



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

Knowledge and skills are essential for 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 horticultural production. It draws on international experiences and stakeholder expertise to inform strategies to enhance food security in Wales and beyond.

As the UK's most labour intensive agricultural sector, horticulture exemplifies the agri-food skills problem. Expanding domestic fruit and vegetable production can

bring environmental and dietary advantages. Capitalising on these opportunities 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.

This 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 for contemporary and future food production.

The Project

Social science led, inter-disciplinary perspective.
Collaboration with stakeholders and businesses.
International comparison of skills strategies.
A spatial lens on skills networks and flows.
Case studies in Wales, UK and EU.
Runs October 2018 - May 2022.

Year 1 Findings

1) Horticulture and horticultural skills in the UK

A review of academic and other literature found that accurate data on labour and skills in production horticulture is lacking and poorly coordinated. Available data shows historic patterns of unfilled vacancies, and low levels of formal training in the sector. Specialist training and education provision has also declined. Predictions are that recruitment pressures will continue into the next decade, particularly for seasonal roles. (*Working Papers 1 & 2*)

2) Identifying key challenges

Interviews with stakeholders revealed consensus that production horticulture in the UK is in the midst of a long-standing knowledge and skills crisis. Causes are not fully understood, although many perceive poor public perceptions of horticultural careers to be significant. Analysis suggests wider socio-economic forces make it difficult to offer attractive employment opportunities or to invest in skills development. (*Working Paper 3*)

3) Seeking solutions

Over the last decade numerous initiatives have addressed skills issues for horticulture and agri-food production more broadly. But inadequate progress has been made, with stakeholders suggesting lack of coordination and long-term commitment have been constraints, as has lack of leadership from government or within the sector. (*Working Paper 4*)

4) Network building

The project brought together stakeholders to identify priority issues and case studies. Participants expressed a strong wish for more collaboration, and a clearer collective voice speaking to influential actors such as government. Wales-based attendees were keen to champion the potential for more horticultural production, and optimistic that the Welsh legislative context enables this. The research team participated in events including the Wales Real Food & Farming Conference, and Controlled Environment Agriculture Cluster. (*Report of Workshop 1*)

Plans for 2020

Research is now focusing on detailed analysis of the skills networks of case study enterprises around the UK. These represent a variety of business types, scales and growing practices, with a range of skills profiles and issues. In-depth research will form the basis of maps of each grower's skills ecosystem. Data collection and analysis will continue to focus on case studies. Skills ecosystem maps will then be explored with stakeholders to identify vulnerabilities and actions to make them more resilient.

A second workshop organised with partners will develop a shared vision for horticulture in Wales. The team will continue to explore opportunities for future collaborations and learning from overseas.

For all working papers visit: <https://www.cardiff.ac.uk/sustainable-places/research/projects/known-to-grow>

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