



ONE Planet Undergraduate Research Experience Placement (REP) Scheme

Placement title: Environmental adaptation of quinoa in the Northeast of England.

One Planet Research Theme:

Climate & Climate Change | Earth System Processes | Anthropocene | Environmental Informatics

Supervisor: Dr Victor Zevallos

School/Department: Applied Sciences

University: Northumbria University

Crops are exposed to environmental stresses, affecting growth / development, sustainability, and production. Quinoa is a resilient and nutritious crop that has been adapted to many countries and would be an ideal crop for the Northeast of England. Therefore, we would like to evaluate the effects of plant development and grain yield in the field at Cockle Park Farm (Newcastle University) during the summer season. For that purpose, we will be using selected plots (randomised complete block design) and multiple quinoa cultivars.

Timescale:

The placement will be for 6 weeks from July 1st to August 12th and would include: germination experiments (week 1-2), sowing and plant phenotypic/physiological measurements (week 3-5), surveying pest/diseases (week 5-6).

Itemised Budget for the Project:

Reagents/materials for germination, physiological experiments, and pest surveying. Total around £500.

Prerequisites:

Some knowledge of agriculture, plant science and willingness to learn and work in the field.

For more information, please contact victor.zevallos@northumbria.ac.uk.