

# Sustainable agriculture and mixed systems: rethinking multifunctionality to meet local and global challenges

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# Key points

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1. Quick recap – the positive contribution of ‘mixed’ to ‘sustainable’ farming and societal transition challenges
2. Strategies, social implications and potential for new collaborative ‘mixing’ - at field level and landscape scale;
3. The positive and negative roles of supply chains;
4. Policy options for fostering a more mixed / diverse UK farm sector

# Recap – what can mixed mean?

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- Nutrient cycling – **livestock and crops in the same farm system**, on the same land: health in the soil, disease/weed control, microbiota and dietary health, lower use of costly and risky inputs
- Diverse mosaics and linear landscape features – **mixed land uses**, boundaries with value in their own right, spatial heterogeneity to meet species and basic resource needs, more scope to store C
- **Functionally mixed** – more opportunities for diverse outputs (market and non-market, food and other products, commerce and social enterprise), re-connecting with a wider rural community, ‘place-making’, celebrating history, culture, indigenous knowledge

# Strategies for sustainable agriculture (a UK perspective)

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Coming out of policy transition, it is clear that UK agriculture as a sector needs to grasp global transition imperatives –

- Go further to tackle nutrient overloading and habitat decline, and work towards ‘net zero’ (climate neutrality)
- Address the social agenda – farm and food justice

## **At farm level:**

Efficiency improvements are only part of the picture, and will not ensure E-E-S sustainability on their own: there’s only so far you can keep cutting.....

***Adding Value becomes an essential ingredient for securing the resources for change now, and future resilience***



# Strategies for sustainable agriculture – what is the potential contribution of mixed farming?

- **Reducing dependence on external inputs** – shift towards circular economy  
... grazing may be an effective strategy to reduce a high pressure of blackgrass and buffer the risks associated with earlier sowing dates (ORC, 2016)
- **Rebuilding habitat diversity and landscape** resilience, quality and character – connecting past, present and future **Complex agricultural landscapes host more biodiversity than simple ones: A global meta-analysis. (Carmona et al, 2022)**
- **Facilitating multifunctional countryside** – food, fibre, construction, energy, recreation and leisure, reconnection and rehabilitation

Sheep grazing on solar farms is a great example of dual land use.. that provides both food (for the sheep and for us) and fuel (solar energy), through clean energy, healthy land and a boost for family farms. (lightsourceBP)



# Strategies for sustainable agriculture – virtuous circles

Suzie and Richard Baldwin own **Lower Clopton**, a beef and sheep farm near Stratford-upon-Avon. They opened the farm shop about 25 years ago in a converted barn on the main road, selling their own meat, eggs and orchard produce. Today they sell produce from around 60 local suppliers and employ 15 people in butchery, deli, café and shop (more, in the summer). They do pick your own fruit, lambing days, easter egg hunts and there is a farm trail. Their business did well during Covid: it never closed or ran short.



Mardi 26 Juillet à 19h00  
**La Ferme Collective de la Tournerie**  
 vous présente son  
**MENU DÉGUSTATION**  
 élaboré avec les produits de la ferme\*

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- AMUSE BOUCHES -  
 Pesto Cake & Gaspacho

- ENTRÉE -  
 Blinis gourmands et salade estivale

- PLAT -  
 Boeuf et légumes wokés façon thaï

- FROMAGE -  
 Plateau de fromage de la ferme

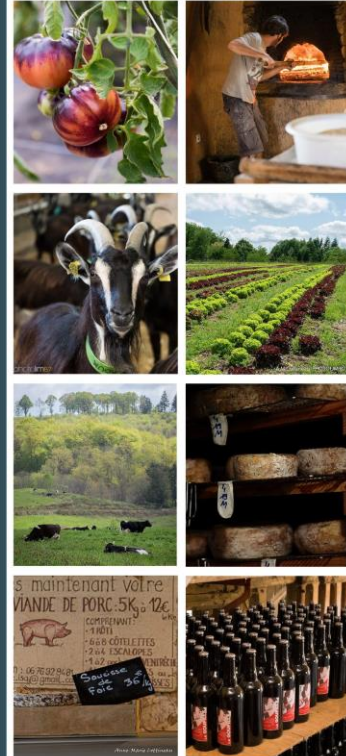
- DESSERT -  
 Panna Cotta Basilic & Chou à la framboise

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Prix par personne : 30 € (hors boisson)  
 Une sélection de vins naturels vous sera proposée  
 pour accompagner votre menu.

\* Les plats seront préparés avec la production des différents ateliers de la ferme, tous nos produits sont bio. Quelques ingrédients nécessaires à la préparation de ce menu, tel que les huiles, le beurre, le sucre et les assaisonnements, sont également bio et proviennent de la Biocoop de Saint-Yrieix.

RESERVATIONS au 06-65-24-66-444



**La Tournerie Collective Farm** is an innovative agroecological business. 11 young graduates from agricultural college came together to create a joint business in Haute-Vienne (Limousin). The group is growing, with their partners and children. Their 83-hectare holding started by producing fruit, veg, cheeses, pork, bread and organic beer. It now produces rare breed beef and goat-meat, too. The farm also hosts meetings/debates, celebratory meals, concerts and other entertainment, and you can stay there.

# Potential for collaborative 'mixing' : beyond one farm

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- Lenormand identified **interdependence** between farms in Welsh landscapes – mixing across farms, rather than within them (e.g. dairy young stock hosted on smaller, starter farms)
- All-arable holdings may find it easier to **collaborate to secure benefits** of grazing / fallowing / FYM, than to keep their own stock (e.g. Price's, Kidlington)
- In Eastern England, many of the small woodlands and water features which were once central to the economy of farms, have gradually been sold away – a mixed landscape today may reflect a **multiplicity of ownerships and motivations** (CARTS, private recreational users)
- Where large estates exist in UK, the benefits of mixed land uses can be seen at scale – either in collective or individual private ownership. **Estates can work with tenants in mixed enterprises**
- **Some 'specialists' are very spatially dispersed, and some are structurally heterogeneous** – the business and the mixing can be across continents....



# Labour use, people and mixed farms

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- Agriculture in the UK data (2016) show **mixed farms employ more people** (total AWU), on average, than their specialist equivalents
- A traditional mixed holding can offer **economies of scope** for a family labour force (also greater complexity / management needs / entrepreneurial ambition?)
- Such farms may offer more **opportunities for additional work** – e.g. social farming, school visits, Open Farm Sunday
- Having a variety of enterprises, and direct sales, can give **‘flex’ to better manage farm succession**

BUT

- **Scale/output issues remain a challenge** for some types of development (e.g. equipment, training, new recruits)
- **Shortage of time to plan and manage** well can (still) be a major issue





# Supply chains – pros and cons

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Short supply chains and mixed farms can be synergistic

- Buyers foster a diversity of outputs, can encourage product innovation and collaboration

‘Conventional’ buyers seek scale and consistency: can be a significant barrier to mixed production

- Trends - Supermarkets can do more: the regional offer is attractive to customers, and online can maybe offer more options
- multi-functional reconnections can be facilitated by supplier/buyer relationships, at both ends of the scale



# Policy suggestions

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- Mixed farming is not an end in itself: it's one means to an end (and not exclusive)
- Policies explicitly promoting mixes have varied success (crop diversification, paying for specifics in agri-environment, crofting schemes): culture also matters
- Some 'mixed' farms bring sustainability challenges – e.g. poultry units in semi-natural landscapes, new horticulture infrastructure, knock-on access impacts
- 'Indirect' policies may be more effective to generate benefits via mixed farms (e.g. pesticide reduction, phase out non-renewables, generational renewal, biofuel/energy grants, green infrastructure, horticulture start-ups, local procurement, adding value....)
  - *Focus on goals, and the structures will follow?*