



the **ARCHIBULL** PRIZE

CAREER SNAPSHOT

Calum Watt grew up on a small farm in Western Australia where he quickly learnt that he didn't like sheep. He did however like plants and so he embarked on a botany degree at university in Perth. This in turn led to a Masters in Agricultural Science and now a PhD at Murdoch University where he is researching barley. For Calum, studying the genetics of plants has gifted him a meaningful way to improve agriculture for Australia and the rest of the world.

Calum starts his day in the laboratory trying to find differences in 1500 potential barley varieties using DNA markers that are invisible to the naked eye. To do this he uses fancy bits of equipment that are smaller than a fridge but can cost as much as \$600,000. His assistant today is Lee-anne, an undergraduate student. He teaches her the ropes of laboratory genetics and although their work may take many hours Calum finds great satisfaction in advancing the progress of scientific knowledge. His work will help future-proof barley from stresses that will be imposed by climate change.

Later in the morning Calum and Tefera, a plant physiologist, drive two hours to a research crop in the wheat belt. They note patchy germination in one trial and herbicide damage in another and, as these sites are very important for data collection, they must decide how to overcome these problems. There is a lot of interest in improving barley productivity – so much so that Calum's research funding equates to millions of dollars.

Returning to Perth in the evening Calum settles down to read some scientific articles to support his research. Although at times it feels like his work is never done he is writing articles that the whole world will read – and that puts him on the cutting edge of international agriculture.

This is Calum's career in agriculture. What will yours be?



CALUM WATT

CALUM WATT IS HELPING
TO BREED BETTER
BARLEY AND HIS
RESEARCH ATTRACTS
A MILLION DOLLARS'
WORTH OF FUNDING!