

# BCG marketing challenge



**Tim McClelland**, (BCG)

## Take home messages

- *Multi-grade contracts allow growers to secure a price for grain before harvest without exposing them to significant quality risk.*
- *Used effectively, grain marketing mechanisms can help growers to smooth the volatility in the grain markets. However, positive outcomes will not always be forthcoming.*
- *Seeking advice is a very positive way to negotiate your way through your marketing decisions. However, it is imperative that you keep your adviser informed about yield and quality expectations and give frequent updates during harvest.*

## Background

Successful grain growers must possess a wide range of skills across many disciplines. The key drivers of profit in a grain enterprise include how much grain can be produced, the cost of producing it and the price received at sale. Grain growers have access to very good information relating to the first two of these and are generally very good at them. However, growers often experience difficulty in effectively marketing their grain. The 2009 BCG members survey indicated that a significant number (15%) of grain growers consider grain prices to be the main influence on profitability.

Grain marketers have a multitude of grain marketing tools at their disposal: forward contracts, futures, options, swaps, basis contracts, pools and the cash market. Used effectively, these mechanisms can help growers to smooth the volatility in grain markets. Unfortunately, a number of the options are complex and in order to prevent significant losses it is imperative that growers have a sound understanding of the underlying principles. It is often difficult for grain growers to access the information they require to enable effective use of these marketing tools.

## Aim

The aim of the challenge is to increase the awareness of grain marketing tools available to grain growers and to demonstrate how they can be utilised.

## Method

Four teams participated in the BCG Grain Marketing Challenge:

- Lachie Stevens representing Lachstock Consulting (Lachstock);
- Neil Luehman representing Berriwillock Grain (Berri Grain);
- Tyler Nelson representing the farmers (Nelson Farms); and
- Daryl Burdett representing the farmers (the Kiss of Death).

Each team was given the task of marketing grain from a hypothetical farm located at Culgoa with 500ha of Yitpi wheat (hard); 100ha of Axe wheat (APW); 200ha of Gairdner barley (Malt) and 200ha of Hindmarsh barley (Feed). Crop yields and grain quality were based on those achieved in the BCG variety trial at the Main Field Day Site at Culgoa. These trials were managed to achieve maximum yield and quality. (See page 62 for the details of these trials). Marketers were emailed Yield Prophet® reports and given an agronomic update on a monthly basis to aid them in their marketing decisions.

Location: Culgoa  
 Replicates: 4  
 Sowing date: 12 May 2010  
 Seeding density: 150 plants/m<sup>2</sup>  
 Crop type/s: Yitpi Wheat  
 Axe Wheat  
 Gairdner Barley  
 Hindmarsh Barley

Seeding equipment: Parallelogram Seeder 30cm row spacing

The marketers did not have any restrictions on the marketing tools they could use to market their grain and may have included:

- Spot/Cash Market: the simplest method of selling grain. The price received is the market price on that day for grain for immediate delivery.
- Warehouse/Store: a location of a registered silo where grain is stored. You can deliver grain to these warehouses and sell the grain at a later date. This is called warehousing. Storage costs will be applicable.
- Pools: a grain marketing tool that combines all sales and deducts all costs, distributing average returns to growers. Pools offer an arms' length approach to marketing whereby a pool manager manages your price risk and attempts to return the best possible return (a bit like a fund manager in the stock market), whilst providing a number of different payment alternatives. Pools have a variety of benchmarks by means of which they evaluate their performance.
- Forward (Cash) contracts: an agreement between a buyer and seller for delivery of a physical product at a set price at a future time.
- Multi-grade contracts: an agreement between a buyer and a seller for a specific quantity of a range of grain grades to be delivered at a fixed time and location at an agreed price.
- Futures (Hedging) contracts: a legally binding agreement made on the trading floor of the futures exchange to buy or sell a commodity at a point in the future. Futures contracts are standardised according to quality, quantity, delivery time and location, with the only variable being price, which is determined on the trading floor of the exchange.
- Options contracts: a contract that gives the right but not the obligation to buy (call) or sell (put) a particular commodity at a certain price for a period of time.
- Swaps: a pricing mechanism that allows growers to fix the Australian dollar price for a portion of the commodity produced in the future. The basis (the difference in the price between two locations. e.g. Chicago Board of Trade (CBOT) wheat basis is the difference in CBOT wheat futures and local cash wheat prices) for the price is not locked in, allowing growers to take advantage of a strengthening market position. Swaps, provided by the major rural banks, are futures contracts converted into AUD/mt and are un-margined.

- Basis contracts: a contract that allows the seller to secure the price for a specific tonnage of grain by locking in three price components, futures, exchange rates and basis.

The above definitions have been sourced from GRDC's 'Grain Marketing Lingo: What does it all mean?' This document provides an excellent resource on grain marketing which describes the key elements of price risk management available to growers. An electronic copy of the booklet can be found at: [http://www.bcg.org.au/public\\_resource\\_details.php?resource\\_id=1002](http://www.bcg.org.au/public_resource_details.php?resource_id=1002)

It is necessary to note that our marketing challenge focused on a 6-month pre-harvest market window with the proviso that any grain remaining unsold at the end of harvest, 5 January, would be sold on the cash/spot market on the day.

The volatility in the markets and the weather place large restrictions on marketing. Many marketers prefer to market a high proportion of their grain post harvest and stretch the marketing window out towards 12 – 18 months, providing more opportunity for higher prices. Cash flow is obviously a major factor in post harvest marketing and needs to be tailored for individuals needs. Given the 5 January 2011 completion time of the challenge there were no cash flow considerations to take into account. This automatically excluded pool, futures and basis contracts from the challenge options.

## Results

With good starting soil moisture (42mm) and growing season rainfall of 248mm, the 2010/11 season produced some excellent crops in the Culgoa region. The results from BCG cereal trials were no exception: yield was excellent and quality high. A summary of the grain yield, quality and total production for the hypothetical farm is provided in Table 1. As the variety trial was harvested prior to the significant rainfall events received in December, grain was not downgraded in quality.

*Table 1. Hypothetical farm grain yield, quality and production.*

Crop	Variety	Yield	Protein	Classification	Area	Total Grain
Wheat	Yitpi	5.2	9.8	ASW	500ha	2,600t
	Axe	4.9	11.6	APW	100ha	490t
Barley	Hindmarsh	6.7	9.3	HIND Malt	200ha	1,330t
	Gairdner*	5.1	9.7	F1	200ha	1,026t

*\*N.B. Malt classification was not achieved due to high screenings and low test weight.*

Participants in the grain marketing challenge conducted a significant number of trades through the 2010/11 season. Despite this, the number of mechanisms utilised was small and was limited to forward contracts, swaps and on the cash/spot market. Table 2 shows grain trades conducted by each team during the 2010/11 season prior to 5 January (the end of the trading period).

Table 2. Grain trades conducted by each team during the 2010/11 season prior to 5 January 2011.

Team	Trades							Net Result
	Date	Mechanism	Grain	Qty (mt)	Grade	Price (\$/t)	Closing Position (\$/t)	
Lachstock	2/6/2010	Swap (Mar '11)	Wheat	250	APW	\$240	\$290	-\$12,500
	22/7/2010	Swap (Mar '11)	Wheat	250	APW	\$270	\$290	-\$5,000
	6/8/2010	Forward Contract (Jan '11)	Barley	180	F1	\$267	\$153	\$20,520
	23/12/2010	Forward Contract (Jan '11)	Wheat	490	APW	\$301	\$273	\$13,353
Berri Grain		Forward Contract (Jan '11)	Wheat	300	H1	\$290	\$361	-\$21,150
	6/9/2010	Forward Contract (Jan '11)	Wheat	500	Multi <sup>^</sup>	\$272	\$272	-
		Forward Contract (Jan '11)	Barley	300	F1	\$232	\$153	\$23,700
	14/9/2010	Forward Contract (Jan '11)	Wheat	450	Multi <sup>*</sup>	\$269	\$231	\$17,100
		Forward Contract (Jan '11)	Barley	100	F1	\$226	\$153	\$7,300
	7/7/2010	Forward Contract (Dec '10)	Wheat	100	Multi <sup>#</sup>	\$195	\$231	-\$3,550
Nelson Farms		Swap (March '11)	Wheat	272	N/A	\$249	\$290	-\$11,152
		Forward Contract (Dec '10)	Wheat	100	Multi <sup>#</sup>	\$191	\$231	-\$4,000
	14/7/2010	Swap (Dec '10)	Wheat	272	N/A	\$266	\$286.28	-\$5,440
		Forward Contract (Dec '10)	Barley	170	F1	\$137	\$153	-\$2,720
	22/7/2010	Forward Contract (Jan '11)	Barley	100	F1	\$157	\$153	\$400
	10/8/2010	Forward Contract (Jan '11)	Barley	200	F1	\$242	\$153	\$17,800
	20/9/2010	Forward Contract (Jan '11)	Barley	100	F1	\$220	\$153	\$6,700
		Forward Contract (Jan '11)	Wheat	500	Multi <sup>#</sup>	\$270	\$270	
The Kiss of Death		Cash/Spot Sale	Wheat	490	APW	\$273	-	-
	5/1/2011	Cash/Spot Sale	Wheat	2,600	ASW	\$231	-	-
		Cash/Spot Sale	Barley	1,330	HIND	\$193	-	-
		Cash/Spot Sale	Barley	1,026	F1	\$153	-	-

\* Multigrade Spreads: H1 = +18, H2 = +12, ASW = -10, AGP = -15, FEED = -20

<sup>^</sup> Multigrade Spreads: H1 = +18, H2 = +10, ASW = -10, AGP = -20, FEED = -20

<sup>#</sup> Multigrade Spreads: H1 = +18, H2 = +12, ASW = -10, AGP = -15, FEED = -20

Table 3 shows the average wheat and barley prices received and total net grain return achieved in the BCG grain marketing challenge. Despite the different marketing approaches implemented by each team, there was a difference of only \$31,000 in the net grain return. Berri Grain achieved the highest return of \$1.174M, followed by Lachstock Consulting, the Kiss of Death and Nelson farms with \$1.163M, \$1.147M and \$1.143M respectively.

*Table 3. Average wheat and barley prices received and total net grain return achieved in the BCG grain marketing challenge.*

Marketing Team	Average Wheat Price	Average Barley Price	Net Grain Return
Berri Grain	\$235/t	\$189/t	\$1.174M
Lachstock Consulting	\$236/t	\$184/t	\$1.163M
The Kiss of Death	\$237/t	\$176/t	\$1.147M
Nelson Farms	\$229/t	\$185/t	\$1.143M

## Interpretation

The 2010 cropping season was an extraordinary period for marketing grain. At the beginning of the season, prices were very low (~\$200/t for milling quality wheat). The low prices were due to an oversupply of grain on the international market and a corresponding increase in the value of the Australian dollar. The poor prices were expected to continue in the long term. However, half way through the season, two key events occurred in the Northern Hemisphere which had a positive effect on the international grain price. Eastern Europe, Russia and the Ukraine experienced severe hot weather towards the end of their season, severely decreasing production. As a result the Russian Government imposed an export ban. Shortly after, a significant reduction in the US corn crop was forecast.

These events created uncertainty about the supply of wheat in the future. Australian producers were counting their lucky stars and they were encouraged to take advantage of the fortuitous situation. These sentiments are reflected in the trades that occurred in the challenge. Teams entered the market through the sale of forward contracts and swaps to take advantage of the strengthening market position.

However, they could not have predicted the climatic conditions that were to develop in the eastern states over the harvest period. The excess rain caused milling quality wheat and barley to rapidly appreciate in value, working against the positions that most of the teams had taken prior to the end of August. However, there was an exception. While the bad weather increased the value of milling quality grain, it also caused a drastic decline in the value of feed grain, particularly barley. Thus any positions taken mid-season for feed barley proved to be advantageous.

In a year with accelerating grain prices, hedging grain will not always provide positive results as the market rallies. However, the important factor to consider is that your strategy and marketing plan is consistent each year and you don't try to do what you should have done last year, otherwise you will end up chasing your tail.

Each of our marketing teams was able to recoup some of the early losses by implementing some beneficial trades later in the year. They were each able to enter into forward contracts which provided them with excellent returns for their grain when the milling grade wheat prices were at their highest. It is evident that our marketers tended to utilise multi-grade contracts.

There is a second message here. Multi-grade contracts provide grain growers with a facility to secure their grain price while exposing them to minimal quality risk.

Throughout the challenge, only four grain marketing mechanisms were utilised: swaps, forward multi-grade contracts, forward cash contracts (fixed grade), and cash/spot sales. This is not surprising as these tend to be the less complicated of the marketing mechanisms available. There is an underlying message here. Grower marketers should not use marketing tools that they do not fully understand or, alternatively, ensure that they get appropriate advice to guide them through the process.

If seeking advice it is important to keep your adviser informed on yield and quality variations regularly. 2010 provided a prime example of this need. The rainfall late in the season created variability in both quality and yield right up until harvest. At the end of November marketers were still very concerned with the quality and yields that would be harvested. As a result there were no trades done in Nov/Dec prior to harvest. However, as yield and quality are known the details should be immediately forwarded to the marketer so they are able to make marketing decisions on higher fixed grade contracts as the grain is harvested.

Our marketers generally managed to negotiate the difficult marketing period successfully. Two of the three teams managed to achieve grain returns higher than selling for cash at the time of delivery. The marketing challenge highlighted that using marketing tools will not always provide positive results. But they can be used to smooth the inherent volatility in grain markets.

## **Acknowledgments**

BCG thanks Neil Luehman, Lachlan Stevens, Tyler Nelson and Daryl Burdet for participating in the challenge.