The MultiMalter – fixing an industry problem to maintain Australia's barley export markets



Australia's grain breeders constantly breed better varieties to increase yield and get more market share. However, the high turnover of barley varieties created a problem for overseas maltsters and brewers in terms of providing a consistent product based on known variety characteristics. A \$265,000 Innovation Grant allowed AEGIC to develop a MultiMalter. The use of the MultiMalter enables AEGIC to provide overseas malt barley users with malting performance information on new barley varieties and maintain Australia's market share in the export of malt barley. The approximate value to the industry is around \$20 million annually. Six malting conditions can now be tested off one barley sample for the market in one week compared to six weeks previously.

The Australian Export Grains Innovation Centre (AEGIC) is Australia's leading organisation for market insight, innovation, and applied solutions for the grain industry.

AEGIC had feedback from our markets, particularly China, that we were changing barley varieties too quickly. Rapid turnover in varieties is a challenge for brewers because they have set recipes with known barley characteristics to ensure their beers are brewed consistently.

AEGIC has had an idea of speeding up the testing process for new barley varieties for a few years so that they can keep, and hopefully increase, our market share.

Previously, AEGIC had done some basic testing of a very generic MultiMalter prototype on a small lab scale to see if they could speed up their testing process while generating comparable information. The initial prototype was able to test six different malting regimes in a week, which usually takes about six weeks for one sample with such tests with a conventional micromalter. Though it was labour-intensive it gave them a road map for the prototype and showed that the concept was sound.

AEGIC wanted something with more data behind it. So, when the investment opportunity came up with the Grower Group Alliance (GGA) for the Innovation Expansion projects, they were willing to invest and take it to the next level. The \$265,000 grant allowed AEGIC to

build a more sophisticated prototype that they'd been thinking of. The financial support from GGA via the grant was a big help and meant AEGIC developed the MultiMalter two to three years quicker than they would have otherwise.

The MultiMalter was produced on time and now allows six malting conditions to be tested in one week instead of six weeks with a conventional micromalter. This significantly narrows down the time to identify optimum malting conditions for each variety.

The MultiMalter gave AEGIC critical information needed now by their customers to help keep Australia's markets open. It will help maintain our position in important markets like China, Vietnam and South America which are also interested in the outcomes of the project.

"The MultiMalter is a great example of where we can engage with users of
Australian malt barley and provide them with data to assist in their decisions.
Global brewers like Heineken and ABI who operate in Central and South America
will want as much information as possible, season to season, and add new
varieties as they are developed. We see the MultiMalter as helping to position us
at the top of their supply." Jack King, AEGIC Barley and Oats Quality Program
Manager

By opening up market opportunities faster, the MultiMalter also has significant benefits for Australian barley breeding programs.

Given past export figures of 1Mil tonnes export of malt barley, it is estimated the benefit to growers is in the order of \$20-30 million annually. Maintaining our malt barley market also means grain growers keep that barley out of the feed market - so they're still getting a premium price rather than going to the feed barley market.

For more information about this project, visit https://hub.gga.org.au/reducing-technical-barriers-for-malting-barley-market-access-using-innovative-technology-aegic/







