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Article

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Post-Brexit Policies for a Resilient Arable Farming Sector in England

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Arable farming is a highly competitive and strategic sector of UK agriculture, but a number of challenges are currently threatening its viability, resilience and the ability of farmers to compete internationally. Challenges include the uncertainties and price volatility of a globalised food system; weather extremes and the effects of climate change; and balancing environmental responsibilities with being economically viable.

Since the 2016 Brexit referendum, the sector has been generally struggling to plan ahead because of uncertain trading relationships and concern around the loss of the single farm payment under the European Union's Common Agricultural Policy. Some believe that Brexit can potentially generate opportunities through the United Kingdom's proposed 'public money for public goods' policy. Despite the clear outcome of the UK elections in December 2019, the shape that Brexit will take is not yet decided; intense negotiations will take place between the UK and the EU and any outcome cannot yet be excluded, including a 'no deal' scenario. Therefore, it is important to understand what enables arable farming to be resilient and to identify what risk management strategies and policies will enable that to happen.

Through the methodology described in Box 1, this article has two main aims:

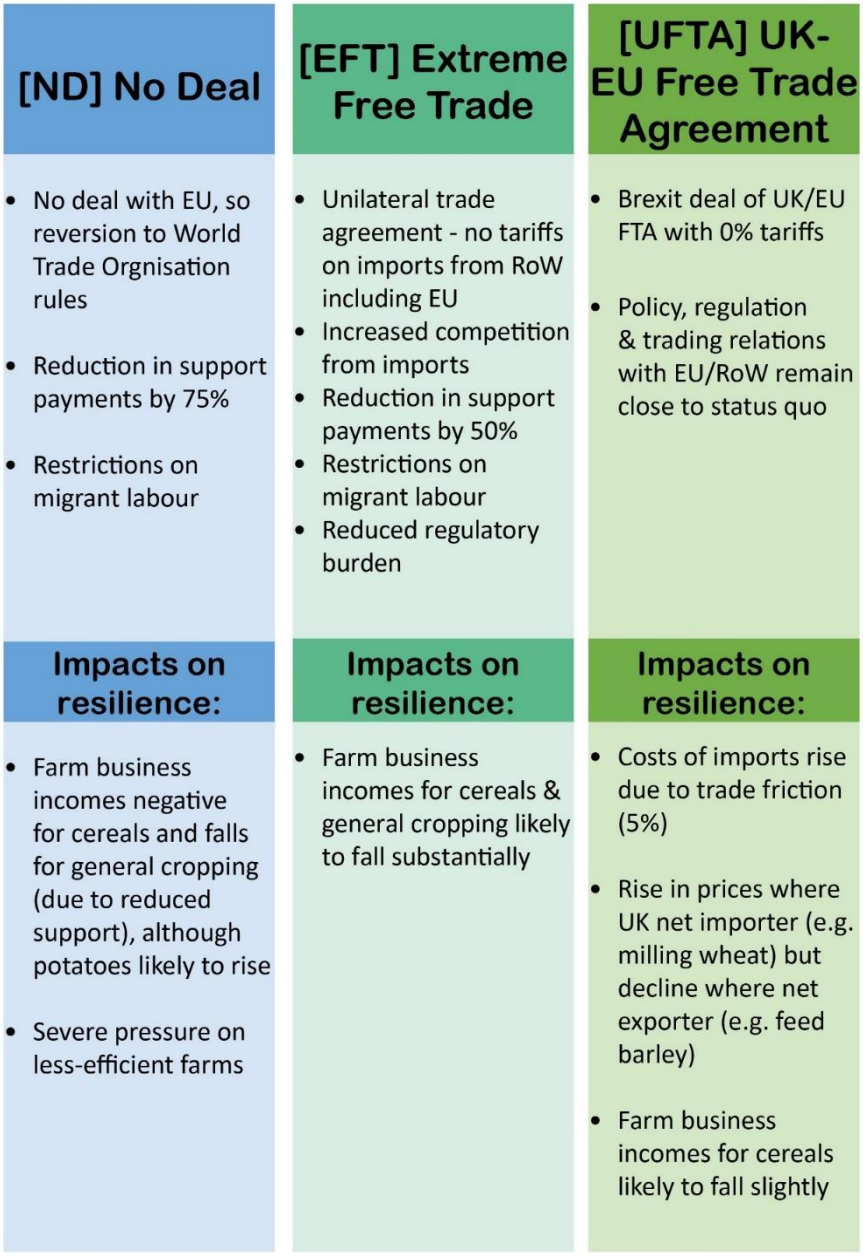
- firstly, to describe the risk management strategies currently adopted by the sector;
- secondly, to evaluate the impact that current policies and regulations and future post-Brexit policy scenarios might have on the resilience of the English arable sector (see Box 2).

Box 1: Research Method

This article is based on two sets of data. First, the section outlined below, "*What does the arable sector do to improve its resilience?*" is based on a mixed approach. A representative survey of 200 arable farmers in East Anglia was conducted in December 2018. Farmers were presented with a long list of risk management strategies from which to choose. The resulting ten most frequently identified strategies (Figure 2) were presented in a focus group in June 2019, composed of bankers, business advisers and farmers' union representatives. These stakeholders selected and discussed the *four* strategies they considered the most promising for resilience.

Second, the section "*How do policies support the resilience of English arable farming?*" and the following sections are based on a multi-stakeholder workshop on Brexit scenarios held in September 2019. Workshop participants were farmers, academics, and representatives of farmers' unions and government (Department for Environment, Food and Rural Affairs (Defra)). Stakeholders were presented with three scenarios, developed by the research team and adapted from Hubbard *et al.* (2018) and AHDB (2017): No deal (ND), Extreme free trade (EFT) and UK-EU Free Trade Agreement (UFTA) (Figure 1). Stakeholders assessed the scenarios in terms of their potential implications for resilience and their relationship to the robustness, adaptability and transformability of the sector. The results presented are solely those discussed by the stakeholders.

Figure 1: Post-Brexit scenarios presented to and assessed at a multi-stakeholders' workshop for their impact on resilience: adapted from Hubbard *et al.* (2018) and AHDB (2017).



BOX 2: Resilience as a policy framework

Meuwissen *et al.* (2019) describes three types of farming systems' resilience, which are also used in this article:

- **Robustness** is the farming system's capacity to withstand stresses and shocks.
- **Adaptability** is the capacity to change the composition of inputs, production, and marketing and risk management strategies in response to shocks and stresses but without changing the structure of the farming system.
- **Transformability** is the capacity to change significantly the internal structure of the farming system in response to either severe shocks or enduring stress that make business as usual impossible.

The focus on the *capacity to adapt* and the ability to *realign fundamentally* or to *transform* the farming business, and not only to seek short-term solutions to maintain the status quo, makes resilience an attractive concept for policy makers; it has been readily adopted for agriculture both at international and national levels (see United Nations, 2015; European Commission, 2018; DEFRA, 2018).

What can the arable sector do to improve its resilience?

The most frequently adopted strategies for risk management, compiled using survey data (see Box 1) are reported in Figure 2. Among the different strategies, *four* were considered by the participants of a focus group as the most promising to develop resilience in the East of England arable farming system.

Business diversification, in addition to traditional arable farming, can improve the resilience of a farm by providing an additional income stream. This can improve a farm's bottom line and provide long-term financial stability, acting as a buffer against the environmental risks and market volatility to which the farming side of the business is exposed.

Increasing the efficiency of an arable farm can lead to higher productivity and higher profits, and a more robust and resilient core business (Vigani and Dwyer, 2019). There are many ways in which efficiency could be increased. A farmer might invest in precision farming technology to manage crops more effectively or in micro-renewables to improve energy efficiency. Farmers may also become more efficient by using improved business advice and market intelligence on the cost of inputs vs outputs.

By **engaging in learning and knowledge exchange activities**, a farmer can improve both personal and farm business resilience. As resilience is about dealing with, adapting to and responding to change, knowledge needs revision in line with changing circumstances. Thus, a farmer's willingness and ability to learn, is an important factor for managing risks and fostering resilience.

In order to **increase financial stability** a farm business needs to ensure that it has both high liquidity (i.e. cash from savings) and low financial exposure (i.e. low debt) in order to cope with potential shocks and risks. Financial stability can also be increased by using traditional crop insurance and innovative index insurances (Vroege *et al.,* 2019).

According to the focus group participants, English arable operators rely on a variety of strategies to improve farm resilience. The farmer, or the farm manager, is the central decision-maker of the business, but strategies involve a number of actors across the wider farming system. Bankers, lenders, funders and business advisors can influence farmers' strategies by providing the

financial means for investments and considering the farm history and characteristics. Traders provide market information and data sharing services which are critical for timely decision making. Cooperatives can contribute through collaboration, resource sharing and group-buying. Agronomists can provide advice and information on arable practices and technologies. Research/education institutions can provide training and skills to support farming and diversification activities and may also facilitate funding or collaborate on research and grant applications.

Figure 2: Strategies for resilience of the English arable sector

Strategies	N. Farms	Frequency
Implement measures to prevent pests or diseases (e.g. strict hygiene rules, pest resistant varieties, new rotations)	150	75%
Use of market and/or environmental information to inform business decisions	146	73%
Adoption of new technologies (e.g. machinery, precision farming)	127	63.5%
Business diversification (e.g. tourism, on-farm sales, off-farm employment)	122	61%
Increase efficiency (e.g. reduce input costs, maximise profits)	119	59.5%
Engaging in learning and knowledge exchange	119	59.5%
Increasing financial stability (e.g. low debt, increased savings)	114	57%
Be a member of a producer organization, cooperative or union	113	56.5%
Product diversification (e.g. mixed livestock and crop farming)	101	50.5%
Reducing financial risk (e.g. insurance)	97	48.5%

How do policies support the resilience of English arable farming?

Currently, English arable farms receive support payments mainly through the CAP's Basic Payment Scheme (BPS) or the Agri-environmental Schemes (AES). These payments can either enhance or constrain the resilience of the arable sector (see Grant, 2016 for more information). They have been criticised for rewarding wealthy landowners disproportionately (more land, more money), for preventing younger people accessing land, and for failing to improve environmental outcomes (Tsouvalis and Little, 2020). The Agriculture Bill, currently proceeding through Parliament, envisages a new system which will reward farmers for the public goods (e.g. cleaner air, cleaner water, improved biodiversity) produced on their land, rather than receiving money based on how much land they have. In England, this will be implemented through the Environmental Land Management Scheme (ELMS) to be in operation from 2024 and fully rolled-out by 2028 (as BPS is phased out).

The results of the workshop (see Box 1) suggest that the BPS can enhance resilience by providing farms with a minimum income which buffers against risks, contributing also to maintaining land values, allowing land to remain an important collateral for investments. Therefore, the stability that the BPS provides to arable farms can enhance the robustness of the sector. However, it can also constrain resilience. First, by assuring a minimum income, the BPS can increase the willingness of farmers to take risks and therefore to invest more, but it may also disincentivize competitive behaviour, reducing productive investments and managerial development. Second, the producers of agricultural inputs and technology may seek part of the BPS rent by increasing input prices, and this could also reduce farmers' adoption of productive technologies. According

to stakeholders, disincentives to explore more competitive behaviours suggest that the BPS may constrain the transformability of the arable sector.

Stakeholders also note that the capacity of the AES to enhance resilience is mainly linked to positive effects on the environment. However, resilience may also be constrained because the financial support from the AES is insufficient to cover the costs and time of undertaking required environmental practices. Moreover, resilience is affected by the way the AES is implemented. First, the administrative burden discourages farmers from applying. Second, the policy assigns a monetary value to environmental features with no flexibility or consideration of how suitable these are for a particular farm. In order to improve the resilience of the sector, the values should be flexible enough to suit each farm and its environment as implementation of the scheme progresses. Because of the lack of flexibility, the AES is thought to constrain the adaptability and transformability of the sector.

A different form of support that the stakeholders identified to improve resilience is better access to good, independent advice. Currently, advice often comes from advisors working for agri-tech companies and input suppliers. Farmers usually trust their advisors and value the advice they provide, but vested interest may lead to bias. There is a sense that commercial interests can generate distrust in farmers, although such distrust is not enough to ignore the advice provided. Stakeholders therefore call for greater transparency in the farmer – advisor – supplier chain.

What policy recommendations would support resilience under each scenario?

No Deal and Extreme Free Trade

Under the ND and EFT scenarios, participants suggest that transitional financial support would be needed to help arable farmers adapt to new market conditions, i.e. greater competition from the rest of the world. Increased financial support could come from both direct and agri-environmental payments, which participants deemed necessary under these scenarios. The latter could be made more available with wider appeal, flexibility and sufficient financial return for farmers. For greatest effect and uptake schemes should be co-designed with farmers. Support also needs to be incremental and accompanied by well-targeted advice. This applies especially to business-orientated advice targeting crops and businesses that are vulnerable to collapse. In this respect, a service similar to the current Catchment Sensitive Farming (CSF), which offers farmers free training, advice and support for grant applications to improve water and air quality in high priority areas, could be useful, but with a broader mandate and capacity to cover the majority of farms.

UK-EU Free Trade Agreement

Stakeholders suggest that, under the UFTA scenario, farm support does not necessarily need to increase financially, but with a change in design. Firstly, advisory services need to be better implemented and supported so that advice is evidence based and trusted as independent. Research has shown (e.g. Ingram, 2008) that advisers are important for evidence-based decision-making. Secondly, there is a need for more support to encourage and enable farmers to engage in new entrepreneurial activities in farming. Finally, a move from BPS to environmental payments has the potential to be accepted by farmers, but the new approach would need to improve upon previous and existing schemes. This could be achieved by understanding the positives of previous schemes and taking these forward alongside new ideas. Defra has recently taken on new staff in order to deal with the restructuring of agricultural policy. These new policy teams could benefit from working alongside policy teams with experience of previous schemes, enabling continuation of institutional knowledge. For example, lessons could be learnt from how the AES was applied in the 1990s, when the Countryside Stewardship Scheme (CSS) was flexible, personal and had good

advisors with accessible, easy to read and understand information, and booklets with illustrations for farmers.

How do regulations affect the resilience of English arable farms?

Stakeholders identified current EU regulations on plant protection products (PPP) as having the most significant impact on the resilience of the English arable sector. PPP regulation can significantly enhance resilience through two main channels: first, by facilitating the market availability of innovative and improved products; and second, by protecting the environment and biodiversity from negative impacts. However, there are circumstances in which PPP regulation constrains resilience by causing instability in the arable system. This happens when regulation ignores the fact that crop producers need PPP to avoid crop failure and when decisions on the use of PPP may be taken on political or emotional grounds rather than scientifically. Stakeholders suggest that the decision to take a product off the market should be made when there is a guarantee that alternative solutions are available. If there are currently no alternatives, decision-makers could allow time before a ban of a particular PPP is enacted, allowing new technologies or solutions to be developed and made available to farmers. In terms of resilience assessment, current PPP regulation can either enable or constrain robustness depending whether a product is released or removed from the market.

Stakeholders stressed that another important type of regulation affecting resilience concerns tenancy. In the 1990s, minimum tenancy duration limits were reduced to three years. A three-year period is significantly shorter than a sustainable crop rotation; therefore, in order to increase resilience, a minimum of ten-year tenancies should be considered to incentivise sustainable production and investment.

What regulatory recommendations would support resilience under each scenario?

No Deal

Future regulatory options are quite complex. In a no deal scenario, stakeholders stress that regulation would play a fundamental role in levelling the playing field for English arable farming with global competitors. Currently, UK farming operates under the EU's high food safety and quality standards that increase production and transaction costs, while imports of cheaper products with lower standards (e.g. atrazine herbicides and growth promoters) are not allowed, thereby protecting UK producers (Lang and Millstone, 2019). Stakeholders suggest that a ND scenario could suddenly allow the import of products with lower-standards, exposing UK producers operating with higher standards to strong price competition for which they are not prepared. Higher standards are currently well accepted by UK farmers as they make them competitive in higher-quality markets even though they are less competitive in other markets. Recently, 62 farming organisations wrote to the UK government asking for guaranteed minimum food standards for imported food in the Agriculture Bill, although such a provision has so far not materialised.

Stakeholders fear that a sudden loss of competitiveness could depress the overall rural economy with consequent loss of jobs and welfare in rural areas, making rural communities vulnerable. In such a case, the government could develop buffering strategies such as rural social policies aimed to reduce isolation and to build social support. In order for policy-makers to build such social support and to shift taxpayer's money towards rural areas, the importance of agriculture and the value of farming should be better communicated to the public.

Extreme Free Trade

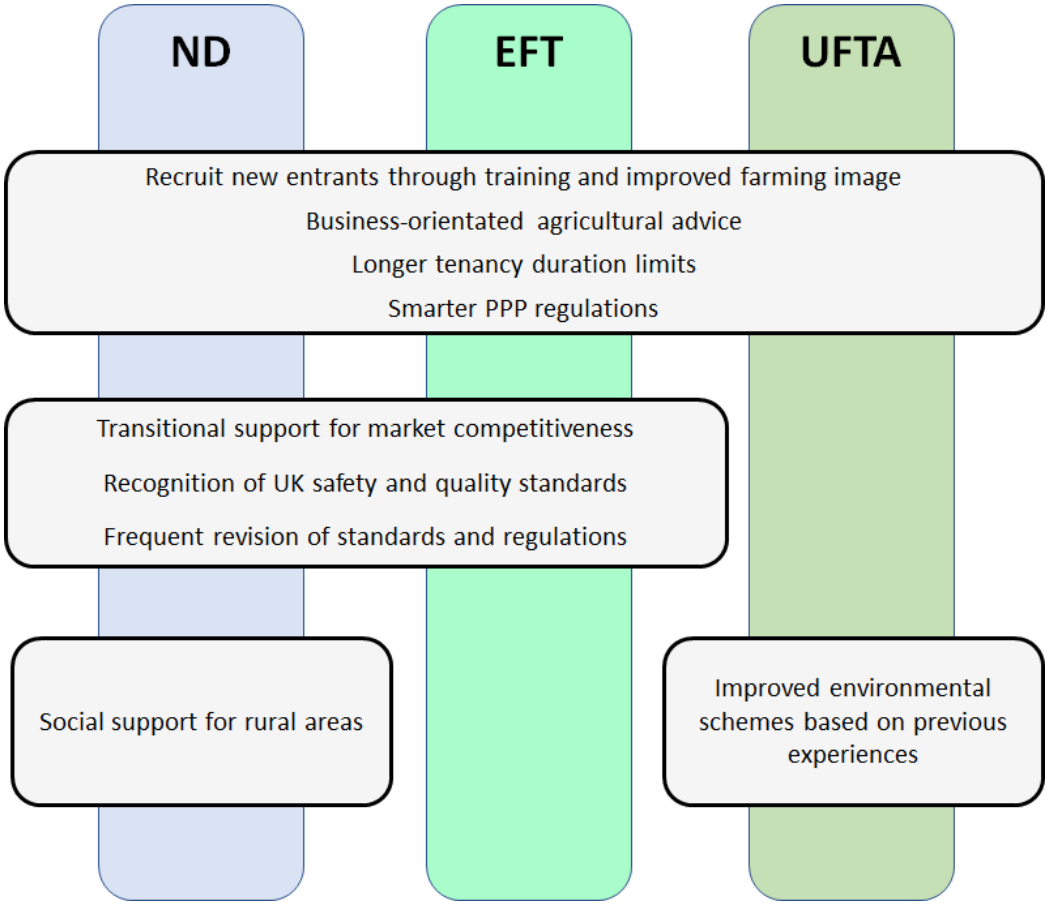
In an EFT scenario the recognition of standards and regulations is also very important, especially to ensure quality of production and environmental protection. It would be important to strike a balance between environmental regulations and enabling competition, with smarter systems put in place for achieving standards. If the government decides to harmonize its standards with those of trading partners, policy-makers should ensure that UK farmers are not disadvantaged by applying such standards. Regulations should also be regularly reviewed (e.g. every 3 years) in order to adapt as needed to changing conditions. More frequent review and revision of regulations is also relevant for the ND scenario.

UK-EU Free Trade Agreement

Smarter regulations for PPP would be important for all three scenarios, however stakeholders considered this particularly critical in an UFTA scenario, with the UK and the EU implementing longer timescales to phase out obsolete or unsafe products whilst creating new solutions to the pests and diseases that they control. This could be achieved, first, by looking at what alternative options exist and, second, by supporting funding to develop such alternatives. A move away from the current hazard-based assessment of PPPs, which often leads to bans on products, to the previous risk-based approach that manages risks through technology, would allow more flexibility and alternative solutions for farmers.

An important future strategy for recruiting new entrants into the arable sector would be to create a more attractive image of farming and support the development of skills. For example, this could include creating apprenticeship schemes for farming and, in more isolated areas, legislation for the provision of rural broadband and mobile phone signals.

Figure 3: Policy recommendations from the stakeholder workshop for the three scenarios



Towards greater resilience

The recommendations for resilience collected during the workshop are summarized in Figure 3. As one can see, none of the scenarios are expected to improve resilience significantly without key policy reforms. Some of the recommendations address all three potential scenarios, such as policies for generational renewal, advice and extension, tenancy duration limits and smarter PPP regulations. This suggests that resilience can be enhanced only by addressing these structural issues, regardless what a post-Brexit deal with the EU will look like.

The ND and EFT scenarios are perceived as creating greater market uncertainties, therefore for both scenarios recommendations focus on measures to protect the competitiveness of the UK arable sector. On the one hand, workshop participants suggest granting farms additional financial support for a transition period, specifically targeting competitiveness. On the other hand, participants suggest ensuring the recognition of UK production standards, with frequent revisions to guarantee that standards and regulations follow changing production and market conditions.

In the ND scenario stakeholders fear that the more marginalized and uncompetitive farms are likely to become unviable. Therefore, they recommend additional measures for social protection in more vulnerable rural areas, such as securing new jobs and homes and support for those trying to manage farms in isolation.

Finally, stakeholders perceive the UFTA as the softer scenario, requiring fewer adjustments with respect to the current situation. Therefore, in the light of a 'public money for public goods' approach, they suggest that progress in programme design can be achieved by learning from previous schemes, including the provision of advisory support and reducing the amount of bureaucracy required to apply for schemes.

Further Reading

DEFRA (2018). Health and Harmony: the future for food, farming and the environment in a Green Brexit February 2018.

European Commission (2018). Proposal for a regulation of the European Parliament and of the Council establishing rules on support for strategic plans to be drawn up by Member States under the Common agricultural policy (CAP Strategic Plans). COM(2018) 392 final, Brussels, 1.6.2018.

Feng, S., Patton, M., Binfield, J. and Davis, J. (2017) 'Deal' or 'No Deal'? Impacts of Alternative Post- Brexit Trade Agreements on UK Agriculture. *EuroChoices,* 16 (3), 27-33

Grant, W. (2016). The Challenges Facing UK Farmers from Brexit, *EuroChoices*, 15(2), 11-16

Ingram, J. (2008). Agronomist–farmer knowledge encounters: an analysis of knowledge exchange in the context of best management practices in England. *Agriculture and Human Values*, 25: 405–418.

Lang, T. and Millstone, E.P. (2019). Post-Brexit food standards. *The Lancet*, Volume 393, March 23, p. 1199.

Meuwissen, M., *et al.* (2019). A framework to assess the resilience of farming systems. *Agricultural Systems*. Volume 176, November 2019, 102656. https://doi.org/10.1016/j.agsy.2019.102656

Tsouvalis, J., and Little, R. (2020). Agriculture Bill: here's what it means for farming and the environment after Brexit, https://theconversation.com/agriculture-bill-heres-what-it-means-for-farming-and-the-environment-after-brexit-130091

United Nations (2015). Transforming our world: the 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly on 25 September 2015, A/RES/70/1.

Vigani, M. and Dwyer, J. (2019). Profitability and efficiency of high natural value marginal farming in England. *Journal of Agricultural Economics*. First published: 17 July 2019 https://doi.org/10.1111/1477-9552.12351

Vroege, W., Dalhaus, T. and Finger, R. (2019). Index insurances for grasslands – A review for Europe and North-America. *Agricultural Systems*. Volume168, 101-111.

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Summary

With the imminent withdrawal of the UK from the European Union and increasing pressures from climate change, British arable farming resilience is in a fragile position. Most Brexit impact assessments have focused on quantitative analysis, however here we take a qualitative approach to assess how future trade agreements could impact the resilience of the UK arable farming system. We discuss the main strategies that are currently taken by English arable farmers to improve resilience using evidence from a large-scale survey. Using information from a multi-stakeholder workshop, we look at arable farming resilience in three forms characteristic of the farming system; namely, robustness, adaptability and transformability and how these relate to [and are potentially influenced by?] three different Brexit trade scenarios. Stakeholders' recommendations suggest that a 'hard' no deal scenario will require policies for social protection of farmers in more vulnerable rural areas, while in a 'softer' scenario a 'public money for public goods' policy could be implemented effectively by learning from previous environmental schemes. Nevertheless, resilience can be enhanced only by addressing structural and policy issues, such as generational renewal, advice and extension, tenancy duration limits and smarter PPP regulations, regardless of what post-Brexit deal with the EU finally emerges.

Pullquote

"None of the scenarios are expected to improve resilience significantly without key policy reforms."