

# MultiMalter: accelerating Australian malting barley

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## The value of the MultiMalter\*

AEGIC created a new device, the MultiMalter, to help brewers and maltsters adopt new Australian barley varieties in a shorter amount of time. This new machine can be used to test six different malting protocols for a barley sample in a single run, while conventional micromalters operate with one protocol.

The MultiMalter makes it possible to develop optimal malting regimes for new barley samples in rapid time. This helps customers optimise value and makes it more likely they will continue to choose Australian barley.



## Benefits for barley growers

AEGIC has used the MultiMalter to develop optimal malting regimes for new barley varieties and to provide malting performance information to barley users. This information is critical for positioning Australian malting barley to maintain international market share and maximising value-add malting segregations for growers.



## Benefits for breeders and seed companies

Each barley sample needs a unique malting condition for optimal malt quality. The MultiMalter can be used to identify optimal malting regimes before malt barley stage 1 and stage 2 accreditation processes. This ensures the sample demonstrates the full potential of the new barley variety for the accreditation process. Furthermore, the MultiMalter can be used to assist the selection of malt quality targets in breeding programs.

## Benefits for maltsters and brewers

It is a common practice to test the malting performance for new barley samples before commercial scale malting in the malthouse. After identifying the optimal malting process targets (e.g. peak moisture and/or GA<sub>3</sub> addition), optimal malt quality can be obtained, and targets can be transferred to the commercial batch process, resulting in an efficient process to achieve the required malt specification.

## Improving malt quality by understanding malting performance

The example table below shows that for this sample, optimal malt quality was achieved with low peak germination moisture (40%) without added GA<sub>3</sub>, otherwise over-modified malt was produced.

PM	GA	Ext	KI	DP	FAN	BG	VIS	Pro
<b>40%</b>	<b>0</b>	<b>82.2</b>	<b>48.7</b>	<b>340</b>	<b>220</b>	<b>129</b>	<b>1.48</b>	<b>9.6</b>
42%	0	81.4	<b>51.7</b>	358	235	86	1.46	9.6
44%	0	82.4	<b>53.3</b>	348	248	78	1.46	9.6
40%	0.1	82.9	<b>51.2</b>	341	231	104	1.48	9.6
42%	0.1	82.8	<b>53.3</b>	348	240	84	1.48	9.6
44%	0.1	82.5	<b>56.6</b>	360	267	71	1.46	9.5

PM: Peak moisture level (%); VIS: wort viscosity (mPa-s); Ext: malt extract (%); Pro: malt protein (%); KI: Kolbach index (%); DP: diastatic power (°WK); FAN: free amino nitrogen (mg/L); BG: beta-glucan (mg/L). The blue and red highlighted numbers indicate optimal malting conditions and over-modified malts, respectively.

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\*The MultiMalter is patent protected.