

JOB DESCRIPTION

Vacancy Ref: A2674

Job Title:	Research Associate	Present Grade: 6
Department/College:	Plant & Crop Sciences, Lancaster Environment Centre (LEC)	
Directly responsible to:	Prof. Ian Dodd & Prof. Mariana Rufino	
Supervisory responsibility for:	PhD and Masters students working in WP3 of the RECIRCULATE project	
Other contacts		
Internal: Research staff and PhD students within the Plant Water Stress and Soil & Land Systems Research Groups		
External: Collaborating scientists within the GCRF-funded RECIRCULATE project, including staff & students of LEC and CSIR (Ghana) .		
Major Duties:		
• You will conduct glasshouse and field experiments within the context of WorkPackage 3 (Water & Food) of the GCRF-funded RECIRCULATE project, aimed at evaluating the efficacy of different crop management techniques including (deficit) irrigation and application of soil amendments (including anaerobic digestate). Field work will determine the agronomic and physiological responses of rice and/or tomato to variation in soil and plant water and nutrient status. Opportunities exist for short research visits at partner institutions within the RECIRCULATE project. • Execution of controlled environment-, glasshouse- and field-based experiments. Project will require work at Lancaster, to support the development of crop management (irrigation and fertilisation) techniques suitable for application in Ghana and other African countries. • Routine measurements of plant performance such as gas exchange and growth analysis, canopy temperature measurements, leaf water relations and xylem sap collection, and assessing soil water status. Experience setting up systems and measuring greenhouse (GHG) gas soil and plant fluxes under field and/or lab conditions. Plant nutrient and agronomic (crop yields and components) measurements of harvested products. • Experience with the installation / troubleshooting of automated irrigation systems; development of irrigation scheduling techniques in consultation with field-based staff and quantifying irrigation volumes will be considered an additional asset. Training of field-based staff in implementing these techniques. • Writing and publication of scientific papers and trade press articles • Presentation of experimental data at RECIRCULATE consortium meetings and appropriate national/ international conferences. • Liaison with departmental technical staff • Assisting undergraduate project, Masters and PhD students		