

# Exploring the distinctive benefits that biodynamic farming may offer

Results from a case study research project of four biodynamic farms



Research partners:



Farm partners: Yatesbury House, Plaw Hatch,  
Nantclyd, Loves Lane

Funder:



# Methodology

- **Research Objective:** to explore biodynamic farms and their degree of sustainability with including a focus on people, social and cultural/spiritual dimensions
- **Farm Selection Criteria:**
  - Demeter (biodynamic) certification,
  - Diverse sizes,
  - Mixed enterprises,
  - Not care farming
- **Method:**
  - Visit to each farm, applying the **Public Goods Tool** with added questions relevant for biodynamics (but not scored) (Aug-Sept 2019)
  - Project workshop to explore findings and alternative methods including other social and spiritual assessment methods (Dec 2019)



# Demeter certified (includes organic certification) - general aspects of a biodynamic farm



- The farm and its enterprises are seen as an interdependent whole (farm organism)
- Healthy soil and plants are supported by biodynamic activators (“preparations”)
- Livestock, compost, rotations assure soil fertility
- Nature is seen as a beneficial part of the farm - requirement to have at least 10% of area for nature/biodiversity
- Working with the rhythms of sun, moon, planets and constellations reinforces the work with nature and seasons
- Respect for the role of each part as for the whole

# Correlating the eleven Public Goods Tool indicators with the Biodynamic 5-fold approach

## Public Goods Tool Indicators

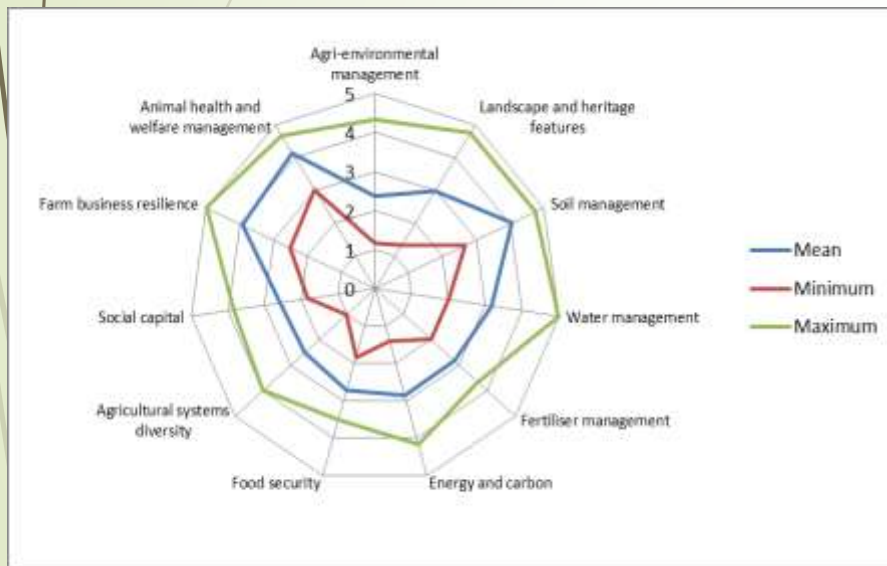
- Soil management
- Water management
- Fertiliser management
- Energy/carbon
- Agri-environment management
- Agricultural systems diversity
- Animal Health and welfare
- Social capital
- Farm business resilience
- Landscape and heritage features
- Food Security

## Biodynamic 5-fold approach:

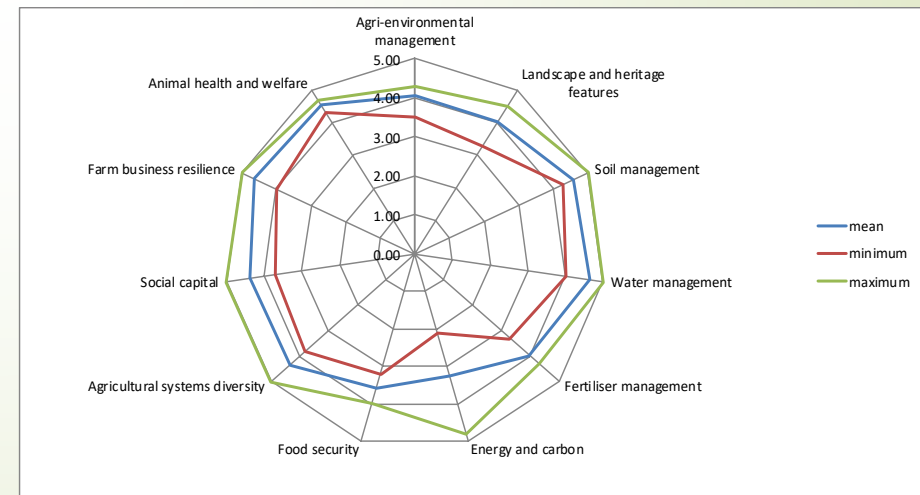
- Soil, geology and landscape
- Plants, biodiversity
- Animal welfare and respect
- People on the farm: farmers, growers, volunteers
- Society/Community/Culture

# Comparison using the Public Goods Tool: conventional farms and biodynamic farms

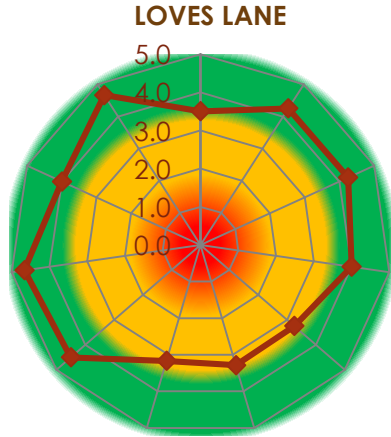
This graph summarises the data from **32 conventional farms** showing the scores of the 11 indicators or spurs (note that 8 farms in the pilot were stockless). (ref *The Organic Research Centre 2014*)



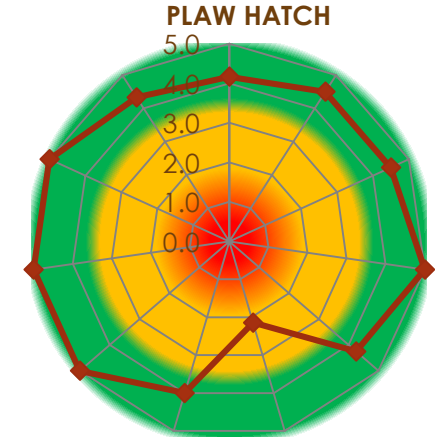
And the graph below shows the average of the **4 biodynamic farms** surveyed for this project



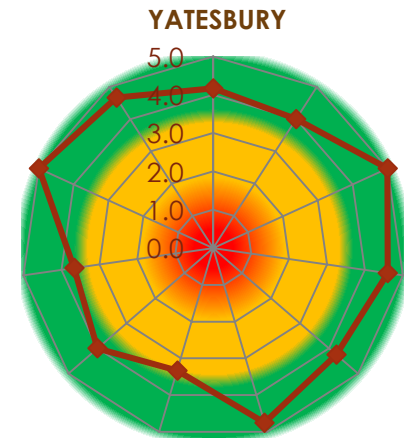
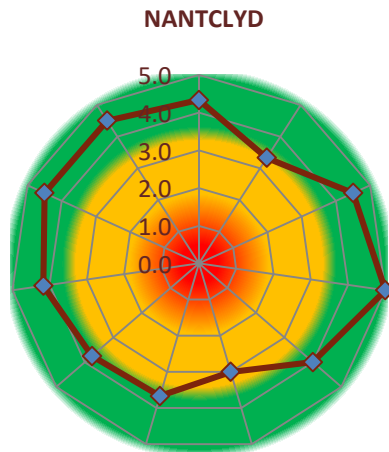
# Each farm is unique – celebrate this



“Biodynamics;  
seeking balance that  
suits each farmer,  
landscape, geology.



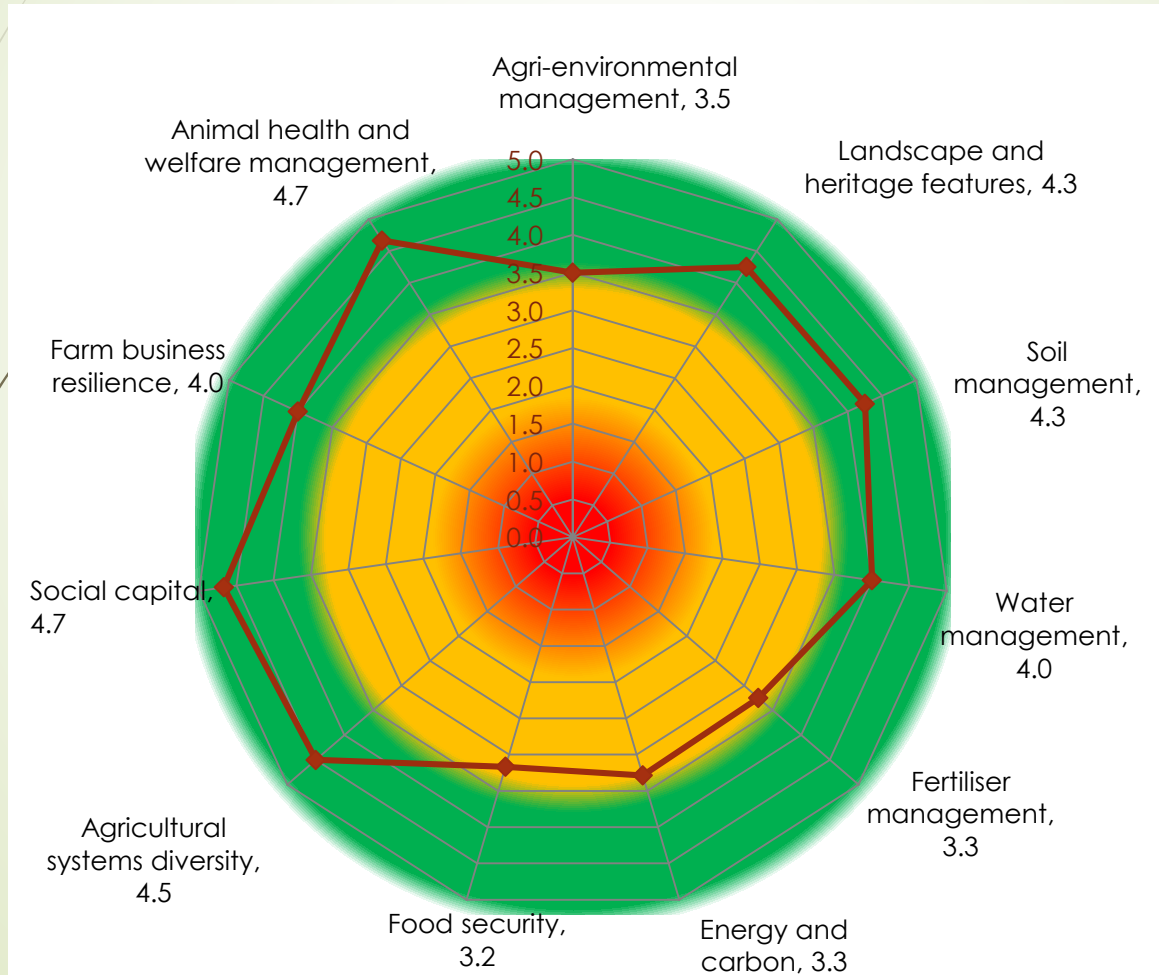
Each creates their  
own vision of a  
unique farm for  
their own location  
and reality”



# Loves Lane Farm, Somerset



- Loves Lane is a small holding of 15.5ha



# Loves Lane – becoming a farm



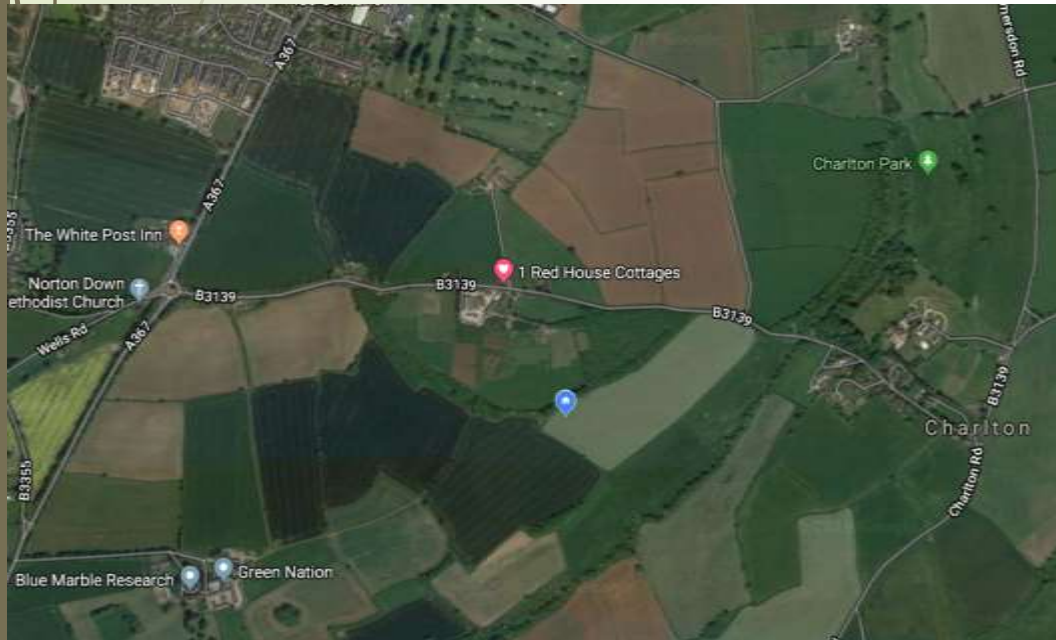
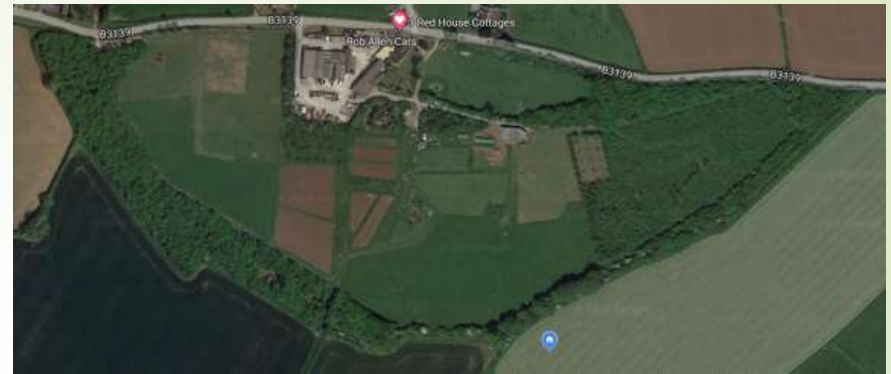
- What is a biodynamic farm?
- Finding the rhythm of your space





# Loves Lane: mono field to small farm

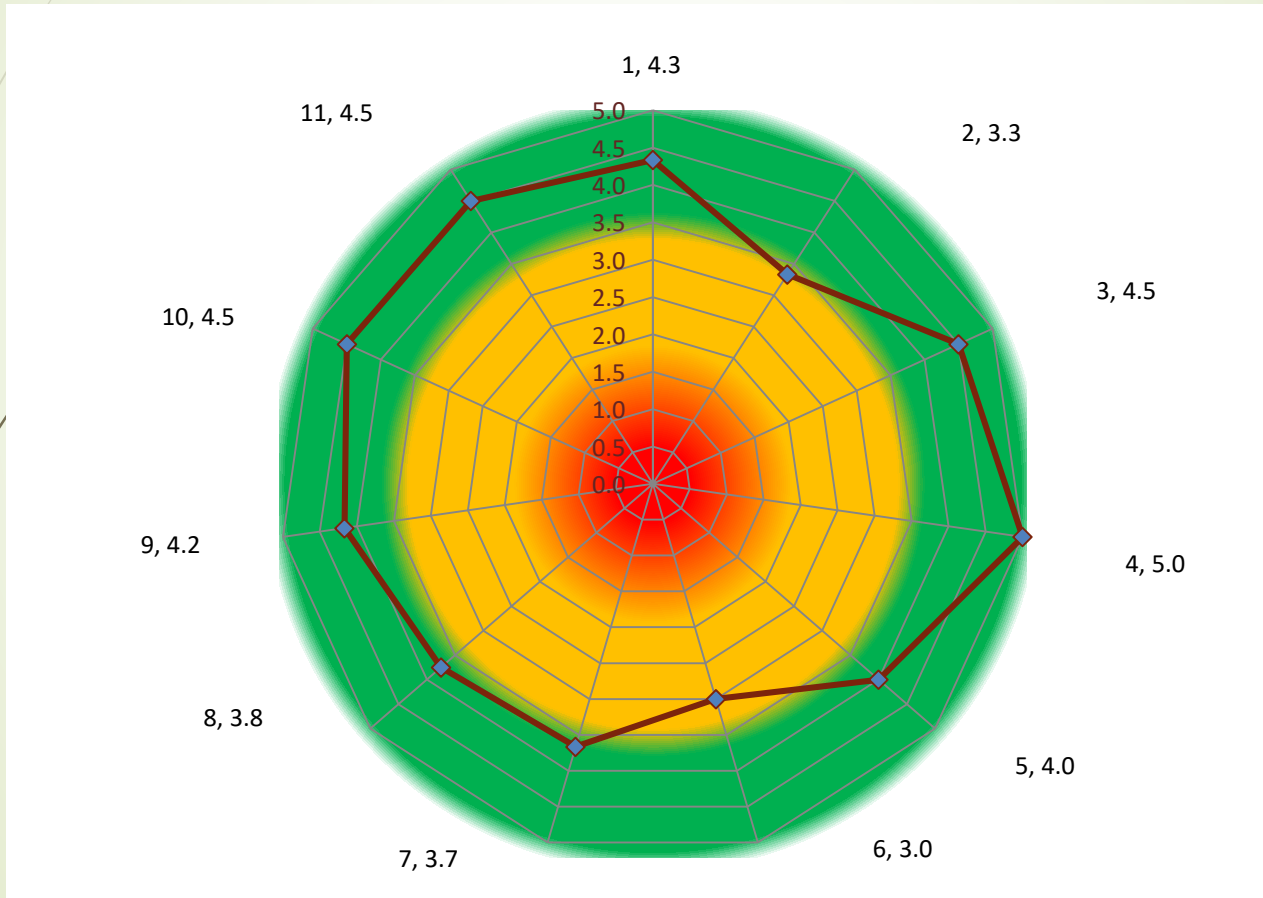
- The role of a small holding within the greater landscape
- Trust and love to build resilience



# Nantclyd Farm, Abersystwyth



➤ Nantclyd is a mixed farm of 36.9 ha



# Nantclyd a well-established organic biodynamic farm



Distinct benefits of working biodynamically are

1. The reconnection with seasonal cycles and natural rhythms
2. Producing food good for body and soul
3. The difference lies in use of preparations connecting natural cycles of the planetary systems with those in our soil
4. Harnessing unseen forces to vitalise the food we eat and nourishing our animals and plants.

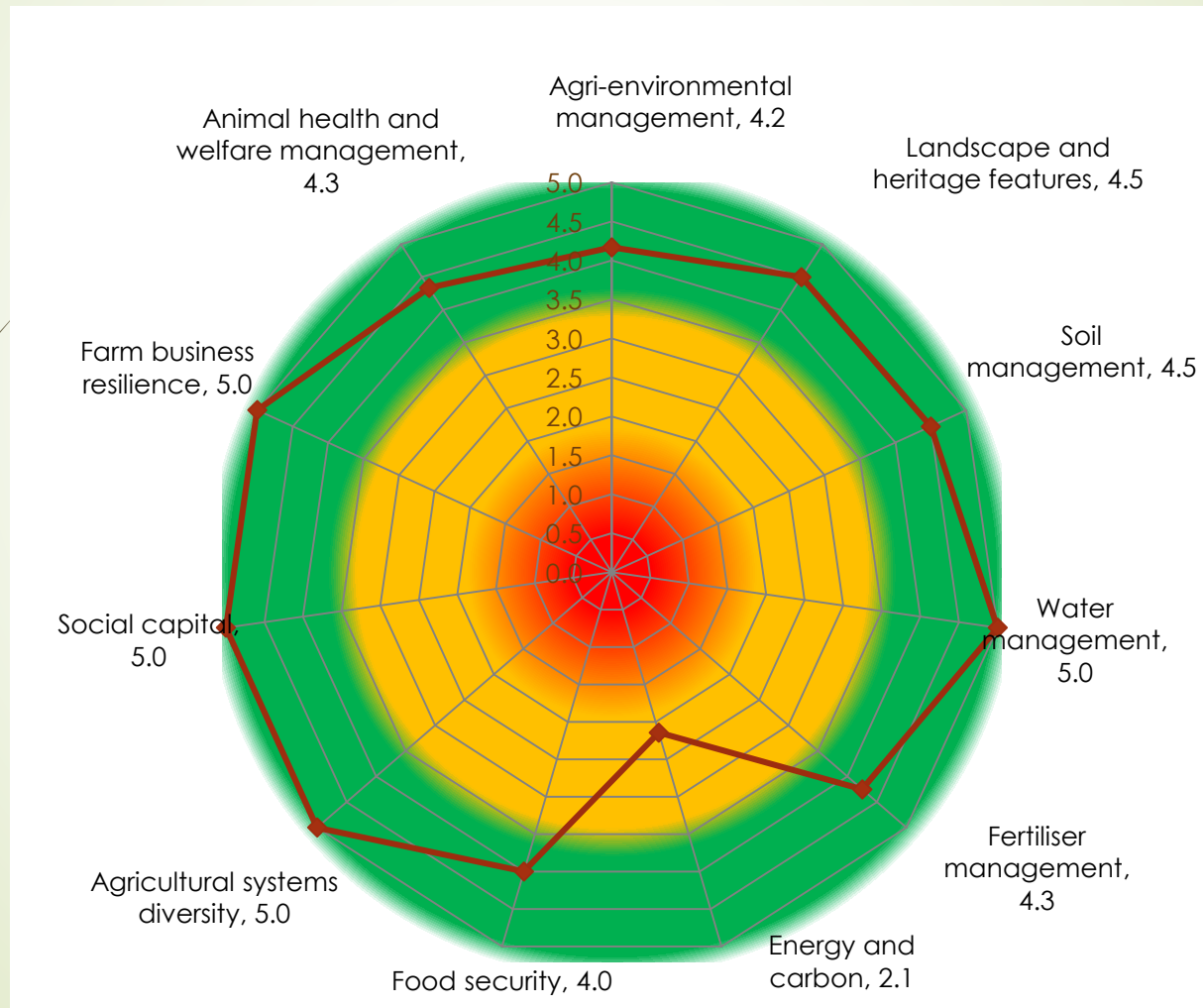
# Aspects of Nantclyd Farm enterprises



# Plaw Hatch Farm, East Sussex



- Plaw Hatch is a cooperative mixed farm of (131ha).



# Plaw Hatch Farm



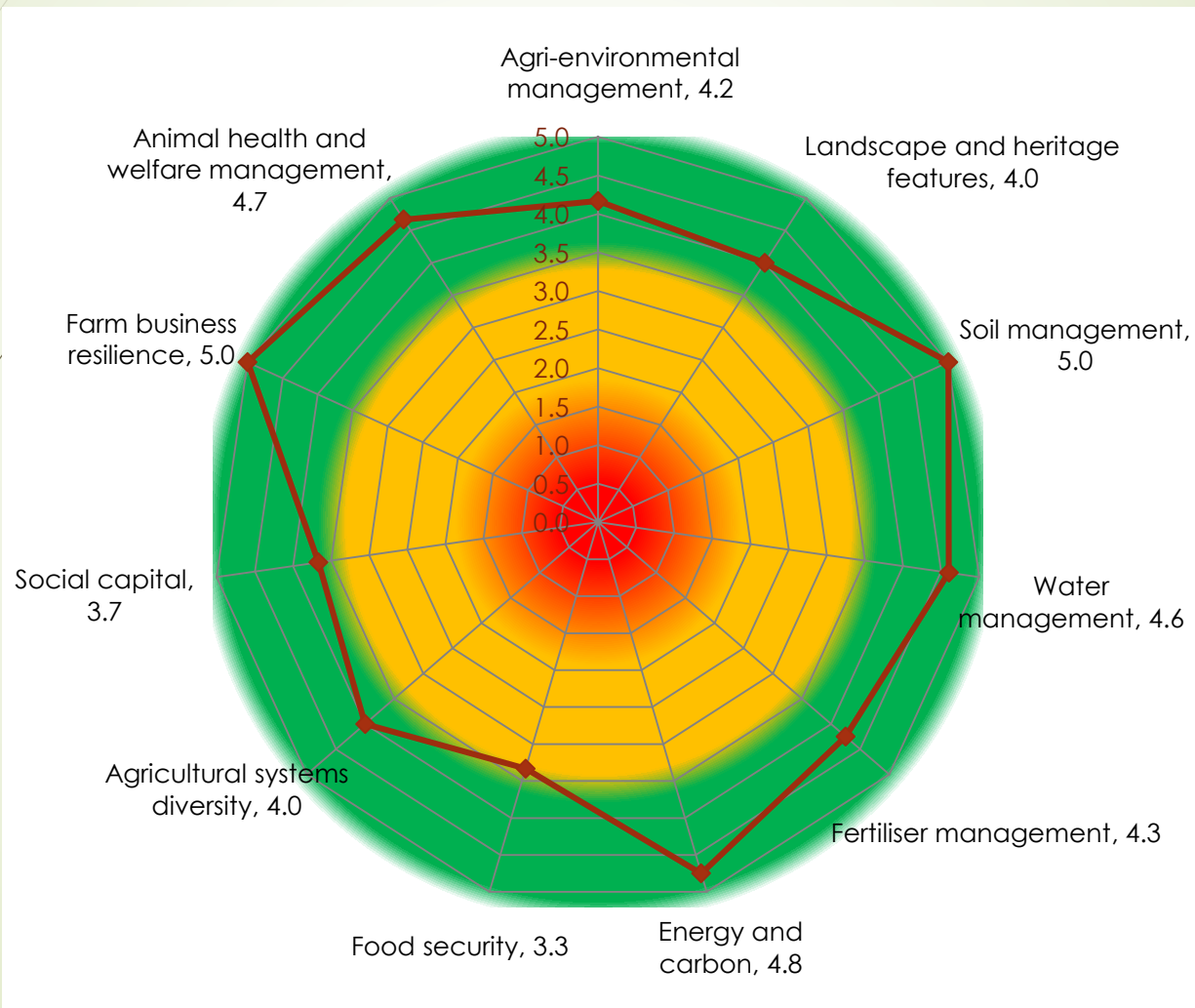
- 200 acres (80 hectares)+ 250 rented land
- Dairy herd
- Beef, pork, lamb and laying hens
- Raw milk, Dairy and meat processing
- 12 acres market garden
- Community owned and managed
- Direct sales via Farm shop
- 30 Employees
- Education



# Yatesbury House Farm, Wiltshire



- Yatesbury House Farm is the largest biodynamic farm in the UK with 654 hectares

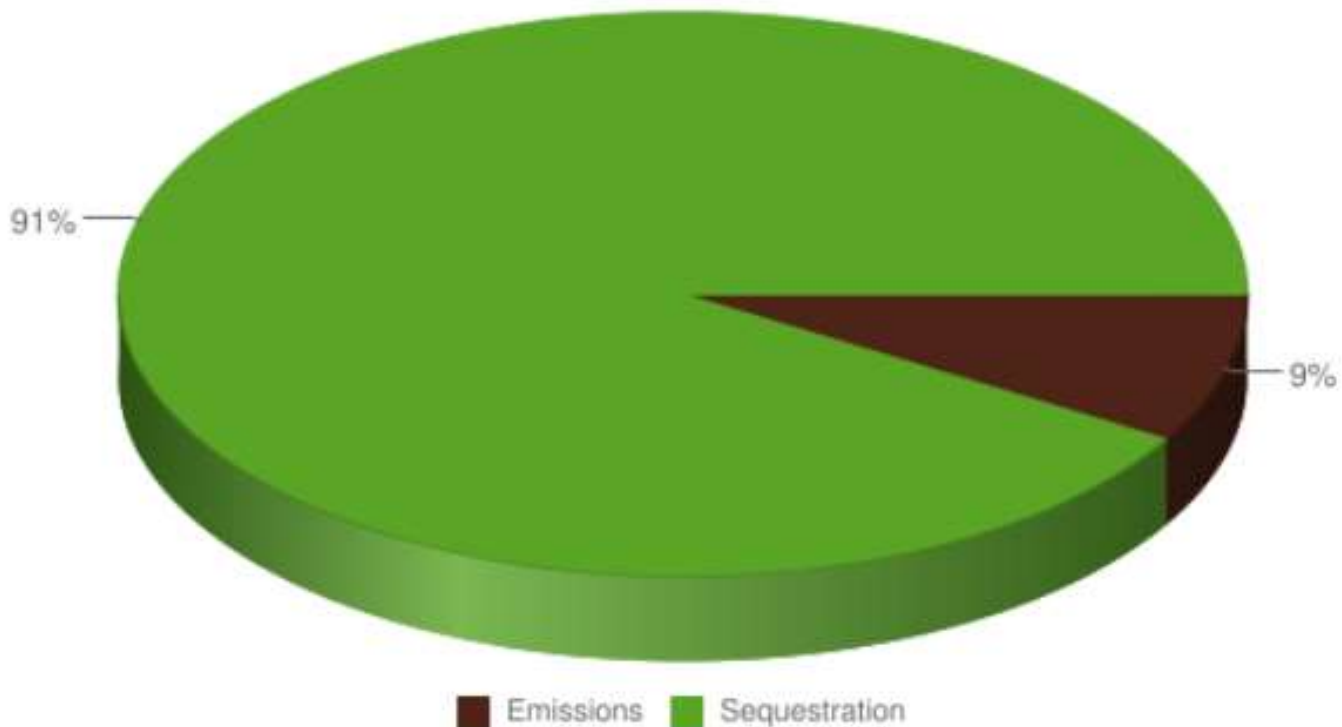




Welcome to  
Yatesbury House Farm  
which is sequestering (capturing from the air)  
**ten times more carbon**  
than it is emitting



## Carbon Balance



**TOTAL CARBON BALANCE: -9,622,657 CO<sub>2</sub> (kg/year)**

# YATESBURY HOUSE FARM



## Emissions

	CO <sub>2</sub> e (kg/year)	% total emissions
Fuel	97,581	9.76%
Materials	4,815	0.48%
Capital Items	31,988	3.20%
Livestock	727,836	72.76%
Fertility	136,360	13.63%
Agro-chemicals	0	0.00%
Distribution	1,557	0.16%
Waste	130	0.01%
<b>Total:</b>	<b>1,000,267</b>	<b>100%</b>

## Sequestration

	CO <sub>2</sub> (kg/year)	% total sequestration
Field Margins	11,892	0.11%
Soil Organic Matter	10,273,747	96.71%
Orchards & Vineyard	0	0.00%
Wetland	0	0.00%
Woodland & Hedges	337,284	3.18%
Woodland (detailed analysis)	0	0.00%
<b>Total</b>	<b>10,622,923</b>	<b>100.00%</b>

5,590kgCO<sub>2</sub>/capita UK 2018  
(7,200kgCO<sub>2</sub>/c EU av.)

We offset, theoretically, 1721 people per year

Need 17,432ha for 60million people  
UK UAA 17,360,000ha

## Biodynamic Farming: crucial aspects not included in the PG tool:

- ▶ We asked each farm about:
  - ▶ Sourcing or making the preparations/ activators
  - ▶ How often these activators are used
  - ▶ Composting and how much of the land gets compost each year
  - ▶ Working with planetary movements beyond the sun/seasons
  - ▶ Animal feed and self sufficiency, other aspects of livestock care, family groups, calf-at-foot etc
  - ▶ Sales of produce: via membership, local or national consumers or into wholesale or processing
  - ▶ Education: school visits, open days, other events, on-farm training
  - ▶ Social and cultural: seasonal events, volunteering



# “Squeezing a living farm entity into a spreadsheet?”

## Reflections on using conventional assessment tools for non-conventional (biodynamic) farms:

- The Public Goods Tool may not have captured the essence of Biodynamic Farming, however
  - These farms performed well against standard criteria
  - This did not reflect the full picture of Biodynamic systems; e.g. not capturing - observation, integration, relationship, connection, working for the higher good
  - Pros and cons of using conventional language and worldviews
- How to best reflect the critical influence and impact of a worldview, personal philosophy or spirituality on farming practice remains a question?
- Social Impact data not being collected



# Suggestions & Reflections - How to capture the whole-farm benefits of biodynamic farming



- ▶ Co-develop approaches with a group of farmers to better capture the whole-farm benefits
- ▶ Other indicators to include:
  - ▶ Food quality and nutritional values
  - ▶ Diversity across the board
  - ▶ Natural behaviours: the need for plants, animals & people to have the freedom to express their natural behaviours
  - ▶ Cultural benefits – cycles of the year and cosmic influences
- ▶ Use more qualitative / visual approaches e.g. maps, stories, Goethean inquiry methods
- ▶ Introduce concepts such as intuition, gut feeling, sensitivity, consciousness, reflection, subtle forces or energies

# Workshop Activity! Your soil or farm



- “If your soil (farm/garden/indoor pot plant etc) was a person, how would you draw/characterise it?”

# Conclusions & Thank you

- These **four very different Biodynamic Farms** have ‘performed’ well and are showing their health, sustainability and viability in a variety of ways through the PG Tool and other responses not quantified
- The **Public Goods Tool** would be more useful if it:
  - includes more qualitative and farmer-friendly assessment methods
  - introduces new concepts and recognises and promotes different – constructive – worldviews
  - it remains a question how to capture the whole-farm benefits of biodynamic farming and reflect the critical influence and impact of a spiritual worldview on farming practice.
  - **Every farm is unique – tools are useful for learning & improvement but not for comparison, and the true essence can never be captured!**
  - Thank you to all who have worked on this project, helped and enabled
- A Case Study report will be published over the next couple of months

