



Annual Review 2020

ORC at the forefront

“Having evolved into a dispersed team has its challenges but also brings opportunities to increase our geographical spread and ability to connect with a wider range of farmers and other stakeholders”

Will Simonson
Head of Research



It has been said many times before but, once again, ORC's work is needed now more than ever. Over the past 40 years the ORC has been at the forefront of organic research and is still the only independent research charity in the UK focused solely on agroecological systems. Since the organisation was founded, we have developed a wealth of practical solutions to farming challenges that work alongside - and in partnership with - our natural environment.

In line with the IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services) calling for specific practices to deliver [transformative change](#), ORC has repeatedly been at the forefront of generating pioneering research that is accessible across the whole agricultural community. Our [40th anniversary publications](#) highlight the extent of our work and are freely available to download, along with many other resources, on the [ORC website](#).

As a farmer myself, I know the importance of having access to the right information and evidence to help me make the best possible business decisions. These are challenging times for everybody but with ORC's pioneering spirit, and the continued delivery of co-innovative, practical research which supports sustainable land management and food production systems, we are confident that a brighter future is attainable.

Tim Bennett
Chair of The Board of Trustees

Cover story

"This picture was well worth getting soaked in a summer downpour at the Wakelyns Agroforestry farm. It captures at once [evolutionary breeding](#), represented by the genetically diverse wheat, and [agroforestry](#), mixing crops and trees. The rainbows shine over two of the key innovations ORC has been championing and pioneering"

Ambrogio Costanzo
Deputy Head of Research



Resilience at work



The past year has been quite a challenge for everyone – including the ORC, but the team have been incredibly resilient and have risen to the occasion by consistently delivering across our research themes. Knowledge Exchange remains at the core of our work so that we can share what we do and how we do it as widely as possible.

Across ORC, the team has worked exceptionally hard to ensure that we are in the best position to support the farming community in all areas. For example through the provision of evidence and information on the practices that really deliver as the industry transitions to ELM (Environmental Land Management). This review highlights some of the key achievements we have delivered over the past year as an organisation working in collaboration with farmers, researchers, and policy makers, whilst keeping to our promise of ensuring our research findings are freely available to everyone.

We remain confident that there is an alternative way of producing healthy and resilient food and farming systems which works in harmony with nature, and we will continue to work with stakeholders on this important issue - to drive change from the ground up. I am so proud of everything the team has achieved in the past year and I also want to take this opportunity to thank you for your support in making it happen, without you it simply would not be possible.

Lucy MacLennan
Chief Executive

2020 at ORC

Diversification

"ORC's strengths lie in its diverse range of expertise, whilst maintaining an openness to innovation and ideas from farmers and other experts. This is what makes ORC unique as the research is holistic and inclusive"

Rowan Dumper-Pollard
Organic Business and Markets Researcher, ORC

Integration

"I have been lucky to be able to enjoy the continued participation of farmers in my research. Indeed, there were opportunities to further integrate some of our projects and farmers during this time, for example incorporating soil testing and LiveWheat"

Dominic Amos
Senior Crops Researcher, ORC

Participation

"Taking everything online helped to enable wider participation and sped up the development of multimedia knowledge exchange, encouraging dialogue on key topics - such as the concept of health as part of the System Health project"

Janie Caldbeck
Agricology Content Editor, ORC

ORC Communication



Communication has been a key focus of our work in 2020, whilst also continuing to deliver across a range of research and knowledge exchange projects in collaboration with national and international partners and all our stakeholders.

Our most notable change was the launch of our new website in September, which has greatly improved our ability to share our work with a wider audience.

Over the last forty years, our research and knowledge exchange has helped to change the future of food and farming.

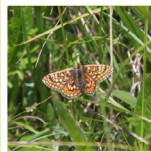
Crop Diversity
& Agronomy



Animal
Husbandry



Food
Systems



Business
& Markets



Agroforestry



Organic farm conversion

Converting to organic farming?

Can I control the weeds? Will I be able to grow enough forage? What yields can I expect? How do I ensure the health of my animals? How long will conversion take? How do I get organic certification? Will it be profitable?

Our reach in 2020



22 projects

worth £ 3,347,854
with over 220 partners
from all over the world

**7 peer-reviewed
articles in
scientific journals**

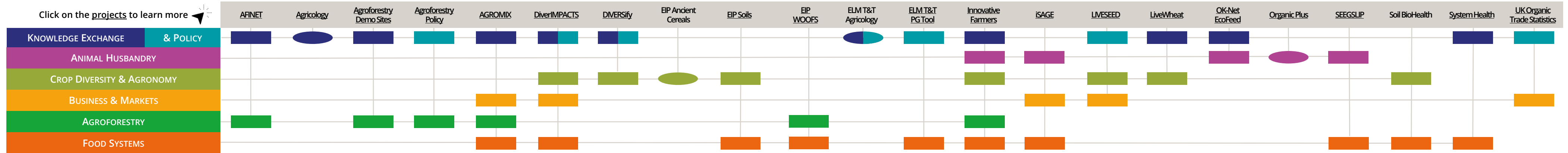
**6 technical guides
for practice**

@ Lisa Arguile Sustainability Researcher, ORC

Research Overview

Projects span all of ORC's research themes - key highlights detailed below

KEY:  theme-specific projects  multi-theme projects



DIVERSify



- Crop species mixtures or 'plant teams' can reduce losses to weeds, pests and diseases, improve yields and enhance resilience to environmental change. DIVERSify developed evidence/guidance on how to optimally apply plant teams.
- ORC led on knowledge exchange for the project and created a legacy website highlighting the key results, resources and tools by all project partners: plant-teams.org.
- We also conducted on-farm trials to test different plant teams in collaboration with farmers to improve understanding of how plant teams can be used in relation to specific agronomic challenges.
- Policy relevant outputs were part of our work including the web series 'Growing Beyond Monoculture', which has had 87,000 views so far, and an online policy toolbox.

Silvopasture benefits for livestock



- ORC researched the value of trees for livestock. This included developing a new method to analyse condensed tannins (CTs) in leaves/twigs. CTs promote protein availability and help control internal parasites.
- Farmers and advisors are interested in the value of trees for livestock, including shade, shelter and increased productivity. ORC has contributed to a range of publications, including the Agroforestry Handbook, and regularly presented work to farmer groups and at industry events.
- This work has led to the development of a long-term Innovative Farmers field lab with seven farmers in Devon on the livestock benefits of silvopasture. ORC will provide expertise in silvopasture design and research to optimise livestock health and welfare.

LIVESEED



- The new EU Organic Regulation 2018/848 has announced the phasing out of derogations for the use of non-organic seed by 2036, in line with the principle that organic farming should be using organic inputs.
- As part of the LIVESEED EU project, ORC led an EU-wide survey: the first investigation involving hundreds of farmers throughout Europe to understand how realistic the target of phasing out derogations is.
- Farmers claimed a lack of availability of organic seed for a wide range of species and varieties.
- Our work has revealed potentially competing objectives within the Organic Regulation between the use of allowed input (seed) and important organic practices such as crop diversification, sparking an important debate on how to implement the regulation effectively while respecting all the organic principles.

LiveWheat



- On-farm wheat variety trials led by ORC with a network of organic and low-input farmers can improve understanding of the effects of genetics, environment and management on crop performance.
- Early results show that varieties differ in their ability to outcompete weeds, a trait neglected in conventional breeding and variety testing. Evidence of the link between key traits, such as early vigour, and grain yield is being obtained.
- Data from farm-scale trials, plus climatic and soil data, is progressing knowledge of the factors affecting wheat performance in organic and low-input conditions.
- Collecting weed community data revealed that organic farms have higher species richness and reduced overall dominance of an individual weed species.

OK-Net EcoFeed



- Feeding organic pigs and poultry on 100% organic and regional feed is a challenge within organic farming, and when working towards wider agricultural sustainability.
- ORC coordinated Innovation Groups (IGs) testing tools to support the shift to organic and regional feed. This involved managing an integrated process for all IGs across Europe.
- Close relations within and between IGs became increasingly important throughout the pandemic as testing activity was disrupted. All trials but one were successfully completed and farmers explored a range of useful tools.
- ORC designed a final meeting for IGs to share results. A project partner reported "keen interest in the activities in Europe with a positive response to the opportunity to share the results from trials across the groups".

System Health



- A guiding principle of organic agriculture is the aim to promote health at all levels in the farming system yet much farmer knowledge of 'how' is often implicit.
- A network of farms in the UK, Germany and Austria developed a set of criteria for measuring farm health and principles were published to enhance farmer-to-farmer learning in the form of 10 key statements.
- During 2020 UK farmers were asked to reflect on how the project and principles informed their farming, and vice versa, and how they could be applied by others. Videos and podcasts were recorded and shared on agricology.co.uk.
- The project highlighted mechanisms for sharing farmer knowledge of health and other organic principles. This learning is informing the development of regional farm hubs.

“Building on the outcomes of the DIVERSify trial, we have gone further down the road with companion cropping. Our peas are all grown with barley now, and we are adding peas to most of our spring wheats”

Mark Lea
Green Acres Farm

“Working with ORC has helped galvanise our thoughts on how we work, joining things up and picking out what is really going right. As a result, if I was answering someone who asked *What do I do?* I would say *Put health at the heart of everything you do*”

Richard Gantlett
Yatesbury House Farm

“A fascinating ORC presentation in 2019 was the impetus for developing a silvopasture trial with farmers and scientists. The demand for silvopasture has since risen dramatically”

Luke Dale-Harris
FWAG South West

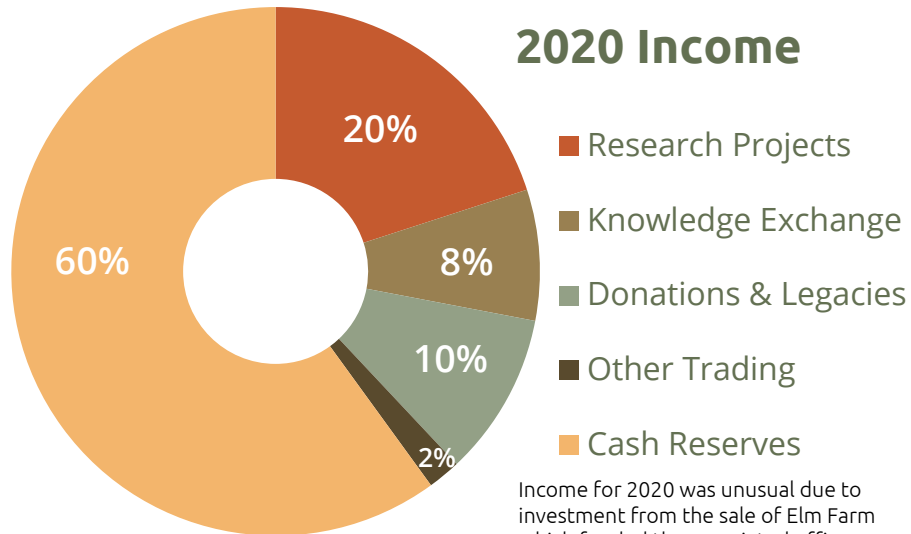
“During the DIVERSify project, I have been impressed by the enthusiasm and dedication of ORC colleagues, by their ability to engage innovative stakeholders and encourage partners to achieve excellent results, and by the consistently high standard of outputs they produced – particularly the DIVERSify legacy website. I sincerely hope our collaboration continues and strengthens”

Alison Karley
The James Hutton Institute

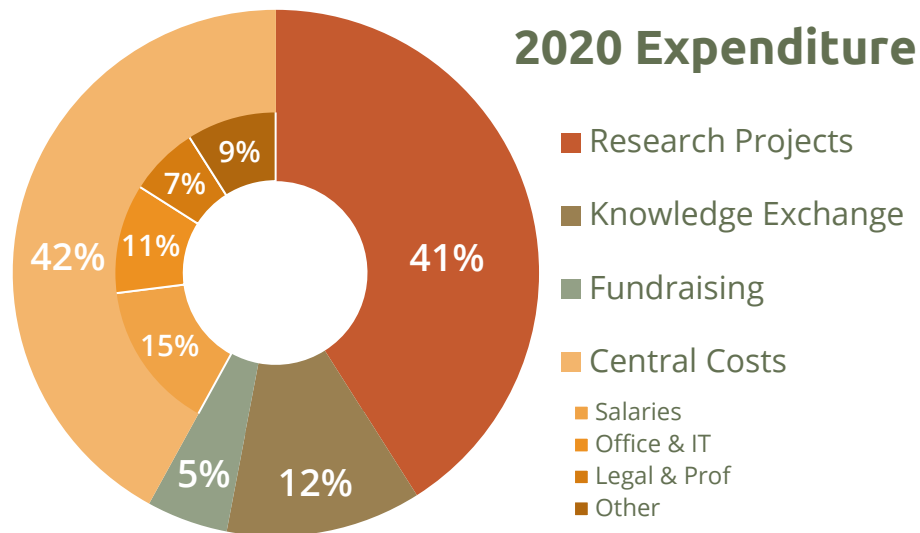
“The recent Defra statistics for organic cereals show that the organic wheat area is growing for the first time in 10 years. It would be a bold claim to suggest that this is solely due to the improved information available from the LiveWheat project, however, it would certainly be foolish to say that providing farmers with better information does not help them improve their management decisions and confidence in growing organic wheat”

Andrew Trump
Organic Arable

How we operated



Income for 2020 was unusual due to investment from the sale of Elm Farm which funded the associated office move and clearance of debts



Thanks to you!

We would like to thank all the individuals and organisations that have supported our work in 2019-20 and made our ground-breaking research and knowledge exchange programme possible. Particular thanks go to Mr & Mrs Leslie Pope for their generous legacy and for the support we received from their family in using their donation to develop and launch our new website to help benefit the wider farming community.

The support we receive from all our donors is hugely appreciated and gives us confidence in pursuing our ambition to drive forward organic research and share the results with as wide an audience as possible.

The Organic Research Centre



@ Lisa Arguile

Support us

If you would like to find out more ways in which you can support the ORC, please visit

[organicresearchcentre.com/donate](https://www.organicresearchcentre.com/donate)



ORC

CONTACTS

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

PHONE (Switchboard) +44 (0)1488 658298

FAX +44 (0)1488 658503

hello@organicresearchcentre.com

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