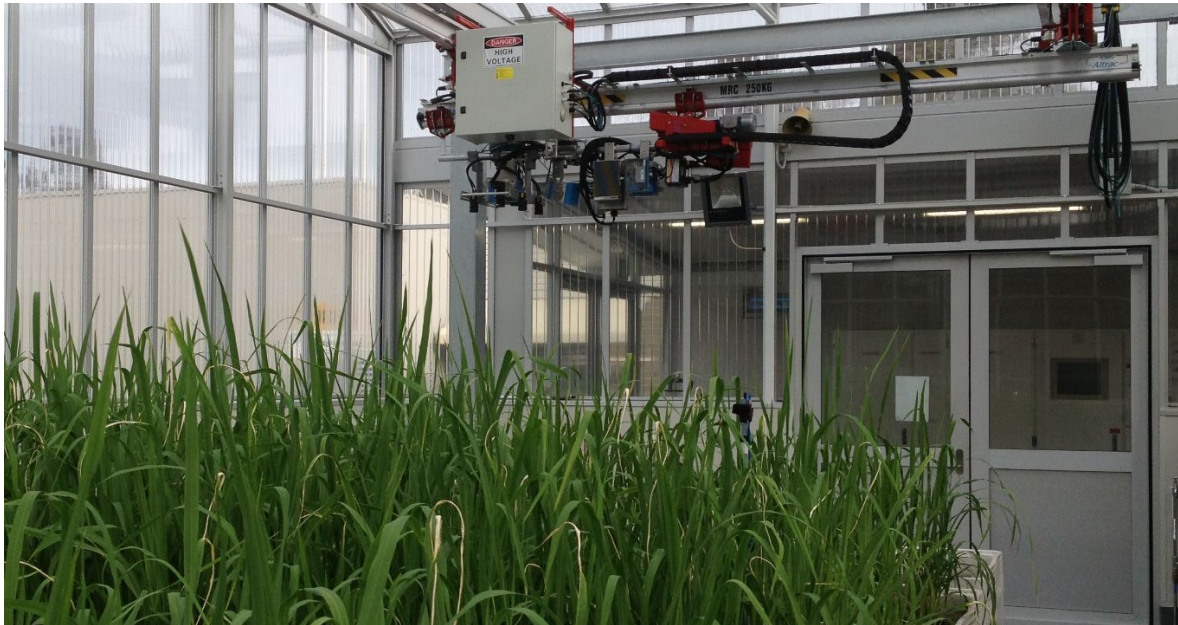


Expression of Interest

An invitation to plant scientists

Pilot Projects for a controlled environment glasshouse facility and gantry crane phenotyping system



The CSIRO node of the Australian Plant Phenomics Facility (APPF) invites expressions of interest from plant scientists wishing to undertake pilot projects utilising improved developments within their plant phenotyping facility located in Canberra.

Three separate 60 square metre glasshouses with certification for transgenic research, each with ambient temperature control (up to 40 °C) and one separate 47 square metre Quarantine approved glasshouse

- Option of either 15 individual 390 or 780 litre tubs suitable for creating small plant canopies
- 21 portable lysimeters, each with a capacity up to 1100 kg (stable results to 0.2kg) for measuring water loss from the soil or through evapotranspiration
- Automated irrigation systems
- Ability to elevate carbon dioxide concentration above ambient (to 1000ppm CO₂)
- Overhead gantry crane suitable for carrying a diverse range of cameras and sensors for plant phenotyping

Research supported

The facility is suited to plant scientists potentially wishing to conduct experiments requiring:

- The growth of large plant species in controlled environments and/or small canopies
- Requiring the measurement of evapotranspiration
- Assessing the response to elevated carbon dioxide conditions
- Test or assess cameras or sensors for plant phenotyping
- Collect imaging and sensing data (current capabilities include temperature, spectral, structural and colour imaging)

The APPF has expertise in utilising thermal, spectral and colour imagery for digital phenotyping.

Enquiries are welcome prior to submission to an EOI, please contact Mrs Marni Tebbutt marni.tebbutt@csiro.au

Scientists

The facility is supported by expertise in plant physiology, remote and proximal sensing, engineering, machine vision and data analysis.

Postgraduate internship grants are available to support research.

This facility is enabled by The Australian Plant Phenomics Facility (APPF). The APPF is funded by the Australian Government under the National Collaborative Research Infrastructure Strategy (NCRIS).

Read more about the APPF: www.plantphenomics.org.au/about-us/

