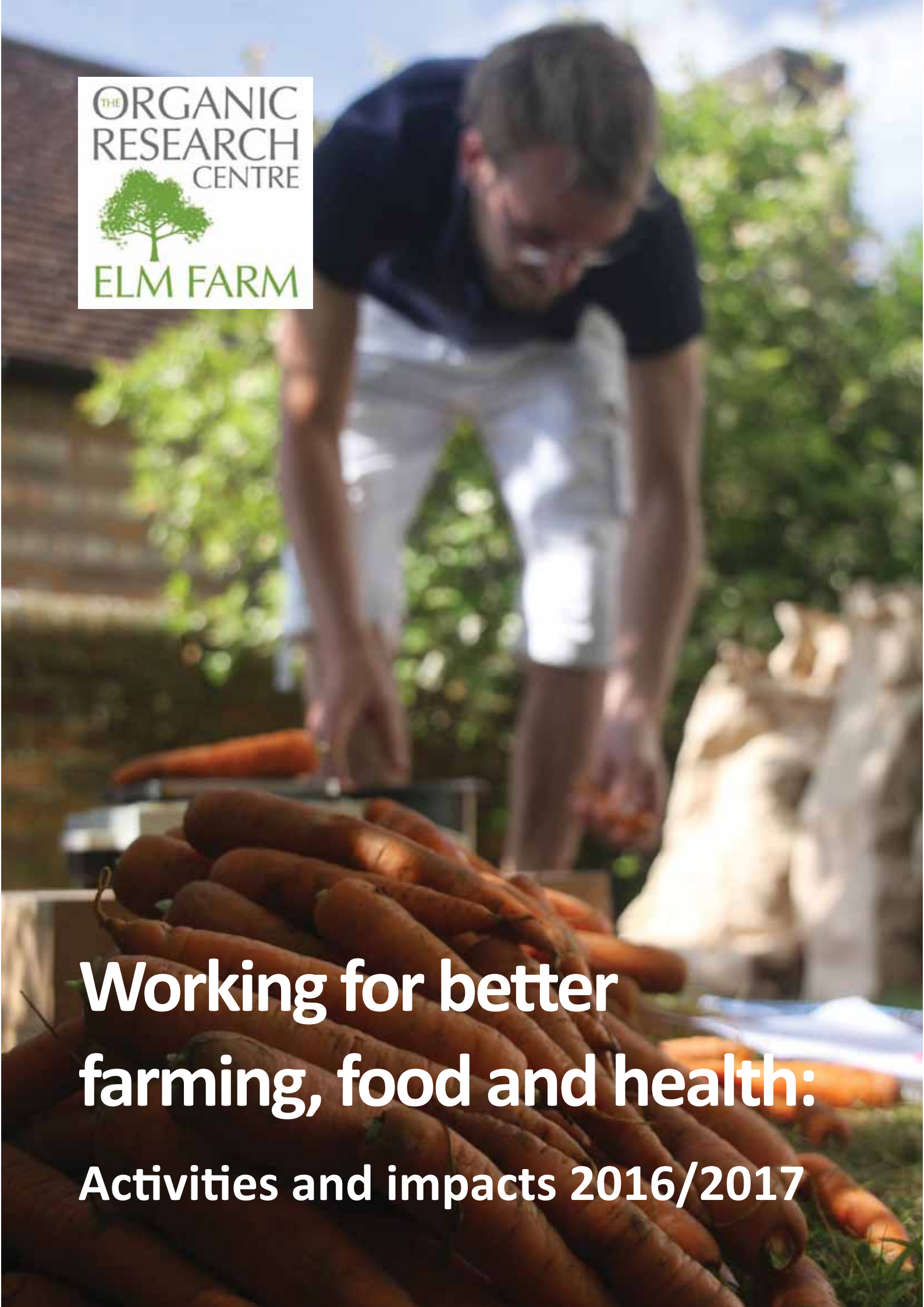


Working for better farming, food and health:

Activities and impacts 2016/2017

Changing times

Welcome to our new format review of the Organic Research Centre's activities and their impact.

The last two years have seen many changes, not least the Brexit referendum and the uncertainty that has followed. We've seen some big changes too.

In 2016, we secured a significant increase in project funding, leading to a big expansion in our staffing and activities from 2017. We're looking to sustain this, in the future.

In 2017, we also benefited from a major legacy, enabling us to set up the Dean Organic Fund to provide interest-free loans to smaller-scale organic producers and food businesses.

In our role leading the English Organic Forum, we were invited by Defra to form the Organic Roundtable and initiate work on a new, industry-led organic action plan.

We started marketing the ORC Wakelyns Population wheat seed, potentially revolutionising the way we breed and market seeds in the UK and Europe.

We produced a series of new publications aimed at farmers, including soil fertility and weed control guides, and an all new Organic Farm Management Handbook.

All this reflects a new confidence and renewed growth in the UK organic sector. We are ready to support this process, with high quality research, information and communication, to ensure that organic food and farming can really achieve its potential.

As a Charity, our donors play an important role in supporting much of what we do, with donations of £120,000 in 2017 contributing nearly 10% of our income. We hope that you will be with us on the journey. Read on to find out more about what we've been doing and the difference that it makes.

Nic Lampkin

Chief Executive

About the Organic Research Centre

Established in 1980, the Organic Research Centre (ORC) is one of the world's leading research organisations dedicated to research focused on organic farming and food and other agroecological approaches such as agroforestry.

Our vision is of a world which meets the nutritional needs of current and future generations with safe, affordable, high quality food, produced in a way that sustains and enhances the natural environment and ensures health and wellbeing for all.

We work to develop and promote practical and sustainable land management and food production systems based on organic and agroecological principles. We foster knowledge exchange between current and future producers, food businesses and other professionals, and we work to influence policy and public debates on the future of food and farming.

Our dedicated team engages with national and international research partners, farmers, businesses, governments and consumers. We work with those already involved in organic farming and with those who aren't.

ORC offers evidence-based advice and information to help make a tangible difference. Everything we do brings us closer to the world that we want to see.

Our trustees

Vikas Agrawal (Treasurer)
Alice Astor
Tim Bennett
Adrian Blackshaw
Donald Peck
Andrea Stewart
Mike Turnbull (Chair)
Margaret Wagner
Christine Watson
Ned Westaway

Our patrons

Christopher Bielenberg
Juliet Kindersley
Peter Kindersley
The Duchess of Richmond and Gordon
Yvonne Pye
Jan Sundt

Retiring trustees 2016/17

Andrew Jedwell, David Wilson, David Wolfe, Pat Thomas, Clare Marriage

Why organic matters

Organic food is now well known all over the world, produced and sold to consumers for more than fifty years and supported by governments in many countries. But, organic isn't just about the food on our plates. Our clothes and many other products are also produced in the farmed environment.

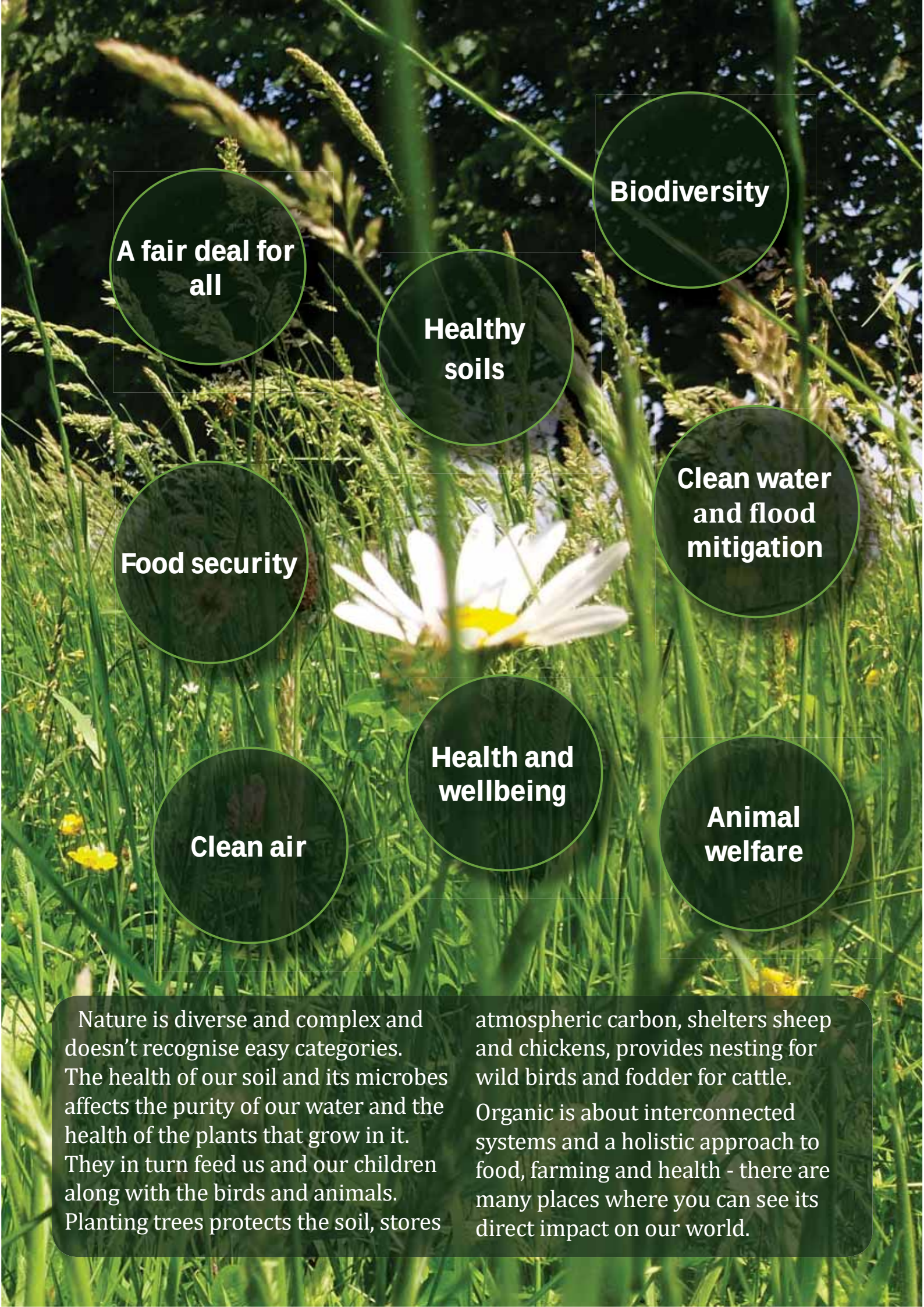
Everything from the water we drink, the air we breathe and the planet that we all share is affected by the way we farm our land and manage our resources. Organic farming and food production works with the environment, not against it.

Organic farming techniques reduce the need for artificial fertilisers, pesticides, herbicides and fungicides, which can contaminate the environment and the food that we eat. Reduced use of these chemicals is good for the farm workers who work with them too.

Organic farming protects our water quality, reduces the risk of flooding, encourages higher standards of animal welfare, uses less non-renewable resources, lowers greenhouse gas emissions, protects delicate ecosystems and increases biodiversity.

Organic farming and food production has been shown to be better for you and better for the planet.

By bringing robust, practical and well-researched farming and land management techniques into the mainstream, ORC is helping make a better world for everyone.



Nature is diverse and complex and doesn't recognise easy categories. The health of our soil and its microbes affects the purity of our water and the health of the plants that grow in it. They in turn feed us and our children along with the birds and animals. Planting trees protects the soil, stores atmospheric carbon, shelters sheep and chickens, provides nesting for wild birds and fodder for cattle.

Organic is about interconnected systems and a holistic approach to food, farming and health - there are many places where you can see its direct impact on our world.

Our programmes

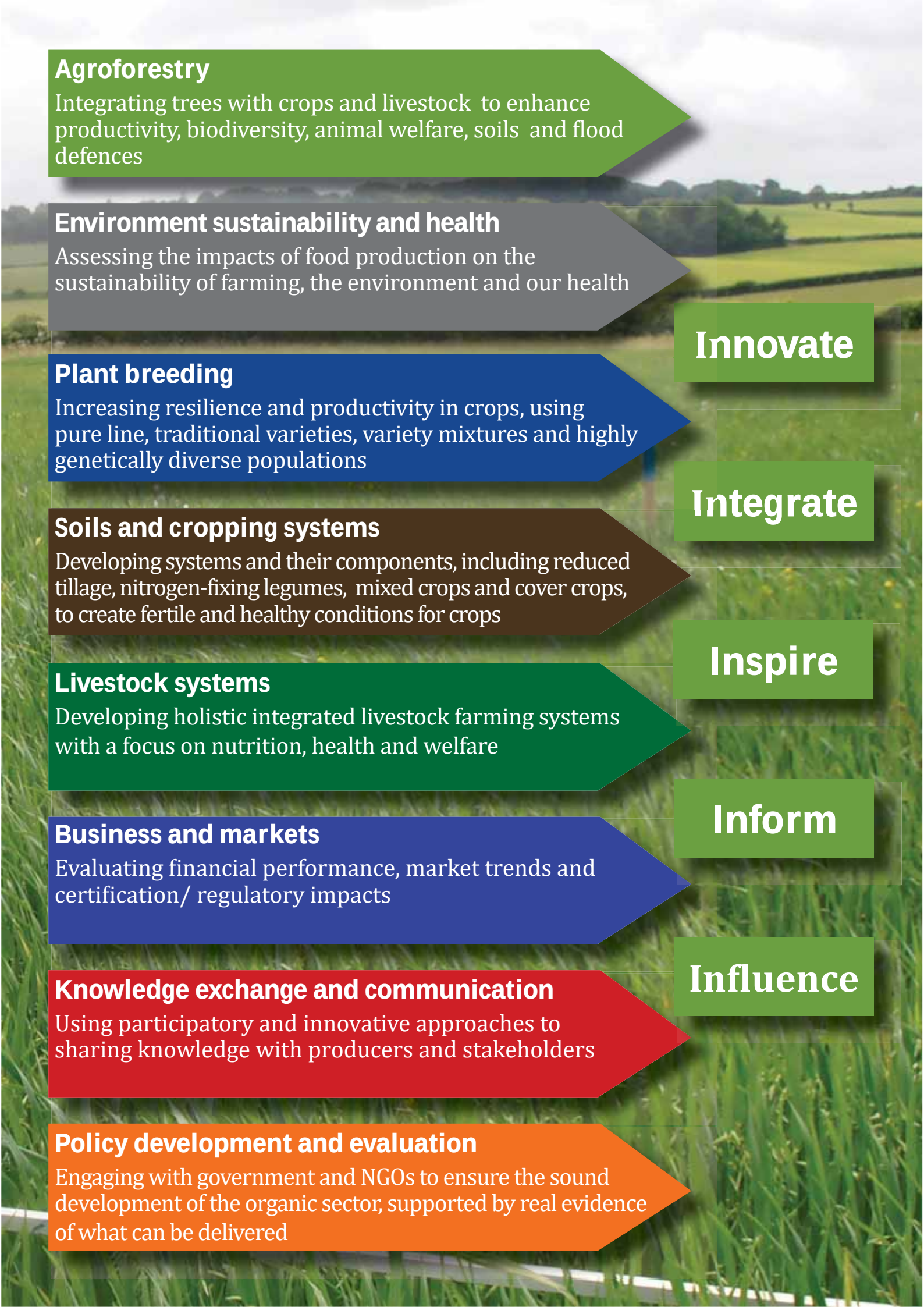
In 2016 and 2017, ORC was a major contributor to 34 national and international research projects, contributing to the world's knowledge and practical resources for farmers, businesses and other professionals and for academics, students and the public.

At ORC we produce scientific papers, technical guides and other publications. With our partners, organic and non-organic, we contribute to many hundreds more each year. Our work influences policy locally, nationally and beyond, but it's not just about big ideas.

Farming and food production is a practical, hands-on business and our researchers spend much of their time working directly with, producers and food businesses. The direct participation of those who benefit from the work, in field labs and events, helps active learning and knowledge exchange.

"ORC's report on the Role of Agroecology in Sustainable Intensification is superb - clear, cogent, authoritative, and balanced. Not many manage to do this in this area! "

Jules Pretty, Professor of Environment & Society, University of Essex


Agroforestry
Integrating trees with crops and livestock to enhance productivity, biodiversity, animal welfare, soils and flood defences
Environment sustainability and health
Assessing the impacts of food production on the sustainability of farming, the environment and our health
Innovate
Plant breeding
Increasing resilience and productivity in crops, using pure line, traditional varieties, variety mixtures and highly genetically diverse populations
Integrate
Soils and cropping systems
Developing systems and their components, including reduced tillage, nitrogen-fixing legumes, mixed crops and cover crops, to create fertile and healthy conditions for crops
Inspire
Livestock systems
Developing holistic integrated livestock farming systems with a focus on nutrition, health and welfare
Inform
Business and markets
Evaluating financial performance, market trends and certification/ regulatory impacts
Influence
Knowledge exchange and communication
Using participatory and innovative approaches to sharing knowledge with producers and stakeholders
Policy development and evaluation
Engaging with government and NGOs to ensure the sound development of the organic sector, supported by real evidence of what can be delivered

Enhancing biodiversity

The way we farm and the natural world are closely interlinked, but the last fifty years have seen serious declines in farmland biodiversity. Recent studies have highlighted the rapid disappearance of plants, insects and birds in the countryside. Field sizes have increased with the removal of hedges, rotations have been simplified and pesticides and herbicides have impacted directly on a wide range of species.

Agroecological approaches like organic farming and agroforestry benefit nature at all levels, from soil microbes to plants, insects, wild mammals, birds and of course us. By stopping the use of herbicides and pesticides and replacing them with crop rotations, diverse crop mixtures and habitats to encourage wildlife, organic farming works with nature and not against it.

Using more diverse crops

Biodiversity doesn't need to be just something that happens around food crops, it can also happen within them. By using innovative plant teams (mixtures of species and cultivars) and a more diverse assortment of crops, farmers can create more resilient systems and consumers can be given greater variety and choice.

Our Crops Programme worked with three EU-funded projects, DIVERSIFOOD, DiverIMPACTS and DIVERSify, investigating increased crops ranges and how crop mixtures and rotations can be used to improve yields and productivity.

Breeding for diversity

We are breeding genetically diverse populations of cereals, in order to improve crop resilience in response to changing weather conditions and pest pressures. We have now obtained permission to test market the ORC Wakelyns Population and sold our first seed crop in 2017. We continue to see its ability to thrive in conditions where best-selling commercial varieties fail.

The EU-funded LIVESEED project continues to trial many more varieties of organic wheat across farms run by our 'Magnificent 7' farmers in a diverse set of conditions. This will help us to revolutionise the way farmers choose seed that is fit for places and climates across Europe. We are also working on the EU-funded Whealbi and DIVERSIFOOD project sexperimenting with some ancient varieties including the first ever domesticated wheat.

Integrating trees and farming

ORC's Agroforestry Programme is at the forefront of work to develop systems in which trees, livestock, perennials and other crops can work together.

Our EU-funded AFINET project has highlighted that many farmers want more information on costs, benefits and methods. Most of all they want to hear from other farmers running real agroforestry systems.

We have worked with 26 partner organisations in 23 countries as part of a major EU-funded project, AGFORWARD, which we completed in 2017, producing a multitude of fact-sheets, practical guides, scientific papers and policy reviews, looking at all things agroforestry.

ORC counts!

35
farmer experiments on intercropping and crop rotation

125
more farmers considering a change to agroforestry

90
people attending agroforestry workshops and farm visits

1000s
of farmers and experts across Europe sharing knowledge and best practice

54,000
readers saw our articles on agroforestry in Farmers Weekly

13
tonnes of ORC Wakelyns Population seed sold

600
tonnes of useable Wakelyns wheat grown

Building soil health

A recent report by the UN's Food and Agriculture Organisation estimated that much of the world's productive soil has no more than 60 years of agricultural viability left in it. Even now 12 million hectares of farmland are lost every year due to soil degradation and erosion.

While more glamorous ecosystems like rainforests and oceans get much of the attention, the ecosystem on which we most depend is right under our feet. Looking after the soil is no smaller project than saving the earth itself.

Soils do all this for us!

- Erosion resistance
- Water purification
- Sustainable food, fibre and fuel
- Nutrient cycling
- Flood regulation
- Wildlife habitat
- Carbon sequestration
- Climate regulation

The EU-funded OSCAR project studied cover cropping, including plant choice, cultivation methods and machinery, developing targeted systems for varied conditions in both organic and conventional farming. Hundreds of people are now participating in the project wiki and using the tool kits that we helped to create.

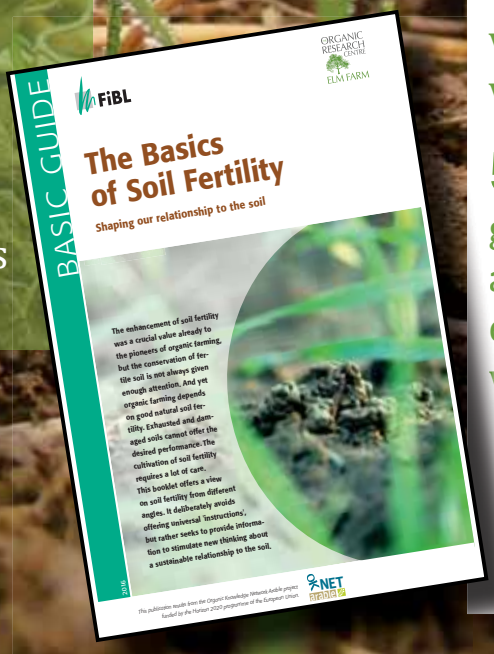
Meanwhile, in our Innovative Farmers field labs, we have been looking at how digestate (a by-product of biogas production) can be used more effectively to support fertility on organic farms.

ORC has been testing specially designed machinery, minimum tillage and innovative plant teams on farms around the country including the 100% organic Duchy Home Farm.

The GREATsoils project, funded by AHDB Horticulture and run in partnership with the Soil Association and Earthcare Technical, assessed current methods of soil testing via a programme of knowledge exchange. ORC is taking this work further with a new project funded by England's Rural Payments Agency and the European Innovation Partnership comparing soil analysis methods on UK dairy farms.

"The OSCAR software is self-explanatory and therefore very easy to use"
Bioland, Germany.

"The participants found the criteria approach relevant, the tool is easy to use and playful"
ROTAB, France.



GREATsoils in numbers

690
farmers, producers and experts in the GREATsoils network

1475
Twitter followers exchanging information

16
downloadable information sheets, guidance notes and case studies

5
online webinars each of which has been watched more than 200 times

3000+
views of online video guides

543
growers attending 37 events and workshops

Protecting water for life

Clean, fresh water is essential for all life to exist. Agricultural practices, including the use of fertilisers and pesticides, as well as soil erosion, cause surface and groundwater pollution. It's been estimated that close to £100 million a year is needed to clean up nitrates and pesticides to make water supplies fit for drinking.

Nutrients in water courses also lead to eutrophication and algal blooms depriving other plants and animals of oxygen.

Serious pollution incidents in the UK from livestock farms are now a regular occurrence, harming wildlife, fish, farm livestock and the water that we drink.

Reducing pollution

Organic farming substantially reduces nutrient and pesticide contamination by promoting nitrogen self-sufficiency through biological fixation and the recycling of other nutrients. Our research, information and planning tools (including NDICEA tested as part of the OK-Net Arable project in 2017) are helping make even more improvements.

In the long-term we need to find ways to close nutrient cycles by returning nutrients like phosphorus from cities to the land, not sending them out through our sewage systems to the sea. Struvite, a concentrated form of phosphorus obtained from sewage treatment, may provide a mechanism to do this in the near future. ORC contributed to advice to the European Commission on this issue in 2016.

Linear phosphorus utilisation in current agriculture. Source: UNEP (2011)

"NDICEA has shown me that we are all mining the soil, unless we are bringing in nutrients to balance exports of meat, straw, forage and grain"

John Pawsey, Shimpling Park Farm

Conserving water and reducing flooding

By encouraging the use of mulches, cover crops and shade trees, building soil organic matter and not spraying off weeds, organic practices help conserve our water supplies too.

Organic management also reduces the risk of floods, which are estimated to cost the UK over £1.5 billion each year.

By promoting smaller fields, and better soil management practices that encourage water infiltration, via earthworm channels, the soil acts as a sponge, slowing movement of water across the landscape.

When trees are reintroduced to the landscape as part of agroforestry systems, they increase soil protection from surface erosion. Tree roots can enhance water infiltration and improve water storage by increasing the number of soil pores, channelling surface water away and allowing air and moisture to move into the soil further reducing the risk of soil erosion and flooding.

A key future priority of our donor-supported policy work is to get organic farming's benefits recognised in catchment friendly farming and flood protection schemes – something which already happens in other countries.

Increasing animal welfare

There is a growing consumer demand for ethically produced meat, dairy and other animal products. The use of antibiotics, intensive farming methods and animal welfare are all important to consumers.

Organically reared animals have a natural diet and outside access (weather permitting), living in an environment that allows them to express as much of their natural behaviour as possible.

ORC has been working with organic and conventional farmers, producers, retailers and other businesses to promote higher standards of welfare. By helping everyone to think about issues like animal health and welfare, we hope to improve the lives of all animals reared for food, wool and milk.

Beef and dairy

ORCs work in agroforestry is also benefiting animals by offering an enhanced environment and natural foraging. The EU-funded SOLID project has been looking at dairy production in agroforestry systems since 2011 and has built up a wealth of knowledge that is disseminated through our Agricology website and through the SOLID partnership website itself.

Sheep and goats

The EU-funded iSAGE project is looking at sheep and goat farming across Europe. Through field labs all over the continent it is helping farmers to understand and implement organic and sustainable principles. But very often the simplest things can make a huge difference. Already making an impact are Flock Health Clubs which join sheep and goat farmers up with local vets to talk through potential issues before they arise.

Stock numbers!

20

downloads every week of the SOLID farmer handbook

1,000,000

farmed sheep and goats potentially benefiting from iSAGE findings

Pigs and poultry

We have been building on our previous work to meet the nutritional needs of pigs using organic, foraged and locally sourced feed. We have also shown how producers can feed poultry by integrating trees and shrubs in their range, giving access to a wider range of forage and insects.

Reducing air pollution and mitigating climate change

The air we breathe contains nitrogen, carbon dioxide and oxygen. These are all natural gases essential to life, but which can be harmful if in excess or when combined with other elements.

These gases are also cyclical in nature, in that organisms – microbes, plants and animals – have evolved to capture them to store energy (through photosynthesis building carbon compounds) and build proteins (through biological nitrogen fixation by legumes and other organisms), eventually breaking down the compounds when digested, releasing them back to the atmosphere.

Agriculture is not like other industrial processes consuming resources and producing waste products. As a biological system, agriculture has the potential to capture and store as well as release these elements. Farming can be part of the solution, not just part of the problem. Our work at ORC is focused on this challenge.

Air pollution

Agriculture can be a major source of air pollution, including nitrous oxide emissions from fertiliser manufacture, spray drift, diesel fumes and ammonia losses from livestock systems.

Organic systems restrict agrochemical and fossil energy inputs, encourage free range production of livestock and prohibit permanent housing and intensive feedlot systems.

Agroforestry also has a contribution to make, as trees can trap ammonia reducing their spread and deposition on sensitive habitats.

"ORC has made us more aware as a farm of what we contribute to the local environment and the community"

John Newman - Abbey Home Farm

Greenhouse gas emissions

Food production contributes to greenhouse gas emissions and climate change, but is also part of the solution.

Organic farming reduces fossil energy use and avoids inputs that generate emissions in their manufacture. Organic methods also support the building of organic matter in soils, storing carbon captured from the atmosphere through photosynthesis.

Overall, organic practices have been shown to reduce greenhouse gas emissions per hectare, but because of reduced yields, the emissions per unit of food produced may not be so different.

ORC's Laurence Smith, in his 2017 Cranfield University PhD, investigated the impacts of 100% conversion to organic farming in the UK. He found a reduction in fossil energy use and greenhouse gas emissions for most crops and livestock products under organic management. However, additional land would be needed to maintain current diets, which may offset the emissions reduction. Dietary changes would be necessary to ensure the full benefits could be achieved.

Sustainability assessment, e.g. ORC's Public Goods tool, can help balance different environmental goals. In 2017, we undertook a study for the Sustainable Food Trust to see what opportunities there were for more widespread adoption and convergence of tools like this.

Improving health and wellbeing

The way food is produced impacts on its quality and on the health of those who consume it.

Because organic standards restrict the use of agrochemicals, organic food has been shown to contain fewer pesticide residues and other contaminants. But there is more to it than that.

Avoiding the use of soluble nitrogen fertilisers reduces excess uptake by plants and the accumulation of nitrates in leaves, with benefits for plant and human health.

Organic food processing also seeks to reduce the use of food additives.

There are positive nutritional impacts too. Restricting the use of soluble fertilisers improves the balance of key minerals taken up by forage benefitting animal health.

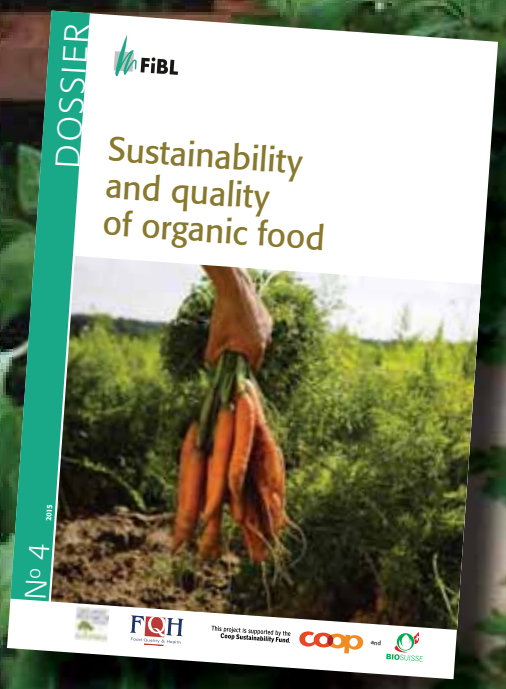
By emphasising the use of grass forage for livestock feed, organic milk contains up to 50% more omega-3 and less saturated fats than milk produced with high grain inputs.

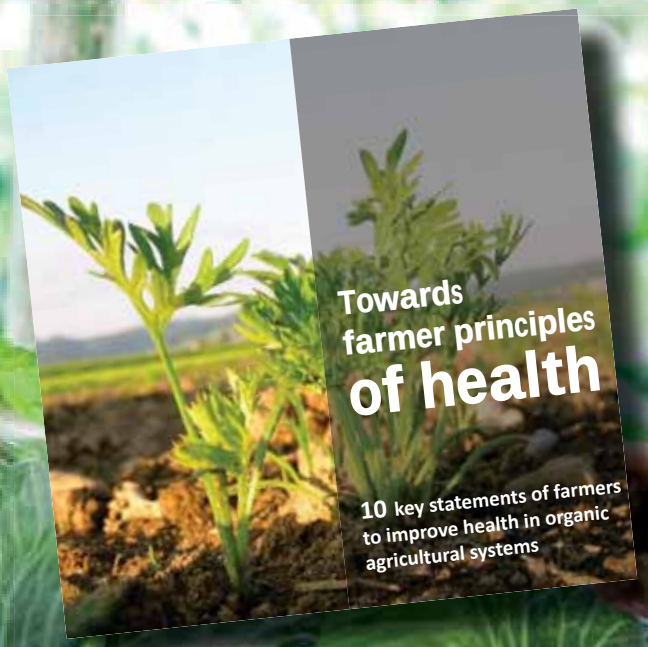
And research at Newcastle University has concluded that organic food contains more antioxidants, which help prevent cancer and heart disease and boost our immune systems.

ORC's *Sustainability and Quality of Organic Food* dossier, published with our Swiss partner FIBL, contains detailed evidence on how organic practices impact on food quality and health.

Nutritional quality is only part of the story. Diet and lifestyle are also important. There is increasing evidence that people eating a high proportion of organic products also eat a healthier and more sustainable diet, and they may also exhibit different lifestyle behaviours.

In 2017, ORC joined the international Organic Food System Programme, a core initiative of the UN 10-year Framework of Programmes on Sustainable Consumption and Production. This will provide a good basis for future research collaboration on sustainable food systems and diets.





Farmer health principles

10

key statements of farmers to improve health in organic agricultural systems, covering:

1. Soil health
2. Biodiversity
3. Systems thinking
4. Observational skils
5. Intuition and self-observation
6. Overview
7. Long-term thinking and acting
8. Shifting goals
9. Impart health
10. Indicators

Our work on the Ekhaga Foundation-funded Health Networks project has taken a broader look at the subject of health in and around farming, food production and the whole chain of people, organisations and processes involved in our food, cosmetics, textiles and everything else that derives from the farmed environment. 15 UK farmers collaborated with farmers from other European countries to create 'Farmer Principles of Health'.

As one of the founders of the organic movement, Lady Eve Balfour famously said, "The health of soil, plant, animal and man is one and indivisible." Our work helps farmers to act on these principles in their day-to-day farming.

"The focus on Health in this ORC project has been inspirational. In fact, everything that we do on the farm can be condensed down to one word. Health!"

Richard Gantlett, Yatesbury House Farm

Getting a fair deal for all

If organic farming is about managing soils, plants and animals sustainably, creating benefits for society and the environment, the business of organic food should also encompass concepts of fairness and equity in trading and employment relationships throughout the supply chain. Sufficient safe, affordable, high quality food should be available for all, without exploitation of citizens, whatever their role, or the environment.

A fair deal for the consumer

In 2016 the average person spent 11% of their income on food and (non alcoholic) drink . That's an average of £56.80 for every man woman and child in the UK, every week. At the moment the total UK organic market represents just 1.5% of that figure. This compares with 13.5% in Denmark. But the UK organic market is growing and is now worth more than £2bn annually.

Despite increased interest in its health and environmental benefits, barriers to increased consumption include restricted availability and higher prices. Organic is good for everyone and at ORC we are working hard to make sure that it is accessible and affordable for everyone too.

Unlike many other food assurance schemes, organic food is legally regulated across Europe and in many other parts of the world so consumers know that if it says "organic", they are getting organic.

ORC has been helping in this process, by providing expert advice to the European Commission and to the UK government on plans for a major new regulation to be implemented in 2021. We're now preparing a report for Defra on options for regulating organic food after Brexit.

"ORC's presentation of the Transition project results was really interesting, and I found the wide-ranging discussion really stimulating and insightful."

Jilly Hall, Chief Scientist Directorate, Natural England

A fair deal for the producer

For farmers to convert to organic production, they need to be confident that the change will be financially sustainable. It won't help the environment if farmers suffer financially in the process.

With somewhat lower yields but many other benefits, including cost savings, due to not using artificial inputs, organic farmers do need higher prices to maintain incomes. But if the benefits are for all, should the minority of citizens who buy organic food have to pay all the costs? There is a role for society, through government, to support the delivery of public benefits by farmers. ORC's financial and environmental assessments have had a direct impact on the support payments received by organic producers.

ORC collects, analyses and publishes technical and financial data on organic production, including in the Organic Farm Management Handbook – the 11th edition was published in 2017.

We've also tried to understand the factors that influence farmers' interest in conversion to organic or other agroecological approaches – our report on Transitions to Agroecology, funded by Scottish Natural Heritage, has now been published. As one farmer told us, "it's more to do with a state of mind that any particular system." But access to information and support to build confidence also play an important role.

A fair deal for food businesses

The organic market would not function to support farmers financially and provide consumers with the food they are looking for without the participation of many food processing, distribution, trading, retailing and catering businesses.

The EU-funded CERERE project has helped farmers, researchers and others to experiment and exchange knowledge about diversity-based 'alternative' cereal food systems. These include local, decentralised approaches to production and processing and short supply chains for products with strong local identities. Longer supply chains add costs which are inevitably passed on to the consumer.

ORC has also been advising the EU Interreg -funded SME Organics project, which has been supporting the development of eight regional action plans across Europe with a focus on developing food supply chains.

Looking to the future, we need to get a significant improvement in the quality and availability of organic market data – ORC has played a key role in the past in defining standards for market data quality, but the availability of good data in the UK remains very limited. This is something which needs to be addressed with some urgency if UK businesses are to take advantage of the opportunities that exist.

This and other issues are being tackled as part of the development of a new industry-led organic action plan for England, which is being led by ORC and will be published later in 2018.

Organic market 2016

Organic land area (Mha)

UK:0.5 ES:2.0 EU:13.5

Organic share of farmland (%)

UK:2.9 AT:22 EU:6.7

Market value (£ billion)

UK:2 DE:8 EU:29

Organic share of market (%)

UK:1.5 DK:9.7 EU:N/A

Market growth (% up on 2015)

UK:7.1 DE:20 EU:12

Per head consumption (£/yr)

UK:33 CH:240 EU:35

Exchange rate: 1 GBP = 1.15 EUR

"We would like to make a donation to ORC as a charity that inspires us."

Infinity Foods Co-operative, Brighton

Sharing knowledge

Information and knowledge exchange is central to what we do, working with many individuals and organisations. Almost all our work is funded for public benefit, and the results are freely available.

Of particular importance is working directly with the farmers, businesses, professionals and other citizens who benefit. Much of our research takes place on farms, including Innovative Farmers field labs.

Our participatory approach involves the beneficiaries being directly involved in research—not just by identifying priorities, but also by taking part in setting up trials and collecting, analysing and interpreting data.

We share knowledge in practical workshops and through videos, blogs, social media and online knowledge hubs including Agricology, funded by the Daylesford Foundation. We publish papers, factsheets, technical guides, policy reviews and regular bulletins.

ORC staff teach and supervise students, in particular through the distance learning organic farming degree with SRUC, and we host about 10 interns at ORC.

Agricology.co.uk is led by ORC in partnership with Game and Wildlife Conservation Trust and the Daylesford Foundation.

Info stats

5000+
Twitter followers

600
field lab participants

226
at farm visits and ORC talks

500+
using OK-Net Arable online guides

1,646,305
reach of all Agricology channels in 2017

Our publications

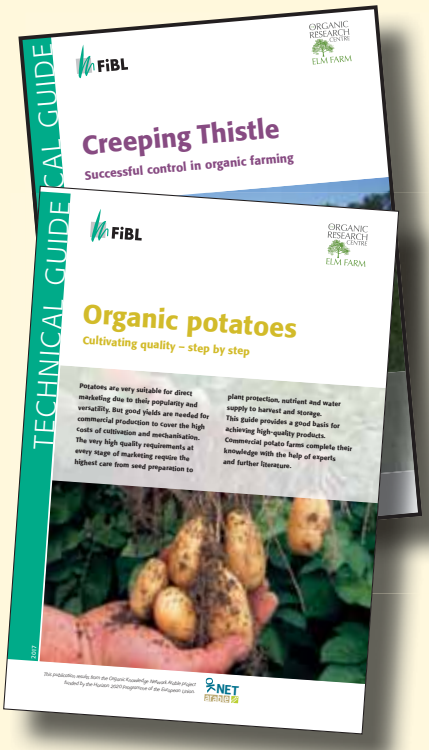
4 issues (120-123) of the ORC Bulletin were produced in 2016/2017.

Tools, guides and handbooks

2017 Organic Farm Management Handbook (11th edition). ORC, Newbury.

The Basics of Soil Fertility: Shaping our relationship to the soil (2016). FIBL and ORC. Frick and Newbury.

Creeping Thistle: Successful control in organic farming (2016) FIBL and ORC. Frick and Newbury.



Organic potatoes: Cultivating quality – step by step (2017) FIBL and ORC. Frick and Newbury.

Agroforestry innovation and best practice leaflets (2017) AGFORWARD. Cranfield University.

Organic Action Plans: A guide for stakeholders (2015) ORC and IFOAM- EU. Newbury and Brussels.

Farmer Handbook: Technical notes on sustainable organic and low-input dairying (2016) Organic Research Centre. Newbury.

Welsh Organic Producer Survey (2016 and 2017) ORC, Newbury.

Other publications (* = peer-reviewed)

*Armengot L, Blanco-Moreno JM, Bàrberi P, Bocci G, Carlesi S, Aendekerk R, Bernerb A, Celette F, Grosse M, Huiting H, Kranzler A. Luik A, Mäder P, Peigné J, Stoll E, Delfosse P, Sukkel W, Surböck A, Westaway S, Sans FX (2016) Tillage as a driver of change in weed communities: a functional perspective *Agriculture, Ecosystems and Environment* 222: 276–285.

*Döring TF, Storkey J, Baddeley JA, Collins RP, Crowley O, Howlett SA, Jones HE, McCalman H, Measures M, Pearce H, Roderick S, Watson CA, Wolfe MS (2017) Weeds in Organic Fertility-Building Leys: Aspects of Species Richness and Weed Management. *Organic Farming* 3:51-65.

*Fradgley NS, Creissen HE, Pearce H, Howlett SA, Pearce BD, Döring TF, Girling RD (2017) Weed suppression and tolerance in winter oats. *Weed Technology* 31:740-751.

*Home R, Gerrard C, Hempel C, Lošťák M, Vieweger A, Husák J, Stolze M, Hamm U, Padel S, Willer H, Vairo D, Zanoli R (2017) The quality of organic market data: Providing data that is both fit for use and convenient. *Organic Agriculture* 7:141-152.

*Hothersall B, Whistance L, Zedlacher H, Algers B, Andersson E, Bracke M, Courboulay V, Ferrari P, Leeb C, Mullan S, Nowicki J, Meunier-Salaün, Schwarz T, Stadig L, Main, D (2016) Standardising the assessment of environmental enrichment and tail docking legal requirements for finishing pigs. *Animal Welfare* 25:499-509.

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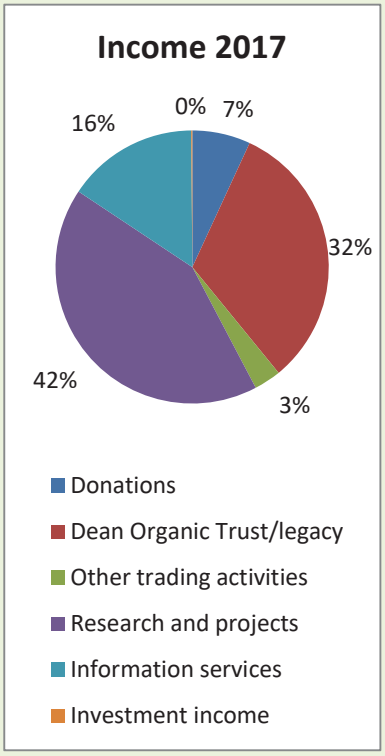
Financial summary

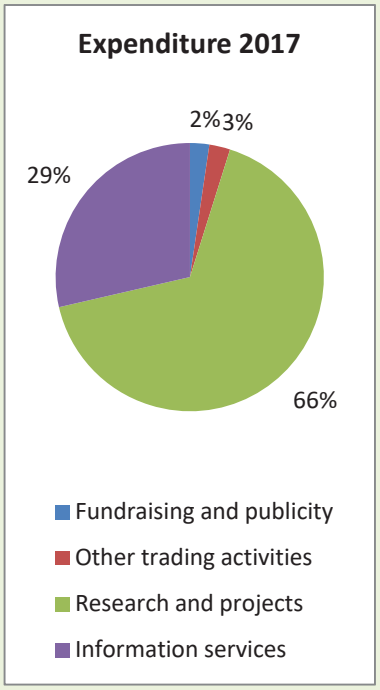
Statement of financial activity for years ended October 2017 and 2016

Values (£)	2017	2016
Incoming resources		
Donations	119,912	135,353
Dean Organic Trust/legacy	560,935	-
Other trading activities	55,340	50,240
Research and projects	731,833	508,328
Information services	270,473	306,074
Investment income	2,332	247
Total	**1,740,825**	**1,017,887**
Resources expended		
Fundraising and publicity	28,665	42,747
Other trading activities	31,320	22,620
Research and projects	818,968	608,670
Information services	351,829	389,397
Total	**1,230,782**	**1,185,324**
Net movement in funds	**510,630**	**(61,854)**



Balance sheet as at 31st October 2017 and 2016

Values (£)	2017	2016
Fixed assets		
Land (historic cost)	716,791	716,791
Buildings (historic cost)	1,476,784	1,511,546
Social investments (Dean Organic Fund)	9,151	-
Investments (market value)	11,050	10,161
Total	**2,292,892**	**2,313,221**
Current assets		
Debtors	200,715	245,929
Dean Organic Fund cash	541,317	-
Cash at bank/in hand	7,075	1,616
Total	**765,912**	**247,545**
Total assets	**3,058,804**	**2,560,766**
Creditors (due within one year)		
Deferred income (prepayments)	(517,593)	(245,520)
Bank overdraft	-	(284,784)
Total	**(652,114)**	**(636,062)**
Net current liabilities	**113,798**	**(388,517)**
Total assets less current liabilities	**2,406,690**	**1,924,705**
Creditors (due after one year)	**(305,068)**	**(333,713)**
Net assets	**2,101,622**	**1,590,992**
of which Restricted	600,150	21,458
Designated	93,236	105,281



Designated funds: Unrestricted, but where the charity itself restricts use to a particular purpose.
Restricted: restricted use by stipulation of the sponsor for a particular purpose.
The full audited annual report and accounts for Progressive Farming Trust Ltd. are available on request from elmfarm@organicresearchcentre.com or the Charity Commission website (Charity No. 281276)

Thank you for supporting us — we couldn't do it without you!

Our financial results demonstrate the importance of donations and legacies, from individuals, businesses, trusts and foundations alike. While the statutory funding we receive, in particular from the EU, is significant, we have no regular core funding and rely on donations to support communications and policy work, as well as core functions and initiatives to secure our future post-Brexit.

Statutory funders

- Defra
- European Commission
- Scottish Natural Heritage
- Welsh Government

Individual donors and supporters

R Aker; I Alexander; C Allen; G Anson; A Astor; M Barratt; W Best; C v Beuningen; P Bier: A Blackshaw; D Bolter; P Conford; N Cooper; V Cooper; W Copas; S Coppard; Y Crocker; R Crowder; P Davies; A Dennis; S Drake; R Ewbank; R Gantlett; A&J Gear; L Glencairn-Campbell; E Goff; J Greenall; D Harding; C Haynes; A Heaton; B Hotchkiss; A Jedwell; PT Jones; P Kearney; W Kendall; V King; I Knight; M Kunz; N Lampkin; T Latter; C Lavell; C Marriage; Rev Mason; G Mayall; B McCarthy; C Morris; D Morton; J Norman; D Owen; D & L Peck; P Plate; L & W Pope; J Purcell; Y Pye; Duchess of Richmond; Duchess of Richmond & Gordon; RA Rowlands; Dame Theresa Sackler; A Sandwith; S Sarikhani; C Sinclair; U Schmutz; B Smith; A Srivastava; T Stenning; R Tandy; P Thomas; M Turnbull; T Turner; R Unwin; M Wagner; K Wallis; C Wardle; D Watts; D Wilson; R Winfield; D Wolfe; D Younie .

Foundations funding grants £20k +

- Daylesford Foundation (Agricology)
- Prince of Wales's Charitable Foundation (Innovative Farmers)
- Ekhaga Foundation (Health Networks)
- Mr & Mrs JA Pye Charitable Settlement (unrestricted)
- Tedworth Trust (unrestricted)

Trusts and corporate sponsors

Abacus Organic Associates; Anson Charitable Trust; A Team Foundation; Peter Baker Foundation; Belmond Le Manoir Aux Quat'Saisons; Bernhard Richard Body Charitable Trust; Birchpiece Farms Ltd.; Bradwell Grove Farm; Bread Matters; Chapman Charitable Trust; Commonwork Trust; Cuthbert Horn Trust; Dorothy Aromando Art Fund; JCJ Eaton Charitable Trust; Garden Organic; Glyme Farm; Goodwood Estate; Hamstead Marshall Village; Hemsworth Farm; Lee House Farm; W&H Marriage & Sons; Meadowbrook Trust; Methodist Church Newbury; Mill Garden Trust; Mitchell Trust; Morecambe Bay Conservation Grazing Co. Ltd.; Oakdale Trust; Organic Arable; Organic Farmers and Growers; Organic Trade Board; Paget Trust; PayPal Giving; Prevo Trust; Ratcliff Foundation; Rhug Farm; Riverford Organic Farmers; Rowan Bentall Trust; Rushall Organics; Sandford Trust; Sheepdrove Trust; Shimpling Park Farm; Soil Association, Soil Association Certification, South Devon Organic Producers; Sundt& Co.; WO Steele & Sons; Tinsley Charitable Trust; Triodos Bank; Vintage Roots; Prince of Wales's Charitable Foundation; R Vere Foundation; Waterfield & White Ltd; Woodford Foundation.

Big plans for 2018 and 2019

New business information and data services

To help farmers, food businesses, professionals and policy-makers make better decisions for the benefit of the environment and our health.

A new residential centre

We are completing the planning of the extension and refurbishment of the farmhouse at Elm Farm, to create new meeting rooms and self-catering residential accommodation for people attending ORC and other events.

A new website

We have big plans to revamp our main website, strengthening networks and improving access to information resources for professional and public audiences.

A fresh start for Elm Farm

From 2019, we plan to be working with new farmers on our 85 ha farm to create a resource that will showcase best organic practice, demonstrate our ideas and inspire change.

Want to help us achieve all this?

Donate via our website, join our Farmer and Business Supporters' Group or email fundraising@organicresearchcentre.com

THE ORGANIC RESEARCH CENTRE
ELM FARM

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