



Australian Plant Phenomics Facility

Australia's leading plant phenotyping facility,  
providing open access to world-class  
technology and expertise to accelerate  
the development of new and improved crops,  
and more sustainable agricultural practice.

[plantphenomics.org.au](http://plantphenomics.org.au)

The Australian Plant Phenomics Facility has three nodes strategically located at



We are proudly supported by



## Accelerate your next plant research project by partnering with the APPF



By measuring how plant performance is influenced by genetic makeup, the growing environment and management practice, phenomics can help tackle the most pressing agricultural challenges.

Phenomics data captured at the Australian Plant Phenomics Facility (APPF) enables the more rapid discovery of molecular markers and faster germplasm development, aimed at improving crop yields and resilience of crops to biotic and abiotic stresses such as drought, salinity and pathogen attack.

### WHAT WE OFFER

The APPF is a world-leading research infrastructure facility offering researchers open access to end-to-end plant phenotyping solutions. As Australia's leading plant phenomics facility our depth and breadth of expertise is unmatched.

#### High-throughput phenotyping

We offer a range of capabilities for high-throughput phenotyping, from model plants to crops. Using automation and the latest camera and sensor technologies, researchers can monitor plant growth and performance at high-throughput to screen large populations of plants for novel genes that improve plant health and increase yield under adverse conditions with less inputs.

#### Deep phenotyping

Understanding plant physiology and responses to different stresses are essential to identify novel traits that improve stress tolerance. Our cutting-edge sensor technology, combined with the latest developments in image and data analytics, help researchers tease apart the individual components of plant development and stress response.

#### Field phenotyping

Using both aerial and ground-based phenotyping platforms, APPF technology helps agricultural researchers test crop varieties in the field. Cameras and LiDAR technology are used to identify those lines with promising characteristics for agriculture in the coming decades. Combined with data management and analytical tools, our technology helps researchers make informed decisions about the performance of their plant material in the field.

#### Data management, analysis and visualisation

We offer the full scope of data management, from statistically designed layouts and best practice protocols at the outset through to innovative data management and visualisation tools on completion - all to maximise your results.

#### Support for long distance studies

A "research hotel" approach provides opportunities for more distantly placed researchers to utilise our facilities, either in person or remotely, through engagement of APPF staff (from applying for quarantine permits through to planting and management of research projects), while mobile equipment is available for field deployment anywhere in Australia.

### STRATEGIC LOCATIONS

Open access to end-to-end plant phenotyping solutions is available across our three strategically located, complementary nodes.

- The Plant Accelerator® (TPA) at the University of Adelaide's Waite Campus, Adelaide
- The High Resolution Plant Phenomics Centre (HRPPC) at CSIRO Agriculture and Food, Canberra
- Plant Phenomics Group at the Australian National University, Canberra

We are funded by the Australian Government's National Collaborative Research Infrastructure Strategy (NCRIS).

### ACCESSING OUR CAPABILITIES

Access is affordable and easy. Please visit our website for contact details to speak with our team and arrange a consultation and quote on your research project.

Who should use our facility?

- Crop scientists and breeders
- Plant geneticists
- Biotechnologists and biochemists
- Soil scientists
- Australian and international researchers
- Academic and commercial researchers

Discover more: [plantphenomics.org.au](http://plantphenomics.org.au)