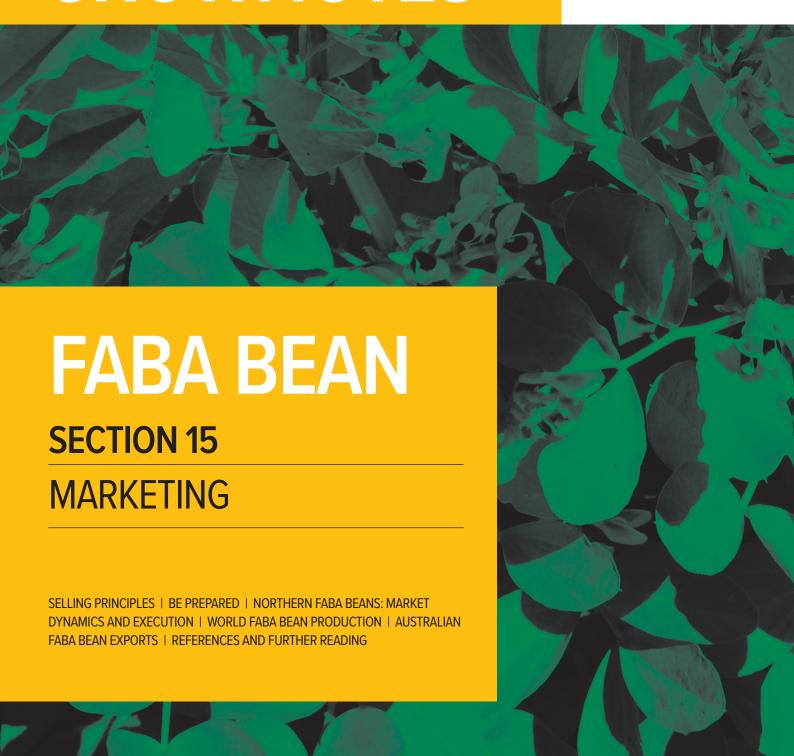


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Marketing

The final step in generating farm income is converting the tonnes produced into dollars at the farm gate. This section provides best in class marketing guidelines for managing price variability to protect income and cash-flow.

Figure 1 shows a grain selling flow chart that summarises:

- decisions to be made
- · drivers behind the decisions
- · guiding principles for each decision point.

The grower will run through a decision-making process each season, because growing and harvesting conditions, and prices for grains, change all the time. For example, in the seven years to and including 2015, Port Adelaide faba bean values varied by between A\$115/t and as much as A\$250/t, a variability of 30–60% (Figure 2). For a property producing 200 tonnes of faba beans this means \$23,000–\$50,000 difference in income, depending on the timing of sales.

The reference column refers to the section of the GrowNote where you will find the details to help in making decisions. $^{\rm 1}$

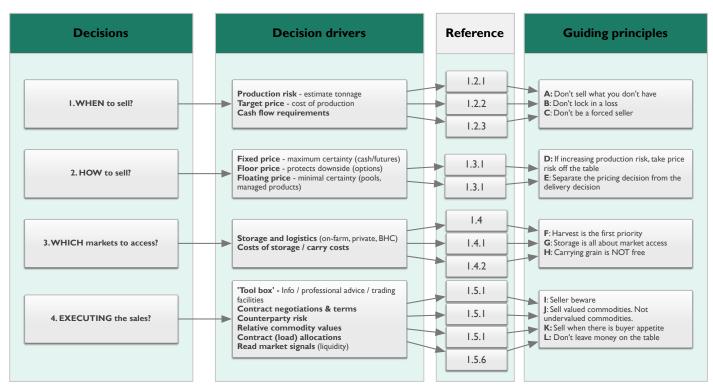


Figure 1: Grain selling flow chart.



¹ Profarmer Australia (2016), Marketing Field Peas, GRDC Northern Field Pea GrowNote







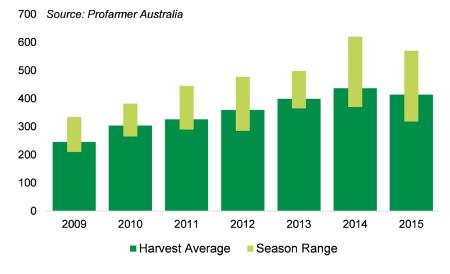


Figure 2: Seasonal variance in Port Adelaide faba bean values.

Source: Profarmer Australia

15.1 Selling principles

The aim of a selling program is to achieve a profitable average price (the target price) across the entire business. This requires managing several unknowns to establish a target price and then work towards achieving the target price.

Unknowns include the amount of grain available to sell (production variability), the final cost of producing the grain, and the future prices that may result. Australian farm-gate prices are subject to volatility caused by a range of global factors that are beyond our control and are difficult to predict.

The skills growers have developed to manage production unknowns can also be used to manage pricing unknowns. This guide will help growers manage and overcome price uncertainty. 2

15.2.2 Be prepared

Being prepared by having a selling plan is essential for managing uncertainty. The steps involved are forming a selling strategy and forming a plan for effectively executing sales.

The selling strategy consists of when and how to sell.

When to sell

Knowing when to sell requires an understanding of the farm's internal business factors, including:

- production risk
- a target price based on cost of production and a desired profit margin
- business cash flow requirements

How to sell

Working out how to sell your grain is more dependent on external market factors, including:

- time of year—determines the pricing method
- market access—determines where to sell
- relative value—determines what to sell

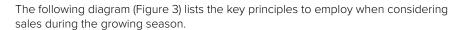


² Profarmer Australia (2016), Marketing Field Peas, GRDC Northern Field Pea GrowNote

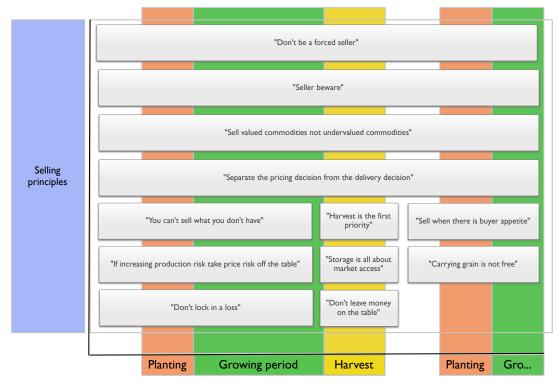








Exactly when each principle comes into play is indicated in the discussion of marketing planning and timing in the rest of section 15. $^{\rm 3}$



Note to figure:

The illustration demonstrates the key selling principles throughout the production cycle of a crop.

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Figure 3: Timeline of grower commodity selling principles.

Source: Profarmer Australia

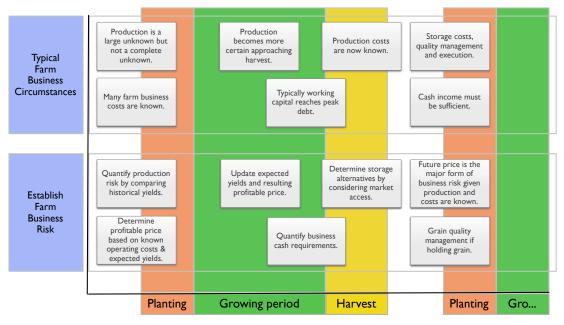
15.2.2 Establish the business risk profile

Establishing your business risk profile helps you determine when to sell: it allows you to develop target price ranges for each commodity, and provides confidence to sell when the opportunity arises. Typical business circumstances and how to quantify the risks during the production cycle are described below (Figure 4).





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Note to figure:

When does a grower sell their grain? This decision making is dependent on:
a) Does production risk allow sales? And what portion of production?
b) Is the price profitable? c) Are business cash requirements being met?



Figure 4: Typical farm business circumstances and risk.

Source: Profarmer Australia

Production risk profile of the farm

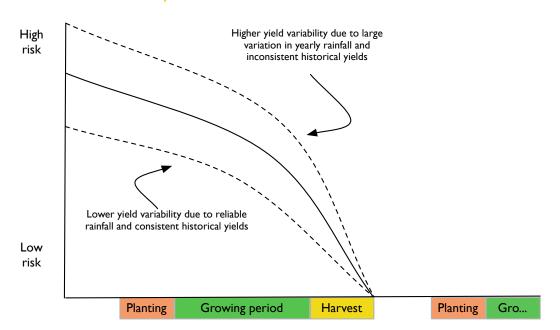
Production risk is the level of certainty around producing a crop and is influenced by location (climate, season and soil type), crop type, crop management, and time of the year.

Principle: You can't sell what you don't have.

Therefore, don't increase business risk by over committing production. Establish a production risk profile (Figure 5) by:

- Collating historical average yields for each crop type and a below-average and above-average range
- 2. Assess the likelihood of achieving average, based on recent seasonal conditions and seasonal outlook
- 3. Revising production outlooks as the season progresses.

FEEDBACK



Note to figure:

The quantity of crop grown is a large unknown early in the year however not a complete unknown. 'You can't sell what you don't have' but it is important to compare historical yields to get a true indication of production risk. This risk reduces as the season progresses and yield becomes more certain. Businesses will face varying production risk levels at any given point in time with consideration to rainfall, yield potential, soil type, commodity etc.



Figure 5: Typical risk profile of a farm operation.

Source: Profarmer Australia

Establishing a target price

A profitable commodity target price is the cost of production per tonne plus a desired profit margin. It is essential to know the cost of production per tonne for the farm business, which means knowing all farming costs, both variable and fixed.

Principle: Don't lock in a loss.

If committing production ahead of harvest, ensure the price will be profitable. The steps needed to calculate an estimated profitable price is based on the total cost of production and a range of yield scenarios, as provided below (Figure 6).





FEEDBACK

Estimating cost of production - \	Step 1: Estimate your production					
Planted area	1,200 ha	/ potential. The more uncertain your production is, the more				
Estimate yield	2.85 t/ha	conservative the yield estimate				
Estimated production	3,420 t	should be. As yield falls, your cost				
Fixed costs		of production per tonne will rise.				
Insurance and general expenses	\$100,000					
Finance	\$80,000	Step 2: Attribute your fixed farm business costs. In this instance if				
Depreciation/Capital replacement	\$70,000	1,200 ha reflects 1/3 of the farm enterprise, we have attributed 1/3				
Drawings	\$60,000	fixed costs. There are a number				
Other	\$30,000	of methods for doing this (see M Krause 'Farming your Business')				
Variable costs		but the most important thing				
Seed and sowing	\$48,000	is that in the end all costs are				
Fertiliser and application	\$156,000	accounted for.				
Herbicide and application	\$78,000					
Insect/fungicide and application	\$36,000	Step 3: Calculate all the variable costs attributed to producing that				
Harvest costs	\$48,000	crop. This can also be expressed				
Crop insurance	\$18,000	as \$ per ha x planted area.				
Total fixed and variable costs	\$724,000					
Per tonne equivalent (total costs + estimated production)	\$212 /t	Step 4: Add together fixed and variable costs and divide by				
Per tonne costs		estimated production.				
Levies	\$3 /t	Step 5: Add on the 'per tonne'				
Cartage	\$12 /t	costs like levies and freight.				
Receival fees	\$11 /t					
Freight to port	\$22 /t	Step 6: Add the 'per tonne' costs to the fixed and variable per tonne				
Total per tonne costs	\$48 /t	costs calculated at step 4.				
Cost of production port FIS equiv	\$259.20	Step 7: Add a desired profit				
Target profit (ie 20%)	\$52.00	margin to arrive at the port				
Target price (port FIS equiv)	\$311.20	equivalent target profitable price.				

Figure 6: An example of how to estimate the costs of production.

Source: Profarmer Australia

GRDC's manual <u>Farming the Business</u> also provides a cost-of-production template and tips on grain selling v. grain marketing.

Income requirements

Understanding farm business cash flow requirements and peak cash debt enables growers to time grain sales so that cash is available when required. This prevents having to sell grain below the target price to satisfy a need for cash.

Principle: Don't be a forced seller.

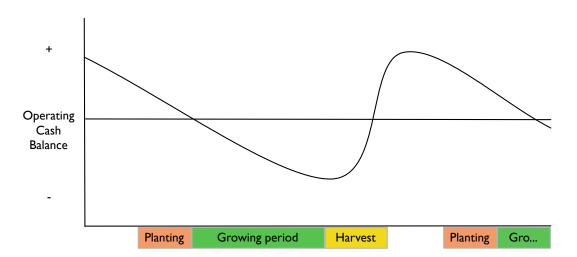
Be ahead of cash requirements to avoid selling in unfavourable markets.

Typical cash flow to grow a crop is illustrated below (Figures 7 and 8). Costs are incurred upfront and during the growing season, with peak working capital debt incurred at or before harvest. Patterns will vary depending on circumstance and enterprise mix. Figure 8 demonstrates how managing sales can change the farm's cash balance.





FEEDBACK



Note to figure:

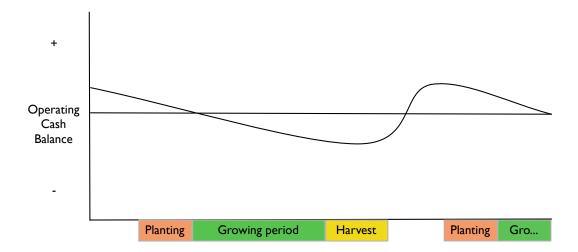
The chart illustrates the operating cash flow of a typical farm assuming a heavy reliance on cash sales at harvest. Costs are incurred during the season to grow the crop, resulting in peak operating debt levels at or near harvest. Hence at harvest there is often a cash injection required for the business. An effective marketing plan will ensure a grower is 'not a forced seller' in order to generate cash flow.



In this scenario peak cash surplus starts higher and peak cash debt is lower

Figure 7: A typical operating cash balance when relying on cash sales at harvest.

Source: Profarmer Australia



Note to figure:

By spreading sales throughout the year a grower may not be as reliant on executing sales at harvest time in order to generate required cash flow for the business. This provides a greater ability to capture pricing opportunities in contrast to executing sales in order to fulfil cash requirements.



In this scenario peak cash surplus starts lower and peak cash debt is higher

Figure 8: Typical operating cash balance when crop sales are spread over the year.

Source: Profarmer Australia

The 'when to sell' steps above result in an estimated production tonnage and the risk associated with producing that tonnage, a target price range for each commodity, and the time of year when cash is most needed. ⁴



⁴ Profarmer Australia (2016), Marketing Field Peas, GRDC Northern Field Pea GrowNote





15.2.3 Managing your price

The first part of the selling strategy answers the question about when to sell and establishes comfort around selling a portion of the harvest.

The second part of the strategy, managing your price, addresses how to sell your crop.

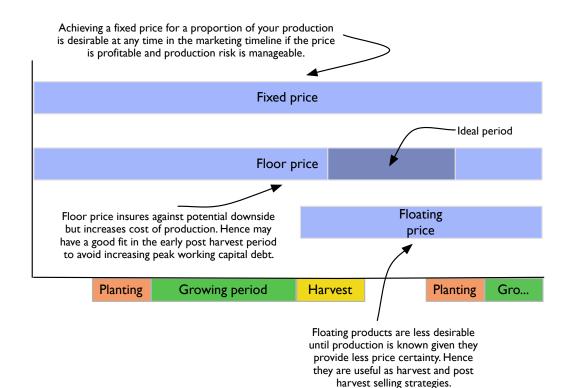
Methods of price management

Pricing products provide varying levels of price risk coverage, but not all products are available for all crops (Table 1).

Table 1: Pricing methods and how they are used for different crops.

	Description	Wheat	Barley	Canola	Oats	Lupins	Field peas	Chick peas
Fixed price products	Provides the most price certainty	Cash, futures, bank swaps	Cash, futures, bank swaps	Cash, futures, bank swaps	Cash	Cash	Cash	Cash
Floor price products	Limits price downside but provides exposure to future price upside	Options on futures, floor price pools	Options on futures	Options on futures	none	none	none	none
Floating price products	Subject to both price upside and downside	Pools	Pools	Pools	Pools	Pools	Pools	Pools

Figure 9 summarises how the different methods of price management are suited for the majority of farm businesses.



Note to figure:

Different price strategies are more applicable through varying periods of the growing season. If selling in the forward market growers are selling something not yet grown hence the inherent production risk of the business increases. This means growers should achieve price certainty if committing tonnage ahead of harvest. Hence fixed or floor products are favourable. Comparatively a floating price strategy may be effective in the harvest and post harvest period.



Figure 9: Price strategy timeline, summarising the suitability for most farm businesses of different methods of price management for different phases of production.

Source: Profarmer Australia







Principle: If increasing production risk, take price risk off the table.

When committing to unknown production, price certainty should be achieved to avoid increasing overall business risk.

Principle: Separate the pricing decision from the delivery decision.

Most commodities can be sold at any time with delivery timeframes negotiable, hence price management is not determined by delivery.

1. Fixed price

A fixed price is achieved via cash sales and/or selling a futures position (swaps) (Figure 10).

It provides some certainty around expected revenue from a sale as the price is largely a known except when there is a floating component in the price. For example, a multi-grade cash contract with floating spreads or a floating basis component on futures positions.

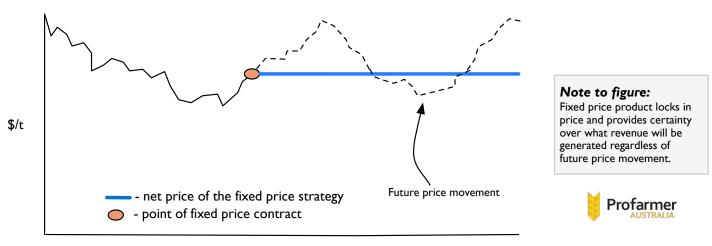


Figure 10: Fixed price strategy.

Source: Profarmer Australia

2. Floor price

Floor price strategies (Figure 11) can be achieved by utilising options on a relevant futures exchange (if one exists), or via a managed sales program (i.e. a pool with a defined floor price strategy offered by a third party). This pricing method protects against potential future price decrease whilst capturing any price increase. The disadvantage is that this kind of price 'insurance' has a cost, which adds to the farm's cost of production.





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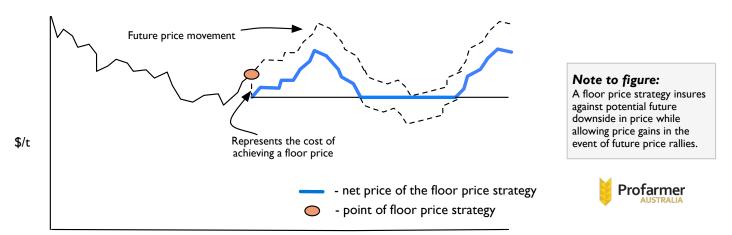


Figure 11: Floor price strategy.

Source: Profarmer Australia

3. Floating price

Many of the pools or managed sales programs are a floating price, where the net price received will move up and down with the future movement in price (Figure 12). Floating price products provide the least price certainty and are best suited for use at or after harvest rather than before harvest.



Figure 12: Floating price strategy.

Source: Profarmer Australia

Having considered the variables of production for the crop to be sold, and how these fit against the different pricing mechanisms, the farmer may revise their selling strategy, taking the risks associated with each mechanism into account. Fixed price strategies include physical cash sales or futures products and provide the most price certainty, but production risk must be considered.

Floor price strategies include options or floor price pools. They provide a minimum price with upside potential and rely less on production certainty, but cost more.

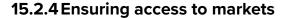
Floating price strategies provide minimal price certainty and are best used after harvest. ⁵



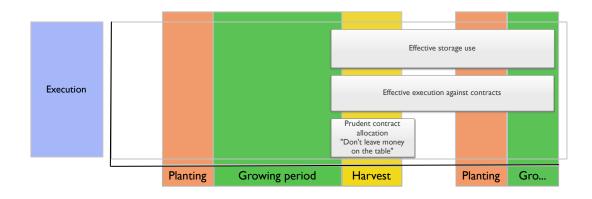
⁵ Profarmer Australia (2016), Marketing Field Peas, GRDC Northern Field Pea GrowNote







Once the questions of when and how to sell are sorted out, planning moves to storage and delivery of commodities to ensure timely access to markets and execution of sales. Planning where to store the commodity is an important component of ensuring the type of access to the market that is likely to yield the highest return (Figure 13).



Note to figure:

Once a grower has made the decision to sell the question becomes how they achieve this? The decision on how to sell is dependent on:
a) Time of the year determines the pricing method
b) Market Access determines where to sell.
c) Relative value determines what to sell.

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Figure 13: Storage decisions are influenced by selling decisions and the timing of all farming activities.

Source: Profarmer Australia

Storage and logistics

The return on investment from grain handling and storage expenses is optimised when storage is considered in light of market access to maximise returns as well as harvest logistics.

Storage alternatives include variations around the bulk handling system, private off-farm storage, and on-farm storage. Delivery and quality management are key considerations in deciding where to store your commodity (Figure 14).

Principle: Harvest is the first priority.

During harvest, getting the crop into the bin is the most critical aspect of business success; hence storage, sale and delivery of grain should be planned well ahead of harvest to allow the grower to focus on the harvest itself.

Bulk export commodities requiring significant quality management are best suited to the bulk handling system. Commodities destined for the domestic end user market, (e.g. feedlot, processor, or container packer), may be more suited to on-farm or private storage to increase delivery flexibility.

Storing commodities on-farm requires prudent quality management to ensure that the grain is delivered to the agreed specifications. If not well planned and carried out, it can expose the business to high risk. Penalties for out-of-specification grain arriving at a buyer's weighbridge can be expensive, as the buyer has no obligation to accept it. This means the grower may have to incur the cost of taking the load elsewhere and may also have to find a new buyer.

On-farm storage also requires that delivery is managed to ensure that the buyer receives the commodities on time and with appropriate weighbridge and sampling tickets.

Principle: Storage is all about market access.

Storage decisions depend on quality management and expected markets.

For more information on on-farm storage alternatives and economics, see Section 13: Grain Storage.



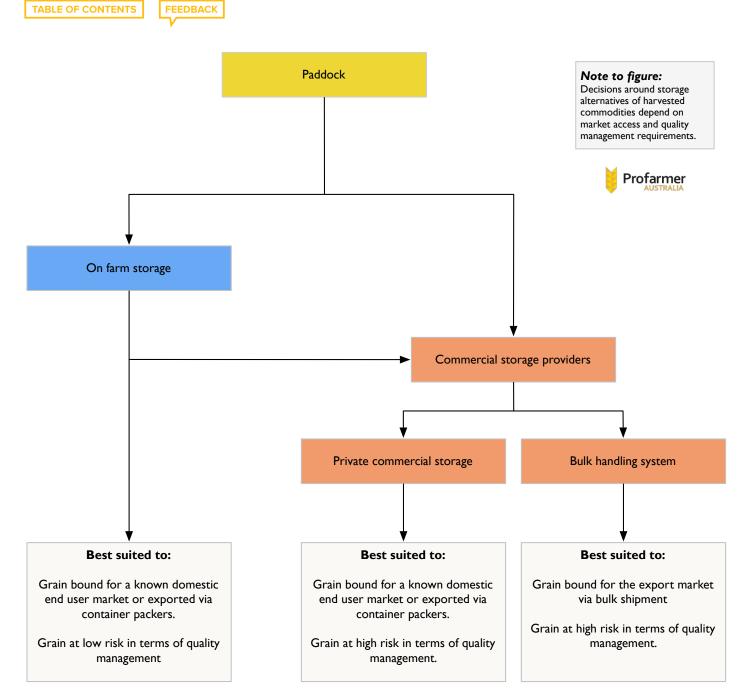


Figure 14: Grain storage decision-making.

Source: Profarmer Australia

Cost of holding grain

Storing grain to access sales opportunities post-harvest invokes a cost to 'carry', or hold, the grain (Figure 15). Price targets for carried grain need to account for the cost of carry.

Carry costs are typically \$3-4/t per month and consist of:

- monthly storage fee charged by a commercial provider (typically ~\$1.50-2.00/t)
- monthly interest associated with having wealth tied up in grain rather than
 available as cash or for paying off debt (~\$1.50-2.00/t, depending on the price of
 the commodity and interest rates).









The price of carried grain therefore needs to be 3-4/t per month higher than the price offered at harvest.

The cost of carrying also applies to grain stored on the farm, as there is a cost of capital invested in the farm storage plus the interest component. A reasonable assumption is a cost of \$3–4/t per month for on-farm storage.

Principle: Carrying grain is not free.

The cost of carrying grain needs to be accounted for if holding it for sale after harvest is part of the selling strategy.

If selling a cash contract with deferred delivery, a carrying charge can be negotiated into the contract. For example, a March sale of canola for March–June delivery on the buyers call at a price of 300/t + 3/t carrying per month, would generate revenue of 309/t delivered in June. ⁶

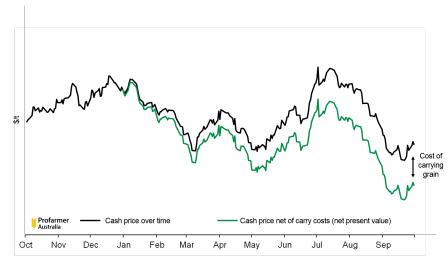


Figure 15: Cash values v. cash values adjusted for the cost of carrying.

Source: Profarmer Australia

Optimising farm gate returns involves planning the appropriate storage strategy for each commodity to improve market access and ensure that carrying costs are covered in the price received. 7

15.2.5 Converting tonnes into cash

This section provides guidelines for converting the selling and storage strategy into cash by effective execution of sales.

Set up the toolbox

Selling opportunities can be captured when they arise by assembling the necessary tools in advance. The toolbox for converting tonnes of grain into cash includes the following:

- Timely information—this is critical for awareness of selling opportunities and includes:
- market information provided by independent parties
- effective price discovery including indicative bids, firm bids, and trade prices
- other market information pertinent to the particular commodity.
- Professional services—grain selling professional services and cost structures vary considerably. An effective grain selling professional will put their clients' best interest first by not having conflicts of interest and investing time in the



⁶ Profarmer Australia (2016). Marketing Field Peas. GRDC Northern Field Pea GrowNote

⁷ Profarmer Australia (2016), Marketing Field Peas, GRDC Northern Field Pea GrowNote





relationship. A better return on investment for the farm business is achieved through higher farm-gate prices, which are obtained by accessing timely information, and being able to exploit the seller's greater market knowledge and greater market access.

3. Futures account and bank swap facility—these accounts provide access to global futures markets. Hedging futures markets is not for everyone; however, strategies which utilise exchanges such as the Chicago Board of Trade (CBOT) can add significant value.

For a list of current financial members of Grain Trade Australia including buyers, independent information providers, brokers, agents, and banks providing overthe-counter grain derivative products (swaps), see http://www.graintrade.org. au/membership

For a list of commodity futures brokers, see $\underline{\text{http://www.asx.com.au/prices/find-a-futures-broker.htm}}$

How to sell for cash

Like any market transaction, a cash—grain transaction occurs when a bid by the buyer is matched by an offer from the seller. Cash contracts are made up of the following components, with each component requiring a level of risk management (Figure 16):

- Price—future price is largely unpredictable, so devising a selling plan
 to put current prices into the context of the farm business is critical to
 managing price risk.
- Quantity and quality—when entering a cash contract you are committing to deliver the nominated amount of grain at the quality specified, so production and quality risks must be managed.
- Delivery terms—the timing of title transfer from the grower to the buyer is agreed at time of contracting. If this requires delivery direct to end users, it relies on prudent execution management to ensure delivery within the contracted period.
- Payment terms—in Australia, the traditional method of contracting requires title on the grain to be transferred ahead of payment, so counterparty risk must be managed.





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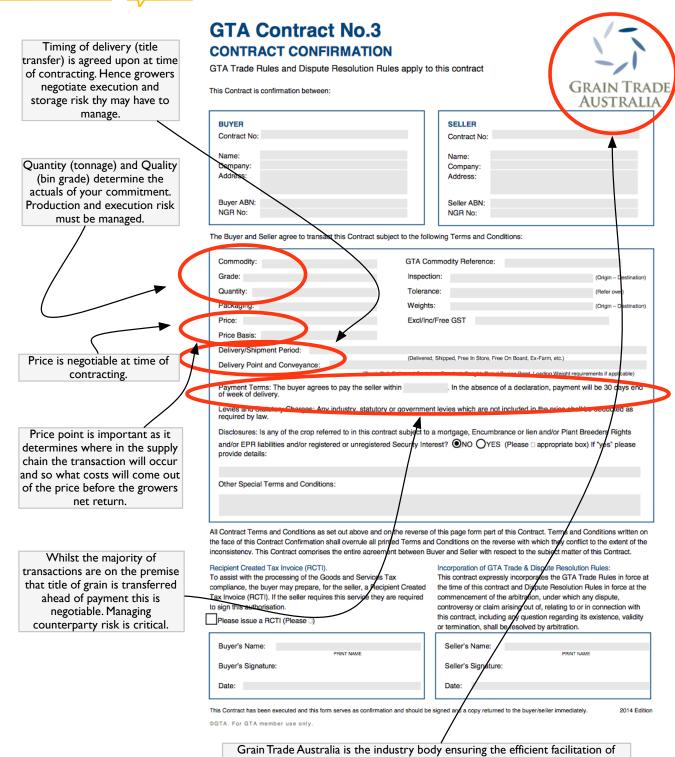


Figure 16: Typical terms of a cash contract.

Source: Grain Trade Australia

The price point within a cash contract will depend on where the transfer of grain title will occur along the supply chain. Figure 17 shows the terminology used to describe these points and the associated costs to come out of each price before growers receive their net return.

commercial activities across the grain supply chain. This includes contract trade and dispute resolution rules. All wheat contracts in Australia should refer to GTA trade and dispute resolution rules.



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On ship at custor	mer wharf								
Note to figure: The price point within a cash contract will depend on where the transfer of grain title will occur along the supply chain. The below image depicts the terminology used to describe pricing points along the supply chain and the associated costs to come out of each price before the growers receive their net farm gate return. On board ship									Bulk sea freight
								FOB costs	FOB costs
In port terminal								Out-turn fee	Out-turn fee
On truck/train at po	ort terminal							Out-turn ree	Out-turn ree
On truck/train ex					Out-turn fee	Freight to Port (GTA LD)	Freight to Port (GTA LD)	Freight to Port (GTA LD)	Freight to Port (GTA LD)
				Receival fee	Receival fee		Receival fee	Receival fee	Receival fee
At weighbridge									
			Cartage	Cartage	Cartage	Cartage	Cartage	Cartage	Cartage
Farm gate		Levies & EPRs	Levies & EPRs	Levies & EPRs	Levies & EPRs	Levies & EPRs	Levies & EPRs	Levies & EPRs	Levies & EPRs
	Farm gate returns	Farm gate returns	Farm gate returns	Farm gate returns	Farm gate returns	Farm gate returns	Farm gate returns	Farm gate returns	Farm gate returns
	Net farm gate return	Ex-farm price	Up country delivered silo price. Delivered domestic to end user price. Delivered container packer price.	Free in store. Price at commercial storage.	Free on truck price	Post truck price	Port FIS price	Free on board price.	Carry and freight price.

Figure 17: Cost and pricing points throughout the supply chain.

Source: Profarmer Australia



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MORE INFORMATION

http://www.graintrade.org.au/contracts

http://www.graintrade.org.au/commodity_standards

http://www.graintransact.com.au

http://www.grainflow.com.au

http://emeraldgrain.com/growerlogins/

https://www.cleargrain.com.au/terms-and-conditions

https://www.cleargrain.com.au/get-started



MORE INFORMATION

GTA managing counterparty risk 14/7/2014

<u>Clear Grain Exchange title transfer</u> model

<u>GrainGrowers guide to managing</u> <u>contract risk</u>

Counterparty risk: A producer perspective, Leo Delahunty

Cash sales generally occur through three methods:

 Negotiation via personal contact—traditionally prices are posted as a 'public indicative bid'. The bid is then accepted or negotiated by a grower with the merchant or via an intermediary. This method is the most common and available for all commodities.

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- Accepting a 'public firm bid'—cash prices in the form of public firm bids are
 posted during harvest and for warehoused grain by merchants on a site basis.
 Growers can sell their parcel of grain immediately by accepting the price on
 offer via an online facility and then transfer the grain online to the buyer. The
 availability of this depends on location and commodity.
- Placing an 'anonymous firm offer'—growers can place a firm offer price on a parcel of grain anonymously and expose it to the entire market of buyers, who then bid on it anonymously using the Clear Grain Exchange, which is an independent online exchange. If the firm offer and firm bid match, the particulars of the transaction are sent to a secure settlement facility, although the title on the grain does not transfer from the grower until they receive funds from the buyer. The availability of this option depends on location and commodity. Anonymous firm offers can also be placed to buyers by an intermediary acting on behalf of the grower. If the grain sells, the buyer and seller are disclosed to each counterparty.

Counterparty risk

Most sales involve transferring title of grain prior to being paid. The risk of a counterparty defaulting when selling grain is very real and must be managed. Conducting business in a commercial and professional manner minimises this risk.

Principle: Seller beware.

There is not much point selling for an extra \$5/t if you don't get paid.

Counterparty risk management includes:

- Dealing only with known and trusted counterparties.
- Conducting a credit check (banks will do this) before dealing with a buyer they
 are unsure of.
- Selling only a small amount of grain to unknown counterparties.
- Considering credit insurance or letter of credit from the buyer.
- Never delivering a second load of grain if payment has not been received for the first.
- Not parting with the title before payment, or requesting and receiving a cash
 deposit of part of the value ahead of delivery. Payment terms are negotiated
 at time of contracting. Alternatively, the Clear Grain Exchange provides secure
 settlement whereby the grower maintains title on the grain until they receive
 payment, and then title and payment are settled simultaneously.

Above all, act commercially to ensure the time invested in implementing a selling strategy is not wasted by poor management of counterparty risk.

Relative values

Grain sales revenue is optimised when selling decisions are made in the context of the whole farming business. The aim is to sell each commodity when it is priced well and to hold commodities that are not well priced at any given time. That is, to give preference to the commodities of the highest relative value. This achieves price protection for the overall farm business revenue and enables more flexibility to a grower's selling program whilst achieving the business goal of reducing overall risk.

Principle: Sell valued commodities, not undervalued commodities.

If one commodity is priced strongly relative to another, focus sales there. Don't sell the cheaper commodity for a discount. For example, a farmer with wheat and barley

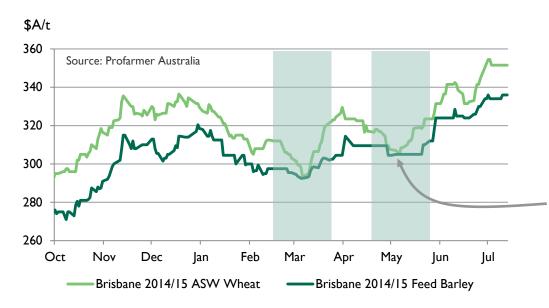








to sell will sell the one that is getting good prices relative to the other, and hold the other for the meantime (see Figure 18).



Note to figure:

Price relativities between commodities is one method of assessing which grain types 'hold the greatest value' in the current market.

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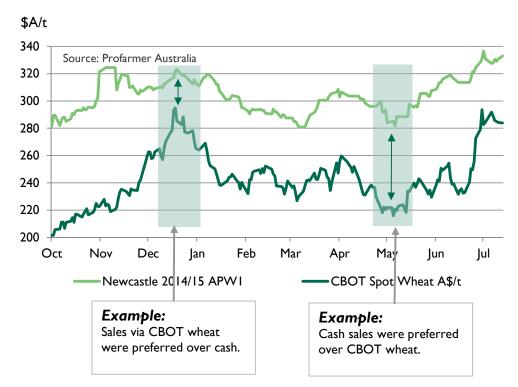
Example:

Feed barley prices were performing strongly relative to ASW wheat values (normally ~15% discount) hence selling feed barley was more favourable than ASW wheat during this period.

Figure 18: Brisbane ASW wheat v. feed barley are compared, and the barley held until it is favourable to sell it.

Source: Profarmer Australia

If the decision has been made to sell wheat, CBOT wheat may be the better alternative if the futures market is showing better value than the cash market (Figure 19).



Note to figure:

Once the decision to take price protection has been made, choosing which pricing method to use is determined by which selling methods 'hold the greatest value' in the current market.

Figure 19: By comparing prices for Newcastle APWI v. CBOT wheat, the grower can see which market to sell into.

Source: Profarmer Australia





Contract allocation

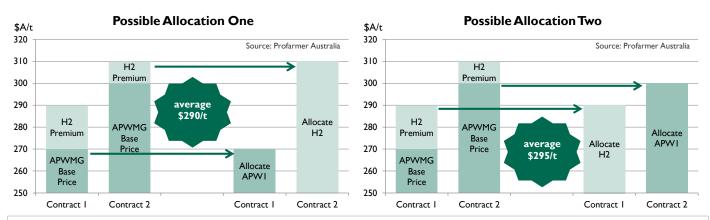
Contract allocation means choosing which contracts to allocate your grain against come delivery time. Different contracts will have different characteristics (price, premiums discounts, oil bonuses etc.), and optimising your allocation reflects immediately on your bottom line.

Principle: Don't leave money on the table.

Contract allocation decisions don't take long, and can be worth thousands of dollars to your bottom line.

To achieve the best average price for their crop growers should:

- allocate lower grades of wheat to contracts with the lowest discounts
- allocate higher grades of wheat to contracts with the highest premiums (Figure 20).



Note to figure:

In these two examples the only difference between acheiving an average price of \$290/t and \$295/t is which contracts each parcel was allocated to. Over 400/t that equates to \$2,000 which could be lost just in how parcels are allocated to contracts.

Figure 20: How the crop is allocated across contracts can have an impact of earnings from the crop. Although this example uses wheat, the same principle applies for faba beans.

Source: Profarmer Australia

Read market signals

The appetite of buyers to buy a particular commodity will differ over time depending on market circumstances. Ideally growers should aim to sell their commodity when buyer appetite is strong and stand aside from the market when buyers are not very interested.

Principle: Sell when there is buyer appetite.

When buyers are chasing grain, growers have more market power to demand the price they want.

Buyer appetite can be monitored by:

- The number of buyers at or near the best bid in a public bid line-up. If there are many buyers, it could indicate buyer appetite is strong. However, if one buyer is offering \$5/t above the next best bid, it may mean that cash prices are susceptible to falling \$5/t as soon as that buyer satisfies their appetite.
- Monitoring actual trades against public indicative bids. When trades are
 occurring above indicative public bids it may indicate strong appetite from
 merchants and the ability for growers to offer their grain at price premiums to
 public bids. 8



⁸ Profarmer Australia (2016), Marketing Field Peas, GRDC Northern Field Pea GrowNote



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The selling strategy is converted to maximum business revenue by:

- ensuring timely access to information, advice and trading facilities
- · using different cash market mechanisms when appropriate
- minimising counterparty risk by effective due diligence
- understanding relative value and selling commodities when they are priced well
- · thoughtful contract allocation
- reading market signals to extract value from the market or prevent selling at a discount.

15.3 Northern faba beans: market dynamics and execution

15.3.1 Price determinants for northern faba beans

Faba bean production in Australia has grown to become an important part of the Australian grain industry and an important part of many growers' rotations.

On average approximately 80% of Australia's faba bean crop is exported, principally for human consumption. The Middle East, and particularly Egypt, are the main export markets for Australian faba beans.

The main competitors in to this market are the UK and France. Although China is also a major producer, it is a net importer of faba beans. France and the UK have a freight advantage over Australian product into Middle Eastern and Egyptian markets, because they are so much closer; however, particular pests common in Europe and the United Kingdom, but not Australia, provide Australian product with a quality advantage.

The remaining 20% of the crop is used in the domestic stockfeed and aquaculture industries.

Hence the major price determinants for faba beans are:

- global supply and demand
- quality of the global crop
- the timing of Australian exports.

Due to the small relative size of pulse markets, markets can be illiquid. This may result in sharp spikes and reduction in prices from time to time.

When the Australian faba bean crop is sown (from late April to the end of June for most areas), the areas planted and predicted yields for France and United Kingdom should already be known. The sowing intentions in Egypt and Chinese southern production (mainly broad beans) should also be evident (Figure 21).

When the Australian crop is harvested, the French, UK and Egyptian beans have been harvested. So, too, have the Chinese northern beans (small and broad bean types).

These world production and sowing areas can affect demand for the Australian crop, and this will feed into bean prices achievable and how Australian farmers time marketing and selling. French and UK harvest yields and quality expectations have the most impact on demand for Australian beans. ¹⁰



⁹ Profarmer Australia (2016), Marketing Field Peas, GRDC Northern Field Pea GrowNote

¹⁰ Profarmer Australia (2016), Marketing Field Peas, GRDC Northern Field Pea GrowNote



Section 15 **Faba Beans**





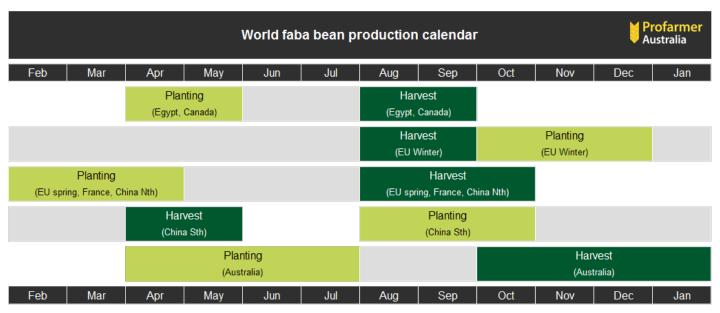


Figure 21: Global faba bean production calendar.

Source: Profarmer Australia

The pace of Australian faba bean exports is typically strongest shortly after our harvest (see Figure 22) as buyers seek to move crop ahead of the next Egyptian planting season and as supplies from the last northern hemisphere crop become more scarce. ¹¹

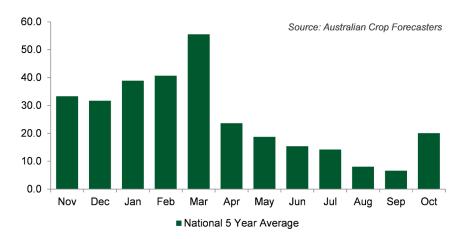


Figure 22: Average monthly export pace ('000 t) of Australian faba beans and broad beans, averaged over five years.

Source: Australian Crop Forecasters

15.3.2 Ensuring market access for northern faba beans

The major food markets for faba beans are in the Middle East and Egypt, with the latter being the largest importer. There are several other medium size importers and many small importers. Quality requirements in terms of size and colour differ between end uses and between markets. Australia is one of the major exporters of faba beans along with France and the UK.

The timing of Ramadan can also influence appetite for faba beans. Middle Eastern markets will tend to time purchases to arrive in advance of the Ramadan period, hence export activity can slow in the period before and during Ramadan.



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¹¹ Profarmer Australia (2016), Marketing Field Peas, GRDC Northern Field Pea GrowNote





For faba beans which are destined for export markets, understanding whether they are likely to ship via bulk export or in containers can help to inform storage decisions and ensure market access (Figure 23). Although the bulk-handling system can be cheaper for product destined for bulk export, storage on the farm and delivery direct to the end user is likely to be cheaper and also more flexible in the domestic and container-export markets.

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Most human consumption markets prefer faba beans that are >8 mm in size. Smaller faba beans and broken beans (kibble) may be sold for the production of bean flour or stockfeed. Tolerances for seed discolouration are also much lower for human consumption markets, especially for canning beans. 12

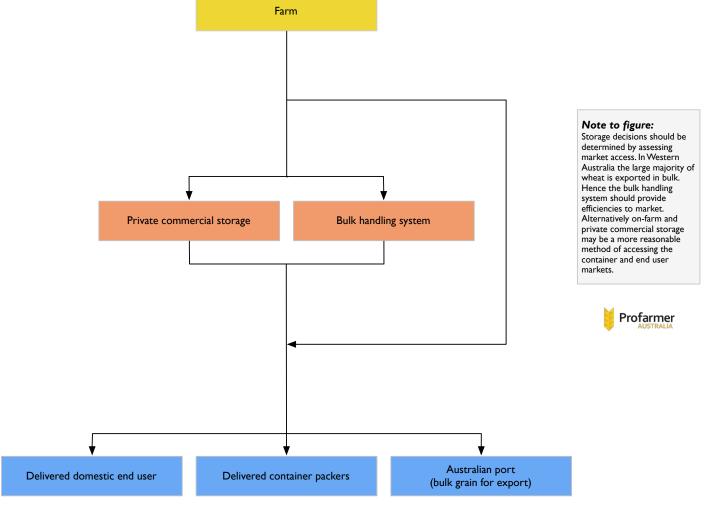


Figure 23: Australian supply chain.

Source: Profarmer Australia

15.3.3 Converting tonnes into cash for northern faba beans

Given the volatile nature of faba bean prices, setting a target price using knowledge of the market outlined in section 15.2.2 will minimise the farmer's risk of having to accept an unprofitable price or of holding out for an unrealistically high price that may not eventuate.











MORE INFORMATION

World pulse production calendar, in Pulses: Understanding global markets

Australian pulse traders

<u>Faba beans, in Understanding global</u> markets

<u>Faba bean production: southern and</u> western region

AEGIC: Australian pulses

Agriculture Victoria: Growing fababean

There are some forward price mechanisms available for faba beans, including areacontracts and traditional fixed-volume forward contracts. Area-based contracts tend to price at a discount compared to fixed-volume contracts, but this needs to be weighed up against the level of production risk inherent in each contract.

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As with all sales, minimising counterparty risk and having an understanding the contract of sale is essential. Counterparty risk is especially important for pulse marketing as there is often a higher risk of contract default in international pulse markets than for canola or cereals. This is due to the markets they are traded into, a lack of appropriate price-risk tools (such as futures), and the visual and subjective nature of determining quality. These can place extra risk on Australian traders endeavouring to find buyers for their product.

Price discovery of export values for faba beans in northern markets can be difficult given the small size of the market, particularly relative to other grains produced. Hence South Australian markets, which have much greater market depth, can be an important source of price discovery, especially for those looking to understand export values (Figures 24 and 25). When pricing into domestic stockfeed markets, consideration of values of alternate feed grain can also provide an indication when setting a price for your faba beans. ¹³

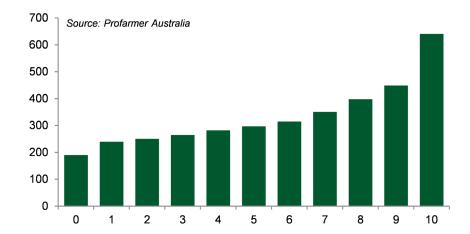


Figure 24: Port Adelaide faba bean deciles. Deciles provide an indication of price performance relative to historical values. Decile 1 indicates values in the bottom 10% of historical observations, and a decile 9 indicates the top 10%.

Source: Profarmer Australia

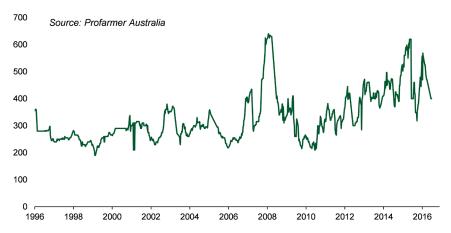


Figure 25: Long-term Port Adelaide faba bean prices.

Source: Profarmer Australia



¹³ Profarmer Australia (2016), Marketing Field Peas, GRDC Northern Field Pea GrowNote







15.4 World faba bean production

Eight of the regular and largest bean-producing countries are listed in Table 2 (FAO 2012 data), some of which have a major impact on world demand or on trade. ¹⁴ Some 36 countries have been in the top 20 producing countries during 1991–2010; Table 2 illustrates the percentage contribution of the top 20 producers.

Table 2: World production of all Vicia faba types (dry) including top producing countries by year.

Production (000 t) by cour	ntry						
World top 20 total	China	Ethiopia	Egypt	France	Australia	UK	Sudan	Morocco
2,938,908	1,250,000	372,754	466,000	63,245	64,400	107,000	45,000	203,830
2,372,898	1,000,000	326,442	382,000		99,000	143,000	35,000	67,520
3,120,484	1,750,000	312,405	438,000		135,000	132,000	38,000	16,040
3,239,316	2,000,000	260,095	357,000		50,000	138,000	55,000	111,110
3,261,678	1,790,000	375,002	392,300	36,420	127,600	155,000	89,000	35,910
3,351,726	1,750,000	361,051	442,394	37,655	170,800	100,000	83,000	143,530
3,079,892	1,520,000	360,895	476,252	39,130	162,700	116,000	84,000	92,990
3,453,145	1,827,000	338,844	523,129	53,613	194,300	81,000	85,000	107,670
3,312,351	1,780,000	286,743	307,083	57,229	226,400	155,000	99,000	55,450
3,464,971	1,788,000	389,343	353,909	69,665	253,000	153,000	131,000	32,600
3,922,700	1,950,000	453,841	439,480	158,000	350,000	86,000	89,000	82,020
4,065,791	2,100,000	453,125	400,910	310,437	147,313	94,800	146,000	88,780
4,202,977	2,142,000	430,196	336,840	276,300	277,000	146,800	171,000	103,060
3,990,806	1,806,000	551,984	330,490	364,549	167,500	113,500	173,000	109,250
4,134,134	2,000,000	516,180	281,650	372,179	329,000	88,500	112,000	72,960
3,767,583	1,730,000	599,128	247,490	290,480	108,000	94,000	160,000	180,490
3,600,292	1,620,000	576,156	301,770	245,966		160,000	162,000	69,850
4,049,240	1,800,000	688,667	244,109	314,683	217,000	73,000	140,400	108,680
4,034,579	1,650,000	610,845	297,620	438,338	192,000	100,000	112,500	153,040
4,118,197	1,700,000	606,800	233,523	480,935	202,300	87,000	152,000	149,380
	World top 20 total 2,938,908 2,372,898 3,120,484 3,239,316 3,261,678 3,351,726 3,079,892 3,453,145 3,312,351 3,464,971 3,922,700 4,065,791 4,202,977 3,990,806 4,134,134 3,767,583 3,600,292 4,049,240 4,034,579	World top 20 total China 2,938,908 1,250,000 2,372,898 1,000,000 3,120,484 1,750,000 3,239,316 2,000,000 3,261,678 1,790,000 3,079,892 1,520,000 3,453,145 1,827,000 3,464,971 1,788,000 3,922,700 1,950,000 4,065,791 2,100,000 4,202,977 2,142,000 3,990,806 1,806,000 4,134,134 2,000,000 3,600,292 1,620,000 4,049,240 1,800,000 4,034,579 1,650,000	World top 20 total China 20 total Ethiopia 2,938,908 1,250,000 372,754 2,372,898 1,000,000 326,442 3,120,484 1,750,000 312,405 3,239,316 2,000,000 260,095 3,261,678 1,790,000 361,051 3,079,892 1,520,000 360,895 3,453,145 1,827,000 338,844 3,312,351 1,780,000 286,743 3,464,971 1,788,000 389,343 3,922,700 1,950,000 453,841 4,065,791 2,100,000 453,125 4,202,977 2,142,000 430,196 3,990,806 1,806,000 551,984 4,134,134 2,000,000 516,180 3,767,583 1,730,000 599,128 3,600,292 1,620,000 576,156 4,049,240 1,800,000 688,667 4,034,579 1,650,000 610,845	World top 20 totalChinaEthiopiaEgypt2,938,9081,250,000372,754466,0002,372,8981,000,000326,442382,0003,120,4841,750,000312,405438,0003,239,3162,000,000260,095357,0003,261,6781,790,000375,002392,3003,351,7261,750,000361,051442,3943,079,8921,520,000360,895476,2523,453,1451,827,000338,844523,1293,312,3511,780,000286,743307,0833,464,9711,788,000389,343353,9093,922,7001,950,000453,841439,4804,065,7912,100,000453,125400,9104,202,9772,142,000430,196336,8403,990,8061,806,000551,984330,4904,134,1342,000,000516,180281,6503,767,5831,730,000599,128247,4903,600,2921,620,000576,156301,7704,049,2401,800,000688,667244,1094,034,5791,650,000610,845297,620	World top 20 total China 20 total Ethiopia 20 total Egypt 466,000 France 63,245 2,938,908 1,250,000 372,754 466,000 63,245 2,372,898 1,000,000 326,442 382,000 3,120,484 1,750,000 312,405 438,000 3,239,316 2,000,000 260,095 357,000 3,261,678 1,790,000 375,002 392,300 36,420 3,351,726 1,750,000 361,051 442,394 37,655 3,079,892 1,520,000 360,895 476,252 39,130 3,453,145 1,827,000 338,844 523,129 53,613 3,312,351 1,780,000 286,743 307,083 57,229 3,464,971 1,788,000 389,343 353,909 69,665 3,922,700 1,950,000 453,841 439,480 158,000 4,065,791 2,100,000 453,125 400,910 310,437 4,202,977 2,142,000 430,196 336,840 276,300 <	World top 20 total China Ethiopia Egypt France Australia 2,938,908 1,250,000 372,754 466,000 63,245 64,400 2,372,898 1,000,000 326,442 382,000 99,000 3,120,484 1,750,000 312,405 438,000 135,000 3,239,316 2,000,000 260,095 357,000 50,000 3,261,678 1,790,000 375,002 392,300 36,420 127,600 3,351,726 1,750,000 361,051 442,394 37,655 170,800 3,079,892 1,520,000 360,895 476,252 39,130 162,700 3,453,145 1,827,000 338,844 523,129 53,613 194,300 3,312,351 1,780,000 286,743 307,083 57,229 226,400 3,464,971 1,788,000 389,343 353,909 69,665 253,000 4,065,791 2,100,000 453,841 439,480 158,000 350,000 4,202,977	World top 20 total China 20 total Ethiopia Egypt 466,000 France 63,245 Australia 64,400 107,000 2,938,908 1,250,000 372,754 466,000 63,245 64,400 107,000 2,372,898 1,000,000 326,442 382,000 99,000 143,000 3,120,484 1,750,000 312,405 438,000 50,000 132,000 3,239,316 2,000,000 260,095 357,000 50,000 155,000 3,261,678 1,790,000 375,002 392,300 36,420 127,600 155,000 3,351,726 1,750,000 361,051 442,394 37,655 170,800 100,000 3,453,145 1,827,000 338,844 523,129 53,613 194,300 81,000 3,312,351 1,780,000 286,743 307,083 57,229 226,400 155,000 3,922,700 1,950,000 453,841 439,480 158,000 350,000 86,000 4,065,791 2,100,000 453,125 400,910	World top 20 total China 20 total Ethiopia Egypt 466,000 France 63,245 Australia 64,400 UK Sudan 2,938,908 1,250,000 372,754 466,000 63,245 64,400 107,000 45,000 2,372,898 1,000,000 326,442 382,000 99,000 143,000 35,000 3,239,316 2,000,000 260,095 357,000 50,000 138,000 55,000 3,261,678 1,790,000 375,002 392,300 36,420 127,600 155,000 89,000 3,351,726 1,750,000 361,051 442,394 37,655 170,800 100,000 84,000 3,453,145 1,827,000 360,895 476,252 39,130 162,700 116,000 84,000 3,312,351 1,780,000 286,743 307,083 57,229 226,400 155,000 99,000 3,464,971 1,788,000 389,343 353,909 69,665 253,000 153,000 131,000 4,065,791 2,100,000 <td< td=""></td<>

Source: FAOStat, Food and Agriculture Organization, United Nations.

15.5 Australian faba bean exports

Australia's larger scale production of faba bean started after 1980 with the release of the variety Fiord. Before that, a few crops of horse beans were grown sporadically from the 1920s to 1970s to supply the domestic horse-racing trade, for green manure crops or for export to the UK. Production in Australia steadily increased as the industry developed, reaching two plateaus, the first in 1992–95 when South Australian production stabilised. Production was decreasing in Victoria at that time but increasing in New South Wales and Western Australia. From 1995, most states increased production area, to peak at 206,000 ha in 2000 before dropping in all states, except South Australia, to 156,000 ha in 2004. Major influences were the ability to deal with foliar disease and tight bean rotations.



Southern/Western Faba and Broad Bean—Best Management Practices Training Course. Module 3—Varieties. 2013. Pulse Australia.







After the 2002 drought, Australia lost market share to UK and France because of inability to supply sufficient product.

The area sown to faba bean has fluctuated over the past 30 years, and during the latter period, interest in lentil, chickpea and canola had increased. Faba bean area in Australia has now stabilised at ~150,000 ha (in 2011), with production at around 270,000 t. Broad bean production is largely confined to specific high-rainfall areas in South Australia particularly. The combined area of faba and broad beans is estimated at 196,000 ha in 2012, and indications are that the demand from the Middle East has not diminished. Export destinations are shown in Figure 26, and yearly export quantities by total yearly tonnage in Figures 27 and by destination in Figure 28.

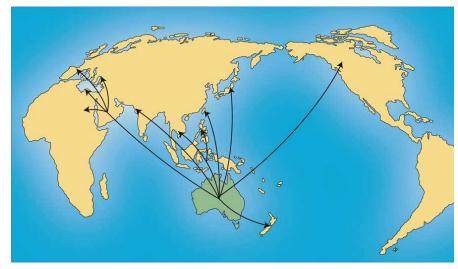


Figure 26: Destinations for faba and broad beans from Australia.

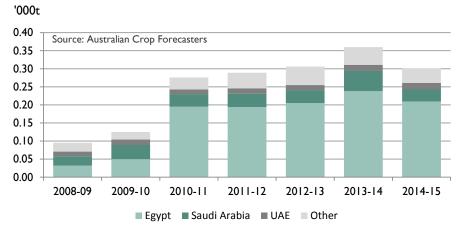


Figure 27: Australian faba bean exports 2008–09 to 2014–15.





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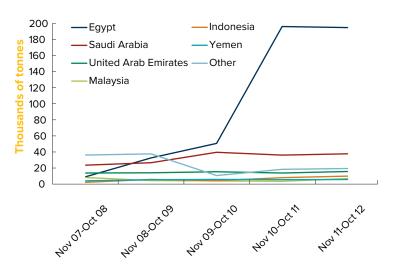


Figure 28: Major destinations and tonnages of beans exported from Australia.

15.6 References and further reading

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British Pulse exporters web site: http://www.bepa.co.uk/

PGRO web site http://www.pgro.org/

Market web sites:

http://www.alibaba.com/showroom/dry-broad-beans.html

http://importer.tradekey.com/egyptian-beans-importer.html

http://www.wakalex.com/

FAO (2003) WTO Agreement on agriculture: the implementation experience – Egypt, $\underline{\text{http://www.}}$ fao.org/docrep/005/Y4632E/y4632e0c.htm

