



2024
Annual
Review

 **ORGANIC**
RESEARCH CENTRE

Another action-packed year



The Organic Research Centre is the UK's leading independent research charity, exploring organic and agroecological farming and food systems. Our applied research is co-created with farmers to ensure that it is developed to answer their questions and meet their needs, and is carried out on their farms so that the learnings can be applied by others who value the 'true to life' findings.

Our mission is to empower farmers and others to embrace organic principles through practical support and inspiring research. We aim to change attitudes and behaviours in farming and beyond, promoting practices that benefit our environment, wildlife, animals and people's well-being. As pioneers, we strive to lead the way in research, knowledge sharing and advocacy, making sustainable farming accessible and impactful for all.

Through collaboration and partnership with other researchers, farmers, processors and consumers, we develop practical, sustainable land management and food production solutions that deliver high-quality food, reduce resource use, and protect the environment.

As well as delivering valuable research, we also share our findings through [Agricology](#) – a free farming information hub, which works with a collaboration of around 40 organisations, to share sustainable agricultural practices regardless of labels.



Message from Lucy MacLennan, our CEO

This has been another action-packed year for ORC, marked by a wealth of activity that has broadened our networks and opened up significant opportunities.

Our research has been building momentum – the team have been busily working away on four Horizon Europe projects ([LiveSeeding](#), [REFOREST](#), [Re-Livestock](#) and [Oper8](#)), as well as developing a strong portfolio of both UK statutory and philanthropically funded work which stretches across our key research themes of [Agroforestry](#), [Crops and Agronomy](#), [Livestock](#), [Business & Markets](#) and [Systems](#).

As well as delivering valuable scientific research, we have also been busy disseminating our findings at various events such as the recent well received [Cultivating Wisdom](#) conference, [Groundswell](#) where we co-hosted the Agroforestry tent and the [National Organic Conference](#) to name but a few. In addition, we have hosted numerous workshops and seminars, published various findings – including the second issue of the booklet '[Wakelyns Agroforestry – Resilience through Diversity](#)'; and shared our findings digitally through webinars, website publications, eBulletins and social media.

Our [Agricology](#) platform has capitalised on the foundations built over previous years and has repositioned itself as a key player in the farmer knowledge exchange space, now reaching around 80,000 users annually – and the recently launched podcast series has achieved more than 1000 downloads in just 21 days.

I am incredibly proud of all that the team has achieved and this wouldn't have been possible without the fantastic support of the unsung heroes of our central team. Our work has significantly improved the awareness of ORC, not only within the scientific community but perhaps most importantly through the engagement of more farmers and collaboration with likeminded organisations.

We are truly grateful to everyone who has supported us and look forward to the year ahead.

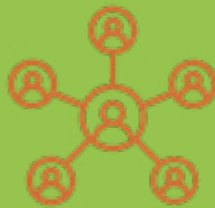


A year of progress: Impact and achievements

Our research-driven communications foster reflection, support learning, and create a lasting impact for farmers and growers, advancing our vision.

Together we'll deliver the transition to naturally healthy and resilient farming systems

Delivering our vision



Delivered £1.97 million active research portfolio with 11,854 hours dedicated to this research



In more than 55 conferences, seminars, and workshops, we have **shared our message** and findings with the agricultural, business, policy, and scientific communities



Assisted change through internal and external collaboration across our networks of over 200 researchers and farmers



46,197
visitors to ORC website in 2024, averaging 3,800 visits a month



279,893
file downloads



3256
Subscribers to our monthly newsletter

What sets us apart

- We promise that wherever possible our research findings will be made accessible to everyone
- A purpose led research strategy with a commitment to practical solutions across our research themes
- We work with organisations and individuals to host a range of activities and events such as tailored one to one farm walks to larger in person conferences.



People embraced new **ideas** by translating research into **practical advice** and reaching over 3700 people across in person and online sessions



We managed 22 projects demonstrating the **economic and environmental benefits of alternative approaches**



We **published** 6 peer-reviewed journal papers as well as 17 technical reports, 1 book, and supported chapters in a further 2 books



Wherever possible our research findings are published as **open access**, and our newsletter, and website and resources remain **free to everyone**



18, 263
recorded followers
across our social
media platforms

“The researcher broke information down and explained how it would be practical for us and which specific research projects we should be looking at”

“Without the advice and guidance obtained with ORC’s Organic Farm Management Handbook I would not have a business today”

Shaping the future: Projects and activities



This year, we have been proud to be part of a diverse range of collaborative research projects bringing together experts from different fields to address complex challenges in the agricultural sector. By fostering interdisciplinary partnerships, we have contributed to new scientific discovery and developed practical solutions to some of the most pressing problems farmers and growers face. We have also been able to support our own research projects, [Importance of Hedgerows as wildlife corridors](#) and [Feed the Soil](#) with thanks to our major donors.

For more information including case studies, themes and publications see our



REFOREST

The four-year Horizon Europe project REFOREST reached its mid-way point in summer of 2024. A partners' meeting was organised in Brno, Czech Republic, coinciding with the [European Agroforestry Federation 7th conference](#). At Brno the consortium also met with collaborators in the sister project DigitAF and explored synergies between the two initiatives, both of which aim to support the upscaling of agroforestry across Europe.

ORC's main REFOREST focus in 2024 has been in stakeholder engagement and modelling. Our [North of England Living Lab](#) has continued to run, with bimonthly newsletters, a webinar, workshop at [Carbon Calling](#), case study development and field data collection. We have supported EMEA in the development and fine tuning of a stakeholder platform and knowledge hub and established a working group to share experience and expertise on training and upskilling farmers for agroforestry. The modelling work focused on the use of Artificial Intelligence (AI) – neural networks – and remote sensing imagery to develop a tool that can predict the soil carbon and biodiversity impact of planting trees in farmland. Trained on both national and European datasets, this innovative work has shown the potential, but also technical challenges, of realising this goal. A parallel approach using finer scale drone imagery is also underway.

Wakelyns Agroforestry – Resilience through diversity

In 2024 Wakelyns celebrated the 30th anniversary of the first trees being planted into its fields to create a range of different agroforestry systems. This pioneering work of the late Professor Martin Wolfe has created an amazing legacy for agroforestry research and demonstration, in recent years guided by David and Amanda Wolfe. To mark the anniversary, and with the support of a grant administered by Stewardship, we created a revised edition of the booklet [Wakelyns Agroforestry: Resilience through diversity](#), first published in 2020. The publication has been an influential tool in disseminating the invaluable work of Wakelyns, describing the

different agroforestry fields and summarising the results of research undertaken by ORC and others over the years. New material focussed on biodiversity for agriculture and conservation (based on the [AGROMIX project](#)), enterprise stacking and pond restoration and creation. The revised edition was launched by ORC at the Agroforestry Open Weekend in May. It was further disseminated at a [celebratory event in the Agroforestry Tent at Groundswell](#), with reflections by David and Amanda as well as long-standing collaborator Josiah Meldrum of Hodmedods. A [poster](#) based on the booklet was also presented at the EURAF 2024 agroforestry conference in Brno in May.



Agroforestry advice and guidance Test & Trial

This is the second agroforestry Test & Trial that ORC has been involved in, supporting the design and implementation of agroforestry subsidy options under the new Environmental Land Management Schemes (ELMS). Led by the Woodland Trust, with the National Trust and ourselves in partnership, this particular project is exploring how best to impart the knowledge that farmers need to confidently embark on an agroforestry project. 2024 saw the first phase of this work complete, and the second phase begin. In each case cohorts of farmers are taken through one of four options: webinars, farm walk and talk, site visit by an advisor, and self-

learning. ORC has been responsible for designing the webinar series and monitoring the outcomes of each learning route, through baseline and follow-up questionnaires, as well as interviews and assessment of the quality of the agroforestry designs that the participants come up with. The content of the learning provision and monitoring of impact has focused on the four areas of setting objectives, designing a system, establishment and longer term management. The analysis of phase 2 will commence at the end of 2024, with a report-back workshop and final reporting due in the Spring.

Importance of hedgerows as wildlife corridors

This is the end of the first year of a two-year project, funded by Marmot Charitable Trust and ORC Supporters via the Big Give Green Match Fund, aiming to provide the first quantitative evidence for hedgerows acting as wildlife corridors for organisms in the fractured agricultural landscape of the UK. Eighteen woodland sampling sites across Suffolk and Norfolk were selected using GIS and visited by ORC staff in early summer and autumn 2024, resulting in a

total of 144 invertebrate samples that will be identified over winter 2024/25. Data analysis will proceed in spring 2025 and a publication, that will be publicised in the press and through ORC's Agrigology portal, prepared and submitted in early summer 2025. Field work for this project has proved to be an excellent opportunity for ORC to extend its participatory farmer network in East Anglia.



Aiming high for hedgerows

This is the second recent research report ORC have conducted for CPRE, following the influential 2021 ['Hedge Fund'](#) report in which ORC calculated the likely economic and societal benefits of expanding the UK hedgerow network by 40%. The current report prioritised English National Character Areas (NCAs) for hedgerow planting based on criteria such as historical extent, current hedgerow network condition, and current hedgerow management level among farmers. Two of the top three priority NCAs were in the North: Tyne

and Wear Lowlands, Lancashire Coal Measures and Northern Thames Basin. The report also produced a number of case studies of hedgerow planting and restoration projects following extensive travel and interviews by ORC staff across England. An online launch involving the then shadow Environment Secretary and several MPs was planned for June 2024 but this was disrupted due to the announcement of the general election.



Optimum shelterbelts

Shelterbelts can provide multiple benefits to the farmed landscape but to realise their full potential, design and management practices would benefit from research in real-world scenarios. The Optimum Shelterbelt (OSB) Project is testing 5-metre-wide shelterbelts on farm and aims to bring together multi-disciplinary data collection to identify the key benefits that shelterbelts provide and how to optimise their effect.

The OSB project team is managed by FWAG-SW and John Davis (Tree Shop) with David Lewis focussing on the economic aspects and with ORC leading on the in-field research. This project is being carried out with the collaboration of Cotswold farmers, and 6.68 km of shelterbelts have been planted including 20,744 trees. The first phase of the project is now completed with the OSBs now established and with the development of several complementary protocols to measure the characteristics of the shelterbelts and their impacts on carbon, biodiversity, microclimate, soils, crops, and livestock.

In March 2024, the developed proposals were presented to the farmers and other stakeholders for feedback and were approved. Further work is now being taken to secure funding to implement these monitoring protocols with the aim of producing long-term study results which can be disseminated to a wider audience.



AGROMIX

The Horizon 2020 project AGROMIX, participatory research for resilient land use in Europe, came to an end in October 2024 after four years of research activities, stakeholder engagement and knowledge exchange. ORC has been one of 28 organisations partnering in this work, which has focused on modelling and promoting the resilience benefits of agroforestry and mixed farming systems, from physical, social and economic perspectives. ORC's contribution focused on Wakelyns, which was one of a network of eight long-term trials where experimental and modelling activities have been taking place. In this last year of the project, we supported the production of paper outputs

from the biodiversity studies, in particular on bats (co-authored paper in review) and plants. In the meantime, the powerful Hi-sAFe agroforestry model was used to create a 'digital twin' of Wakelyns agroforestry and explore the impacts of climate change on a silvoarable system. A different modelling approach sought to understand the effect of trees on the biotic interactions between crops, weeds, pests and diseases within such a system, yielding a [paper published in Agronomy for Sustainable Development](#). ORC also took part in the launch of a policy [white paper](#) in Brussels in October, marking the end of the project.

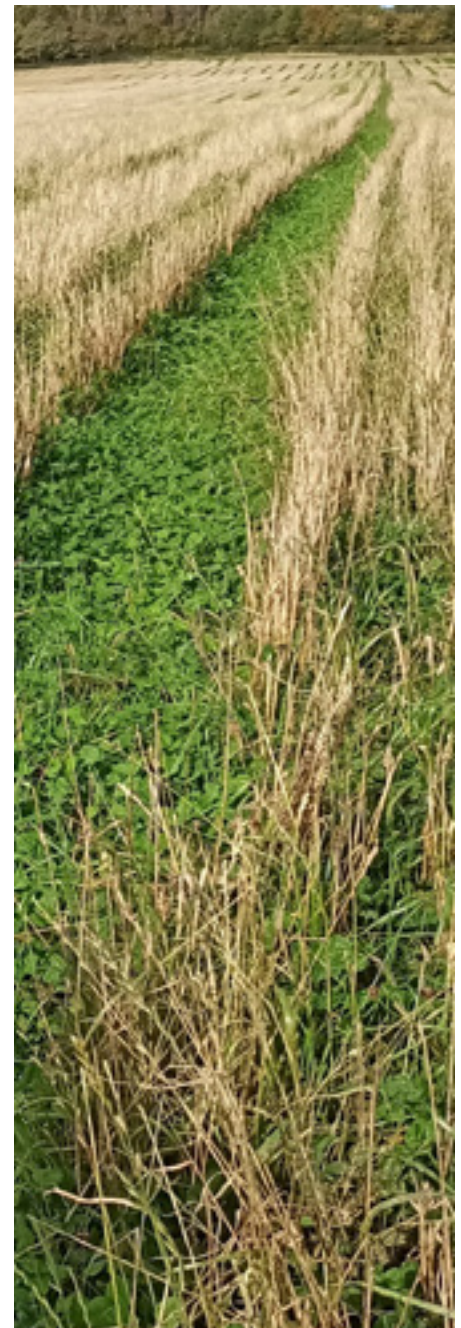


AudioMoth acoustic recording device

Mapping UK plant and soil science research with a regenerative agriculture focus

This Rapid Evidence Assessment (REA) was a broad-reaching piece of work that included an expert workshop, contributions from the Cambridge Future of Agriculture Conference, and an extensive review of peer-reviewed and grey literature. The outcome was a summary of the current state of knowledge in the UK for 34 topics identified as challenges or barriers to the transition to regen ag. These included how to define regenerative agriculture, gaps in knowledge on how to implement practices like living mulches, cover crops and intercropping in the field, and breeding programmes

that target essential crop traits for regenerative agriculture such as root traits and performance in no-till and low-nutrient conditions. The final report provides an ideal starting point for conversations on these topics and signposts readers to key current and past projects and individuals that have laid the groundwork for future research. The report will be made available soon and will be an invaluable resource for anyone seeking to design new research programmes to support the transition to more regenerative farming practices.



Marketing of organics

ORC, supported by John Pain, completed a two-year research programme aimed at identifying growth opportunities in organic food supply chains and understanding consumer perceptions of organic products. The project also examined successful organic markets in countries with faster sector growth. Guided by ORC's values, the research was highly collaborative, ensuring practical insights for those involved in promoting and selling organic goods. This included a co-designed survey of 2,000 respondents and 20 qualitative

interviews. ORC partnered with UK ORGANIC to produce a [Consumer Insights report](#), valuable for retailers across 21 product categories. Additionally, ORC collaborated with Better Food Traders to create a retailer guide on marketing organic products. Moving forward, ORC plans to explore international organic markets, with lead researcher Rowan representing the project at the Organic World Congress in Taiwan with a view to gain further insights on organic markets internationally.

Organic hop varieties

The Innovative Farmers organic hops field lab brought together key industry stakeholders including Stroud Brewery, Charles Faram Hop Development and two organic hop growers, to secure and improve availability and choice of UK grown organic hops. Through participatory on-farm varietal selection, the project identified hop varieties suited to tall and dwarf organic hop systems. Throughout the three years, there were many knowledge exchange events, which enabled challenges to be identified, and solutions to be found collaboratively. There was a final event at Stroud Brewery, where attendees sampled beer brewed

with trial-grown hops. The project was featured on Channel 5 news, highlighting its focus on climate-resilient, organic UK beer production. The small size of the UK organic hop industry and limited investment in breeding organic varieties pose challenges to its future. However, this field lab marks significant progress. The benefits of participatory research to find solutions in the organic hops industry was clear throughout the field lab. Researchers at ORC have worked closely with the hop breeders and farmers to select trial varieties, monitor crop performance and produce annual reports.



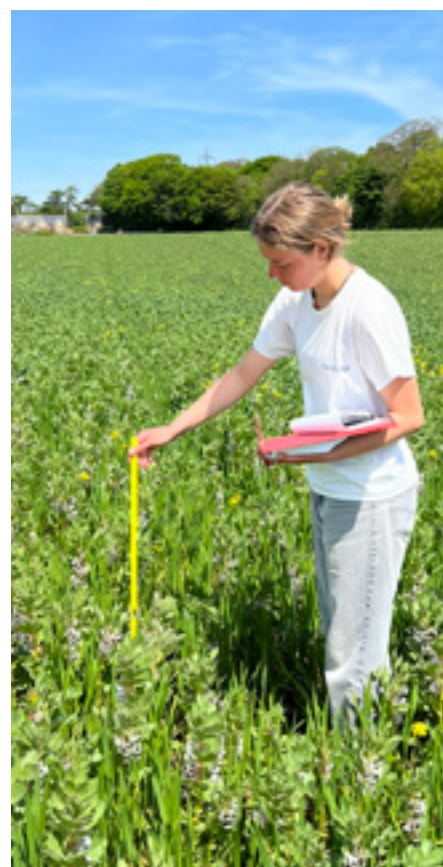
LiveSeeding

The [LiveSeeding project](#) aims to significantly enhance organic production across Europe by improving the availability of organic plant reproductive material, particularly organic cultivars bred for diverse environments and local adaptability. ORC plays a crucial role in this initiative, collaborating with a range of partners, including breeders, farmers, food businesses, and policymakers. The project supports work to address challenges faced in the organic seed sector, recognising the importance of seed in the transition towards sustainable, climate-neutral, and healthier food systems.

ORC's work supports those developing cultivars suited for organic farming, exploring governance and financial models that connect breeders with local food producers, and developing novel approaches to cultivar evaluation to ensure that organic farmers have the information they

need to make informed decisions on variety choice. The project adopts a participatory approach to address the key challenges of organic seed supply and demand, alongside developing policy frameworks at European and national levels to enable the wider uptake of organic seed and cultivars.

ORC has made significant progress in the LiveSeeding project in 2024 including collecting field data on organic winter wheat and expanding trials to field beans, continuing to implement the LiveCrop variety testing network, and demonstrating how a collaborative approach to variety testing on farm can deliver relevant results for practice, as well as working with a living lab of stakeholders to build an alternative seed system which supports the development of genetically diverse cereals and pulses.



Living mulches

The Organic Research Centre has led the way with the development of no-till systems in organic and conventional arable that rely on perennial covers, known as 'living mulches' to suppress weeds, protect the soil and build soil nitrogen reserves. Following on from an [Innovative Farmers field lab](#) in 2021-2022, we continued to test trial strips of dwarf white clover (Aber Ace and Aber Herald) on organic farms with direct drilled crops of rye and wheat. In

2023 an in-depth Master's study was conducted at one site where the benefits of living mulches for a variety of soil health and invertebrate biodiversity indicators were confirmed. As a final activity in this project we ran a webinar that attracted interest across the UK and even overseas. Matt England from the Fring Estate explained his challenges and successes implementing living mulches in an organic arable system and David Newman from [Bucksum Market](#)

[Garden](#) provided an interesting perspective on the use of living mulches within small-scale vegetable production systems. Since making the webinar available on [YouTube](#) it has had around 400 views, demonstrating the ongoing interest in this novel system that addresses intersecting challenges in no-till farming systems for both organic and conventional farmers.



Oper8

The Organic Research Centre and Agrigology have been key delivery partners in this European thematic network that promotes innovative ways to reduce reliance on herbicides. Working with our partners in the UK (ADAS RSK Ltd) we have hosted farm walks and produced videos documenting many novel strategies. These include electric weeding, robotics, and cultural controls. Competitive cultivars: varieties that are particularly effective at suppressing weeds through

physical or biochemical strategies, are closely linked with our work in the LiveSeeding project. This year we collected data from many of the LiveSeeding field sites to evaluate how different wheat and bean varieties varied in their ability to compete with weeds in organically managed fields. This has highlighted the potential to select varieties for weed competition, a trait not typically explored in conventional breeding programmes. We have also attended meetings in Europe to exchange information

on novel approaches to reducing herbicide use, most recently being hosted by the German Environment Agency for a workshop on 'Experiences, future developments and needs for sustainable crop protection'. Our work in Oper8 illustrates the potential and value of collaborating with farmers across the organic, agroecological and conventional spectrum to share our experiences and knowledge about a common challenge.

Re-Livestock

The Re-Livestock project aims to develop innovative approaches to addressing resilience in dairy, beef and pig farming in different geographic regions in the face of climate change. To achieve this, 37 partners from 15 different countries across Europe are collaborating together on themes including breeding, feeding and farm systems. ORC plays multiple roles in the project including collecting and analysing sustainability data for each innovation using ORC's [Public Goods \(PG\) Tool](#), conducting

willow-feed trials, and modelling animal health and welfare in future climates.

The innovations are directly tested on farms and wider stakeholder groups for each innovation frequently meet to ensure all potential benefactors of the research, including farmers, processors, policy makers, can feed into the research process. Results from these innovations will not only be reported in scientific publications but shared and

discussed across the individual stakeholder groups, spreading the knowledge between countries, disciplines, and sectors. While at an early stage of the 5-year project, the initial results have already been received positively with the UK case study, in partnership with the Pasture Fed Livestock Association and Reading University, hosting a [workshop at Groundswell](#) to share the PG Tool findings.



Photo: Kay Ransom

Joining the dots...

Agroecological growers in Cornwall, through the [OATH \(Organic at the Heart\) project](#), identified challenges in sourcing and distributing local organic produce. Together, they explored collaborative buying and distribution systems to support transitions to agroecological farming, connect local food hubs and support organisations, and reduce emissions, costs, and time for both growers and consumers. The goal has also been to increase access to and production of local organic and agroecological food.

This work inspired the Joining the Dots project, led by ORC and funded by Farming in Protected Landscapes (FIPL). It brought together stakeholders like Sustainable Food Cornwall, Goonown Growers, and Falmouth Food Coop. Through data reviews, grower surveys, and workshops, the project explored collaborative food network models while identifying opportunities to benefit nature, the climate, and local communities.

One of the main lessons was the importance of producing high-value crops to ensure financial viability, while also leveraging existing initiatives to strengthen the impact. The project highlighted the need to support growers in adopting agroecological practices, but also revealed the challenges of transferring leadership to local partners.



The outcomes have been promising, with stronger relationships forming across Cornwall's food ecosystem, connections with national initiatives, and plans for a pilot project. Sustainable Food Cornwall is now leading the bid for the pilot, and team members are participating in Sustain's mentoring scheme to continue building on this work and sharing insights across the country.

Agricology

It's been an exceptionally busy 12 months for the Agricology team as we continue to expand our reach, build our network and search out collaboration with new partners. As always conferences and in person events have been a cornerstone of our activity as we look to support farmers with practical information on agroecological approaches. A couple of highlights include running sessions at ORFC, reaching over 1500 people through our talks at Groundswell and a trip over to Northern Ireland to take part in the inaugural Fields Good conference.

Our content outputs across the website have reached new heights with 360 pieces of content going on to the site in the last year. We

saw 60 external organisations contribute to over 200 of these outputs. Alongside these partner contributions our programme of original content goes from strength to strength, the Agricology podcast was relaunched with a season exploring the practices, ideas and concepts around optimising carrying capacity for livestock. Behind the scenes we also have new series of 'Technical Deep Dives' under preparation, which will support farmers as they look to adopt individual agroecological practices. Watch this space as these exciting new guides will be launched in the new year.

Public Goods Tool

Continuing on from previous years, the Public Goods Tools (PG Tool) has been utilised across projects at ORC. The PG Tool offers high-level sustainability assessments for farmers and landowners, and which doubles as a data collection tool for researchers. A major change to the PG Tool was completed as part of the Re-Livestock project with the development of an online interface for the tool. Previous versions were excel based, making sharing of the tool limited to email exchanges. The online version now allows anyone to access the tool and perform their own assessments at any time, while still retaining the customisation and data collection aspects that make it such a valuable asset to researchers. The success of this online version has been exemplified through the modified [Re-Livestock](#) version of the tool which was used to collect data on 68 farms across Europe. Results from a previous project using the tool, the [Organic Defra Test and Trial](#), were also published in a recent issue of [Organic Farming](#), further showing the interest and applicability of such a tool.

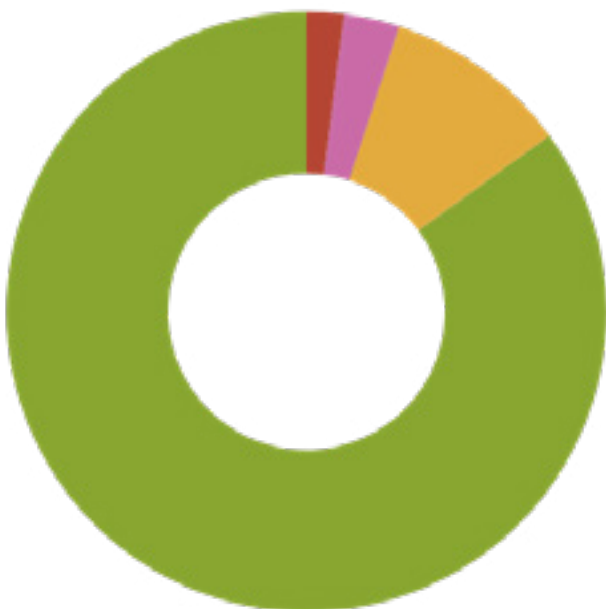


Organic Farm Management Handbook

The Organic Farm Management Handbook is one of the ORC's longest standing research outputs. The first edition was released in 1994 and has been an essential tool for understanding the economics of organic farming in the UK. It can help with business plans and budgets, provide a means of assessing the viability of specific crops and livestock and advise on conversion related innovations such as new marketing approaches. The 12th edition of the handbook was published in October 2023. One of the key barriers preventing more farmers moving into organic farming is the lack of current information on the costs and business

performance of organic farms and related management issues. The revised OFMH seeks to improve access to that information – utilising ORC's extensive back-catalogue of research on organic practices, and expert opinion. The book is now currently available to buy, and we have shared some of its findings at the [2023 Organic Growers Gathering](#) as well as at ORC's co-organised [Cultivating Wisdom](#) Conference in October 2024. We are currently surveying buyers of the handbook to try to understand how best we can improve its content and make it more relevant and applicable to the sector.

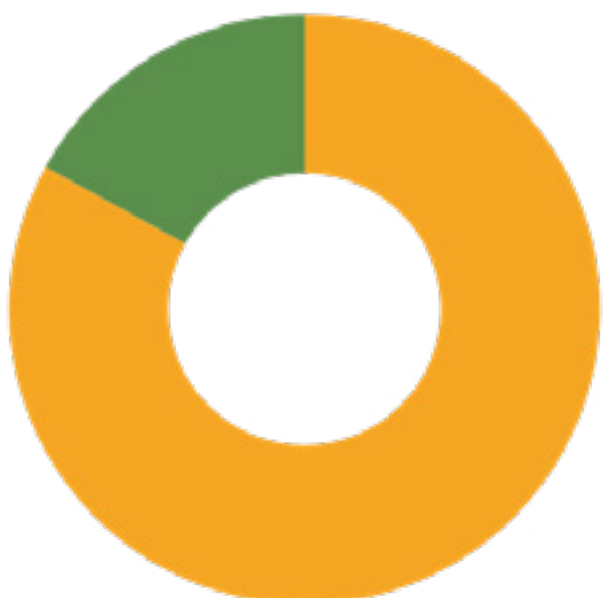
Delivering value: Our financial performance



Income

- 10% Donations and legacies
- 85% Charitable activities, fees and grants
- 2% Trading, including consultancy
- 3% Investment and other income

The charity received £121,573 from donations and legacies, which includes contributions from individuals. We brought in £1,087,262 of fees and grants to support our research and knowledge exchange projects. We also earned £19,736 from trading activities, including consultancy services. Additionally, investment and other sources provided £44,680, which helps to support our core costs.



Expenditure

- 17% Income generation
- 83% Charitable activity delivery

The organisation spent £255,725 on generating income, including philanthropic grants for research and knowledge exchange projects. The bulk of the budget, £1,270,931, went towards the delivery of programmes that directly support our mission.



A brighter future: Our 2025 plans

The year ahead promises even more opportunity for ORC. We already have a portfolio of activity to deliver on which feels like it is bursting at the seams! As well as continuing the activity on the Horizon Europe projects, we have a number of philanthropically funded initiatives which will really start in earnest in the new year.

One of our flagship projects 'Feed the Soil' aims to create a leading research and knowledge hub for innovative organic waste management, empowering farmers to feed the soil, grow healthy plants, and build resilient cropping systems.

We have also secured funding to continue our work on living mulches – which will focus on cultivar selection, as well as working with progressive dairy farmers in our GreenGrass project.

As well as our research, we have a full programme of knowledge exchange planned which will include more events, more farmer engagement, more outputs and more content than ever before!

We have launched a new strategy for Agricolology which will kick into gear in the new year, where we will be working with an amazing selection of the UK's leading farmers and communicators to deliver an even bigger and better programme of activity.

There is so much to do we are champing at the bit to get started!



Feed the soil

'Feed the soil, not the plant', has been a mantra of the organic farming movement since its beginning, but recently, many conventional and regenerative farmers are reducing their reliance on external inputs and exploring novel ways to "feed the soil". In this project we are working with the Land Gardeners and a wide range of farmers across the UK who are developing innovative ways to manage organic wastes and produce amendments to promote healthy soils and soil life.

Methods include biodynamic or controlled microbial composting, passive aeration like Johnson-Su, anaerobic fermentation including bokashi, and systems that use worms (vermicomposting). Many farmers are producing extracts and teas to treat soils and their crops too. A detailed review of the academic literature was conducted over the summer to identify gaps in knowledge about the many approaches to composting organic materials and use their products. A survey of methods is now underway

with visits to practitioners to document their approaches and challenges. This preliminary work will be used to frame research questions and design on-farm trials during 2025. In parallel with the research activities, we will be developing resources that highlight success stories and provide examples of resource-efficient ways to improve nutrient cycles on farms and 'feed the soil'.



GreenGrass

GreenGrass is a new project that will bridge the gap between organic and conventional systems by co-creating strategies to reduce Nitrogen (N) fertiliser use on conventional dairy farms. N fertiliser is recognised as one of the main sources of GHG emissions in UK farming systems and intensively managed grass can receive as much as 300 kg of fertiliser N per hectare every year. Organic farmers effectively produce milk from unfertilised grass by integrating legumes into their swards and optimising manure management: these practices could be transferred to conventional farms, but there is concern about potential impacts on milk production. New technologies may offer some additional tools



Photo: Kay Ransom

including slurry inoculants, nitrification inhibitors and precision methods of manure application. We will work with networks of dairy farmers in the northeast and southwest of England to co-create and demonstrate strategies to reduce N fertiliser use on dairy

farms. Carbon footprinting will be used to monitor and model impacts and tradeoffs of the different strategies. Ultimately, a toolkit of methods to reduce reliance on N fertilisers with knowledge exchange materials will be produced to widen the impact of this project.

Expressing our gratitude

As a charity we rely on the generous support of individuals and organisations to deliver our core activities, seed fund research ideas, add value to EU and UK Government funded projects, and pioneer groundbreaking research and wide-reaching knowledge sharing activities. We would like to express our particular thanks to John Pain, Alice Astor and the following for their support in 2024:



John Ellerman
Foundation

The Elizabeth
Gilmour Charitable
Foundation



THE
LINBURY
TRUST

THE MARK LEONARD TRUST





Photo: Kay Ransom



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Organic Research Centre, Trent Lodge, Stroud Road, Cirencester, Gloucestershire. GL7 6JN

01488 658 298 | hello@organicresearchcentre.com | www.organicresearchcentre.com

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