

## The case for growing malting barley

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Food and beverages are what we as consumers need as one part of the three necessities of life – food, clothing and shelter.

As farmers we are responsible for delivering to the marketplace, via the supply chain, the commodities for our staple foods, not least of these is malting barley.

As farmers, we are in the annual position of deciding which particular food, or fibre, crops we choose to produce on our land – and never more than in 2007 has this land use choice been highlighted as we incorporate a new use for arable crops, energy, into the equation.

There are several factors that influence farmers in what we grow on our land in any given season.

The number one factor is the **gross margin** we can achieve in that business 'enterprise' – this is the net dollar return per hectare we achieve after costs of production. For a crop this includes land rent, labour, fuel, fertiliser, seed, machinery repayments etc subtracted from the sale of the grain.

This table of real data shows gross margins from 2006 and this data is used by a grower to make decisions on choice of crops to plant in the 2007 season.

	<b>Tonnes</b>	<b>Tonnes/Ha</b>	<b>\$/Tonne</b>	<b>\$ return</b>	<b>\$/Ha</b>
<b>BARLEY (1,202Ha)</b>					
Actual Income & Production	4,237.70	3.25	\$234	\$993,498	\$763.06
Actual Costs				\$458,661	\$352.27
<b>Gross Margin</b>				<b>\$534,837</b>	<b>\$410.78</b>
<b>CANOLA (918Ha)</b>					
Actual Income & Production	1,032.00	1.12	\$420	\$433,440	\$472.16
Actual Costs				\$301,911	\$328.88
<b>Gross Margin</b>				<b>\$131,529</b>	<b>\$143.28</b>
<b>FABA BEAN (660Ha)</b>					
Actual Income & Production	1,162.30	1.76	\$298	\$345,769	\$523.89
Actual Costs				\$234,347	\$355.07
<b>Gross Margin</b>				<b>\$11,422</b>	<b>\$168.82</b>
<b>WHEAT (1,509Ha)</b>					
Actual Income & Production	4,334.00	2.87	\$200	\$866,800	\$574.42
Actual Costs				\$457,517	\$303.19
<b>Gross Margin</b>				<b>\$409,283</b>	<b>\$271.23</b>

From the above table it is clear to deduce the impact of price of grain on the gross margin in our farm business, and where the level of sustainability falls. This, in turn, drives the decisions to plant one crop or another in the farm enterprise mix.

The second most important factor is **rotation** – this is the order of crops planted year by year, in order to maximise efficacy in soil nutrition or manage disease. A typical rotation for any business could be wheat, canola, wheat, barley and then a legume (such as field pea, faba bean, lentil, lupin)

Many farmers' rotations are designed with maximum flexibility in mind; that is providing the business with the ability to change rotation at the last minute at least within a portion of the crop. This decision could be driven by either economic, climatic or agronomic factors.

The specific problem with producing barley is an inability to forward price and hence an inability to hedge a percentage of the crop at, or prior to, seeding. Seeding time is when critical decisions have to be made in regard to managing (economic) risk for gross margin management.

Since 2000, global barley prices have been extremely volatile due to weather influencing supply, and latterly with the enormous volumes of corn being taken out of the feed equation to manufacture bio-ethanol. The inability to forward sell or at least hedge barley sees barley lose out in the rotation - to crops like wheat and canola in many instances, as price risk management can be applied to these crops, and is a key requirement in any farm business.

The Wandel farm business does not ever aim to grow 100% malting barley; this is specifically due to the climatic or environmental conditions that influence the quality of the sample at harvest.

It is far more profitable to invest in the production of a high yield barley variety (that is accredited to be a malting variety if quality permits) and ensure it has the potential to make the malting grade at the post-harvest assessment.

There is, however, a significant move by many growers to the production of pure feed grade varieties due to a higher yield potential, and a less costly investment in agronomic management (such as managing leaf disease and protein levels). Similarly, many farmers do not desire a move to high quality, malt-accredited varieties because the historic premium available on a malting grade barley does not make up for the lower potential yields and increased costs in agronomic management required to give the crop the potential to make the malting grade.

There is no perfect malting barley variety. On every farm, soil type variability can mean that in some areas one variety will do better than another – different varieties can be given different yield potential depending where and in what soil type on the property they are sown.

From a manufacturing perspective one maltster will have a preference for one variety over another – in our experience Tsingtao Brewery in China has a preference for Baudin, and Joe White Maltings in Perth prefer Gairdner – and we sell barley to both.

If a plant breeder comes up with a variety that is high yielding on all soil types, with excellent disease resistance in all barley diseases, with a 99% malt extract and characteristics to make the perfect beer we would have the perfect world. And the plant breeder would be an instant millionaire.

Unfortunately this is not possible to achieve simply because everyone in the supply chain has different expectations on what they need to achieve out of the barley – and this fact is not going to change.

It is therefore about finding the balance.

It would be very advantageous to the whole supply chain if we could foster better relationships and information flows within the industry. The malt barley growers cannot exist without the maltsters; the maltsters cannot exist without the brewers, and the brewers would not exist without the consumers – so it is critical that the industry continue to develop partnerships and relationships so we can all enjoy profit throughout the supply chain.