



Job title	Research Fellow	Job family and level	Research and Teaching Level 4
School/ Department	Biosciences/Agriculture & Environmental Sciences	Location	Sutton Bonington Campus

Purpose of role

The Research Associate/Fellow will work as part of a multidisciplinary team on a project addressing the key deployment barriers for using biochar to sequester carbon. The post will involve conducting experiments at pot, mesocosm, farm plot and field scales where biochars have been, or will be, applied. Analyses will determine effects on soil ecosystem functions and will include wet chemistry, molecular microbiology and invertebrate identification. Trials will also extend to forestry. The role will involve travel to field sites, some of which may be remote. Hands-on experience of UK farming systems is absolutely essential.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	<ul style="list-style-type: none"> Run and oversee field trials and laboratory experiments. Field trials consist of: (i) small plot trials (12 × 12 m plots) on two different sites (64 plots in total) associated with the University farm; (ii) one-hectare field trials on 10 different farms across the Midlands and (iii) field trials in woodlands. Biochar has already been applied to the plots in collaboration with the field trials staff. The main task will be sampling the soils, plants and invertebrates and maintaining a rolling programme of growth-room experiments. 	30%
2	<ul style="list-style-type: none"> Biological and chemical analyses; analyse and interpret data collected from the trials and experiments. For example, DNA extractions, preparation for chemical analyses (ICPMS). Appropriate statistical analyses of the resulting data. 	40%
3	<ul style="list-style-type: none"> Liaise with farmers, collaborators and other stakeholders including travel to field sites throughout the UK, which are often remote and not easily accessible by public transport. 	10%
4	<ul style="list-style-type: none"> Write papers, reports and other documents. 	20%

Person specification

	Essential	Desirable
Skills	<ul style="list-style-type: none"> ▪ Practical experience of UK farming systems. ▪ Ability to sample and process soils for chemical and biological analyses. ▪ Ability to conduct a range of soil chemical and biological analyses. ▪ Experience of analytical instruments (e.g. ICPMS). ▪ Evidence of soil microbiological skills – traditional and molecular (e.g. metagenomics, qPCR or similar). ▪ Evidence of invertebrate sampling and identification. ▪ Ability to use R, Genstat, Python or similar. ▪ Ability to measure soil gas fluxes (e.g. CO₂ and N₂O). ▪ Evidence of interpersonal skills (e.g. liaising with stakeholders). ▪ Ability to travel to field sites throughout the UK, which are often remote and not easily accessible by public transport. 	<ul style="list-style-type: none"> ▪ Evidence of conducting plant growth experiments.
Knowledge and experience	<ul style="list-style-type: none"> ▪ Knowledge of key ecosystem services. ▪ Experience with conducting field experiments, wet chemistry and microbiology. 	<ul style="list-style-type: none"> ▪ Knowledge of soil carbon.
Qualifications, certification and training (relevant to role)	<ul style="list-style-type: none"> ▪ The candidate should possess a PhD. ▪ Evidence of excellent publication record in line with experience. 	



The University of Nottingham is focused on embedding equality, diversity and inclusion in all that we do. As part of this, we welcome a diverse population to join our work force and therefore encourage applicants from all communities, particularly those with protected characteristics under the Equality Act 2010.



The University is a signatory of the Declaration on Research Assessment (DORA). As such we commit to focus on the scientific content of publications (where requested or provided as part of the recruitment and selection process) as a basis for review of quality, and consideration of value and

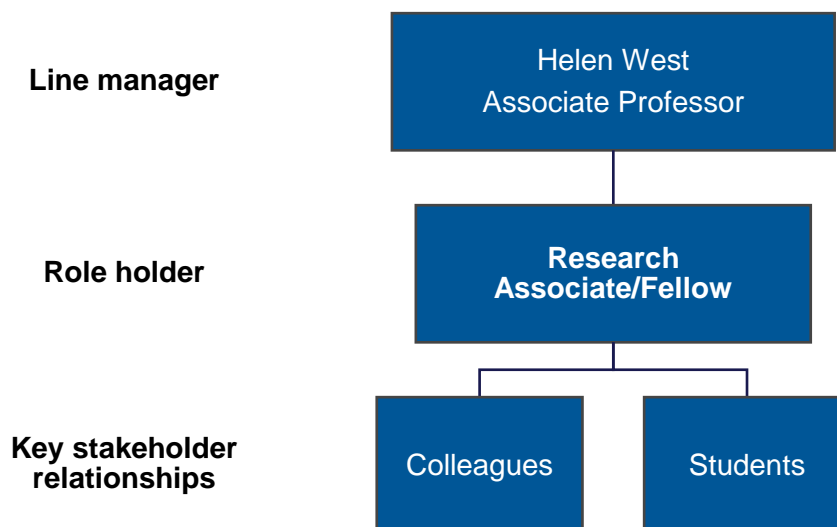
impact of research conducted, rather than any proxy measures such as Journal Impact Factor.

Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

Valuing people	Is always equitable and fair and works with integrity. Proactively looks for ways to develop the team and is comfortable providing clarity by explaining the rationale behind decisions.
Taking ownership	Is highly self-aware, looking for ways to improve, both taking on board and offering constructive feedback. Inspires others to take accountability for their own areas.
Forward thinking	Driven to question the status quo and explore new ideas, supporting the team to "lead the way" in terms of know-how and learning.
Professional pride	Sets the bar high with quality systems and control measures in place. Demands high standards of others identifying and addressing any gaps to enhance the overall performance.
Always inclusive	Ensures accessibility to the wider community, actively encouraging inclusion and seeking to involve others. Ensures others always consider the wider context when sharing information making full use of networks and connections.

Key relationships with others



For job levelling/benchmarking purposes only – please remove before publishing

Decision making

Taken independently by the role holder

- Day to day decisions regarding technical aspects of the project.

Taken in collaboration with others

- Decisions regarding the direction of project and interpretation of results

Referred to the appropriate line manager (please name) by the role holder

- Decisions regarding the presentation/publication of results to an external audience