Sustainable Places Projects:
Knowing to grow: Increasing the resilience of plant centred food production skills

Knowledge and skills are essential for growing and producing food; ensuring their future availability is therefore vital for resilient agri-food systems. This project considers how to meet knowledge requirements for future food supply chains, focusing on the case of horticultural production. It will draw on international experiences and stakeholder expertise to inform strategies to enhance food security in Wales and beyond.

A focus on horticultural production - large-scale growing of fruits and vegetables - will reveal how knowledge flows through agri-food systems. This will characterise risks of shortages or losses of essential skills which threaten long-term resilience, in the context of global food security. International comparison will inform analysis of the Welsh context to reveal success factors required for a step-change in skills provision.
The research aims to enhance the resilience of knowledge and skills dimensions of agri-food systems by informing policy, theory and practice.

It will contribute more accurate characterisation of skills employed in contemporary food production. Beyond the specifics of agri-food this addresses how industrialised work is typically understood as low skilled, or utilising knowledge best transferred between proximate people. Through a networked perspective on skill it will consider how materials including plants affect knowledge flows.

Skills are essential to food security but knowledge related vulnerabilities have not been precisely characterised, making it unclear how to enhance resilience. In the UK, efficiency and growth in the agri-food sector have long been hampered by skills shortages. Current strategies to address long-standing shortages have proved insufficient to meet demand for increased domestic production. The UK’s exit from the EU is expected to exacerbate these challenges.

As the most labour-intensive sector in the UK, horticulture exemplifies the agri-food skills problem. Expansion of domestic fruit and vegetable production is promoted as an area for growth, bringing environmental and dietary advantages. Capitalising on these opportunities in the medium to long term requires insight to why skills shortages persist, and how future risks can be mitigated. As UK and devolved governments gain freedom to shape agri-food policy it is timely to consider action to future proof the sector.

Research Approach

- A social science led inter-disciplinary perspective on knowledge within commercial food production.
- Collaboration with stakeholders and businesses to shape the research, and ensure the results are tailored to application.
- Stakeholder workshops at key research moments to reflect on findings and agree priorities.
- International comparison of strategies to retain access to food-production skills to inform UK responses, and highlight priorities for global action.
- A spatial lens to characterise skills networks and knowledge flows, including potential blockages or leaks, considering how power dynamics create vulnerabilities.
- Case studies of businesses and their supply chains in Wales, UK and EU.

Key research tasks

- Review international literature and policy on agri-food skills.
- Compare recent international strategies for agri-food skills for their effectiveness in preparing the sector for the future.
- Detailed analysis of the skills networks of case study enterprises as a basis for knowledge network maps.
- Stakeholder exploration of network maps, their vulnerabilities and resilience.
- Participatory exploration of potential actions to agree recommendations.

The project commences in October 2018 for three years.

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