and maintain a favourable, stable and predictable environment in which to invest. This includes keeping inflation and interest rates low and a tax regime that is fair and not burdensome. For example modifications to tax policy could remove disincentives to investing in certain asset classes and provide farm businesses with greater capacity to invest. Specifically, capital allowances only deliver relief for the depreciation cost of replacing equipment. The current Annual Investment Allowance enables a 100% deduction against tax for the first £200k of investment in equipment in the year of expenditure. This front loading of tax relief increases the capacity to invest. Enhanced capital allowances for investment in certain energy and water saving technologies are similar, but the scheme could be redesigned to encourage uptake in a wider range of new technologies that farmers will need to embrace.

The lack of capital allowances for agricultural buildings and other fixed structures, often limited in their economic lifespan, acts as a major barrier to investment in modern, efficient equivalents. Farming

businesses are at a disadvantage compared with their competitors in other countries where capital allowances incentivise continuous adoption of innovation both in equipment and buildings to increase productivity. Looking forward it may be that the tax system needs to recognise the depreciation cost of investment in farm buildings and infrastructure, and seek to incentivise this expenditure, as well as technological advances in equipment. This will directly benefit productivity and profitability.



Trade and Business Environment. Sensible transition arrangements must be established as a priority, providing certainty for farmers and minimising disruption when the UK leaves the EU. Government must recognise issues that farming is facing such as those posed by new trade deals or continued access to overseas labour. Should policy allow farming to flourish, and is one that works for both farmers and society at large, we can look forward to a more productive, competitive and progressive agricultural sector.



Regulatory Environment. Our withdrawal from the EU provides an opportunity to review the regulatory environment under which farming operates and to devise a regulatory regime that is fit for purpose. Science and evidence must be at the heart of policy and decision making, ensuring that regulation seeks to deliver productivity gains rather than stifle them.



R&D Funding Framework. Despite its well documented value and return, government data shows recent spending on agricultural R&D from 2004/05 onwards has fallen in real terms¹⁷. Moreover, the period before then also witnessed a significant re-targeting of research funding into the areas of environmental efficiency, and away from productivity and economic performance. Wider government policy and spending should seek to address this. In March 2017 the NFU released a statement¹⁸ jointly with Rothamsted Research, and supported by a number of industry groups, which laid out the core principles for agricultural R&D post-Brexit. It calls for strong funding on a par with international competitors; for policy that attracts funding, skills and enables innovation; and greater collaboration among industry actors and government. From a farmer's perspective, the NFU report *Feeding the Future: Four Years On*¹⁹ sets out priority areas through the research pipeline from fundamental science to commercialisation. To achieve sustained and genuine impact, investment, coordination and collaboration is needed at every stage along this pipeline in areas including:

- The use of digital, automated, robotic and other innovative engineering technologies.
- Advancements in crop and livestock genetics and breeding technologies.
- Integrated approaches to management of crop weeds, pests, diseases and the management of animal diseases within farming systems and within an environmental context.

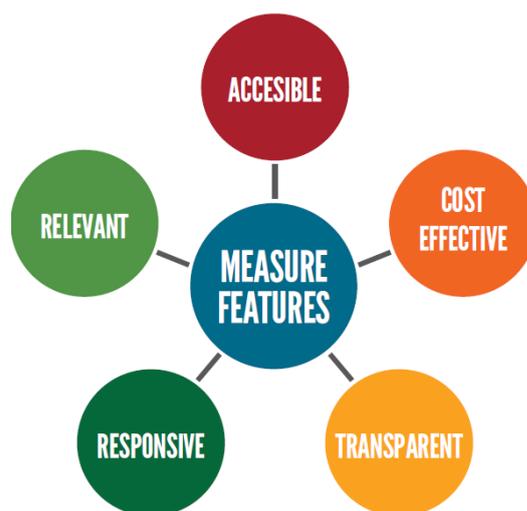
The Agriculture and Horticulture Development Board (AHDB) is funded by a levy on farmers and others in the supply chain. It undertakes market analysis, research activities, training opportunities and product promotions for most agricultural sectors. It has long played an important role in encouraging farmers to improve productivity and profitability, particularly in the areas of research and innovation and knowledge exchange. The AHDB also promotes the need for farm businesses to be fully informed of their costs, income and margins to assist in targeting productivity interventions. One of their programmes, FarmBench, collects a wide variety of production and business data to compare the performance of participating farms to inform on-farm decisions. Better understanding the baseline, comparing it to others and supportive decision-making tools, will help businesses to take the right actions to improve productivity. The right knowledge and skills in this area will be important in underpinning and enhancing many other productivity improvement measures. This is a good example of where the future farm policy and the AHDB's activities can be mutually supportive without duplication. The AHDB's work should not be seen as a way to replace policy initiatives, but there is clear opportunity for the organisation to supplement policy objectives and this activity should be considered as an important part of a wider supportive environment for productivity measures of the Domestic Agricultural Policy.

IMPORTANT CHARACTERISTICS OF PRODUCTIVITY IMPROVEMENT MEASURES

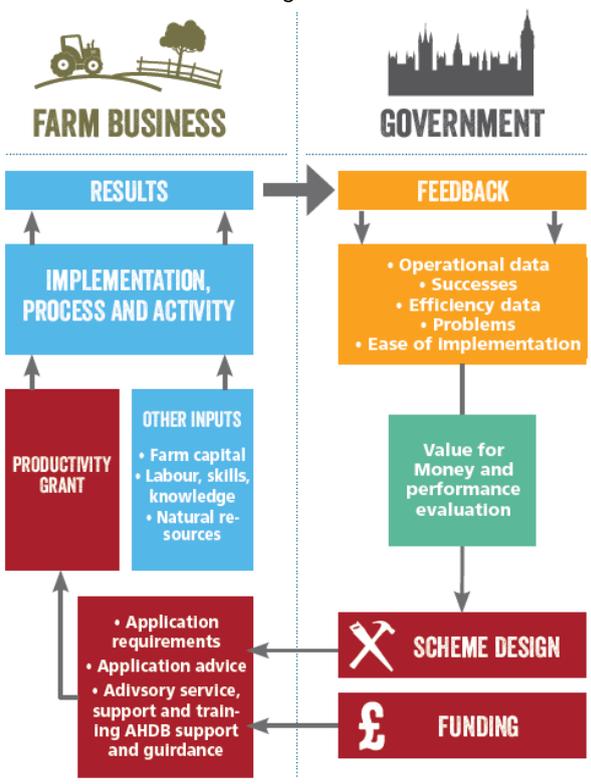
All measures to improve productivity will only ultimately be successful if farmers participate. Grants or training programmes may fund exactly what is required, but if farmers do not take them up, or are not aware of them, the investment only remains potential. Equally, even if farmers are fully aware of opportunities, the design of the application process is such that they sometimes conclude the effort is not worth their time.

In order to successfully deliver the productivity measures of a new Domestic Agricultural Policy, they must be designed in a way that encourages uptake and confidence from both industry and government that they will be effective. Whether it be a training programme, capital investment or piece of advice received, the elements of the productivity Domestic Agricultural Policy programme should be relevant, accessible, cost-effective, transparent and responsive.

Productivity measures should be **accessible** to all farm types, sizes and producer group structures and not designed in such a way that any administrative burden hinders participation. Correct guidance and promotion will also help farmers access measures. All parts of the scheme must be **cost-effective** for farm businesses, with investments, either through their own capital or time, showing a return. Equally it is important that public funds are spent in a way that actually delivers measurable productivity improvements to ensure money is being spent well. **Transparent** terms of participation, including expected returns and actions agreed by the beneficiary will be key to gaining industry buy-in and engendering trust that public money is once again being spent well. This should include open communication that targets of uptake are being met in order to ascertain if intervention is required to rectify the situation. All elements of the programme must therefore be **responsive** to changes that may be required to improve operation of the programme. The substance of what grants or training are offering must be able to change to reflect real-world events too, for example a rapidly changing market situation. Closely linked is the importance of measures being **relevant**. The offering of the programme should recognise variations in the needs of



different regions, farm-sizes and business structures. Put simply, the suite of measures available must be such that all farmers can benefit in a way that best suits their business.



These characteristics are important to ensure the best possible delivery and outcome, which is particularly crucial as public funds are being spent. As part of ensuring value for money it is fully reasonable that participants in funded schemes should accept conditions when benefiting from them. It is important that need is properly identified and that the beneficiary is able to provide evidence of the extent of improvement achieved. Key to this is a “feedback loop” whereby practitioners are feeding into those that design and administer productivity schemes, so that future efforts are better formulated if required. The diagram to the left shows the process that could apply to a productivity investment grant that reflects the above characteristics as well as providing a mechanism for feedback.

Delivering for a diverse industry

In addition to reflecting the above characteristics for a successful productivity programme, it must be further recognised that the structure of the farming sector is continually evolving and Brexit may influence this. To be fully relevant and responsive, productivity measures should be appropriate for all businesses and organisational structures. Furthermore it should be ready to support structural changes in the sector, such as helping new entrants, aiding those that cease farming activities and providing for increased collaboration among farmers.

In cases of extreme hardship for farming sectors, there is precedent for government intervention, for example the Pig Industry Restructuring Scheme that sought to manage the continuation or exit of some enterprises during extreme market conditions in the late 1990s, which was partly driven by government policy choices. The NFU is confident that with the right policy support the great diversity and variety of farm businesses can thrive, but part of that support may require government intervention for business restructuring, assistance for new entrants, out-goers and those that seek to re-enter the industry if they leave for a time.

The Domestic Agricultural Policy productivity programme also needs to be designed with the existing specific circumstances facing certain groups, such as tenants, in mind. For example, a lack of long term occupation can act as a disincentive to investing in a raft of productivity improvements. Both new entrants and tenants also share a common problem of a lack of collateral to borrow funds against, restricting their ability to invest in productive assets. A significant number of farming businesses are reliant on tenanted land and other types of land management arrangements. Policy should cater for these businesses and not prejudice certain structures over others.

Farmer collaboration has also created a variety of organisational structures that has led to the sharing of resources, the means of production or ability to market goods more effectively. In some cases policy explicitly supports this, for example the EU's Producer Organisation (PO) scheme. A recent report by the British Growers Association found that the EU PO scheme had since its inception helped in increasing UK strawberry production from 40,000 tonnes to 115,000 tonnes.²⁰ This success was achieved through investment in new varieties and new growing techniques, with the capital for this crucially being derived from match-funded grant aid. Aside from production rises, PO investments have led to resource efficiency that has been beneficial to the environment and helping businesses expand to provide jobs. It must be considered how the future Domestic Agricultural Policy as a whole can support collaboration among producers in all sectors to continue improve their productivity, help them better manage volatile markets and deliver for the environment and consumers.

A new productivity programme as part of future Domestic Agricultural Policy should be carefully designed to reflect the needs of the diverse structures seen in the farming industry. It should ensure all are able to adapt if necessary while improving their productivity.

NEXT STEPS IN IMPROVING PRODUCTIVITY

Fully designing and implementing a productivity programme as outlined in this paper will clearly take time. However, there are steps we can take now to begin to make a difference in improving farming productivity.

Addressing the wider productivity problem

Improving productivity is not an issue solely isolated to farming. In 2016 the Chancellor outlined a new National Productivity Investment Fund of £23bn to be spent on innovation and infrastructure over the next five years. This includes £2bn more investment per year in research and development funding by 2020-21 and a £1bn investment in digital infrastructure. The wider challenge to the economy of improving productivity is clearly a priority and this drive is something that UK agriculture and the wider rural economy need to be part of. We suggest that specific agricultural policies be developed as wider initiatives are rolled out now.

Low uptake of existing funding

Low uptake and underspend has been observed in the ongoing Rural Development Programme for England, through which funding is delivered for productivity improvements. In many instances an onerous and bureaucratic application process has led to delays in the processing of grant applications (and the subsequent decision to fund). It is recognised that the costs and time involved in making an application are very often out of proportion with the actual funding on offer resulting in a low uptake of grant applications and reluctance to apply for future funding.

There is clearly a need for these schemes to take better account of the farmer's perspective in order for them to be successfully delivered and this must start in the design phase. Promoting schemes and making them navigable is key to avoiding the redirection of funds from programmes to private services that advise on participation.

The NFU would like to see the RDPE budget spent effectively on improving farm productivity, rather than the monies lost to the industry. Importantly, any underspend here must not be seen as evidence of little or no demand. We are convinced that if the spending of these funds were aligned with proposals in this paper then uptake would be higher. Government could work with the sector now to see more money make a difference on farm.

SUMMARY

A future Domestic Agricultural Policy can improve farm productivity with a comprehensive programme that:

- ✓ Offers capital grants, alongside other methods of financing, to underpin productivity investments for all business types and sizes.
- ✓ Facilitates the application of research and innovation on-farm, so that benefits are achieved more widely, quickly and effectively.
- ✓ Provides education and training opportunities, not only covering farming practices but also on wider business skills.
- ✓ Aids farmer-to-farmer and business-to-business learning opportunities, promoting best practice through knowledge exchange.
- ✓ Improves on-farm connectivity through specific funding to help farms connect their premises to a national high-speed network.
- ✓ Is supported by an advisory service that directs farms to funding opportunities within the programme and assists with wider business and financial planning and training.
- ✓ Takes the farming perspective into account, from policy design to implementation, to ensure most efficient and effective delivery of funds.
- ✓ Achieves a balance between accountability and ease of access, with minimal bureaucracy and clear guidance and advice.

Targeted support to improve farm productivity can be supported through existing wider policy. The NFU is asking for:

- ✓ Collaboration between government and industry to ensure that existing unspent Rural Development funds are most effectively delivered before the UK's exit from the EU.
- ✓ Trade policy that allows free and frictionless trade with the EU and balanced trade deals with third countries that do not undermine the competitiveness of British farms.
- ✓ The underinvestment in agricultural research to be addressed, with a strong base of public funding as well as policies that attract private investment.
- ✓ A thorough and ambitious programme that provides rural Britain with high-speed digital connectivity.
- ✓ Planning policy that better reflects the needs of farmers to invest to improve productivity and recognises the positive impact of such assets.
- ✓ The Industrial Strategy, and other wider policy initiatives, to recognise and support the significant existing contribution of the agricultural sector, as the bedrock of British food manufacturing, and its potential for transformational change with impact across the whole country.
- ✓ Tax relief for the depreciation cost of farm buildings and infrastructure and improvements to the capital allowances regime to incentivise and support early adoption of new farm technologies

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