JOB DESCRIPTION
Ref: A3485

<table>
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<tr>
<th>Job Title: Research Associate</th>
<th>Present Grade: 6</th>
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<td>Department/College: Plant &amp; Crop Sciences, Lancaster Environment Centre</td>
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<td>Directly responsible to: Prof Ian Dodd and Prof Mariana Rufino</td>
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<td>Supervisory responsibility for: PhD and Masters students working in WP3 of the RECIRCULATE project</td>
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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-based experiments within the context of WorkPackage 3 (Water & Food Production) 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). Collaborating with field-based scientists will help you determine the agronomic and physiological responses of rice and/or tomato to variation in soil and plant water and nutrient status. Opportunities may exist for short research visits to partner institutions within the RECIRCULATE project (whilst operating within relevant covid19 regulations).

- Execution of controlled environment- and/or glasshouse-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 irrigation systems and measuring greenhouse gas (GHG) soil and plant fluxes under field and/or lab conditions. Plant nutrient and agronomic (crop yields and its components) measurements of harvested products.

- 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