

THE ORGANIC RESEARCH CENTRE

JOB DESCRIPTION

SOIL SCIENCE & AGRONOMY POST-DOCTORAL RESEARCH ASSOCIATE

TWO-YEAR FIXED TERM CONTRACT

1 JANUARY 2025 - 31 DECEMBER 2026

£35,000-£40,000 PER ANNUM (dependent on experience)

DATE	VERSION	NOTES
17/10/2024	1	Draft prepared by Head of Research
23/10/24	2	Amended by CEO

REPORTING TO: HEAD OF RESEARCH

LINE MANAGEMENT: G6 Research Assistant

JOB ROLE:

The Soil Science and Agronomy PDRA will be responsible for the timely management and delivery of results from two newly funded projects at the Organic Research Centre.

The first of these projects is focused on the development of novel organic waste management strategies to build healthy soils and healthy crops. The PDRA will work with a network of composting practitioners to test the impacts of their composting methods on a range of agronomic, ecological and economic parameters. Evidence will be used to produce advice and guidance on how to best manage organic materials for the best agronomic, environmental and economic outcomes.

The second project is focussed on strategies to reduce the use of N fertilisers on intensively managed grass on dairy farms. Strategies will be co-created with the dairy farmers and trialled on farms.

Both projects require expertise in nutrient cycling in agricultural soils, an understanding of how organic wastes and fertilisers are managed and used on UK farms; experience with soil C and N models is desirable, as is an understanding of the use of carbon footprinting methods on UK farms. Strong data analysis and communication skills are essential. Applicants need to be familiar with UK farming systems and comfortable working in agricultural environments.

The expected duties of the researcher will be:

1. To manage the day-to-day activities of both projects including:
 - a. Strong and effective project management
 - b. Communicating regularly with the stakeholders and farmer partners within the respective networks.
 - c. Managing their own time and the budget for project activities.
 - d. Supervising and working closely with the Crops and Diversity Field Researcher (G6).
 - e. Designing and implementing statistically sound field trials and surveys to ensure production of robust datasets and evidence.
 - f. Data collection from field trials including monitoring plant growth in the field; and collection of plant, soil and manure samples for analysis in external laboratories.
 - g. Conducting farmer interviews where necessary to build a complete understanding of their farming systems.
 - h. Managing and curating research datasets using Excel or other appropriate tools; sense checking and cleaning datasets.
 - i. Statistically analysing the data from the trials and using data visualisation tools to present results in a clear and easily understandable way.
 - j. Conducting literature reviews and database searches.
 - k. Communicating the results of the projects through a number of media including: peer-reviewed publications in academic journals, farmer-friendly reports, guidance notes and factsheets, web pages, blogs, videos and podcasts.
 - l. Presenting the findings of the projects in person to farmers and wider stakeholder groups at field days, workshops, conferences and major agricultural events (e.g. Groundswell).
2. To support the goals of the Organic Research Centre in general through:
 - a. Representing the Organic Research Centre at external events and promoting its work to the agricultural community and the wider public.
 - b. Contributing content regularly to the Impact Delivery team for use in social media posts, the monthly ebulletin, videos, podcasts and blogs.
 - c. Building a sense of community within the Organic Research Centre through regular attendance and contributions at weekly research update meetings and SMT clinics,

monthly Research Team meetings and Research and Knowledge Exchange forums, and quarterly in person team meetings and away days.

- d. Adhering to the Organic Research Centre's policies and procedures in relation to expense claims, timesheets, health and safety, and GDPR.
3. To be aware of, and familiar with, relevant research in other UK, European and international research institutions and develop your own skills, knowledge and understanding.
4. To attend Staff or other meetings as required by the Head of Research or Chief Executive.
5. To undertake training to be able to continue meeting the requirements of this role and develop your potential as a member of ORC staff.
6. To provide other information and support or undertake other activities as required by the Senior Management Team, including responsibilities not listed above that may be allocated in the Business Strategy and/or agreed as part of annual appraisals.

SOIL SCIENCE & AGRONOMY POST-DOCTORAL RESEARCH ASSOCIATE - PERSONAL SPECIFICATION

Attribute	Essential	Desirable
Qualifications	<ul style="list-style-type: none"> • Ph.D. in Soil science, Agroecology, Ecology or Environmental Science. • PhD thesis in a relevant topic area. 	
Experience	<ul style="list-style-type: none"> • Working with agricultural producers and other stakeholders in the agricultural and/or environment domains in the UK • Designing and implementing field trials and experiments • Studying the principles of nutrient cycling in agricultural systems • Managing complex data sets and conducting statistical analysis using R or equivalent software. 	<ul style="list-style-type: none"> • Experience studying composting and organic waste management systems. • Experience working with fertilisers and manures as nutrient sources in UK farming systems. • Project management. • Soil, plant and manure analysis in the laboratory. • Working with soil C and N dynamics models. • Published articles in peer-reviewed journals.
Skills	<ul style="list-style-type: none"> • Basic understanding of how land management affects soil fertility and health. • Good communication skills, written, oral and in a variety of styles. • Ability to carry out a research project including conception, design, data collection, data analysis and reporting. • Good organisational and project management skills. • Strong interpersonal skills, a collaborative mindset, and the ability to build positive relationships 	<ul style="list-style-type: none"> • Understanding and experience of R statistics package. • Communication using a range of media including scientific writing, writing for a farming audience, using social media, podcasts and videos.

	<p>with people of different personalities and perspectives.</p> <ul style="list-style-type: none"> • Understanding of statistical methods and their application. • Computer literate with Windows and MS office. 	
Personal qualities	<ul style="list-style-type: none"> • Self-motivated. • Independent and able to work alone and as part of a team. • Enthusiastic and flexible. • Able to contribute to the wider activities undertaken by ORC. 	<ul style="list-style-type: none"> • Interest in organic farming, food systems, agroecology and the environment.
General ability	<ul style="list-style-type: none"> • Willingness to undertake routine field assessments. • Willingness to travel where and when needed in the UK and EU. 	
Additional requirements	<ul style="list-style-type: none"> • Clean full driving licence. • Willingness to work additional hours at peak times. 	

ACTIVITIES	GENERIC ROLE REQUIREMENTS G7
1 Communication	<p>Write or contribute to publications or disseminate research findings using other appropriate media.</p> <p>Make presentations at conferences or exhibit work in other appropriate events.</p> <p>Routinely communicate complex and conceptual ideas to those with limited knowledge and understanding as well as to peers using high level skills and a range of media.</p>
2 Teamwork and motivation	<p>Clarify the work responsibilities of team members to ensure effective deployment and achievement of research project objectives.</p>
3 Liaison and networking	<p>Collaborate actively within and outwith the organisation to complete research projects and advance thinking.</p> <p>Participate in and develop external networks, for example to identify sources of funding, generate income, obtain consultancy projects, or build relationships for future activities.</p>
4 Service delivery	<p>Significantly contribute to the production of research bids, aimed at meeting the funders' requirements.</p>
5 Decision making	<p>Decide on research programmes and methodologies, often in collaboration with colleagues and sometimes subject to the approval of the Team Leader on fundamental issues.</p>
6 Planning and organising resources	<p>Plan, co-ordinate and implement research projects.</p> <p>Manage the use of research resources and ensure that effective use is made of them.</p> <p>Manage or monitor research budgets in collaboration with Team Leader.</p> <p>Help to plan and implement commercial and consultancy activities.</p> <p>Plan and manage own consultancy assignments.</p>
7 Initiative and problem solving	<p>Identify sources of funding and contribute to the process of securing funds.</p> <p>Deal with standard problems and help colleagues resolve their concerns about progress in research.</p> <p>Resolve problems of meeting research objectives and deadlines.</p> <p>Develop ideas for generating income and promoting research area.</p> <p>Develop ideas for application of research outcomes</p>
8 Analysis and research	<p>Develop research objectives, projects and proposals.</p> <p>Conduct individual or collaborative research projects.</p> <p>Assess, interpret and evaluate outcomes of research.</p>

	Develop new concepts and ideas to extend intellectual understanding.
9 Sensory and physical demands	Sensory and physical demands will vary from relatively light to a high level depending on the discipline and the type of work Carry out tasks that require the learning of certain skills.
10 Work environment	Balance the pressures of research and administrative demands and competing deadlines. Depending on area of work and level of training received, may be expected to conduct risk assessment and take responsibility for the health and safety of others.
11 Pastoral care and welfare	Show consideration to others and provide assistance to those in distress. Provide information and help to colleagues and students, referring them to other sources of assistance if required.
12 Team development	Mentor colleagues with less experience and advise on personal development. Coach and support colleagues in developing their research techniques.
13 Knowledge transfer/ learning support	Contribute to the organisation and content of knowledge transfer events/ short courses relevant to areas of research activity and specialist knowledge. Supervise postgraduate research students/interns. Use a range of delivery techniques to enthuse and engage colleagues, students/interns and users of research results, including producers and policy makers.
14 Knowledge and experience	Extend, transform and apply knowledge acquired from scholarship to research and appropriate external activities. Possess sufficient breadth or depth of specialist knowledge in the discipline to contribute to the development of research programmes and methodologies.