

Cotswolds FIV - Key Points and Innovative and Transferable Technology

Day 1 -Farm Ed

A not-for-profit organisation based at Honeydale Farm, a diverse 107 acre mixed farm in the Cotswolds. Central to Farm ED are three eco-buildings including a multifunctional educational, meeting and conference space, and a farm to fork kitchen and demonstration area.

Farm Ed's objective is to provide learning spaces and events that inspire, educate and connect people to build sustainable farming and food systems that nourish people and regenerate the planet. Their audience includes the local community, farmers, growers, advisers, foodies, policy makers, students and researchers.

At Honeydale farm they aim to show how regenerative agriculture is turning a site that was exhausted into one that has improving wildlife and plant biodiversity and soils health, minimised impacts on air and water quality, as well as flood reduction benefits.

Underpinning all the work at Farm Ed are the 5 key principles of regenerative agriculture:

- **Minimise Soil Disturbance**
- **Maximise Crop Diversity**
- **Keep The Soil Covered**
- **Integrate Grazing Livestock**
- **Seek Living Roots All Year**



Projects shown included:

8 year crop rotation plots

Arable conservation crops/margins

Heritage Wheat crops

Soil health comparison between a control/conventionally farmed plot and plots farmed under regen principles.

Micro Dairy

Market Garden

Tree stump beehives

Flood reduction works

Wildflower meadows

Traditional Orchards

Agroforestry

Transferrable Technologies

Include multi species swards, improved soils health and carbon sequestration, infiltration, arable margin, flood retention and reduction measures and farm diversification.

Day 1 - Facilitated discussion with Jonty Brunyee on Regen Agriculture

Jonty Bunyee a renowned figure in the Regen Ag world gave an interesting overview of the work that he is doing at his 180 acre organic and regenerative farm in the heart of the Cotswolds on the National Trust's Sherborne Park Estate. Conygree works on an organic and regenerative 'pasture for life' approach which is better for the planet, the livestock, the soil and the consumer. The farm keeps rare breed Cotswold sheep and Traditional Hereford cattle, and native breed pigs, producing lamb, hogget, mutton, beef and pork. The free-range cattle and sheep are reared on a natural diet of grass, wildflowers and herbs all year round. No artificial fertilisers, sprays, grains or imported soya are used.

The aim of the farm is to develop an environmentally sustainable and regenerative mixed farming enterprise. The system is low input/low output, respecting flora, fauna, landscape, heritage, air, soil and water. We aim to be energy efficient and carbon neutral. Although commercially smart, livestock numbers and crop yields do not drive the business.

Jonty covered each of the Regen 5 principles (**Minimise Soil Disturbance, Maximise Crop Diversity, Keep the Soil Covered, Integrate Grazing Livestock and Seek Living Roots All Year**) and explained in depth how they are interlinked.

He gave an insight into how he has turned his farm from a commercial holding into one that includes flower rich meadows, grass margins, dry stone walls, hedges and fields of wild bird seed, fallow and nectar rich clover. Making the area a haven for wildlife, particularly farmland birds such as corn bunting, lapwing and skylark.

The session finished with a discussion on what was next for the participants, identify one regen agri action that you could undertake in the next 6 months, what the barriers are and what support you would need.



Day 2 – Ian Boyd Wittington Lodge Farm

Farm Facts

- Whittington Lodge Farm is a Cotswold Hill farm which is managed with the Whittington Estate totalling 280 ha.
- Herd of Hereford beef cattle
- It is Organic, Pasture-for-Life and Red Tractor certified.
- There are steep valleys and hilltops to 900 feet
- Pasture for Life – Certified 100% grass-fed meat.
- Ian shows the transition to a long rotation, low input, arable and weed control using native sward resilience.
- Special emphasis on conservation and wildlife - winning multiple awards including the RSPB Nature in Farming award, Glos. Wildlife Trust award.

Principles

Adaptive Farming reflective of underlying soils

Incorporation of native wildflowers, Retention of scrub areas for wildlife

Low input farming , long season grazing using low intensity grassland

The farm focus has dramatically changed over the years from concentrating on production for maximum yield to working in harmony with wildlife and the environment.

Ian gave a thorough run through of the transition from an intensive farm to a low input pasture for life farm which now has an emphasis on 100% grass fed beef alongside a strong emphasis on conservation and wildlife. Ian also included the many challenges that are faced along the way, from marketing/sales right through to managing schemes and administration.



Transferrable Technologies

Low input beef farming techniques, Habitat creation and management and farm diversification.

Day 2 – Tim Field North East Cotswold Farming Cluster

The NE Cotswolds Cluster is a community interest company that brings together a group of local farmers and landowners, led by our facilitator Tim Field, interested in landscape-scale regeneration of the farmed environment and local food networks in the North East Cotswolds through collaboration and knowledge exchange.

Their aims are:

- 1) Improve the soil health: building soil carbon, reducing inputs, minimising leaching, introducing more diverse and resilient cropping
- 2) Map, create, enhance and link priority habitats (with a focus on species rich grassland, wetland, ponds, watercourses, tree planting, field boundaries, key pollinator and bird habitats)
- 3) Support entrepreneurial thinking and the growth of a local food economy investigating heritage grains, new horticulture, direct sales, dynamic procurement & more
- 4) Make the most of future policy and access private investment and public funding opportunities: carbon markets, biodiversity net gain, public money for public goods, ELMS, transition funding, natural capital, offsetting, The Great Project (Gloucs) & more
- 5) Evaluate progress and landscape/farm level outcomes and outputs: harmonise use of measurement, soil metrics, biodiversity surveys, benchmarking...
- 6) Foster community engagement/outreach such as health, access, education

Transferable technologies

Value of collaborative action particularly in relation to fragmented farmland habitats and working to link habitats. Working as an effective group, sourcing seed from other group members, making use of individual skills.

Day 2 – Talk on Herbal leys from Sam Lane - Cotswolds seeds

Sam Lane who works as technical manager at Cotswolds seeds gave an overview of the company and went into detail on herbal leys, their component plants and the management required for their establishment and longevity.

Summary

An independent family-run company, based in Moreton-in-Marsh, that now works with over 15,000 farmers across the UK, supplying everything from green manures, cover crops and herbal leys to dual purpose long term leys and silage leys.

Established forty four years ago by Robin Hill, Cotswold Seeds, now led by MD Ian Wilkinson, has built a reputation for specialising in bespoke seed mixtures and practical expert advice. Specifically tailored to the needs of each field, mixtures are designed to improve soil fertility, reducing the need for costly inputs and benefiting animal health.

Our experience and in-depth knowledge has meant that we are often approached to advise landowners and organisations, from the National Trust to water authorities and environmental organisations, and are increasingly involved in research and educational projects with universities and colleges.

The session with Sam was of particular value in that the FIV participants were able to get further info on herbal leys, speak of their experiences growing herbal leys and relay what tended to grow well and what struggled. Sam was able to offer advice and guidance where needed. The session finished with a look at the rooting system/depth of the different plants typically used in herbal leys and the benefits of moving to deeper rooting grasses/plants for nutrient retention/uptake and drought resistance.

Day 3 FAI Farms – Silas Hedley-Lawrence

Overview

A worldwide company which works with food and fibre companies to help them articulate a vision, set measurable goals, and implement actionable strategies. Our work is centred around 3 main areas:

- Regenerative agriculture
- Animal welfare improvements
- Impact & performance reporting

Oxford Farm research site

- Working with major clients (E.g., McDonalds) working to:
- Define the problem and opportunity: we draw on 20 years of practical farming experience and immense scientific knowledge.
- Develop best practice considering emerging and existing infrastructure and technology.
- Scale solutions: from tech, to training, to supply chain reengineering and partnerships.
- Demonstrate impact: we collect and analyse data to communicate system change.

Overwintering project

Over winter, cows are grazed in cells; small paddocks marked out by temporary electric fences. Each cell contains 4 – 5 round bales of hay (depending on the size of the group) which are placed there during the summer period. The hay is collected from our SSSI meadows on the farm. When the cattle move into the cell, the hay bales are rolled out rather than feeding the cattle with ring feeders. Rolling out bales allows all cattle to access the hay, reduces crowding during feeding which in turn reduces the potential for poaching and damage to the pasture. Rolling bales also spreads residual hay across the cell.

Approximately 20 – 25% of the hay is left in the cell and is trodden into the ground by the cattle. This provides the soil with additional carbon and the seed from the plants in SSSI meadows are spread, helping to improve plant biodiversity in the pasture.

Overwintering Rewards

The FAI herd contains suckler cows, their calves, and replacement heifers. **With cost savings from not having to house, reduced feed requirements and labour costs, which equates to around £134.24 per day, we saved £24,163** in 2021 by outwintering.** This is without taking into account the economic benefits associated with improved ecosystem services. For farms partaking in regenerative practices with larger herd sizes grazing each hectare, the savings can be even more substantial.

It is not just economic benefits are gained from the outwintering process. Fields once characterised by bare patches and limited plant diversity, a symbol of overgrazing, are now flourishing. Clover, legumes, orchids, and several wildflower varieties, of which many are uncommon in the UK, can now all be found in the outwintering fields. None of these plant varieties were manually introduced, other than being moved to other parts of the farm via the hay bales. Since 2020, we have reduced the amount of overgrazed grassland by over 40% to less than 5% land area and increased our Ecological Health Index Rank (associated with community dynamics, energy flow, water cycle and mineral cycle) from medium to high.

There are benefits for the farm team too in terms of their job satisfaction. Silas reflects “It’s great being out in the park, moving cows on a crisp morning, compared to walking around a dark barn...in a concrete yard”.

Additionally, there is the time saved not having to spend half the day sat in a tractor burning diesel to bring feed and bedding to the cows. In this system, the cells are planned back in June/July for that winter and all the hay bales are already placed in August (see figure).

Transferable technologies

Overwintering with a bale grazing system and the resulting savings in comparison to housed cows. Regen principles with particular emphasis on soil health and the cycling of nutrients and water. Benefits of natural swards with deep rooting grasses that prevent poaching. Benefits outwintering can have for biodiversity if done correctly at the correct stocking rates.

