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| **JOB DESCRIPTION** |
| **SPECIFIC JOB TITLE** | SCIENTIFIC TECHNICIAN – Sustainable Farming |
| **GENERIC ROLE TITLE** | SCIENTIFIC TECHNICIAN |
| **LEVEL/GRADE** | C |
| **JOB FAMILY** | SCIENCE CAPABILITIES  |
| **CONTRACT TYPE** | Fixed term (until 31/03/2027) |
| **HOURS** | Full-time |
| **REPORTS TO** | Head of Grazing Livestock Systems |
| **DEPARTMENT** | Net Zero & Resilient Farming |
| **LOCATION** | North Wyke |
| **DATE**  | June 2024 |
| **OVERVIEW OF ROLE/JOB PURPOSE** |
| **Overview:**Rothamsted Research is a world-leading, non-profit research centre that focuses on strategic agricultural science to benefit farmers and society worldwide. We are looking for an enthusiastic and adaptable environmental scientist to work on a project called AgZero+ : Towards sustainable, climate-neutral farming, an initiative jointly supported by the Natural Environment Research Council (NERC) and the Biotechnology and Biological Sciences Research Council (BBSRC) and working in partnership with NERC Institutes.AgZero+ research will identify and assess on-farm management practices with potential to reduce emissions and/or capture carbon while also having net benefits for production and the environment and combine these to design practical net zero+ farming systems. The post holder will be involved in designing new UK farming systems that can produce sufficient food while reducing emissions and pollution, protecting biodiversity, and enhancing soil health. Specifically, the post holder will be working with grazing livestock systems on a large scale, long-term grazing experiment (see below) and commercial farms in a "Network of Living Farm Labs".The "Sustainable Grazing Systems Experiment" was established in 2018 to compare different grassland management practices and understand their potential to reduce harmful emissions to the environment by a) replacing inorganic fertilisers with legumes; b) practising cell grazing instead of continuous stocking; and c) manipulating water tables. The post holder will be part of a team responsible for taking detailed measurements of i) greenhouse gas emissions (from animals and soils); ii) grass growth and sward composition; iii) animal performance and system productivity; iv) soil carbon; v) functional biodiversity and iv) water flow and quality in drainage waters. Some of these measurements will be replicated on commercial farms during separate field sampling campaigns.Specific duties of the post holder include overseeing animal movements, monitoring pasture growth, adjusting grazing areas, collecting environmental and biodiversity samples, processing and analysing data, maintaining and using water sampling devices, handling and weighing cattle, and organising and conducting samplings in commercial farms participating in the ISPs. The post holder will also assist the team with administrative tasks such as placing requisition orders and requesting quotes. It is essential to maintain high-quality data recording and capture for all activities.The post holder is expected to carry out the duties listed above, as well as any other duties reasonably required by the line manager or Institute, commensurate with the grade and level of responsibility for this post. **Applicants must already possess the right to work in the UK** since this role cannot sponsor visa applications (annual salary below the required threshold). |
| **MAIN DUTIES OF ROLE** |
| **Generic Outputs** | **Weighting**  | **Description of Outputs**  | **Description of Job Specific Duties**  |
| **SCIENTIFIC SUPPORT TO PROJECTS/ RESEARCH GROUPS OR SERVICE USERS** | 60% | Design of methods / software / models / experiments and preparation and testing of data |

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| * Oversee the day-to-day fence and animal movements and support the monthly weighing undertaken by the farm staff in Rowden plots.
* Measure pasture biomass on a weekly basis using the rising plate meter and collect herbage snip samples fortnightly.
* Collect soil samples from Rowden plots every season and during intensive field campaigns.
* Collect water samples from the experimental fields.
* Prepare water and herbage samples for analysis and submit them to analytical labs (NW or Harpenden).
* Prepare soil samples for analysis, submit them to analytical labs (NW or Harpenden) and carry out specific lab analysis.
* Support the organisation and carry out samplings in commercial farms taking part of the ISPs.
* Collect biodiversity samples using methods such as specimens counting and deployment of traps.
* Help prepare data for publication where applicable and receive acknowledgement where due as a contributor.
* Ensure relevant protocols/standard operating procedures are followed and kept up to date.
* Data handling, quality control and data archiving.
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| **FINANCE AND RESOURCE MANAGEMENT** | 10% | Stock control and ordering within predetermined budgetary constraints | * Monitoring the use of consumables and ordering as required within the budgetary constraints.
* Liaise with suppliers to order or maintain equipment.
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| **WORKING WITH OTHERS** | 15% | Customer relations and interactions with others | * Meet with the Grazing Livestock Systems (GLS) team regularly to organise workloads and plan the field/lab work.
* Work co-ordinately and flexibly with the GLS team to deliver the outcomes set.
* Attend laboratory or other project/team meetings where appropriate.
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| **LEADERSHIP AND MANAGEMENT OF STAFF AND/OR OF A SCIENTIFIC SERVICE OR FACILITY**  | 5% | Supervising and developing more junior staff and taking responsibility for quality of work within the workshop/laboratory/ work environment | * Use knowledge to support less-experienced individuals.
* Liaise with colleagues to ensure that the service provided meets expectations and take action to improve quality of service where required.
* Assist visiting workers and work experience students on their project/area of work.

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| **KNOWLEDGE EXCHANGE, COMMERCIALISATION AND OUTREACH ACTIVITIES**  | 5% | Promoting the work of the Institute and/or that of the role-holder | * Participate in public engagement activities.
* Talk to individuals and visiting groups as required.
* Represent Rothamsted and engage with industry representatives and members of the public at external farming events.
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| **CONTINUING PROFESSIONAL DEVELOPMENT** | 5% | Identification and actioning of learning objectives and the opportunities and resources available to achieve these | * Seek opportunities for self-development in normal day-to-day work as well as through agreed development objectives.
* Actively seek opportunities to develop in line with a career as a grazing livestock systems technician through external and internal training events.
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| **Competencies** |  | Stage 1 | * See Appendix
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| **PERSON SPECIFICATION AND SHORTLISTING CRITERIA\*** |
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| **HOURS** | Full-time |
| **REPORTS TO** | Head of Grazing Livestock Systems |
| **DEPARTMENT** | Net Zero & Resilient Farming |
| **LOCATION** | North Wyke |
| **EDUCATION/QUALIFICATIONS** | Essential | Desirable | How Tested?\*\* |
| 1. | GCSE (or equivalent) in Maths and English. | ✓ |  | AF/Cert |
| 2. | A level (or equivalent) in science or mathematical subject or further education in agricultural subject. | ✓ |  | AF/Cert |
| 3. | Degree in Agriculture, Animal Science or relevant scientific subject. |  | ✓ | AF/Cert |
| **EXPERIENCE/KNOWLEDGE/SKILLS** | Essential | Desirable | How Tested?\*\* |
| 1. | Good knowledge of UK agriculture and the environment with a focus on grassland and forage-based systems. | ✓ |  | AF/IV |
| 2. | Excellent IT and mathematical skills. | ✓ |  | AF/IV |
| 3. | Experience with common software packages such as MS excel and Access for data recording and simple analysis. | ✓ |  | AF/IV |
| 4. | Experience handling livestock (cattle or sheep). | ✓ |  | AF/IV |
| 5. | Experience in field work and sample processing and analysis. | ✓ |  | AF/IV |
| 6. | Well-developed understanding of relevant health and safety policy, procedures and quality control standards. | ✓ |  | AF/IV |
| 7. | Experience working in a research environment collecting and processing environmental and/or animal derived samples. |  | ✓ | AF/IV |
| **BEHAVIOURS/COMPETENCIES** | How Tested?\*\* |
| 1. | **Drive for Quality**: Is motivated and committed to doing their job to the best of their ability | IV |
| 2. | **Strategic Thinking**: Aligns actions with wider goals and models | IV |
| 3. | **Creativity and Innovation**: Accepts and adapts to change; makes connections and encourages a creative environment | IV |
| 4. | **Developing Self and Others**: Identifies learning and development needs | IV |
| 5. | **Professional Conduct**: Demonstrates honesty and respect | IV |
| 6. | **Productive Relationships**: Cooperates with and supports colleagues | IV |
| 7. | **Effective Communication**: Listens and communicates clearly to others | IV |
| **GENUINE OCCUPATIONAL REQUIREMENTS** | Essential | Desirable | How Tested?\*\* |
| 1. | Full UK driving license | ✓ |  |  |
| 2. | Ability to perform physically demanding work, outside and in a range of weather conditions. | ✓ |  |  |