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Whole Farm System Thinking

OPPORTUNITIES, BARRIERS AND LIMITATIONS | OCTOBER 2025

Overview

On the 18th September 2025, the LUNZ Hub hosted a 'Big Tent Event' in Venue Cymru, Llandudno. As part of the event, a series of 'Ask the Expert' breakout sessions explored key topics for a sustainable and just land-use transition. This note outlines the key messages and discussion points from the breakout.

This session explored how whole farm system thinking can reshape farming to deliver for business resilience, nature recovery, and climate. Rather than focusing on isolated practices, the discussion highlighted the importance of redesigning farming systems to integrate soil, crops, livestock, water, and markets in a joined-up way. Personal farmer experience and policy reflections combined to share insights into how this approach can be scaled across Wales and the UK.

Panel contributors: Huw Foulkes, Pentrefelin Farm & Andrew Tuddenham, Soil Association Cymru.
Chair: Prysor Willaims, Bangor University

EVIDENCE & INSIGHTS

Whole farm system thinking is about viewing the farm as a single, interconnected system rather than a series of independent enterprises or practices. This approach encourages farmers to manage trade-offs between productivity, biodiversity, and climate goals while building resilience into the business. It moves away from "bolt-on" sustainability measures and instead embeds environmental and economic goals across every aspect of farm management.

Huw Foulkes shared his experience of returning to the family farm after a period when it had not been directly managed. This created a rare opportunity - a "blank slate" - to design a new farm vision from the ground up. His model is built around direct sales, diversified enterprises, and agroecological principles that strengthen both business and ecological resilience. However, the discussion acknowledged that many farmers face a more complex transition, balancing inherited systems and intergenerational expectations while trying to reshape the farm's future direction.

Panel members agreed that this "whole system" way of thinking creates opportunities to align farm business planning, natural resource management, and market relationships. It fosters innovation, flexibility, and a stronger sense of ownership over the farm's vision.

OPPORTUNIITES & CHALLENGES

Whole farm system approaches can build long-term business resilience by reducing reliance on external inputs, opening new income streams, and reconnecting farmers with local markets and consumers. They can deliver multiple public goods - from carbon storage and biodiversity recovery to cleaner water and more diverse landscapes - while empowering farmers to take control of their farm's direction and purpose. With supportive markets and policy frameworks, these models could significantly reshape food systems across Wales and the UK.

However, transitioning towards a whole farm system brings practical and cultural challenges. Farmers must juggle day-to-day pressures with the longer-term process of system redesign, often without access to

dedicated advisory or financial support. There are clear constraints around labour, time, skills, infrastructure, and equipment. Intergenerational tensions also arise, as the next generation seeks to set a new vision while older family members remain active in shaping the farm's direction.

Scaling whole farm approaches will require systemic policy change. Current schemes and measurement frameworks often struggle to capture the integrated, dynamic nature of whole system farming. To build confidence and momentum, the sector needs stronger advisory networks, peer learning opportunities, and flexible, outcome-focused policies that recognise the individuality of each farm.

POLICY & PRACTICE IMPLICATIONS

Support for whole farm system approaches must be flexible and responsive, enabling each business to develop in a way that suits its land, people, and market opportunities. Scalable frameworks should aim for consistent goals - diversity, integration, resource efficiency and circularity - while respecting the diversity of individual farms.

Training and peer-to-peer learning are central to progress. Farmers already practising whole system approaches, like Huw, can serve as powerful examples for others through mentoring, demonstration events, and local networks. Policies should also help build stronger markets for direct sales and short supply chains, connecting consumers to farms operating under regenerative and agroecological principles.

Importantly, the social side of transition must be recognised. Whole system change involves not only new practices but new relationships, both within farm families and across supply chains. Addressing succession planning, shared decision-making, and farmer wellbeing are essential for sustained progress.

With the right combination of incentives, advisory support, and market development, whole farm system thinking could be scaled across Wales and the wider UK - unlocking business resilience, biodiversity, and climate benefits at the same time.

Whole farm system approaches deliver joined-up benefits for business, nature, and resilience.

*Transition is not only technical but also **social** — farmers must align visions across generations and possibly even with their peers and neighbours.*

Farmers like Huw show the potential of redesign, but widespread adoption requires support to overcome practical, financial and cultural barriers.

With the right incentives, training, and market frameworks, whole farm approaches can scale across Wales and the UK.

SUMMARY

The panel agreed that whole farm system thinking / approach offers a powerful framework to align farming with climate, nature, and business goals. It demands redesign, not incremental change, and brings challenges of generational transition, market access, and policy fit. Yet the benefits - stronger, more resilient farm businesses; improved soil health; richer biodiversity; and deeper community connections - make it a cornerstone of a sustainable land-use transition. With clear policy support, flexible schemes, and practical training, scaling whole farm system approaches across Wales and the wider UK is achievable and transformative.

ABOUT LUNZ HUB:

The Land Use for Net Zero (LUNZ) Hub is a consortium of 34 organisations that aims to provide the UK government and devolved administrations with the rapid evidence they need to develop policies that will drive the land use transformation required to achieve Net Zero and other environmental and social targets by 2050.

Partners include experts from research, farming and industry, working across issues including green finance, renewable energy, planning, soil health, afforestation and water management. LUNZ will play a pivotal role in supporting policymaker decision making and helping to communicate more widely the critical importance of land as a carbon sink or source.

FOR MORE INFORMATION:

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