WESTERN
SEPTEMBER 2018

GRDC GROWNOTES™

GRDC
GRAINS RESEARCH & DEVELOPMENT CORPORATION

BARLEY

SECTION 15

MARKETING

SELLING PRINCIPLES | WESTERN BARLEY: MARKET DYNAMICS AND EXECUTION

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:

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

The reference column refers to the section of the GrowNote™ where you will find the details to help you in making decisions.

Decisions	Decision drivers	Reference	Guiding principles
When to sell?	**Production risk** – estimate tonnage **Target price** – cost of production **Cash flow requirements**	1.2.1 1.2.2 1.2.3	Don't sell what you don't have Don't lock in a loss Don't be a forced seller
How to sell?	**Fixed price** – maximum certainty **Floor price** – protects downside **Floating price** – minimal certainty	1.3.1	If increasing production risk, take price risk off the table. Separate the pricing decision from the delivery decision.
Which markets to access?	**Storage and logistics** – on farm, private, BHC's **Costs of storage / carry costs**	1.4 1.4.1 1.4.2	Harvest is the first priority Storage is all about access to markets Carrying grain is not free
Executing the sales?	**Contract negotiations and terms** **Counterparty risk** **Relative commodity values** **Contract (load) allocations** **Read market signals (liquidity)**	1.5.1 1.5.6	Seller beware Sell valued commodities, not undervalued commodities Sell when there is buyer appetite Don't leave money on the table.

Figure 1: *Grain Selling – best practice in conversion of tonnes to dollars.*

This figure provides a summary via a GRAIN SELLING flow chart defining:
- The decisions to be made
- The drivers behind the decisions
- The guiding principles for each decision point

References are made to the section of the GrowNote you will find the detail

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, Kwinana feed barley values varied A$40–$160/t, a variability of 15–95% (Figure 2). For a property producing 500 tonnes

of feed barley this means $20,000–$80,000 difference in income, depending on timing of sales.

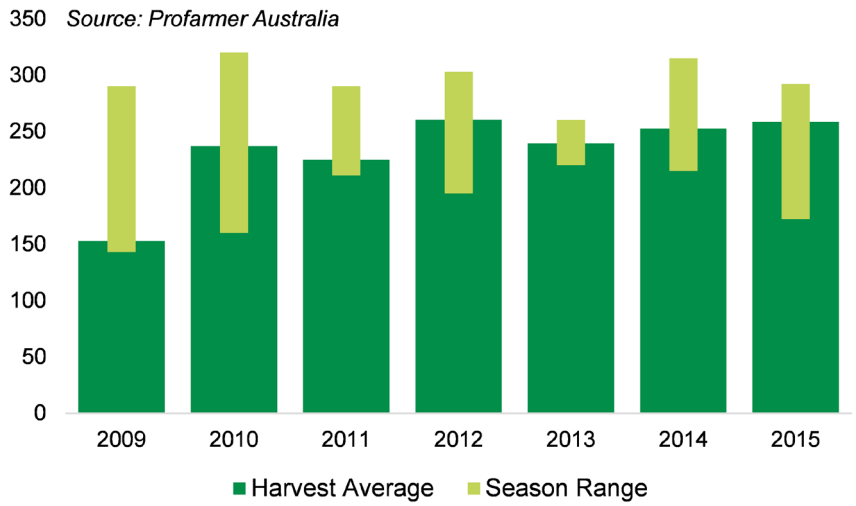

Figure 2: *Intra-season variance of Kwinana Barley values. Note to figure two: Kwinana feed barley values have varied A$40-$160/t over the past 7 years (representing variability of 15-95%). For a property producing 500 tonnes of feed barley this means $20,000-$80,000 difference in income depending on timing of sales.*

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 the grower's 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.

15.1.1 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 the cost of production and the desired profit margin
- business cashflow requirements

How to sell

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

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

The following diagram (Figure 3) lists the key principles to employ when considering sales during the growing season. Exactly when each principle comes into play is indicated in the discussion below of the steps involved in marketing and selling.

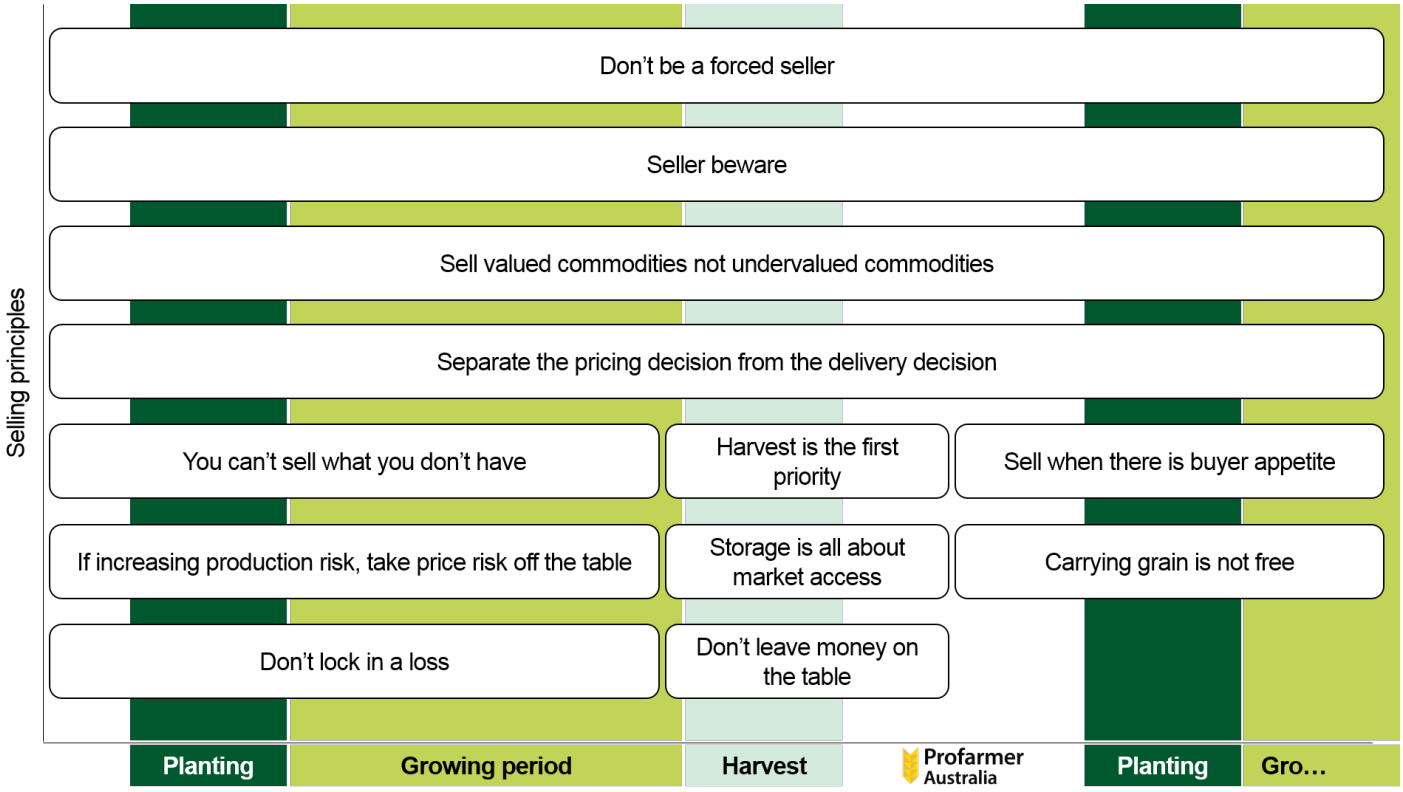

Figure 3: *Grower commodity selling principles timeline.*

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

Source: Profarmer Australia

15.1.2 Establish the business risk profile

Establishing a business risk profile helps growers determine when to sell: it allows growers 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).

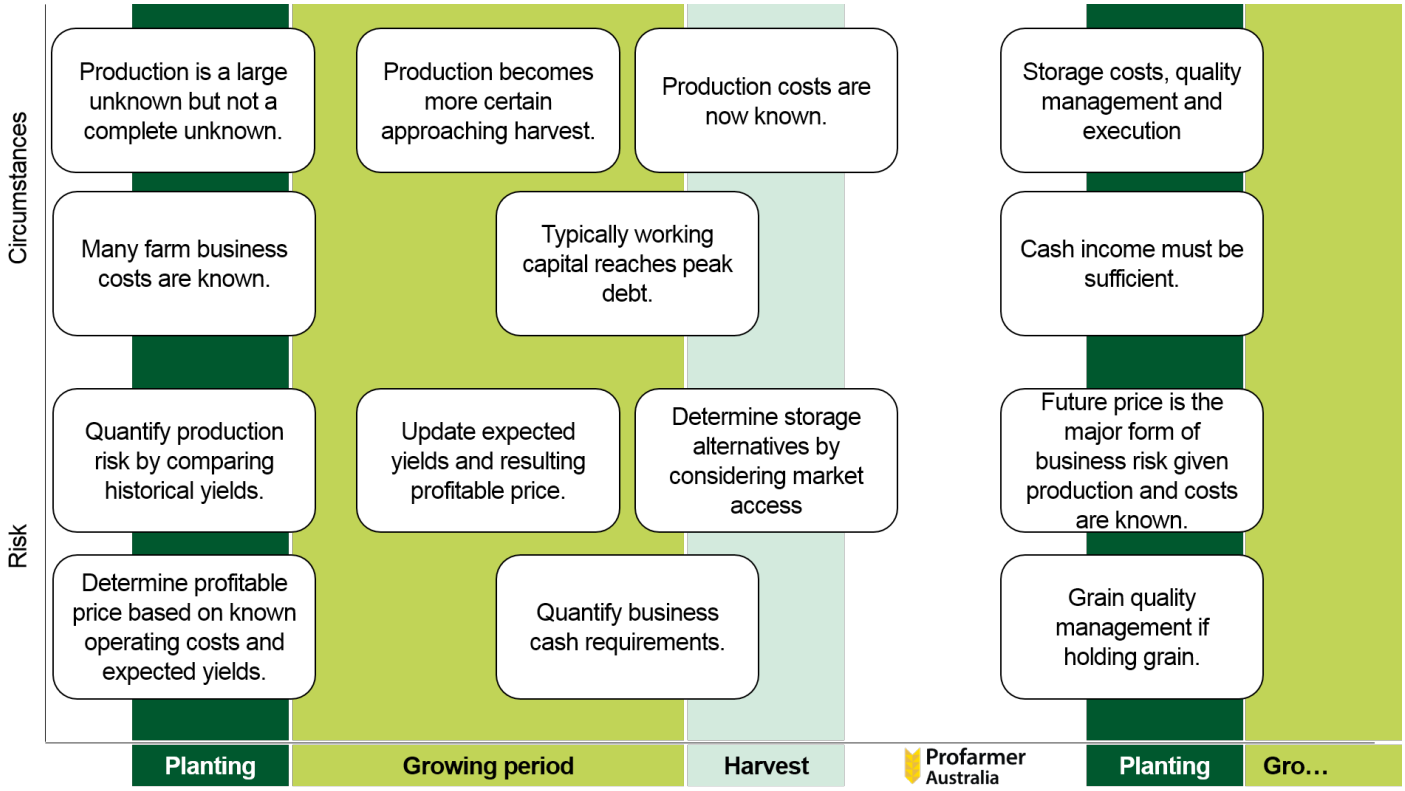

Figure 4: *Typical farm business circumstances and risk.*

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

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 the 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 (see Figure 5) by:

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

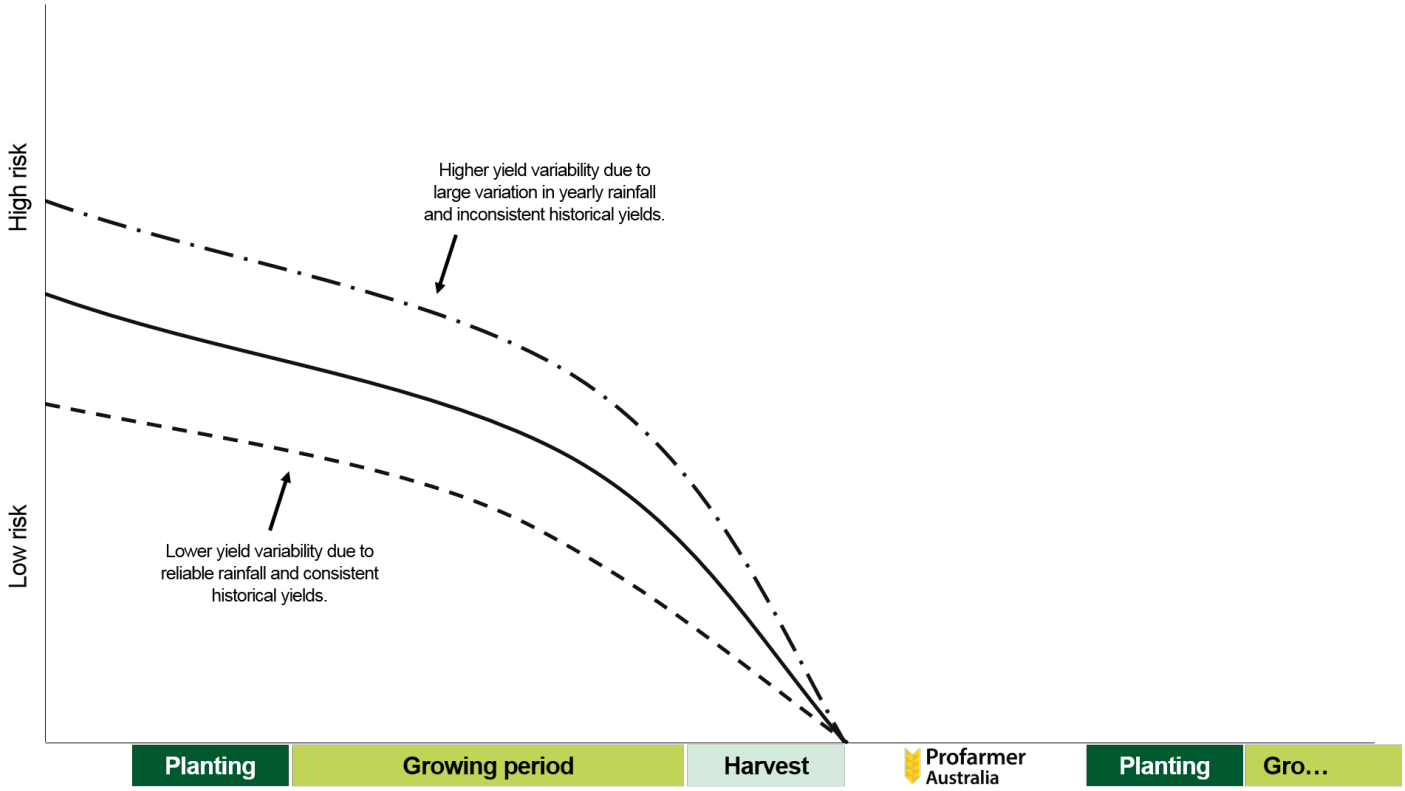

Figure 5: *Typical production risk profile of a farm operation.*

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 level at any given point in time with consideration to rainfall, yield potential soil type, commodity etc

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).

Estimating Cost of Production - Barley		
Planted Area	1,200 ha	Step 1: Estimate your production potential. The more uncertain your production is, the more conservative the yield estimate should be. As yield falls, your cost of production per tonne will rise.
Estimated Yield	3.20 t/ha	
Estimated Production	3,840 t	
Fixed Costs		
Insurance and General Expenses	$100,000	Step 2: Attribute your fixed farm business costs. In this instance if 1,200ha reflects 1/3 of the farm enterprise, we have attributed 1/3 fixed costs. There are a number of methods for doing this (see M Klause "Farming Your Business") but the most important thing is that in the end all costs are accounted for.
Finance	$80,000	
Depreciation / Capital Replacement	$70,000	
Drawings	$60,000	
Other	$30,000	
Variable costs		
Seed and sowing	$42,000	Step 3: Calculate all the variable costs attributed to producing that crop. This can also be expressed as $ per ha x planted area.
Fertiliser and application	$144,000	
Herbicide and application	$72,000	
Insect / fungicide and application	$30,000	
Harvest costs	$48,000	
Crop insurance	$12,000	
Total Fixed and Variable costs	$688,000	
Per Tonne Equivalent (Total costs ÷ Estimated Production)	**$179 /t**	Step 4: Add together fixed and variable costs and divide by estimated production.
Per Tonne Costs		
Levies	$3 /t	Step 5: Add on the "per tonne" costs like levies and freight.
Cartage	$12 /t	
Freight to Port	$22 /t	
Total Per Tonne Costs	$37 /t	
Cost of production Port track equiv	$216.17	Step 6: Add the "per tonne" costs to the fixed and variable per tonne costs calculated at step 4. Add a desired profit margin to arrive at the port equivalent target profitable price.
Target profit (ie 20%)	$43.00	
Target price (port equiv)	$259.17	

Figure 6: *Calculating cost of production.*

Source: Profarmer Australia

MORE INFORMATION

GRDC's manual Farming the Business

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 are illustrated below (Figure 7 and Figure 8). Costs are incurred up front and during the growing season, with peak working capital debt incurred at or before harvest. Patterns will vary depending on circumstance and enterprise mix. The second figure demonstrates how managing sales can change the farm's cash balance.

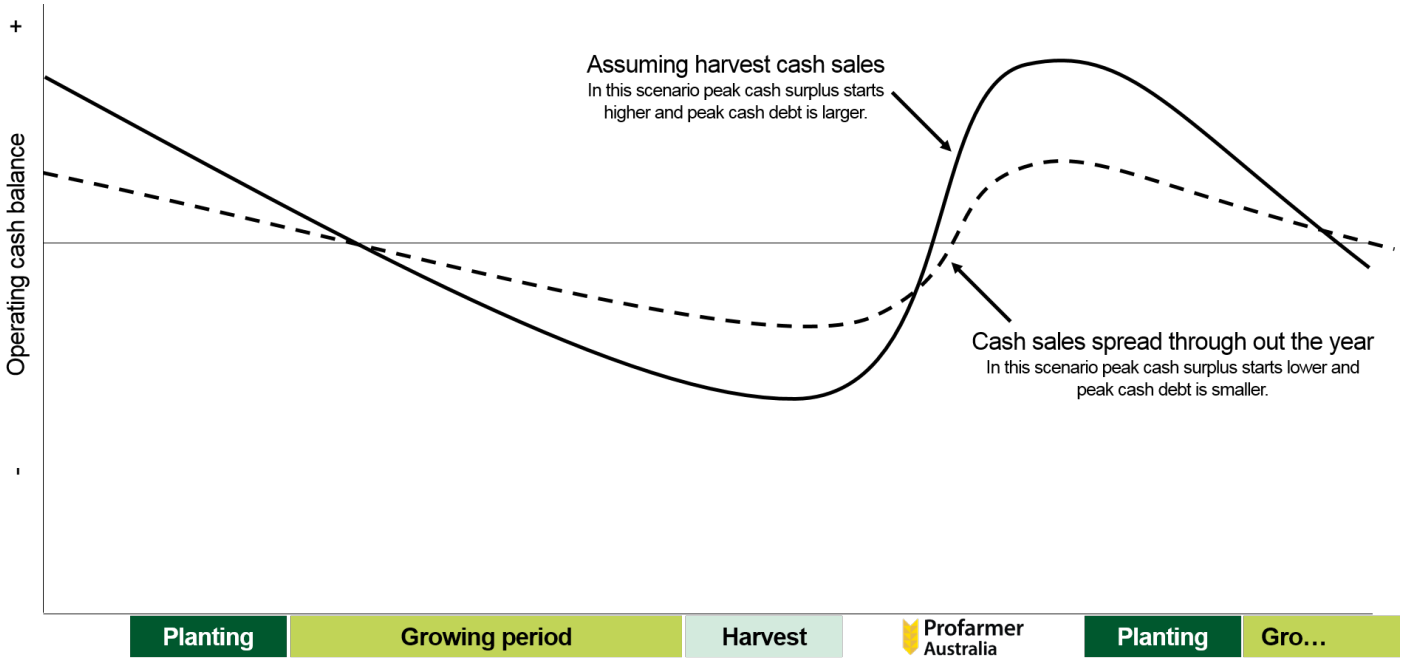

Figure 7: *Typical farm operating cash balance.*

The chart illustrates the operating cash flow of a typical farm assuming a heavy reliance on cash sales at harvest vs a farm business which spreads sales out throughout the year.

When harvest sales are more heavily relied upon 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.

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

Source: Profarmer Australia

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

15.1.3 Managing 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 products provide varying levels of price risk coverage:*

	Description
Fixed price strategies	Fixed price strategies provide the most price certainty. Examples include cash, futures and bank swaps.
Floor price strategies	Floor price products limit price downside but provide exposure to future price upside. Examples include options on futures and floor price pool products.
Floating price strategies	Floating price strategies are subject to both price upside and down side. Examples include some pool products and doing nothing.

The diagram below provides a summary of where different methods of price management are suited for the majority of farm businesses..

Figure 8: *Price strategy timeline*

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, therefore 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 price products and strategies are favourable. Comparatively a floating price strategy can be effective in the harvest and post-harvest period.

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 being negotiable, hence price management is not determined by delivery.

Fixed price

A fixed price is achieved via cash sales and/or selling a futures position (swaps) (Figure 9). It provides some certainty around expected revenue from a sale as the price is largely a known factor, except when there is a floating component in the price, e.g. a multi-grade cash contract with floating spreads or a floating-basis component on futures positions.

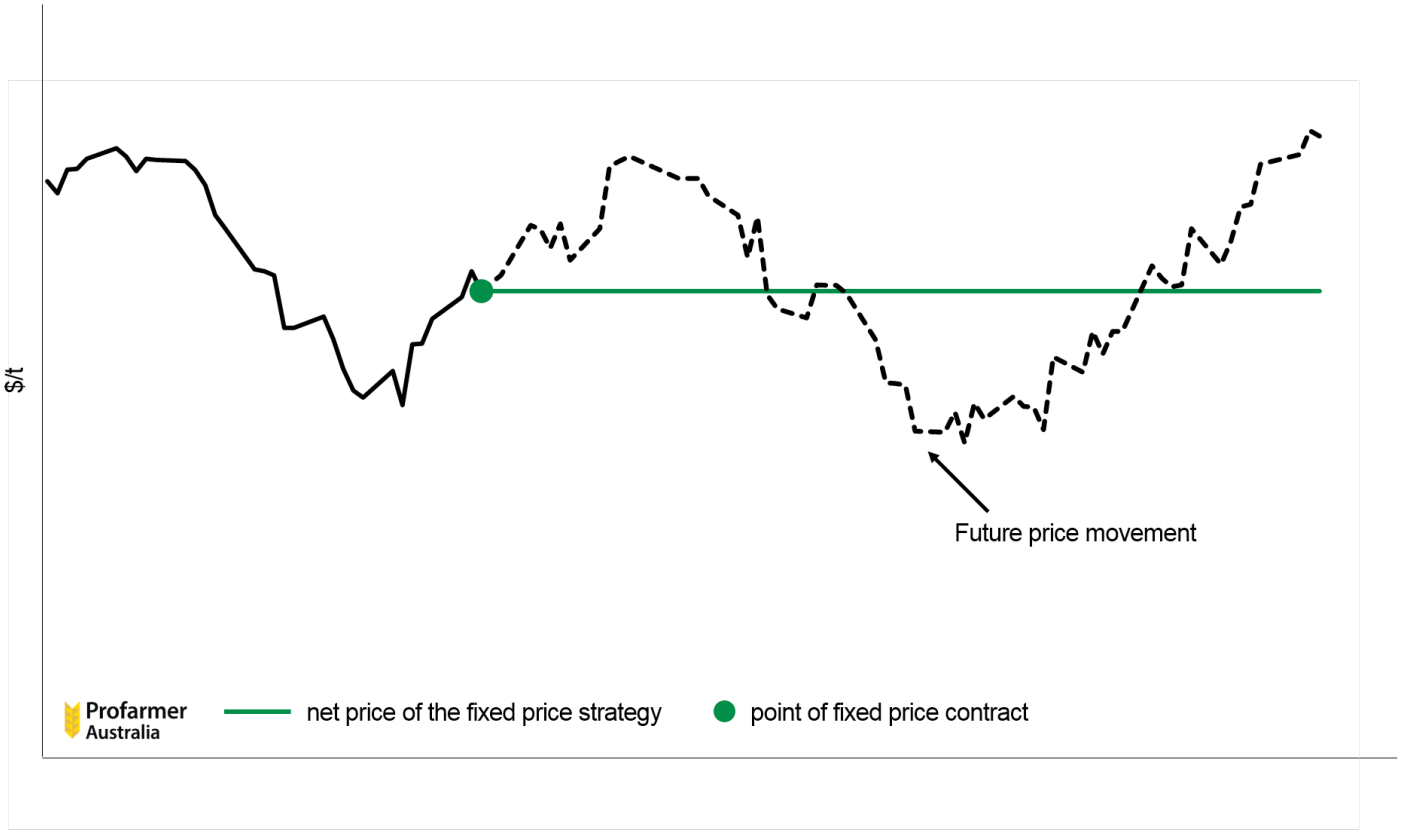

Figure 9: *Fixed price strategy.*

Fixed price product locks in price and provides certainty over what revenue will be generated regardless of future price movement.
Source: Profarmer Australia

Floor price

Floor-price strategies (Figure 10) 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 downside while capturing any upside. The disadvantage is that this kind of price 'insurance' has a cost, which adds to the farm's cost of production.

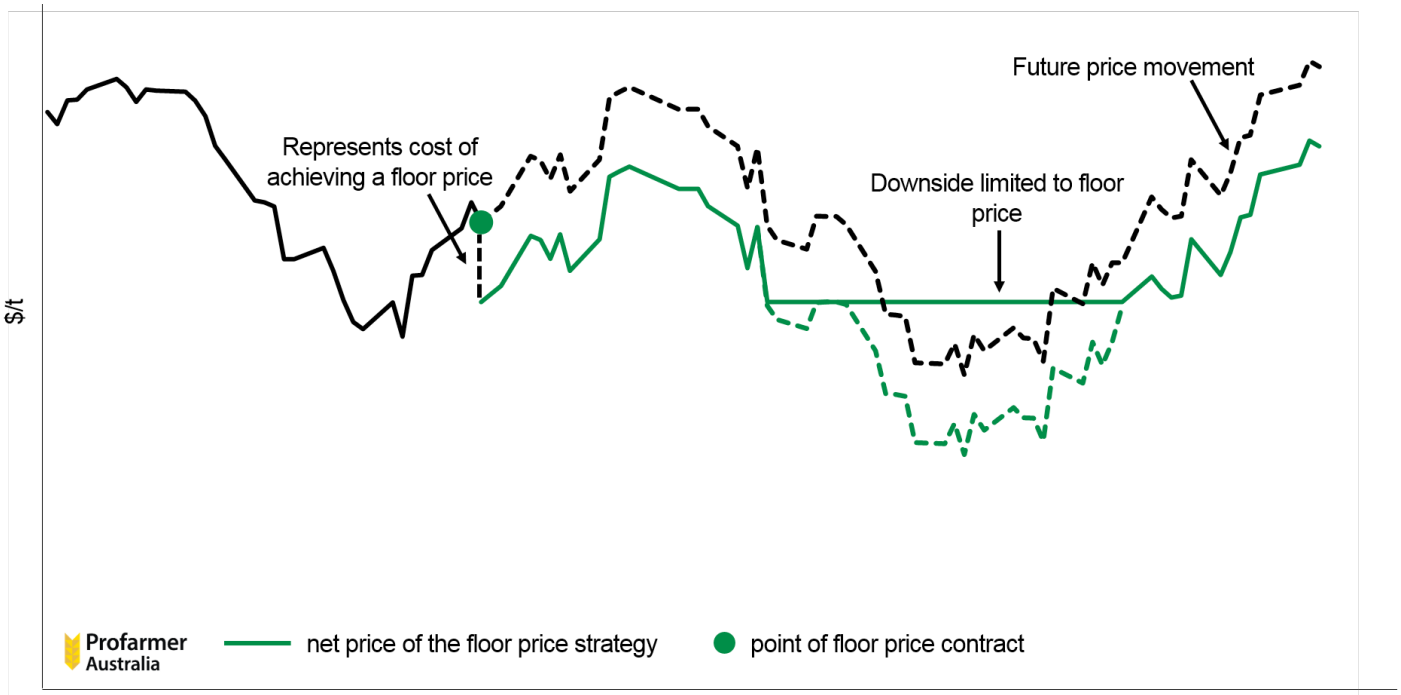

Figure 10: *Floor price strategy.*

A floor price strategy insures against potential future downside in price while allowing price grains in the event of future price rallies.

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 11). Floating-price products provide the least price certainty and are best suited for use at or after harvest rather than before harvest.

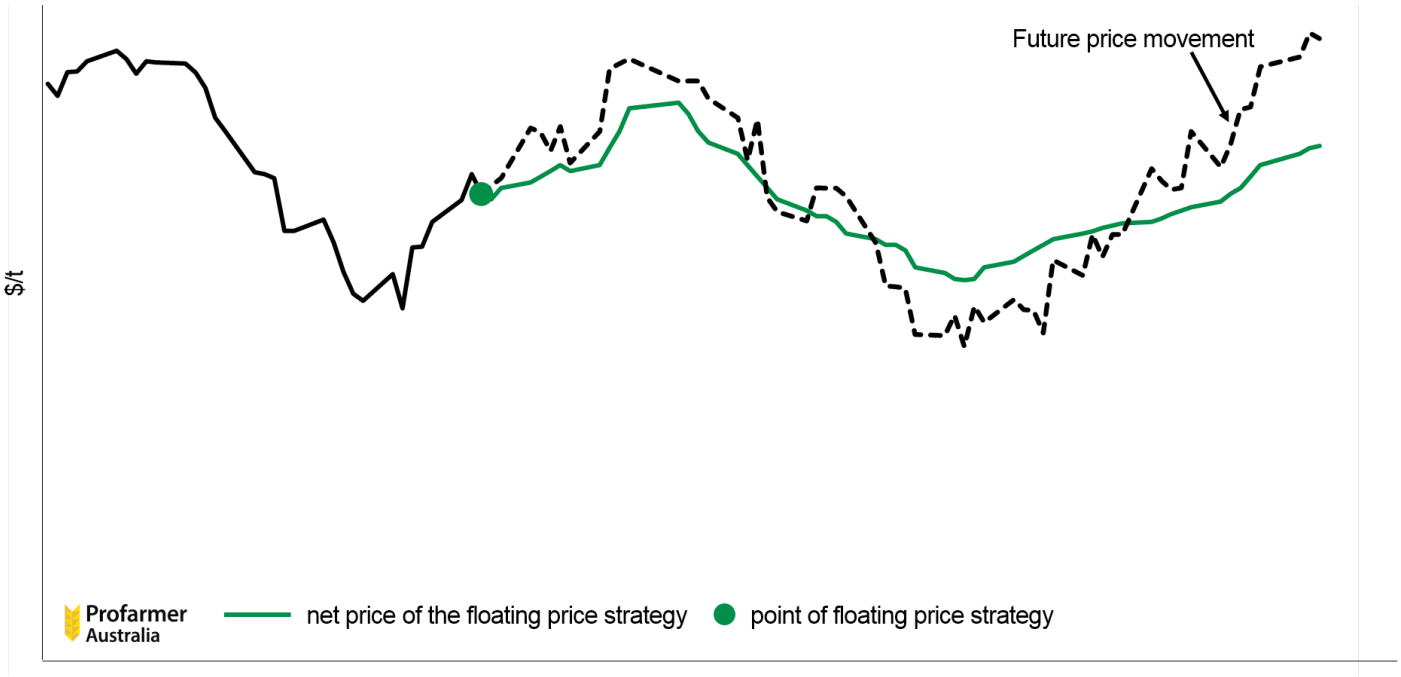

Figure 11: *Floating price strategy.*

A floating price will move to some extend with future price movements.

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 so are best used after harvest.

15.1.4 Ensuring access to markets

Once the questions of when and how to sell are sorted out, planning moves to the 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 12).

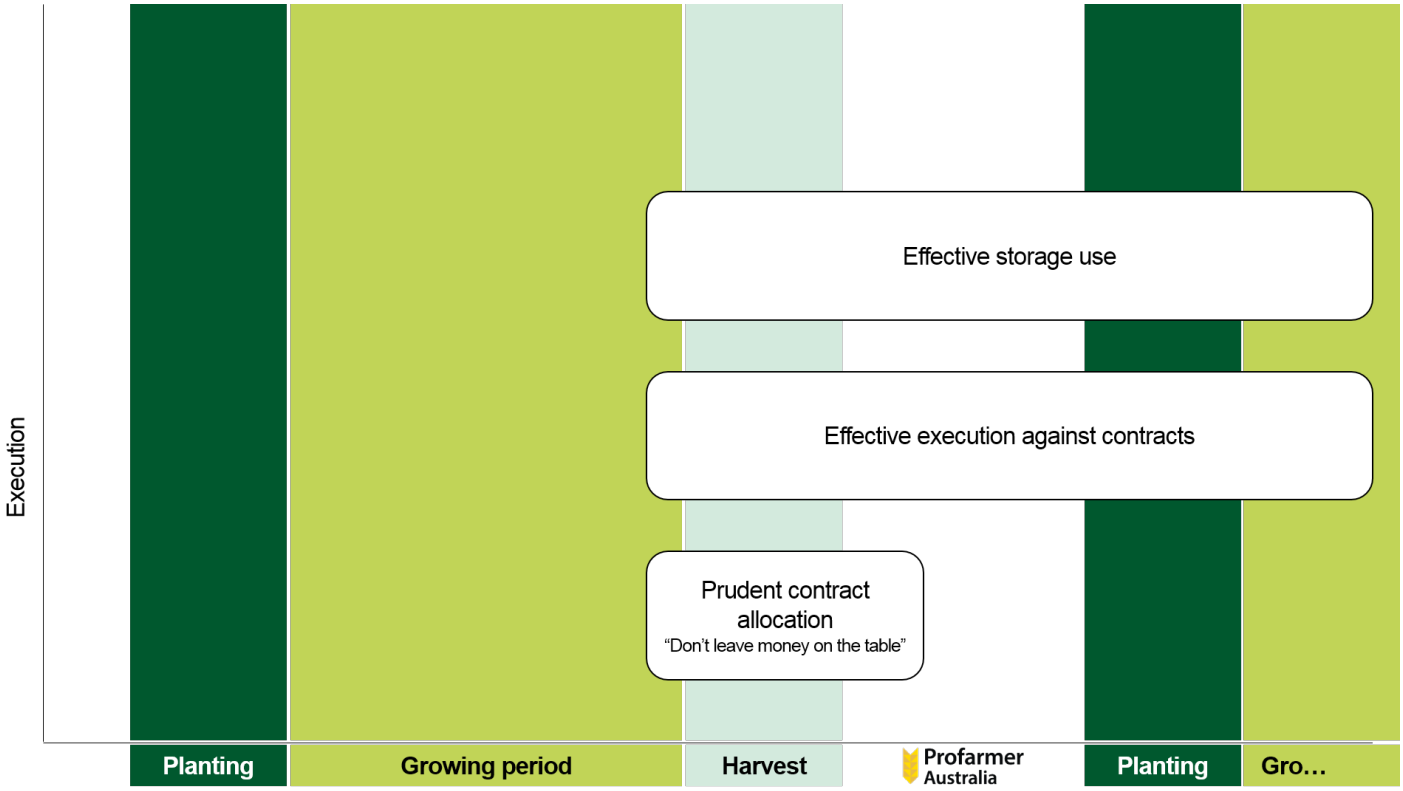

Figure 12: *Effective storage decisions.*

Note to figure thirteen: Once a grower has made the decision to sell the question becomes how they achieve this. The decision on how to sell is dependent upon
- The time of year determines the pricing method.
- Market access determines where to sell.
- Relative value determines what to sell.]

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 of bulk handling, private off-farm storage, and on-farm storage. Delivery and quality management are key considerations in deciding where to store your commodity (Figure 13).

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 the 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.

MORE INFORMATION

For more information on on-farm storage alternatives and economics refer to Section 13: Storage.

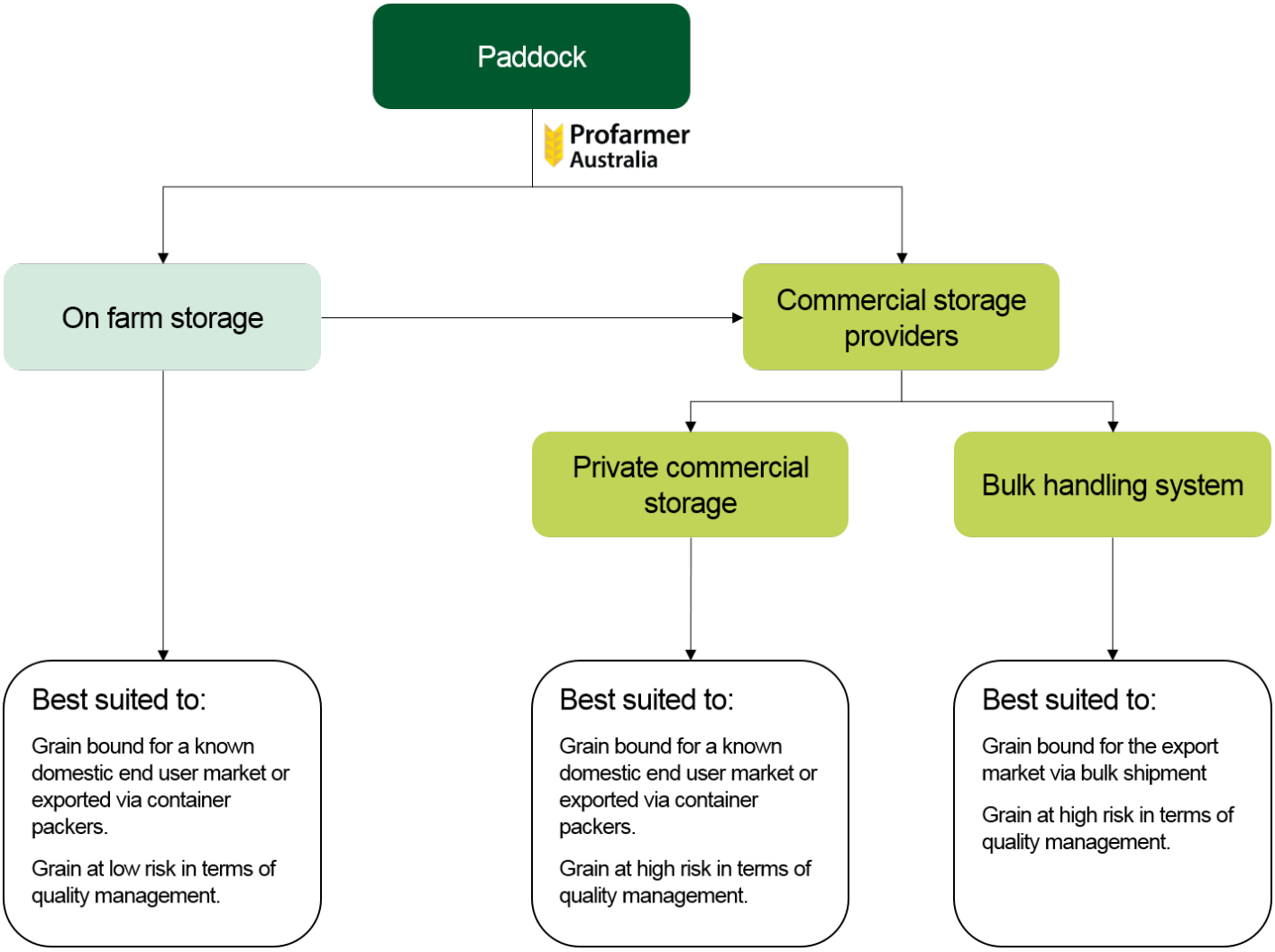

Figure 13: *Grain storage decision making.*

Decisions around storage alternatives of harvested commodities depend on market access and quality management requirements.]

Source: Profarmer Australia

Cost of carrying grain

Storing grain to access sales opportunities post-harvest invokes a cost to 'carry', or hold, the grain. Price targets for carried grain need to account for the cost of carrying it. Carrying 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 (Figure 14).

The cost of carrying also applies to grain stored on the farm, as it must cover the cost of the 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. Therefore, if selling a cash contract with deferred delivery, a carry charge can be negotiated into the contract. For example, in the case

of a March sale of $700/t + $5/t carrying per month, and for March –June delivery on the buyer's call, the contract delivered in June would generate revenue of $715/t delivered.

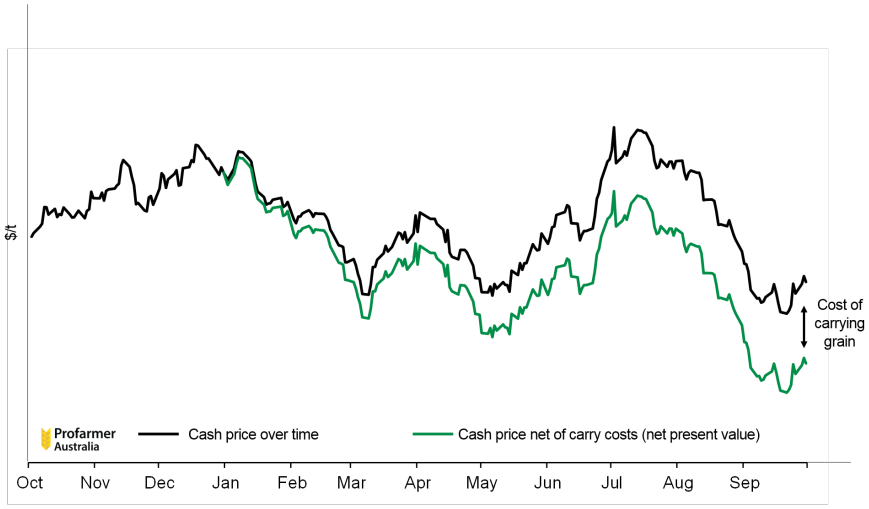

Figure 14: *Cash values vs cash adjusted for the cost of carry.*

If selling a cash contract with deferred delivery, a carry charge can be negotiated into the contract. For example on the case of a March sale of canola for March –June delivery on the buyers call at $250/t + $3/t carry per month, if delivered in June this contract would generate revenue of $259/t delivered.

Source: Profarmer Australia

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

15.1.5 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.

1. 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
2. Professional services—grain-selling professional services and cost structures vary considerably. An effective grain-selling professional will put their clients' best interests first by not having conflicts of interest and by investing time in the 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 a 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.

MORE INFORMATION

Access to buyers, brokers, agents, products and banks through Grain Trade Australia

Commodity futures brokers

ASX, Find a futures broker

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 15):

- 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 the 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

Grain Trade Australia is the industry body ensuring the efficient facilitation of 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.

Quantity (tonnage) and quality (bin grade) determine the actuals of your commitment. Production and execution risk must be managed.

Price is negotiable at time of contracting.
Price basis or price point is important as it determines where in the supply chain the transaction will occur and so what costs will come out of the price before the growers net return.

Timing of delivery (title transfer) is agreed upon at time of contracting. Hence growers negotiate execution and storage risk they may have to manage.

Whilst the majority of transactions are on the premise that title of grain is transferred ahead of payment this is negotiable. Managing counterparty risk is critical.

GTA Contract No.3

CONTRACT CONFIRMATION

GTA Trade Rules and Dispute Resolution Rules apply to this contract

GRAIN TRADE AUSTRALIA

This Contract is confirmation between:

BUYER	SELLER
Contract No:	Contract No:
Name:	Name:
Company:	Company:
Address:	Address:
Buyer ABN:	Seller ABN:
NGR No:	NGR No:

The Buyer and Seller agree to transact this Contract subject to the following Terms and Conditions:

Commodity:
Grade:
Quantity:
Packaging:
Price:
Price Basis:

GTA Commodity Reference:
Inspection: (Origin – Destination)
Tolerance: (Refer over)
Weights: (Origin – Destination)
Excl/Inc/Free GST

Delivery/Shipment Period:
(Delivered, Shipped, Free In Store, Free On Board, Ex-Farm, etc.)
Delivery Point and Conveyance:
(Road, Rail, Delivered Container Terminal, Freight, Rated Basing Point, Loading Weight requirements if applicable)

Payment Terms: The buyer agrees to pay the seller within _____. In the absence of a declaration, payment will be 30 days end of week of delivery.

Levies and Statutory Charges: Any industry, statutory or government levies which are not included in the price shall be deducted as required by law.

Disclosures: Is any of the crop referred to in this contract subject to a mortgage, Encumbrance or lien and/or Plant Breeders Rights and/or EPR liabilities and/or registered or unregistered Security Interest? ○NO ○YES (Please □ appropriate box) If "yes" please provide details:

Other Special Terms and Conditions:

All Contract Terms and Conditions as set out above and on the reverse of this page form part of this Contract. Terms and Conditions written on the face of this Contract Confirmation shall overrule all printed Terms and Conditions on the reverse with which they conflict to the extent of the inconsistency. This Contract comprises the entire agreement between Buyer and Seller with respect to the subject matter of this Contract.

Recipient Created Tax Invoice (RCTI).
To assist with the processing of the Goods and Services Tax compliance, the buyer may prepare, for the seller, a Recipient Created Tax Invoice (RCTI). If the seller requires this service they are required to sign this authorisation.

☐ Please issue a RCTI (Please □)

Incorporation of GTA Trade & Dispute Resolution Rules:
This contract expressly incorporates the GTA Trade Rules in force at the time of this contract and Dispute Resolution Rules in force at the commencement of the arbitration, under which any dispute, controversy or claim arising out of, relating to or in connection with this contract, including any question regarding its existence, validity or termination, shall be resolved by arbitration.

Buyer's Name: (PRINT NAME)	Seller's Name: (PRINT NAME)
Buyer's Signature:	Seller's Signature:
Date:	Date:

This Contract has been executed and this form serves as confirmation and should be signed and a copy returned to the buyer/seller immediately. 2014 Edition

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Figure 15: *Typical cash contracting as per Grain Trade Australia standards.*

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 16 depicts the terminology used to describe these points and the associated costs to come out of each price before growers receive their net return.

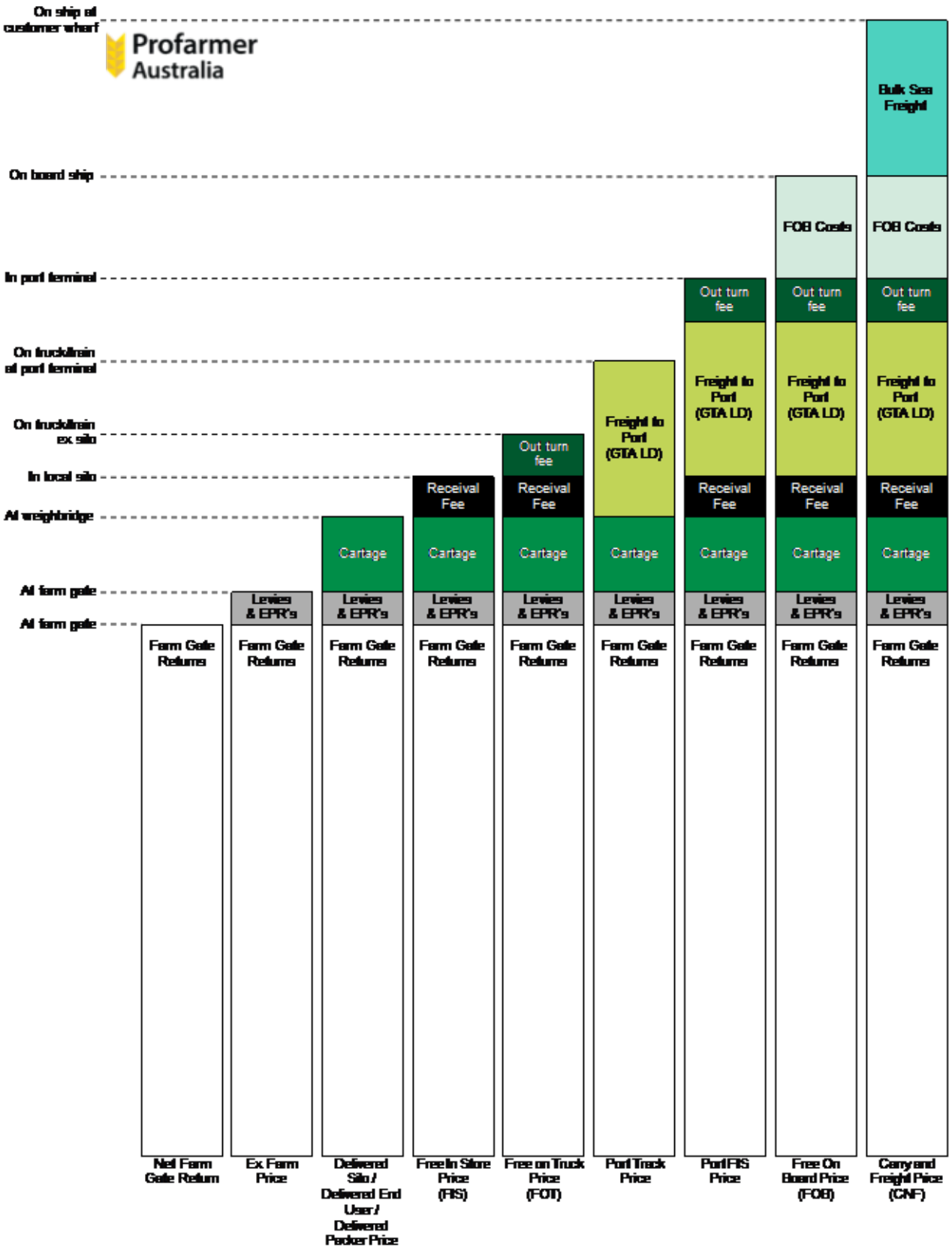
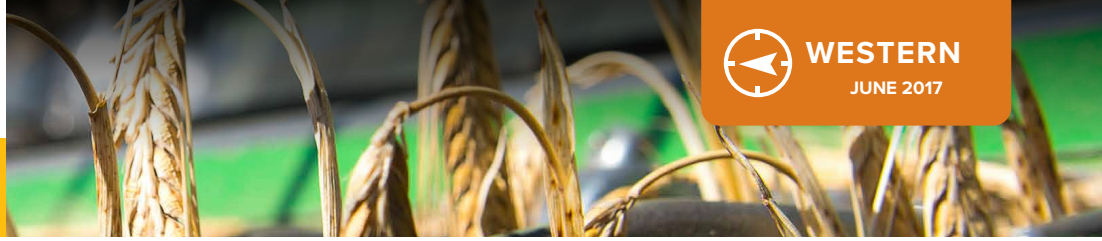


Figure 16: *Costs and pricing points throughout the supply chain*

Source: Profarmer Australia



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Grain Trade Australia, Trading standards

GrainTransact Resource Centre

GrainFlow

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Clear Grain Exchange, Getting started

Clear Grain Exchange, Terms and conditions

GTA, Managing counterparty risk

Clear Grain Exchange's title transfer model

GrainGrowers, Managing risk in grain contracts

Leo Delahunty, Counterparty risk: A producer's perspective

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 is available for all commodities.
- **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 option 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 offer and 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 the title on the 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 the grower doesn'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 a 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. Achieving $5/t more on paper and not getting paid is a disastrous outcome.

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, give preference to the commodities with the highest relative value. This achieves price protection for the overall revenue of the farm business and enables more flexibility to a grower's selling program while 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 would sell the one that is getting the better price relative to the other, and hold the other for the meantime (see Figure 17).

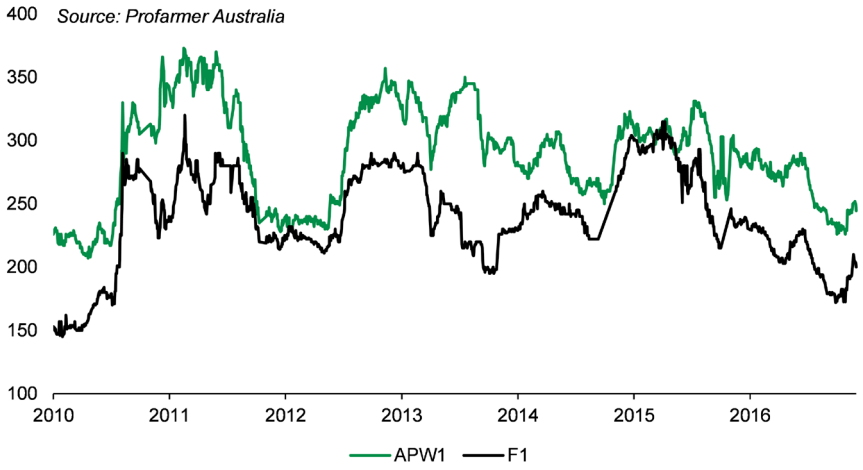

Figure 17: *Wheat vs Barley Kwinana*

Source: Profarmer Australia

If the decision has been made to sell wheat, wheat sold on the Chicago Board of Trade (CBOT) may be the better choice if the futures market is showing better value than the cash market

Contract allocation

Contract allocation means choosing which contracts to allocate your grain against come delivery time. Different contracts will have different characteristics (e.g. price, premiums-discounts, oil bonuses), 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 grain to contracts with the lowest discounts
- Allocate higher grades of grain to contracts with the highest premiums (Figure 18).

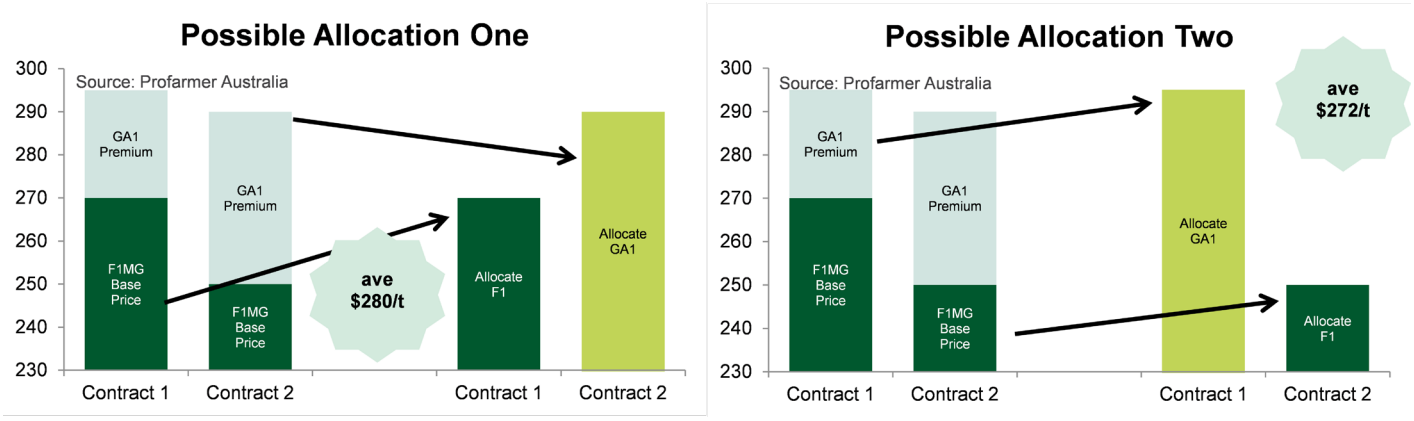

Figure 18: *Barley contract allocation example.*

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 that 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. The chart below plots actual trade prices on the Clear Grain Exchange against the best public indicative bid on the day

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 conducting 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 to prevent selling at a discount

15.2 Western barley: market dynamics and execution

15.2.1 Price determinants

Australia is a relatively small player in terms of world barley production, contributing about 5–6% of global barley production. However, in terms of world trade, Australia is a major player, exporting 50–70% of the national barley crop, which accounts for about 20% of global wheat trade.

The consumption and production of barley globally has declined over the last 30 years as the market shifts towards other commodities (Figure 19). The demand that remains, however, represents consumers who are more reluctant to shift to other commodities, which means that global demand tends to be relatively inelastic. This is particularly true for malting barley, which cannot be substituted. This inelasticity means that at times when production is uncertain, malt barley can trade at strong premiums to other commodities and to feed barley, as the market competes to obtain what is perceived to be limited supply.

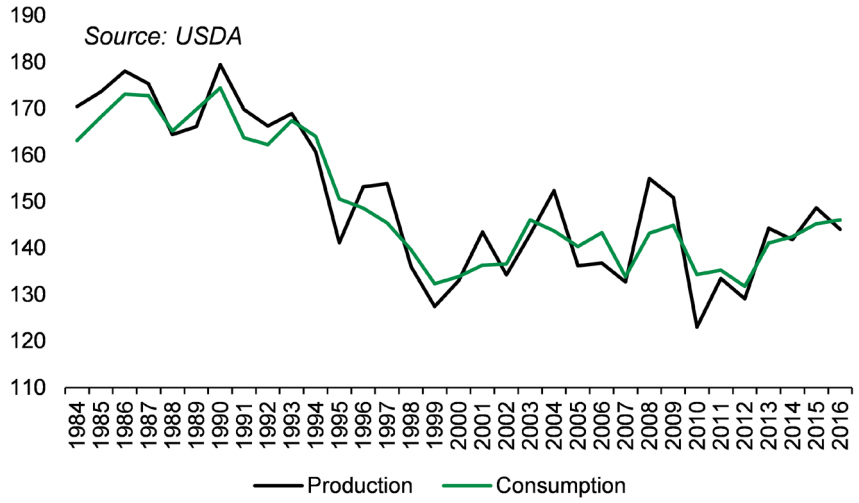

Figure 19: *Global barley production vs consumption (Million tonnes).*

WA is Australia's largest barley export state, exporting 80–90% of its production each year. The Middle East, particularly Saudi Arabia, is a very important market for WA feed barley, along with Japan and, more recently, China. However, demand from China tends to be heavily influenced by local feed-grain policies, so it can be highly variable from one season to another.

International trade prices are often the best indicators of where Australian barley values will trade. Barley values are also influenced by price relativities to wheat.

Because the focus on barley growing in WA is the export market, it is important that growers wanting to maximise prices understand worldwide barley production (Figure 20). Due to the export WA focus, the timing of harvest in major exporting and importing countries has a considerable influence on prices.

Decile charts are also useful, as they provide an indication of how current values are performing relative to historical values. A decile of eight or above indicates that current values are in the top 20% of historical price observations (Figure 21 and Figure 22).

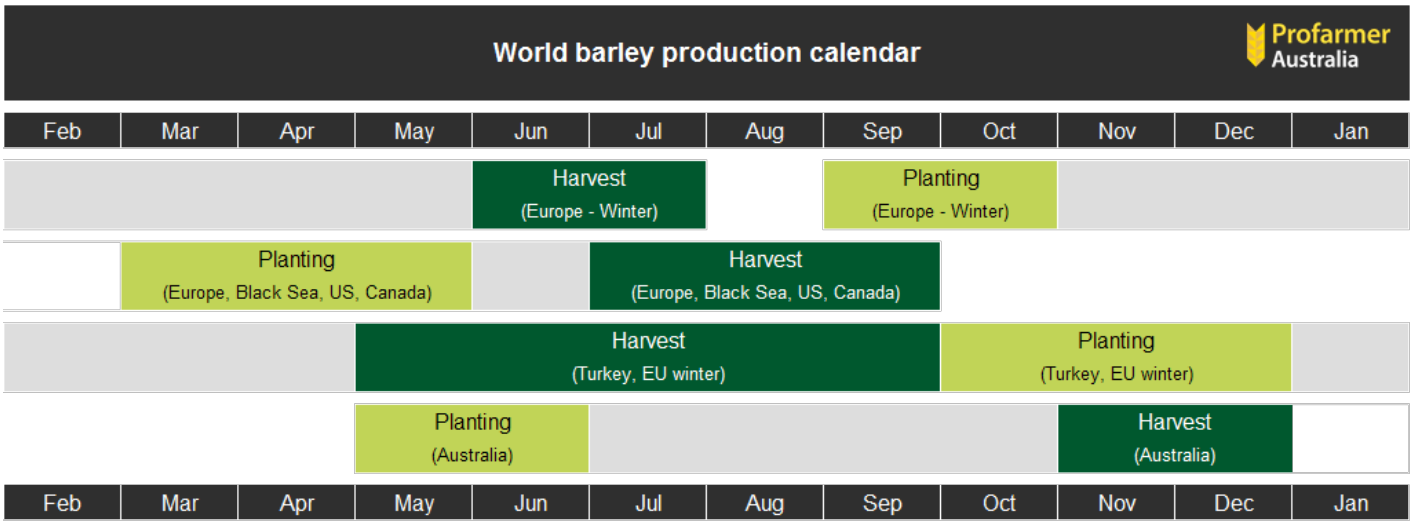

Figure 20: *World barley production calendar.*

Source: Profarmer Australia

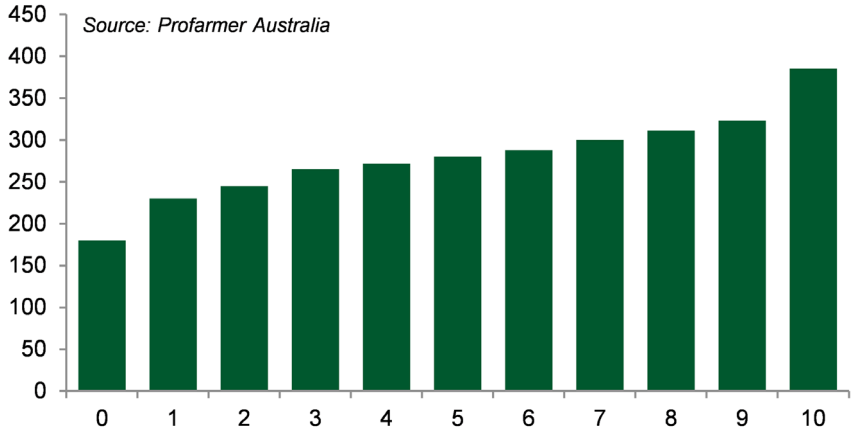

Figure 21: *: Kwinana Malt Barley Deciles.*

decile charts such as this provide us an indication of how current values are performing relative to historical values. For example a decile of 8 or above indicates current values are in the top 20% of historical price observations.

Source: Profarmer Australia

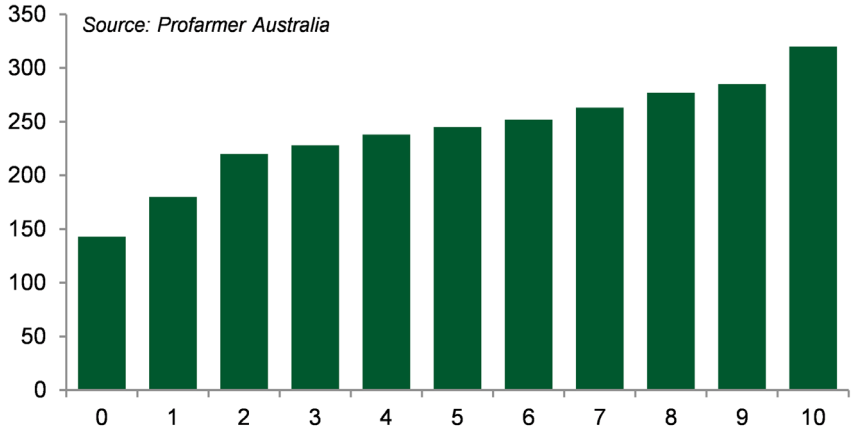

Figure 22: *: Kwinana Feed Barley Deciles.*

Note to figure twenty three: decile charts such as this provide us an indication of how current values are performing relative to historical values. For example a decile of 8 or above indicates current values are in the top 20% of historical price observations.

Source: Profarmer Australia

15.2.2 Ensuring market access

Given the majority of barley in WA is exported in bulk for human consumption, the most cost-effective pathway to get grain to off-shore customers is usually via the bulk-handling system. The bulk-storage provider should gain scale efficiencies when moving the bulk commodity grades such as Malt 1 and F1 feed barley.

Market Destinations - Barley - 5 year averages

	Western Australia		National Total	
	Implied tonnes	% of production	Implied tonnes	% of production
Exports	2.0 Mt	80%	5.0 Mt	60%
Domestic Use	0.5 Mt	20%	3.5 Mt	40%

Source: Australian Crop Forecasters

Figure 23: *Market destinations for Australian barley.*

Source: Australian Crop Forecasters

Although most WA barley will be stored and sold from within a bulk-handling system, private commercial storage and on-farm storage are a reasonable alternative for accessing container-export and domestic end-user markets.

Domestic consumers in WA demand a relatively small proportion of the crop, but growers who are well positioned to service these markets they can at times gain premiums over the bulk-export market. As private commercial or on-farm storage can be a more effective method of accessing this market, it is worth considering when planning sales (Figure 23).

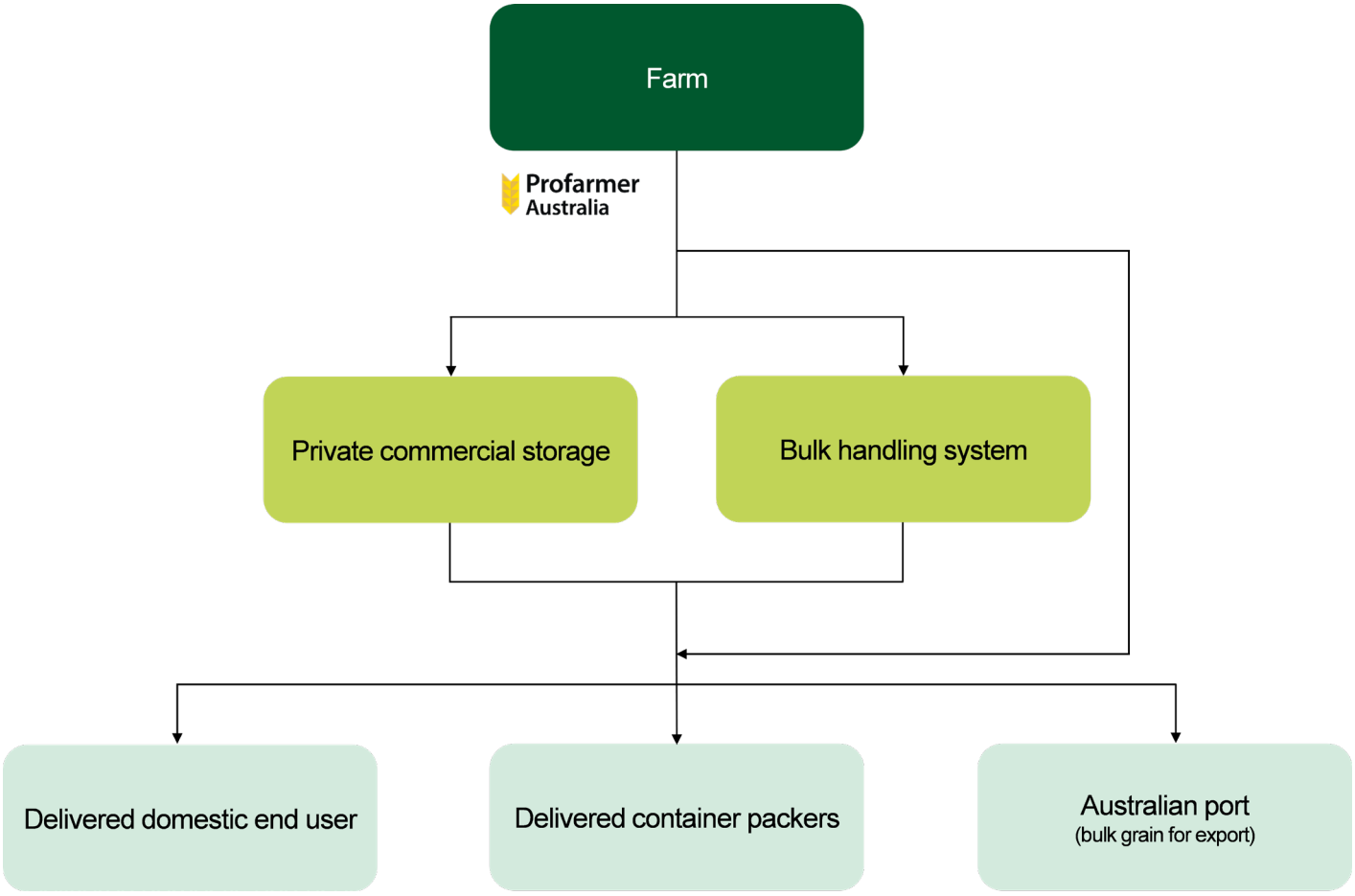

Figure 24: *Australian Supply chain flow.*

Storage decisions should be determined by assessing market access

15.2.3 Converting tonnes into cash

Knowing where the WA barley crop is likely to end up will help refine a grower's selling and logistics decisions. Broadly there are two customer types:

- Those who require a consistent supply of reliable quality grain in regular intervals regardless of the time of year.
- Those who are opportunistic buyers, based on price, and are able to manage the quality inconsistency that is associated with regularly switching suppliers.

As a result, the appetite to accumulate WA barley often peaks during and shortly after harvest, as a surge in demand kicks in to make the most of more abundant supply, and to realise shipping cost savings immediately after harvest. This is particularly true for malt barley, where demand is often very steady and buyers will seek to secure their requirements while there is the most certainty of availability.

What does this mean for a WA grower? Demand is generally strongest for WA barley during the harvest period when the number of buyers bidding for barley increases. Due to the extra bid liquidity at harvest, most grower selling strategies should encompass some harvest sales.

The key to effectively executing harvest sales is determining which grades to sell and which grades to hold. Malting barley grades generally trade at stronger levels during harvest. This is because consumers of these grades require consistent quality and, often, quantity, so they tend to accumulate their requirements before harvest and at harvest to ensure their supply while it is available. This appetite tends to push up the price premium for malting barley grades over the base Feed F1, making them a more attractive harvest sell. These grades are riskier to hold for post-harvest sales, as once the buyers have their requirements covered, prices tend to drop towards F1 levels as buyers begin to drop out of the market.

Typically, relative to malt barley, feed barley won't perform as strongly. However, the gap between feed and malting grades tends to close up after harvest, making feed barley lower risk and more desirable to hold for post-harvest sales (Figure 25). Premiums for malt barley over feed barley tend to widen from shortly before to shortly after harvest, but narrow in the post-harvest market as buyer appetite and liquidity in the malt barley market drops off.

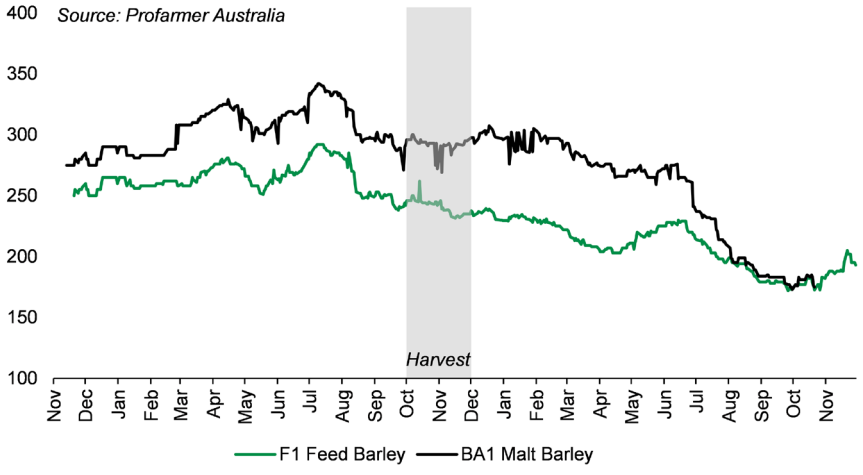

Figure 25: *Kwinana malt vs feed values.*

Premiums for malt barley over feed tend to widen shortly before, during and after harvest, but narrow in the post-harvest market as buyer appetite and liquidity in the malt barley market drops off.

Source: Profarmer Australia

15.2.4 Risk management tools

An Australian cash price is made up of three components: futures, foreign exchange, and basis. Each component has an impact on price, e.g. a higher futures and basis, and a lower exchange rate will result in a higher Australian grain price. Several barley futures contract types exist, including:

- ASX Eastern Australia Feed Barley—for feed barley of Australian origin, deliverable in New South Wales and Victoria, and is a minimum of GTA Feed Barley (F1) or equivalent
- ICE Western Canada Feed Barley—the grade of barley deliverable at par against the barley futures contract is No. 1 Canada western barley, which is a grade generally used for livestock feed

It is important to note liquidity in barley futures markets can be low, and this can create extra market risk for participants. For example, Euronext stopped running a European malting barley futures contract due to a lack of liquidity. Because of this, some participants choose to look at other futures markets, e.g. CBOT for wheat, to manage barley price risk. Australian barley and wheat values have a high correlation, hence, to some extent, a CBOT wheat futures contract can be used to hedge price risk against barley production.