

## **JOB DESCRIPTION**

### **PRINCIPAL RESEARCHER – CROP DIVERSITY AND AGRONOMY**

#### **BACKGROUND**

The Organic Research Centre was founded 40 years ago and from the outset has been the only UK organisation focussed on research into organic farming systems. A key strand of this research has been the integration of plant breeding and cropping systems design for organic and low-input farming. In the past two decades, the crops team has pioneered at a European level the implementation of alternative breeding approaches, namely evolutionary plant breeding, the improvement and agronomic use of fertility-building leys and subsidiary crops (cover crops, living mulches) also with a view to minimise soil tillage in organic cropping systems, and the integration of arable/horticultural rotation into agroforestry systems. More recently, the crops team has developed an original experimental approach based on working directly with networks of farmers. This approach is now adopted in challenges like wheat and oats cultivar testing for organic and low-input farming, the inclusion of subsidiary crops in arable rotation, and the reintroduction of heritage germplasm and underutilised crops in cereal cropping systems.

#### **JOB ROLE**

Building on the legacy of past projects and partnerships, together with ongoing initiatives including long-term EU funded projects, ORC is looking for an experienced researcher in the fields of agronomy and crop science (arable and/or horticultural) to lead our crop diversity and agronomy programme into an exciting new phase. The principal duties of this post are:

1. To be responsible for the delivery of the Crop Diversity and Agronomy Programme within ORC.
  - 1.1. To manage the Programme by ensuring current projects are of high scientific quality and are delivered on time and within budget.
  - 1.2. To undertake project management and implementation, initially on the Horizon Europe project LIVESEEDING “Organic seed and plant breeding to accelerate sustainable and diverse food systems in Europe (2022-2026)” in particular on the subject of “advancing farmer-led cultivar testing”.
  - 1.3. To liaise with the Finance Team regarding the administration of research projects including their funding and internal resourcing.
  - 1.4. To advise the Head of Research on the Programme’s resource requirements.
2. To be responsible for the development of the Crop Diversity and Agronomy Programme within ORC.
  - 2.1. To develop the Programme further by building on existing work, expanding current areas of research and initiating and developing new areas within appropriate scientific areas, including potential research partners and collaborators.
  - 2.2. In conjunction with other senior staff at ORC to identify and propose work that builds on past ORC projects as well as new research areas and funding opportunities.
  - 2.3. To identify potential funding sources and research calls.
  - 2.4. To co-ordinate and formulate high quality project bids to a range of funding sources.
3. To ensure that appropriate knowledge transfer is undertaken for the Programme.
  - 3.1. To submit research output for publication in scientific journals, conference proceedings and technical press, arising from the research programme.
  - 3.2. To present the programme and its findings at scientific conferences, farmer events and meetings and other appropriate events.
  - 3.3. To initiate and organise appropriate events to disseminate information from the programme.
  - 3.4. To identify, co-ordinate and prepare information for ORC bulletins/reports, website and social media from the Programme and of wider interest to our constituents.
4. To manage and develop the staff within the Programme Team;

- 4.1. To support the staff within the Programme Team through regular updates, suitable coaching, training, reviews, and appraisals. The post-holder will initially be line managing one member of staff and potential students/interns.
  - 4.2. To ensure that they are aware of their duties and responsibilities.
  - 4.3. To ensure that they develop to achieve their greatest potential within their role at ORC.
  - 4.4. To assist with the recruitment of new staff as required.
5. To ensure that effective routes of communication and co-ordination are established and maintained within and between teams.
6. To be the public face of the Programme and raise awareness of the Research Team's wider activities within and outside of ORC.
  - 6.1. To represent the Programme, the Research Team and ORC at conferences, meetings and shows, within UK and internationally.
7. 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.
8. To attend Staff or other meetings as required by the Head of Research or Chief Executive.
9. To undertake training to be able to continue meeting the requirements of this role and develop your potential as a member of ORC staff.
10. To provide other information and support or undertake other activities as required by the Head of Research or Chief Executive, including responsibilities not listed above that may be allocated in the Annual Business Plan and/or agreed as part of annual appraisals.

**PERSONAL SPECIFICATION****PRINCIPAL RESEARCHER – CROP DIVERSITY AND AGRONOMY**

<b>Attribute</b>	<b>Essential</b>	<b>Desirable</b>
Qualifications	<ul style="list-style-type: none"> <li>Ph.D or significant equivalent research experience in crop science and/or soil science and/or plant breeding and seed systems</li> </ul>	<ul style="list-style-type: none"> <li>A generalist approach open to the integration of plant breeding and cropping systems, and an understanding of both arable and vegetable production systems, would be significant advantages</li> </ul>
Experience	<ul style="list-style-type: none"> <li>Working with agricultural producers and other stakeholders in the agricultural domain</li> <li>Research project management, including multi-year and partnership projects</li> <li>Successful research proposal development and bidding experience</li> <li>Track record of publishing articles in peer-reviewed journals</li> </ul>	<ul style="list-style-type: none"> <li>Experience in participatory research</li> <li>Statistical analysis of decentralised on-farm experiments</li> <li>Participation in European partnership projects</li> <li>Research in the field of organic or other agro-ecological approaches.</li> <li>Team or line management</li> </ul>
Skills	<ul style="list-style-type: none"> <li>Crop surveys and diagnosis, including pests, diseases and weed identification</li> <li>Good understanding and experience of the R open-source statistical software</li> <li>Excellent written and spoken communication skills to be used with a variety of audiences and partners (academia, industry, policy)</li> <li>Ability to carry out a research project including conception, design, data collection, data analysis and reporting</li> <li>Excellent organisational skills</li> <li>Computer literate with Windows and MS office</li> </ul>	<ul style="list-style-type: none"> <li>Ability to manage a research programme, i.e. multiple simultaneous projects in a long-term strategy</li> <li>Good understanding of pre- and post-farm-gate agricultural supply chains</li> <li>Workshop organisation and facilitation</li> <li>Understanding and experience of data analysis from decentralised experiments, including multivariate, non-parametric analysis and mixed-effect models</li> <li>Experience of project management systems and software</li> </ul>
Personal qualities	<ul style="list-style-type: none"> <li>Self-motivated.</li> <li>Independent and able to work alone and as part of a team</li> <li>Enthusiastic and flexible</li> <li>Interest and independence in participatory research and collaborative work with producers and other stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>A vision for the future role of organic crops research and its fulfilment</li> <li>Networking skills</li> <li>Good at multi-tasking</li> <li>Resourceful and flexible, as required within a small research organisation</li> </ul>
General ability	<ul style="list-style-type: none"> <li>Willingness to travel where and when needed in the UK and EU</li> </ul>	<ul style="list-style-type: none"> <li>Ability to work flexibly from either a home or office base, according to personal and organisational needs</li> </ul>

Additional requirements	<ul style="list-style-type: none"> <li>• Clean full driving licence</li> <li>• Willingness to work additional hours at peak times</li> </ul>	
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ACTIVITIES	GENERIC ROLE REQUIREMENTS
1 Communication	Disseminate conceptual and complex ideas to a wide variety of audiences using appropriate media and methods to promote understanding.
2 Teamwork and motivation	<p>Provide research leadership to those working within research areas by, for example, co-ordinating the work of others to ensure that research projects are delivered effectively and to time or organising the work of a team by agreeing objectives and work plans.</p> <p>Act as line manager of research teams.</p> <p>Lead teams within areas of responsibility.</p> <p>Ensure that teams within the organisation work together.</p> <p>Act to resolve conflicts within and between teams.</p>
3 Liaison and networking	<p>Lead and develop internal networks for example by chairing and participating in organisational committees.</p> <p>Lead and develop external networks for example with other active researchers and leading thinkers in the field.</p> <p>Develop links with external contacts such as other educational and research bodies, employers, professional bodies and other providers of funding and research initiatives to foster collaboration and generate income.</p>
4 Service delivery	<p>Actively seek research funding and secure it as far as it is reasonably possible.</p> <p>Ensure research projects are designed to meet funders' requirements.</p> <p>Contribute to the management of quality, audit and other external assessments</p>
5 Decision making	<p>Make decisions regarding the operational aspects of own research programme.</p> <p>Contribute to decisions which have an impact on other related programmes.</p> <p>Provide advice on issues such as ensuring the adequate balance of research projects, appointment of researchers and other performance matters.</p>
6 Planning and organising resources	<p>Contribute to the development of research strategies in the organisation.</p> <p>Responsible for the delivery of own research programmes.</p> <p>Contribute to the overall management of the organisation in areas such as budget management and business planning.</p> <p>Be involved in organisational level strategic planning and contribute to the organisation's strategic planning processes.</p> <p>Plan and deliver research, consultancy or similar programmes, ensuring that resources are available and required income levels are achieved.</p>
7 Initiative and problem solving	<p>Review and synthesise the outcomes of research studies.</p> <p>Resolve problems affecting the delivery of research projects within own area and in accordance with regulations.</p>

	Identify opportunities for strategic development of new projects or appropriate areas of activity and contributing to the development of such ideas.
8 Analysis and research	<p>Define research objectives and questions.</p> <p>Develop proposals for research projects which will make a significant impact by leading to an increase in knowledge and understanding and the discovery or development of new explanations, insights, concepts or processes.</p> <p>Act as principal investigator on major research projects.</p> <p>Generate new research approaches and identify, adapt, develop and use research methodologies and techniques appropriate to the type of research.</p> <p>Interpret findings obtained from research projects and develop new insights, expanding, refining and testing hypotheses and ideas.</p> <p>Contribute generally to the development of thought and practice in the field.</p>
9 Sensory and physical demands	<p>Sensory and physical demands will vary from relatively light to a high level depending on the discipline and the type of work</p> <p>Carry out tasks that require the learning of certain skills.</p>
10 Work environment	Depending on area of work (e.g. laboratories, workshops, field sites, studios) may be expected to take responsibility for conducting risk assessments and reducing hazards.
11 Pastoral care and welfare	<p>Responsible for dealing with referred issues for researchers within own project areas.</p> <p>Provide first line support for colleagues, referring them to sources of further help if required.</p>
12 Team development	<p>Contributing to the development of teams and individuals through the appraisal system and providing advice on personal development.</p> <p>Act as a personal mentor to peers and colleagues.</p>
13 Knowledge transfer/ learning support	<p>Contribute to knowledge transfer programmes including leading relevant KT initiatives.</p> <p>Use a range of delivery techniques to enthuse and engage colleagues, students/interns and users of research results, including producers and policy makers.</p> <p>Support subject-specific training of staff</p> <p>Supervise the work of post graduate students and interns.</p>
14 Knowledge and experience	<p>Required to be a nationally recognised authority in the subject area.</p> <p>In-depth understanding of own specialism to enable the development of new knowledge and understanding within the field.</p>