



The Dung Beetle Conference 2024

Tuesday 11th and Wednesday 12th June 2024

Yeo Valley Holt Farm, Bath Road,
Blagdon, Bristol BS40 7SQ

firstmilk[™]
The Regenerative Co-op





Welcome

Applied ecology is such an important and exciting field in farming. The value of biodiversity for enhancing crop and pasture health and reducing inputs is well established across the industry. The management which enhances habitats on farms is supported with recent policy changes and is publicised widely.

Applied ecology is so applicable to livestock farming and vetting, and in this conference it is really exciting to bring together so many voices focusing on the mighty dung beetle. This conference builds on a brilliant legacy of research, and takes the next step by bringing together farmers, vets, soil experts, entomologists and researchers to celebrate the great work going on, but also to shape future policy and regulation.

Rob Howe and Hannah Jones

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First Milk

First Milk is delighted to be supporting the Dung Beetle Conference. We look forward to hearing and learning from both the academic and practical perspectives of those driving change in agriculture towards nature-friendly farming.

First Milk is widely acknowledged as a leader in regenerative farming at scale, demonstrating its positive impact and communicating our approach confidently, proud to show dairy can be a force for good.

As the regenerative co-op, First Milk is committed to increasing the resilience and vibrancy of our soil, farms, creameries and communities. Our achievements in this area are recognised through becoming a Certified B Corporation and being awarded the King's Award for Enterprise for Sustainable Development.

Our members' regenerative farming plans involve 261,000 regenerative actions, covering almost 85,000 hectares. Over half of this is rotationally/mob grazed with 69% of pasture containing multi-species. Calculations show First Milk member farms have already increased milk from forage by 10% and are sequestering around 100,000 tonnes of CO₂, ahead of our

2025 goals, and reduced antibiotic use well below national targets.

Comprising around 700 British family farms, we work together to produce the highest quality dairy products and are united by a single commitment – to enrich life every day to secure the future.

First Milk produces a range of award-winning Cheddar, Red Leicester and Double Gloucester cheese. We also produce bulk cream and whey proteins and focus on providing high quality, traceable fresh milk to a range of dairy manufacturers and processors across the UK.

In 2022 we launched our consumer brand Golden Hooves, the name reflecting the connection with regenerative agriculture and celebrating livestock's role in improving soil health, building organic matter and sequestering carbon.

More recently we've increased our presence here in the South West with BV Dairy joining First Milk and the creation of our new Naturally Better Dairy Group in partnership with Yeo Valley.



Yeo Valley

Yeo Valley is delighted to welcome you all to Holt farm, to which Yeo Valley's founders Roger and Mary Mead moved to in 1961.

Over 60 years of farming in the Yeo Valley.

50 years as yogurt makers.

30 years as an organic brand.

Over that time, we have seen farming trends come and go and it is great to see the current interest in regenerative organic farming getting real traction at scale.

A key objective for Yeo Valley is to support regenerative organic farmers to farm using a rotational livestock/arable system, based on biology. Soil not oil.

Yeo Valley's main purpose is to provide consumers with natural, healthy food, from the right farming system, one that nourishes and nurtures people and planet.

We believe by concentrating on the farming system and the soil (the farmed soil), the climate and nature benefits will follow.

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Farm Carbon Toolkit

The Farm Carbon Toolkit was created by farmers for farmers. For over a decade, we've worked to further the understanding of greenhouse gas emissions in agriculture. We provide tools and services to measure impact and run projects with farmers that inspire action on the ground. Our vision is a farming sector that minimises its carbon emissions and maximises its carbon sequestration, while producing quality food and a wide range of public goods, all produced by resilient and profitable farm businesses.

Alongside our free Farm Carbon Calculator and Toolkit for farmers, we run annual Soil Farmer of the Year and Carbon Farmer of the Year competitions and various projects covering:

- **Peer-to-peer training and learning events** on whole-farm and soil carbon footprinting
- **Farmer outreach and support projects**
- **Bespoke advice and action planning with farmers, landowners and companies,** centred around measuring and improving soil health, greenhouse gas emissions and other ecosystem services

Partnerships with research institutions to further our understanding of soil carbon sequestration and best practice protocols for measurement, reporting and verification.

PROGRAMME SPONSORS



WORKSHOP SPONSORS



PROGRAMME

Day 1 - Tuesday 11th June

9.30 - 10.00 Registration

10.00 - 10.10 Welcome Lee Truelove, First Milk; Tom White, Yeo Valley

Session 1: The wows and whys of dung beetles Chair: Rob Howe

10.10 - 10.35 Sarah Beynon: The benefits of dung beetles to British farmers and horse owners

10.35 - 11.00 Darren Mann: Dung beetle dive, their UK conservation status & importance to dung degradation

11.00 - 11.25 Bryony Sands: Impact of parasiticides in the environment and how this impacts soil health

11.25 - 11.50 BREAK

Session 2: Management of diversity for integrated parasite management Chair: Andy Adler

11.50 - 12.15 Rob Howe: Integrated Parasite Management - a role for vets and a vision for animal health & parasite control

12.15 - 12.40 Mark & Jenny Lee: Biodiversity on a dairy farm - our journey, experience and learnings from 'conventional' farming to biodiverse farming

12.40 - 13.05 Matt Smith: Breeding for resilience in Romney sheep

13.05 - 13.35 Rich Thomas: Find the 'sweet spot' for your farm

13.35 - 14.30 LUNCH

14.30 - 15.20 Dairy grazing platform dung beetle safari: Will Mayor/Sarah Beynon

Session 3: Diversity in grazing, forages and soil Chair: Lee Truelove

15.20 - 15.40 Ian Wilkinson: Health goes in at the mouth - the role of sward diversity

15.40 - 16.00 Chris Berry: Grazing with precision for livestock health at Higher Thornton Farm

16.00 - 16.20 Lindsay Whistance: Importance of trees to livestock welfare and well being

16.20 - 16.40 Becky Willson: The impact of soils and animal welfare on greenhouse gas emissions

16.40 - 17.00 Eurion Thomas: Role of FEC testing in sustainable worm control

17.00 - 18.00 Bar open serving local ales, ciders, wines and soft drinks

18.00 - 20.00 Evening meal: cooking over fire with Michelin star chef Josh Eggleton

Day 2 - Wednesday 12th June

8.00 - 10.00 Agroforestry dung beetle safari: Tom White/Claire Whittle

Group facilitators: Rob Howe, Hannah Jones, Darren & Ceri Mann, Bryony Sands, Sally-Ann Spence, Richard Wall, David Wood

Meet at Hazel Manor main entrance - BS40 6LG or what3words ///entitles.udder.chains

See further details on p.10

10.00 Return to Holt Farm

10.00 - 10.30 Refreshments

Session 4: Integrated parasite management case studies Chair: Tom White

10.30 - 10.50 Tim Bebbington: Dung beetle diversity and abundance on Common Land on Dartmoor

10.50 - 11.10 Julia Shrubbs: Biodiversity and dung beetles in the equine landscape, and update on responsible worming of horses

11.10 - 11.30 Sally-Ann Spence: Whole farm management for dung beetles

11.30 - 11.50 Andrew Prentis: The rights and wrongs of worming our pets! A small animal perspective

11.50 - 12.10 David Wood: Choughs and the dung beetle link - a case study from the Isle of Islay

12.10 - 13.00 LUNCH

Session 5: Actions for change Chair: Hannah Jones

13.00 - 13.30 Francine Fernandez, Jodie Perret: Scene setting

13.30 - 14.30 Discussion groups and actions facilitated by Rob Howe and Hannah Jones

14.30 - 14.50 Summing up

15.00 Ends

Agroforestry dung beetle safari

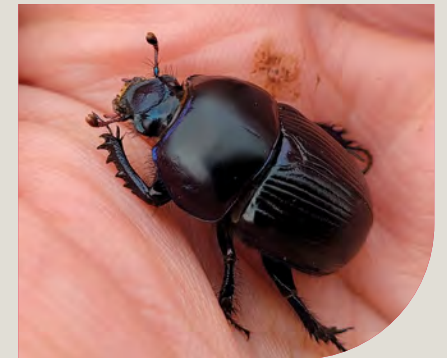
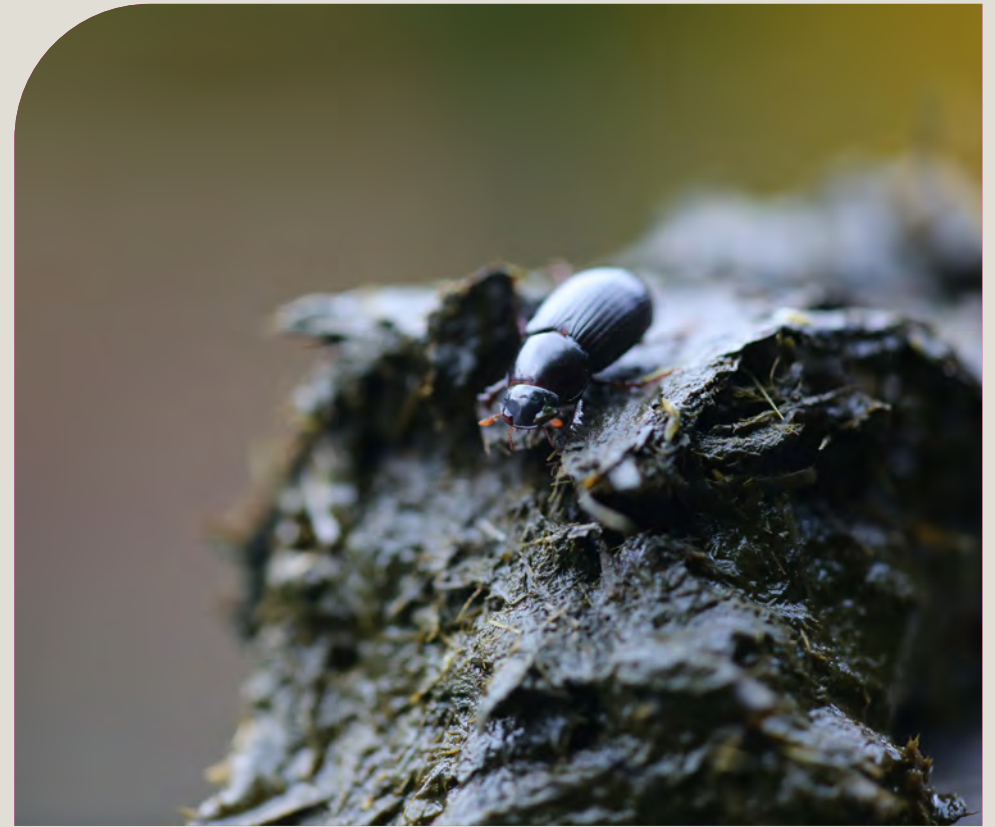
Hazel Manor main entrance - BS40 6LG or what3words ///entiles.udder.chains

From the main entrance (below), keep straight on the tree avenue. Go past the first drive on the left-hand side, taking the next left turn and keeping the stone wall on your right-hand side. Turn right into the yard once past the cottage. This is a working farm, so please be mindful of moving vehicles.



Dung beetle ID guide

Scan the QR code for dung beetle ID guides from the British Scarabs website:



SPEAKER BIOGRAPHIES

Lee Truelove

Lee has worked within the dairy industry for over 25 years with the past decade being focused on supply chain sustainability and regenerative farming programmes. He works closely with First Milk's commercial customers and farmer members to deliver an industry leading regenerative farming programme based on the principle that dairy farming can be part of the climate and biodiversity solution. Lee has helped to design and deliver many innovative projects linked to soil & animal health, habitat enhancement and water stewardship. He advocates for more holistic thinking when it comes to farming and food policies.

Tom White

Tom is part of Yeo Valley's agriculture team which helped launch the Yeo Valley Regen Organic Farming Project in 2021 with a group of supplying organic dairy farms measuring soil health and soil carbon across 6000 hectares. This was in partnership with Farm Carbon Toolkit. Tom also works across Yeo Valley's wider supply chain to increase the nature-positive impact across our non-organic and non-dairy farmer suppliers.

Dr Sarah Beynon

Sarah's work on dung beetles began when she won a University of Oxford Varley Gradwell Travelling Scholarship to work on the impact of farming intensification on dung beetles and their ecological functions in a self-designed project in Zambia. She then won the Professor Sir Richard Southwell Scholarship to carry out her doctorate at the University of Oxford on

'Factors affecting ecosystem service provision by dung-associated invertebrates'. Following her doctorate, Sarah started up Dung Beetles Direct to showcase the importance of dung beetles to British farmers delivering guidance sheets at events and on-farm trials with Farming Connect and online at: <https://www.thebugfarm.co.uk/research-farm/dung-beetles-direct>. She also worked to ensure dung beetles were offered protection under the Welsh agri-environmental scheme Glastir.

In 2013, Sarah set up Dr Beynon's Bug Farm, a research and education centre, visitor attraction, farm and wildlife reserve focused on the sustainable future of food, farming and nature recovery. She published a widely cited paper with Warwick Wainwright and Mike Christie which put an economic value on ecosystem services delivered by dung beetles to the UK cattle industry, and co-supervised Dr Paul Manning's DPhil on dung beetle ecosystem services, with research carried out at the Bug Farm. Sarah is now working with groups of farming and equine vets to educate animal owners on sustainable livestock parasite control to benefit dung beetles and to lobby governments to include protection for dung beetles under new farming schemes. Sarah continues to research, innovate and educate for a more sustainable future and is in the process of turning her farm into a Trust and changing legislation to help landowners protect land for nature, forever.

Darren Mann

At the age of 15, Darren began his museum career as a volunteer at the Herbert Art Gallery and Museum in Coventry. After studying for

a postgraduate diploma in Insect Taxonomy at Cardiff University, Darren joined the staff at National Museum Cardiff as an entomological researcher. In 1997 Darren began working in the Hope Entomological Collections as a technician, later becoming collections manager and assistant curator. After the amalgamation of the Zoology and Hope Entomology Collections, he took on the role of head of section. Darren has provided training in entomological collections management, integrated pest management, insect identification and entomological field sampling techniques for undergraduate and postgraduate students, the museum sector and wider.

Darren is on the editorial panel of The Coleopterist and is a Royal Entomological Society Library Committee member. He was awarded the ZSL Silver Medal (2015).

Dr Bryony Sands

Bryony's research integrates agroecology, entomology and veterinary parasitology and broadly seeks to understand the impacts of agricultural activities on insect biodiversity, ecosystem function and pest and parasite populations in livestock systems. Her work has focused on the environmental impacts of agricultural parasiticides on functionally important insect decomposer communities, and consideration of novel, environmentally sensitive approaches to parasite control. Her research aims to bring together farmers, vets and researchers to co-develop inclusive and socially relevant strategies for the future of food and farming.

Andy Adler

Andy has worked with farming and veterinary businesses for 25 years supporting them to create a healthy and thriving future. He does this by bringing clarity to their strategy and turning their visions into a reality. Having worked in various businesses in the last 10 years he now runs a Strategy Advisory service that puts the business owner and their needs first to help deliver profitability while supporting the planet and putting their people first.

Rob Howe

Rob and his team in practice have implemented integrated parasite management using the dung beetle to drive farmer engagement in an area from which farm vets are often excluded. This work led him to work with VetSustain, COWS (Control of worms sustainably) and a Nuffield Scholarship researching the role of farm vets within regenerative agriculture. Rob is a board member of the BCVA and helped launch the BCVA Policy on Anthelmintics. He works for and co-founded LLM farm vets in Lancs.

Mark & Jenny Lee

Mark and Jenny run an organic Jersey/Friesian herd on the northern edge of the Lake District at Park House Farm and produce cheese and butter at Torpenhow Farmhouse Dairy. They have carried out extensive enhancement of diversity on the farm including hedgerows, wildlife corridors and pastures. On their regenerative journey they have become obsessed with the dung beetle, not the most obvious livestock for a dairy farm, but considered a welcome one.

SPEAKER BIOGRAPHIES

Matt Smith

Matt and Pippa are deeply committed to building sustainable farm practices for the future on Trefranck in Cornwall. Originally from New Zealand, Matt is passionate about bringing an efficient, grass-based sheep farming system to the UK. They are working tirelessly to prove the effectiveness of breeding for resilience which acts to reduce stress and eliminate the environmental impact of worming.

Richard Thomas

Rich is a sheep and pedigree beef farmer with apple orchards and arable crops in Herefordshire. His regenerative farming journey has both supported nature and saved money.

Will Mayor

Will is Yeo Valley's Farms Development Manager, having joined the company in June 2022. Yeo Valley Farms is focused on producing naturally healthy food from an integrated regenerative organic farming system across its 800 hectares involving a whole farm system change. The farms run a pedigree British Friesian herd alongside its arable enterprise. The team is helping to grow the UK regenerative organic farming movement through research, testing and education. The projects in which Will is involved include next level regenerative grazing for dairy and beef, using woodland pasture for livestock forage, composting and 'bugs in jugs', producing 100% homegrown feeds and diverse cropping to build soil health.

Ian Wilkinson

Ian co-founded FarmED in 2013 and is the owner and Director of Cotswold Seeds Ltd which this year celebrates its 50th anniversary. Ian is passionate about sharing knowledge of regenerative farming methods to capture carbon and improve the fertility of our soils. He is an advocate of mixed farming systems and especially those that incorporate diverse grass leys as part of their crop rotation. Ian conceived FarmED, a not-for-profit demonstration farm centre in the Cotswolds, to be at the heart of local, regional and global agroecological transition. Last year, FarmED won the prestigious Ashden Award for Future Farmers, among other local and national awards. Since FarmED's official launch in 2021, by King Charles, then HRH Prince of Wales, Ian and his team have welcomed over 25,000 visitors per year. These include thought leaders and policy makers, scientists, academics, food industry, land agents, advisors, farmers and growers and the local community. By championing farmers, leading inspiring farm walks and providing courses and events in a neutral space for debate, Ian works passionately to highlight how we can regenerate farming and food systems that nourish people and how we can do this within the limits of natural resource.

Chris Berry

Chris farms Higher Thornton as a third generation of a 188ha Devon farm. He has an 830 Highlander X ewe flock with 180 ewe lambs, and 60 South Devon x Angus Spring calving cows. He has created an efficient economically viable system by combining accurate rotational grazing management with the right animal genetics and by making the most of drought resilient plant species diversity.

Dr Lindsay Whistance

Lindsay is a senior livestock researcher at the Organic Research Centre, and has worked on animal behaviour, health and welfare research since 2003. Her interests include human-animal relationships and the role diverse, species-rich environments play in offering high welfare conditions as well as food and medicine for domestic animals. Current focus includes considering the ecological value of livestock/grazing animals and how these benefits can be acknowledged in our food system.

Becky Willson

Becky joined Farm Carbon Toolkit (FCT) in 2014 to help develop more projects to support farmers reduce emissions and build soil health and business resilience. Prior to this, Becky worked on the SWARM Knowledge Hub, a project tasked with helping farmers and growers across the South West manage their resources sustainably. As part of the SWARM Hub project, Becky was part of the team that developed the Farm Crap App, a mobile phone app to help farmers calculate the nutritive value of livestock manures. Becky has spent the last 10 years building the work and recognition of FCT through a range of projects focused on carbon measurement, understanding and implementing change. In 2016 Becky was awarded a Nuffield Scholarship to study further how to communicate carbon reduction schemes to farmers, which has fed into her work at FCT.

Eurion Thomas

Eurion joined Techion UK at its formation in 2014 following a career with Innovis, Techion's UK agents until that point. Having been brought up on a sheep farm in West Wales, he has always

been passionate about sheep and held various posts at Innovis from its formation as a spin-out from Aberystwyth University in 2001. As Innovis' Operations Manager, Eurion had responsibility for parasitology and genotyping services. He specialises in parasite control and has delivered consultancy and training to farmers across the UK as well as managing the sales of the original FECPAK system. Eurion's role grew to include Technical Sales Manager in Wales for Innovis Breeding Sheep, a farmer-facing role that supported the delivery of breeding/genotyping services and in the sale of performance recorded sheep. As well as managing the European business, Eurion also has oversight of many research projects such as the commercialisation of Fluke testing, Protozoan cyst differentiation with RAFT, the Sainsbury's FECPAKG2 project and HCC's WAARD Project.

Tim Bebbington

Tim is a farm vet and director of the Castle Veterinary Group, having qualified 35 years ago. He's past president of the Sheep Veterinary Society and served as a director of the Moredun Foundation. He is increasingly interested in biological rather than chemical solutions to animal health challenges.

Julia Shrubbs

Julia is an enthusiastic, experienced, equine veterinary surgeon working both in a hospital and ambulatory setting. Offering the very best care to her clients and their horses, through a combination of clinical excellence and building the relationship through excellent communication, is very important to her. Julia is passionate about evidence-based veterinary medicine and quality improvement

SPEAKER BIOGRAPHIES

activities, and subjects such as responsible and sustainable anthelmintic and antimicrobial use. She enjoys all aspects of first-opinion equine practice, working both independently and in a team, with a wide range of clients and their equids. Julia especially enjoys the complex problem-solving involved in medicine cases, seeing both referral and first-opinion cases, and has been an RCVS Advanced Veterinary Practitioner in Equine Medicine since 2013.

Prof. Richard Wall

Richard graduated in Zoology from the University of Durham, before completing a PhD in Insect Population Ecology at the University of Liverpool; subsequently specialising in veterinary entomology at the University of Bristol, working on the ecology and sustainable control of ectoparasites and vectors, and their impact on animal health. Current research focuses particularly on ticks and mange mites and considers the impacts of temperature and humidity – hence climate and climate change – on their patterns of activity and abundance. Richard also has interests in non-conventional approaches to ectoparasite control and the environmental impacts of veterinary parasiticides. He has co-authored over 250 research papers and three textbooks and has been awarded both the WAAVP Peter Nansen prize and the WAAVP Award for Research Excellence in Veterinary Parasitology. He is currently a Fellow of the Royal Entomological Society and secretary/treasurer of the World Association for the Advancement of Veterinary Parasitology.

Sally-Ann Spence

Sally-Ann is a science educator and the founder of Minibeast Mayhem, a specialist entomological

teaching company for schools. She is a fellow of both the Royal Entomological Society and the Linnean Society, and a council member of the British Entomological and Natural History Society. Sally-Ann was the principal organiser of EntoSci16, the world's first entomological conference aimed at key stage 4, sixth formers and college students held at Harper Adams University. An active researcher specialising in land management, biodiversity and ecosystem functioning, she is a cofounder of the Dung Beetle UK Mapping Project hosted by the Museum of Natural History at the University of Oxford. Sally-Ann mentors many young people and has set up a network of fellow scientists to support them. Splitting her time between outreach events, the many collections at the Museum, teaching in schools, lecturing in universities, radio and media work, and her own farm-based training centre, Sally-Ann is also an author and consultant for many educational publications.

Andrew Prentis

Andrew is a visiting Fellow at the Grantham Institute at Imperial College London looking at the impact of environmental residues of veterinary pesticides and at alternative models for the control of harmful pet parasites. He is a member of the British Veterinary Association Ethics & Welfare Advisory Panel and the Companion Animal Feeding Working Group. He is an environmental advisor to 99% Organisation (99-percent.org), is the Herefordshire 2030 Farming & Environment lead, and a member of the Vet Sustain (vetsustain.org) Greener Veterinary Practice working group. He is also on the board of trustees for Tree of Life for Animals (TOLFA).

David Wood

David is RSPB Site Manager for The Oa on the Isle of Islay. The Oa reserve is a livestock farm in SW Scotland, focused on the conservation of cough. These rare corvids are dependent on dung and soil invertebrates, and this has led David into a range of dung beetle-related projects. David is a keen all-round naturalist with a recent dung beetle obsession.

Francine Fernandez

Francine has worked at the VMD since 2008, with most of her time spent within the team responsible for assessing human and environmental safety data submitted in support of applications for new veterinary medicines. With a background in environmental toxicology, her primary focus throughout her career has been environmental safety and she is currently the senior environmental safety assessor with her team. Recently, Francine has led on the VMD's involvement within the pharmaceutical in the environment (PiE) cross government initiative.

Jodie Perret

Jodie joined the VMD in 2021 to support the development of policy on anthelmintic resistance, before moving to the role of Parasiticide Stewardship and Evidence Manager to help shape the VMD's expanding parasiticide activities. Within her current role Jodie is responsible for the development and implementation of UK parasiticide policy, related stakeholder engagement and developing the VMD's portfolio of parasiticide research. Currently this work is focused on anthelmintic

resistance in livestock and equine parasites and responsible use of companion animal spot-on ectoparasiticides.

Claire Whittle

Claire is a farm veterinary surgeon offering consultancy to regenerative farming businesses. She completed a postgraduate certificate in conservation medicine which consolidated her interest in the principles of ecosystem health on farms. She was awarded a 2021 Nuffield Scholarship studying the benefits of regenerative agriculture on animal health and welfare.

Dr Hannah Jones

Hannah is a farm carbon and soils adviser with the Farm Carbon Toolkit (FCT) and coordinates and carries out research projects spanning herbal leys, arable systems, cover crops and field vegetables. Her role has been to coordinate farm-based trials by working closely with farmers and agricultural businesses to optimise the impact and applicability of the research. She has taken this experience and is contributing to the developing project portfolio of FCT. Her work includes bespoke trials which feed into the Farm Carbon Calculator, the advisory work and knowledge transfer. Her interests and drive focus around the business and environmental sustainability of farms.

FOOD SUPPLIERS

Yeo Valley Organic

yeovalley.co.uk

Working with nature not against it to produce food made with a little bit more love. Conference menus feature Holt Farms regenerative lamb, Yeo Valley regenerative cow pie, milk and desserts.



Golden Hooves

goldenhooves.co.uk

Golden Hooves cheese is made from 100% regeneratively farmed milk. The evening cheese board features the Mature Cheddar, matured for 12 months with a deliciously rounded and rugged flavour, the Vintage Cheddar, matured for 18 months to give a wonderfully complex flavour and crumbly texture, and Red Leicester with a nutty flavour and tantalisingly tangy background notes.



Extract Coffee

extractcoffee.co.uk

Aiming to make coffee better - for customers, communities, growers and the environment. Using ethical coffee as a vehicle for positive change.



Hidden Pizza

hiddenpizza.co.uk

Award-winning caterers from North Dorset passionate about pizza and the planet, only working with suppliers actively engaged in improving the sustainability of their operations.



The Community Farm

thecommunityfarm.co.uk

Not-for-profit social enterprise and nature-friendly farm working with a network of organic producers and local farmers.



Strode Valley Organics

strodevallyorganics.org

Organic no-dig market garden and wildlife haven.



NOTES

