

## ACPF uses a novel hydroponics system

**FOR PLANT EXPERIMENTS** This system allows researchers to control and monitor the exact amount of nutrients that a plant is getting. It also allows a more accurate assessment to be made of a plant's response to specific treatments.



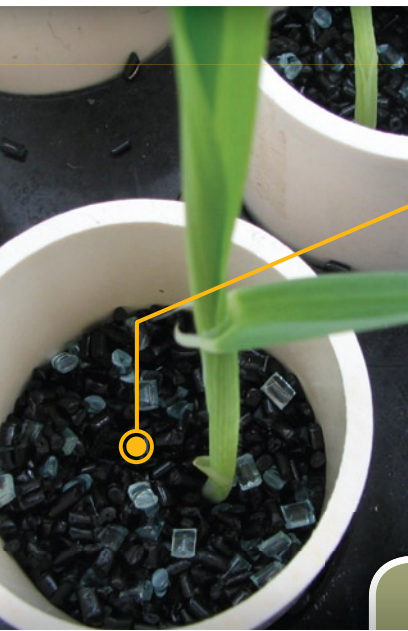
**PELLETS ARE SECURED**  
in the tube by a thin  
mesh that the roots  
cannot penetrate.



Plants growing in  
nutrient solution of  
different concentrations

Large tubes filled  
with polycarbonate  
plastic pellets

Nutrient solution is  
pumped through the  
holding tanks with an  
ebb and flow system



**THE POLYCARBONATE PLASTIC PELLETS**  
are one of ACPF's new inventions.  
They support plant root growth while  
allowing sufficient aeration. The pellets  
are biologically inert and so do not  
affect any experimental treatments.  
After the completion of each experiment  
the pellets are sterilised and reused.

**PLANT ROOTS** can be easily extracted  
from the pellet soil by gentle shaking.  
Since they are not covered in soil,  
cleaner root samples for further  
experiments can be obtained.

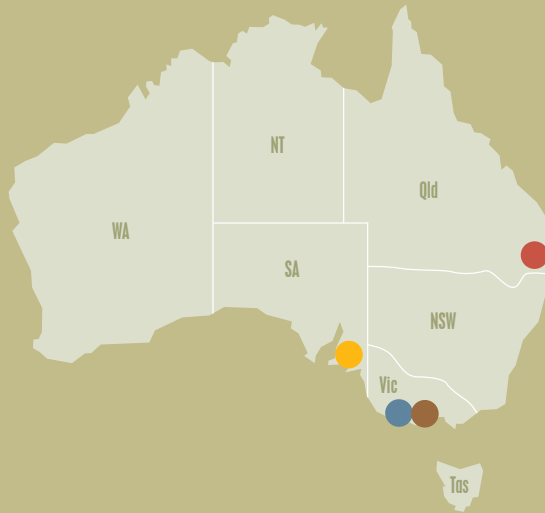
For licensing opportunities please contact ACPF

# ACPFPG Research



The Australian Centre for Plant Functional Genomics (ACPFPG) uses functional genomics to improve the resistance of wheat and barley to hostile environmental conditions such as drought, salinity, frost and mineral deficiencies or toxicities. These stresses, known as abiotic stresses, are a major cause of cereal crop yield and quality loss throughout the world.

To meet our mandate of delivering research outcomes nationally, ACPFG has four nodes throughout Australia. The headquarters is at the University of Adelaide's Waite Campus, with other major research nodes at the University of Melbourne, the University of Queensland and the Department of Primary Industries (DPI) at La Trobe University.



Australian Government  
Australian Research Council



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