**Job Title:** Research Associate  
**Present Grade:** 6  
**Department/College:** Lancaster Environment Centre (LEC)  
**Directly responsible to:** Prof. Ian Dodd & Prof John Quinton  
**Supervisory responsibility for:** Part-time (field) research technician employed on the SHui project; Undergraduate & postgraduate students working on the same /related projects

### Other contacts

**Internal:**
- Research staff and PhD students within the Plant Water Stress Research Group & the Soil & Water Sciences groups

**External:**
- Collaborating scientists within the European Union-funded SHui project
- Farmers /Staff Members at LEC's field sites for crop-scale research

### Major Duties:

You will conduct glasshouse and field experiments within the context of the SHui Schedule of Work, aimed at determining whether different soil management techniques (within-row soil micro-engineering, organic amendments, cover crops, irrigation) affect runoff and erosion, soil / plant water availability and plant physiological responses to water deficit. Field work will measure soil erosion and runoff and crop water use and agronomic responses (yield, quality) of row crops (eg. maize, potato) and cereals during a 3 year crop rotation. Glasshouse experiments will investigate the physiological mechanisms by which these crops regulate their water status under different soil management conditions. Opportunities exist for short research visits at partner institutions within the SHui project.

- Establishment of large scale field experiments including runoff and erosion monitoring
- Execution of controlled environment-, glasshouse- and field-based experiments.
- Routine measurements of soil water status and plant performance such as leaf gas exchange and growth analysis and leaf water relations
- Undertaking chemical analyses including nutrients and plant hormones
- Installation of automated irrigation systems and/or rain exclusion measures
- Writing and publication of scientific papers and trade press articles
- Presentation of experimental data at local stakeholder events, SHui consortium meetings and national/international conferences
- Liaison with departmental technical staff
- Assisting undergraduate project, Masters and PhD students