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GRAINS RESEARCH
& DEVELOPMENT
CORPORATION

LUPIN

SECTION 13

GRAIN MARKETING

OVERVIEW | SELLING PRINCIPLES | ENSURING ACCESS TO MARKETS |
EXECUTING TONNES INTO CASH | MARKET DYNAMICS AND EXECUTION

i MORE INFORMATION

Pulse Australia 'Pulses – Understanding Global Markets': <http://www.pulseaus.com.au/growing-pulses/publications/marketing-pulses#world-pulse-production-calendar>

Pulse Australia 'Pulse Traders': <http://www.pulseaus.com.au/marketing/pulse-traders>

Australian Export Grains Innovation Centre 'Australian Grain Note – Pulses': http://www.pulseaus.com.au/storage/app/media/using_pulses/AGN_Pulse-Note-LR.pdf

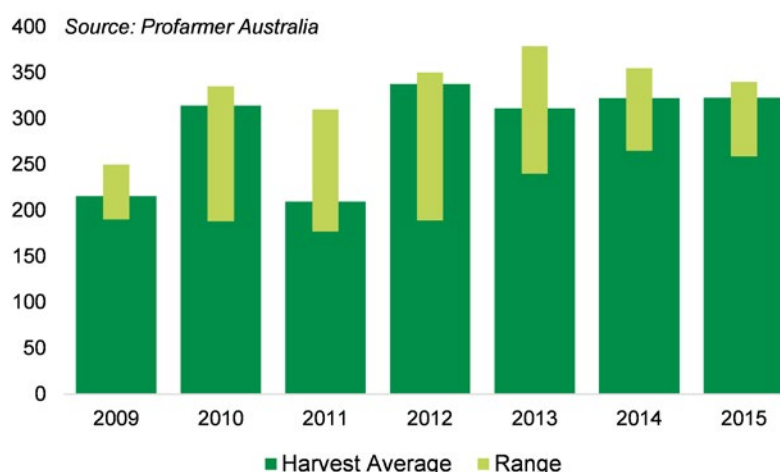
Grain Marketing

13.1 Overview

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

As shown in Figure 1, Kwinana lupin grain values have varied by \$60 to \$160 per tonne during the past seven years. This represents a variability of 25–65 percent. For a property producing 500 t of lupin, this means a \$30,000–\$80,000 difference in income – depending on the timing of sales.

Figure 1: Intra-season variance of Kwinana lupin values in dollars per tonne.



(SOURCE: Profarmer Australia)

13.2 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 the target price and then working toward achieving that target price.

Unknowns include the amount of grain available to sell (production variability), the final cost of that production 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 difficult to predict.

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

13.2.1 Be prepared

Being prepared and having a selling plan is essential for managing uncertainty. The steps involved are to form a selling strategy and a plan for effective execution of sales.

A selling strategy consists of when and how to sell.

When to sell

This 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

This 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).

The key selling principles when considering sales during the growing season and production cycle of the crop are outlined in Figure 2.

Figure 2: *Grower commodity selling principles timeline.*

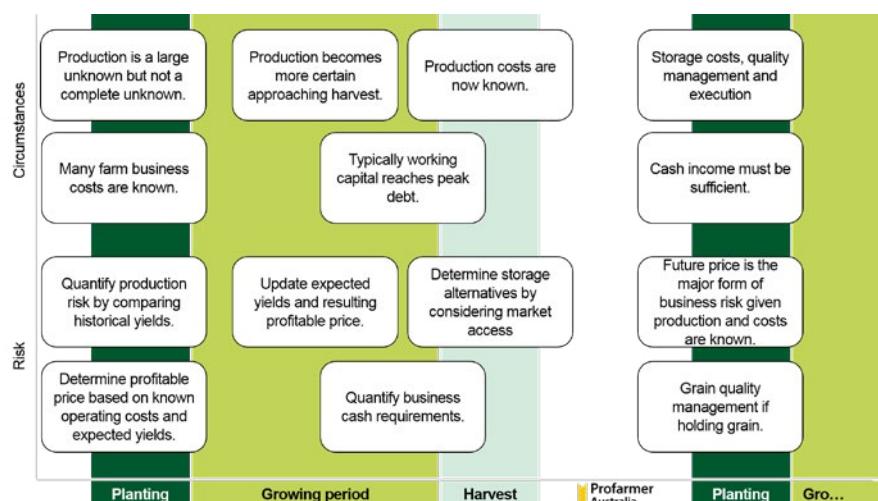


(SOURCE: Profarmer Australia)

13.2.2 Establish a business risk profile – when to sell

Establishing a business risk profile allows the development of target price ranges for each commodity and provides confidence to sell when the opportunity arises. Typical business circumstances and how to quantify those risks during the production cycle are described in Figure 3.

Figure 3: Typical farm business circumstances and risk.



(SOURCE: Profarmer Australia)

A grower's decision making process for determining when to sell grain will be typically dependent on:

- » Does production risk allow sales?
- » What portion of production risk allows sales?
- » Is the price profitable?
- » Are business cash requirements being met?

13.2.3 Production risk profile of the farm

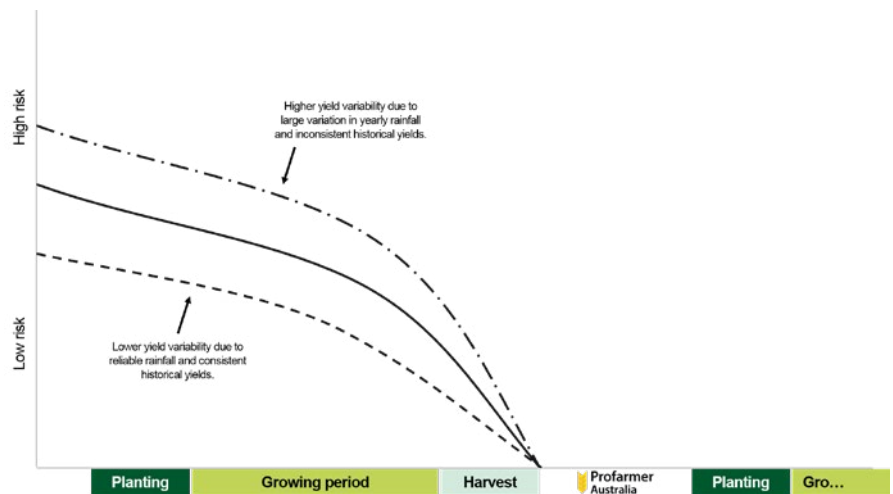
Production risk is the level of certainty around producing a crop and is influenced by location (including climate and soil type), crop type, crop management and time of year.

The general principle is you can't sell what you don't have and it is important to not increase business risk by over-committing production.

Establish a production risk profile, such as that outlined in Figure 4, by:

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

Figure 4: Typical production risk profile of a farm operation.



(SOURCE: Profarmer Australia)

As shown in Figure 4, the quantity of crop grown is a large unknown early in the year. However, it is 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 factors including rainfall, yield potential soil type and commodity prices.

13.2.4 Farm costs in their entirety, variable and fixed costs (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.

The principle is don't lock in a loss. If a grower is committing production ahead of harvest, ensure the price is profitable.

Steps to calculate an estimated profitable price based on total cost of production and a range of yield scenarios is provided in the Grains Research and Development Corporation (GRDC) 'Farming the Business' manual. This resource also provides a cost of production template and tips about grain selling versus grain marketing. It is available at this link <http://www.grdc.com.au/FarmingTheBusiness>

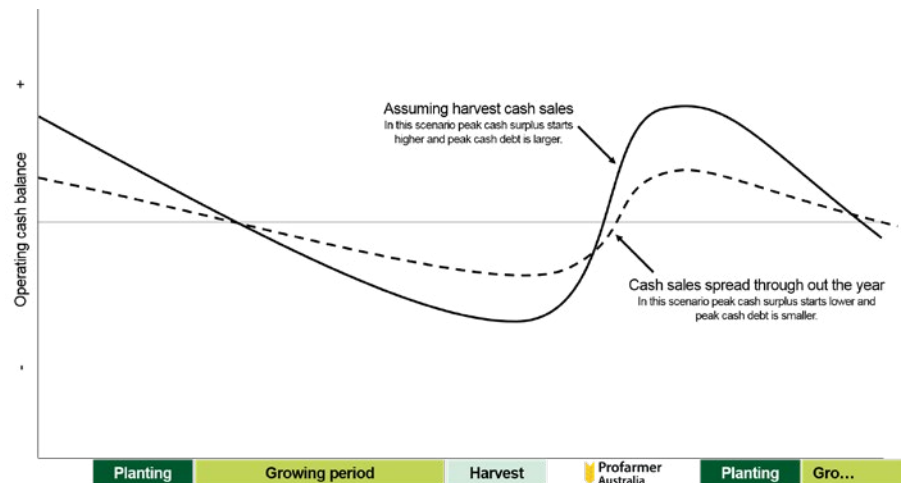
13.2.5 Income requirements

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

The principle is don't be a forced seller. Be ahead of cash requirements to avoid selling in unfavourable markets.

A typical cash-flow to grow a crop is illustrated in Figure 5. Costs are incurred up-front and during the growing season, with peak working capital debt incurred at or before harvest. This will vary depending on circumstance and enterprise mix.

Figure 5: Typical farm operating cash balance.



(SOURCE: Profarmer Australia)

The operating cash flow of a typical farm that assumes a heavy reliance on cash sales at harvest, versus a farm business that spreads sales out throughout the year is also illustrated in Figure 5.

When there is heavy reliance on harvest sales, costs are incurred during the season to grow the crop. This results in peak operating debt levels at or near harvest. This means 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 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 to fulfil cash requirements.

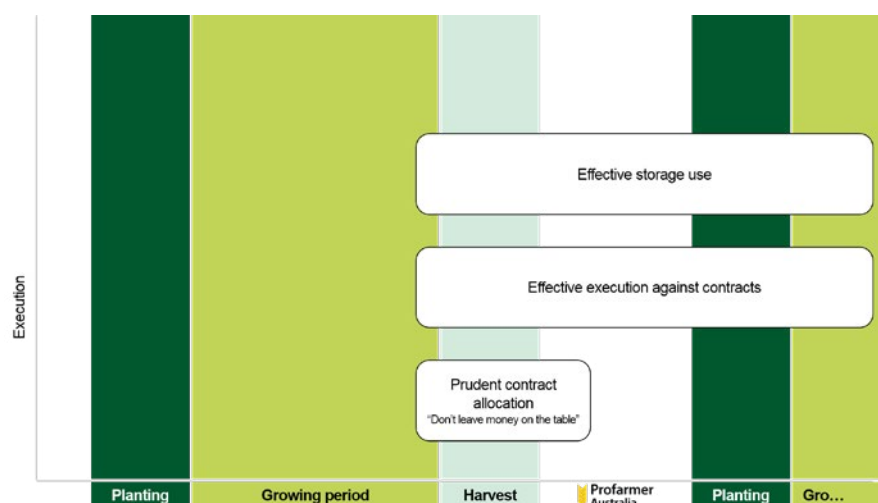
The 'when to sell' steps outlined above result in an estimated production tonnage and the risk associated with that tonnage, a target price range for each commodity and the time of year when cash is most needed.

13.3 Ensuring access to markets

When the selling strategy of the time and method of sale is determined, planning focuses on storage and delivery of commodities to ensure timely access to markets and execution of sales. At some point, growers need to deliver the commodity to market. Planning where to store the commodity is important in ensuring access to the market that is likely to yield the highest return.

Effective storage decisions are outlined in Figure 6.

Figure 6: Effective storage decisions.



(SOURCE: Profarmer Australia)

When a grower has made the decision to sell, the question becomes how to achieve this. The decision about how to sell is typically dependent on:

- » The time of year (determines the pricing method)
- » Market access (determines where to sell)
- » Relative value (determines what to sell).

13.3.1 Storage and logistics

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 to the bulk grain handling system, private off-farm storage and on-farm storage. Delivery and quality management are key considerations when deciding where to store your commodity.

The principle is that harvest is the first priority. Getting the crop in the bin is the most critical factor to business success during harvest and selling should be planned to allow focus on the harvest.

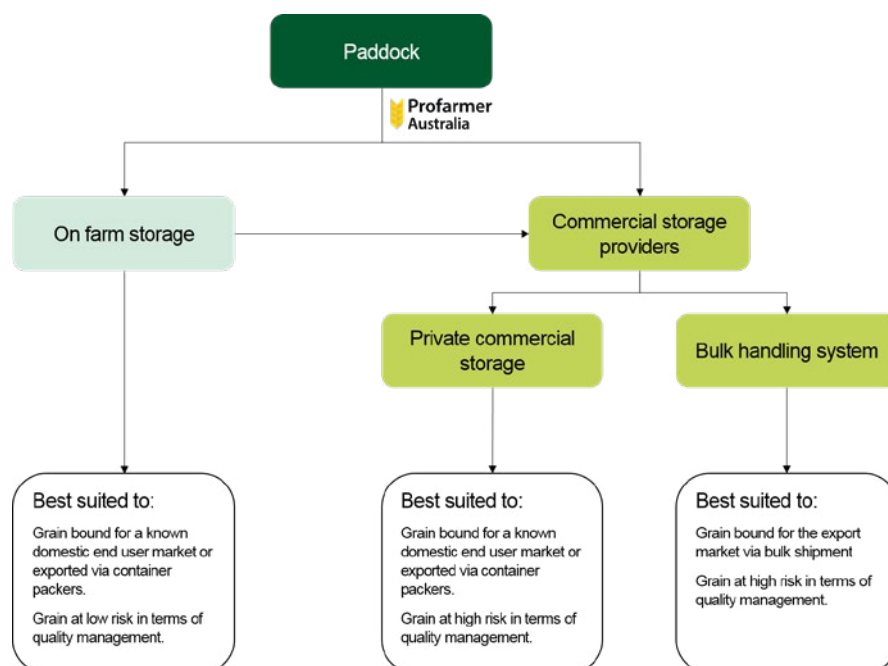
Bulk export commodities that require significant quality management are typically best suited to the bulk handling system. Commodities destined for the domestic end-user market (such as feedlot, processor or container packer) may be more suited to on-farm or private storage to increase delivery flexibility.

Storing commodities on-farm requires prudent quality management to ensure delivery at agreed specifications and can expose the business to high risk if this aspect is not well planned. Penalties for out-of-specification grain on arrival at a buyer's weighbridge can be expensive. The buyer has no obligation to accept delivery of an out-of-specification load. This means the grower may have to incur the cost of taking the load elsewhere, while also potentially finding a new buyer. There is potential for a distressed sale, which can be costly.

On-farm storage also requires prudent delivery management to ensure commodities are received by the buyer on time with appropriate weighbridge and sampling tickets.

The principle for storage is that it is about market access. Storage decisions depend on quality management and expected markets, as outlined in Figure 7.

Figure 7: Grain storage decision making.



(SOURCE: Profarmer Australia)

13.3.2 Cost of carrying grain

Storing grain to access sales opportunities post-harvest invokes a cost to carry grain. Price targets for carried grain need to account for the cost of carry.

Carry costs consist of:

- » Monthly storage fees charged by a commercial provider
- » Capital cost allocation where on-farm storage is used
- » Interest associated with having wealth tied up in grain, rather than cash or against debt.

The price of carried grain needs to be higher than what was offered at harvest. The cost of carry applies to storing grain on-farm, as there is a cost of capital invested in the farm storage plus the interest component

The principle is carrying grain is not free. The cost of carrying grain needs to be accounted for if holding grain and selling it after harvest is part of the selling strategy, as illustrated in Figure 8.

SECTION 13 LUPIN

FEEDBACK

MORE INFORMATION

Grain Trade Australia 'A Guide to Taking out Grain Contracts': <http://www.australiangrainexport.com.au/docs/Grain%20Contracts%20Guide.pdf>

Grain Trade Australia 'Grain Trade Rules, Contracts and Vendor Declarations': <http://www.graintrade.org.au/contracts>

Grain Trade Australia 'Trading Standards': http://www.graintrade.org.au/commodity_standards

Profarmer 'Australian Grain Prices, Analysis and Selling Tactics': <http://www.profarmergrain.com.au>

GrainCorp 'Grain Transact Resource Centre': <http://www.graintransact.com.au>

Australian GrainFlow Network: <http://www.grainflow.com.au>

Emerald Grain: <http://emeraldgrain.com/grower-logins/>

Clear Grain Exchange: <https://www.cleargrain.com.au/get-started>

Daily Grain: <https://www.dailygrain.com.au/>

Figure 8: Cash values versus cash adjusted for the cost of carry (in dollars per tonne).



(SOURCE: Profarmer Australia)

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 for March–June delivery on the buyers call at \$300/t plus \$3/t carry per month, if delivered in June, this contract would generate revenue of \$309/t delivered.

Optimising farm gate returns involves planning the appropriate storage strategy for each commodity to improve market access and cover carry costs in pricing decisions.

13.4 Executing tonnes into cash

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

13.4.1 Set up the tool box

Selling opportunities can be captured when they arise by assembling the necessary tools in advance. The toolbox includes:

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

Professional grain selling service offerings 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 relationship. Return on investment for the farm business through improved farm gate prices is obtained by accessing timely information, greater market knowledge and greater market access from the professional service.

Financial members of Grain Trade Australia (GTA), including buyers, independent information providers, brokers, agents and banks providing over the counter grain derivative products (swaps) can be found at this link <http://www.graintrade.org.au/membership>

13.4.2 How to sell for cash

As with 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):

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 manage price risk.

Quantity and Quality

When entering a cash contract, there is a commitment to deliver the nominated amount of grain at the quality specified. Production and quality risk must be managed.

Delivery terms

Timing of title transfer from the grower to the buyer is agreed at time of contracting. If this requires delivery direct to end-users, this relies on prudent execution management to ensure delivery within the contracted period.

Payment terms

In Australia, the traditional method of contracting requires the title of grain to be transferred ahead of payment. This means counter-party risk must be managed.

Typical cash contracting to GTA standards is shown in Figure 9

SECTION 13 LUPIN

FEEDBACK

Figure 9: Typical cash contracting as per Grain Trade Australia standards.

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

This Contract is confirmation between:

BUYER

Contract No: _____

Name: _____

Company: _____

Address: _____

Buyer ABN: _____

NGR No: _____

SELLER

Contract No: _____

Name: _____

Company: _____

Address: _____

Seller ABN: _____

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: _____

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: _____

GTA Commodity Reference: _____

Inspection: _____ (Origin – Destination)

Tolerance: _____ (Refer over)

Weights: _____ (Origin – Destination)

Excl/Inc/Free GST _____

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 ☐)

Buyer's Name: _____ PRINT NAME

Buyer's Signature: _____

Date: _____

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.

Seller's Name: _____ PRINT NAME

Seller's Signature: _____

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.

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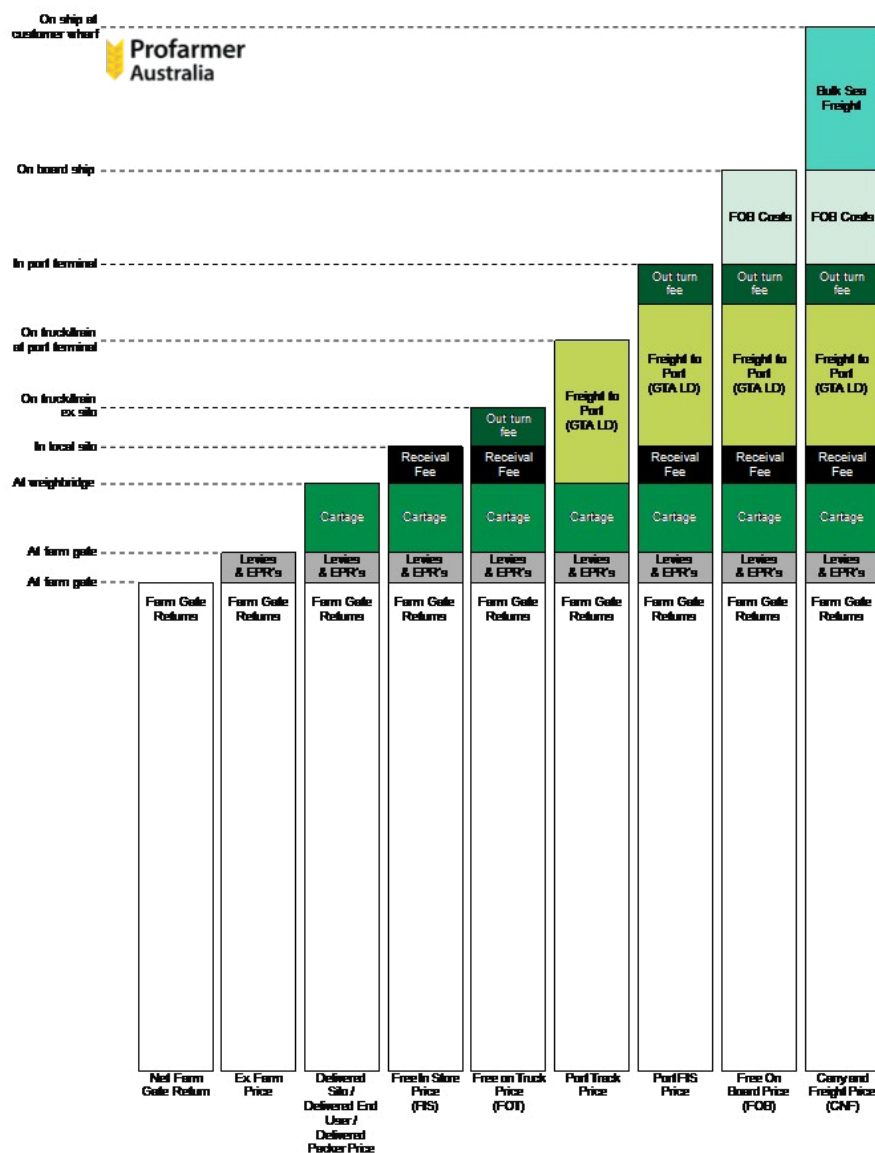
(SOURCE: Grain Trade Australia)

SECTION 13 LUPIN

FEEDBACK

As outlined in Figure 10, the price point in a cash contract will depend on where the transfer of grain title will occur along the supply chain. It shows the terminology used to describe pricing points along the grain supply chain and the associated costs to come out of each price before growers receive their net farm gate return.

Figure 10: Costs and pricing points throughout the supply chain.



(SOURCE: Profarmer Australia)

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.

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. Availability depends on location and commodity.

Placing a firm offer

Growers can place a firm offer price on a parcel of grain by approaching buyers with a set tonnage and quality at a pre-determined price. The buyers do not have to accept the offer and may simply say no or disregard the offer.

There are increasingly more channels via which to place a firm offer.

One way this can be achieved anonymously is using the Clear Grain Exchange, which is an independent online exchange. If the firm offer and firm bid matches, the parcel transacts via a secure settlement facility where title of grain does not transfer from the grower until funds are received from the buyer. Availability 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 counter-party.

Some bulk handler platforms are also providing facilities for sellers to place firm offers to the market. This includes GrainCorp through its CropConnect product.

A grower can also place a firm offer directly with an individual buyer.

MORE INFORMATION

Grain Traders Australia 'Managing Counter-party Risk 14/7/2014': <http://www.graintrade.org.au/sites/default/files/Grain%20Contracts%20-%20Counterparty%20Risk.pdf>

Clear Grain Exchange 'Title Transfer Model': <https://www.cleargrain.com.au/get-started>

GrainGrowers 'Guide to Managing Contract Risk': www.graingrowers.com.au/policy/resources

13.4.3 Counter-party risk

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

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

Counter-party risk management includes:

- » Dealing only with known and trusted counter-parties
- » Conducting a credit check (banks will do this) before dealing with a buyer they are unsure of
- » Only selling a small amount of grain to unknown counter-parties
- » 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.

It is important to not part with a title of grain before payment, or to request a cash deposit of part of the value ahead of delivery. Payment terms are negotiable at time of contracting. Alternatively, the Clear Grain Exchange provides secure settlement through which the grower maintains title of grain until payment is received by the buyer, and then title and payment is settled simultaneously.

Above all, act commercially to ensure the time invested in a selling strategy is not wasted by poor counter-party risk management. Achieving \$5/t more and not getting paid is a disastrous outcome.

13.4.4 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 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 overall farm business revenue and enables more flexibility to a grower's selling program while achieving the business goals of reducing overall risk.

The principle is 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.

13.4.5 Contract allocation

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

Consideration needs to be made based on the quality or grades you have available to deliver, the contracts you already have in place and how revenues will be calculated on each contract. Key considerations include whether the contract calculates revenues based on a sliding scale, or on pre-determined quality 'buckets'. Whenever you have more grain to allocate than pre-committed to contracts, it is important to consider the premiums and discounts available in the current cash market as part of your contract allocation decision.

The principle is 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.

13.4.6 Reading 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 that interested in buying the commodity.

Appetite in pulse markets can be fickle, erratic and the buy-side can be illiquid. Hence monitoring market signals is critical to achieving the best possible returns.

The principle is sell when there is buyer appetite. When buyers are chasing grain, growers have more market power to demand a price when selling.

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 there is one buyer offering prices \$5/t above the next best bid, it may mean cash prices are susceptible to falling \$5/t if that buyer satisfies its buying appetite. In pulse markets, the spread between the highest and the second highest bidder can be more than \$100/t at times.

Monitoring actual trades against public indicative bids

When trades are occurring above indicative public bids, this might indicate strong appetite from merchants and the ability for growers to offer their grain at price premiums to public bids.

Sales execution

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

13.5 Market dynamics and execution

13.5.1 Price determinants for western lupin

Australia is a relatively small player in terms of world pulse production, producing 1.5-2.5 million tonnes (mt) of pulses in any given year versus global production of about 60 mt. Lupin makes up only a small part of this global pulse production, with estimates indicating there is only marginally more than 1 mt being produced annually. Australia, however, makes up a considerable proportion of global lupin production. Australian annual production has ranged from 550-650,000 t in recent seasons, accounting for 50-80 percent of global production and positioning the country as the key global market participant.

There are two major types of lupin grown in Australia. Narrow leafed lupin (Australian sweet lupin) is the predominant type grown, with the bulk of production occurring in WA. Production of narrow leaf lupin is largest in the Geraldton region where it is suited to the area's deep, acid sandy soils. These varieties are also grown throughout the State, including the Kwinana, Albany and Esperance port zones. They are predominately used for stockfeed and, with a relatively small domestic stockfeed market in WA, a large proportion of WA production is exported. Comparatively, the albus lupin is primarily used for human consumption purposes and production – although considerably smaller – is spread throughout New South Wales, Victoria, South Australia and WA.

The major export markets for lupin varies depending on the variety. The export market for albus lupin is primarily Egypt, where it is used for human consumption in the snackfood industry. With the Egyptian import requirement estimated at just 50,000 t each year, a change in Australian production for this lupin type can result in a notable under or over-supply. Comparatively, the major export markets for the narrow leafed lupin consist of South Korea, the European Union (EU) and Japan, which between them import on average 200-350,000 t of Australian lupin each year to be used as stockfeed.

As lupin is predominately exported for stockfeed, the lupin grain is valued in relation to other competing protein commodities. Australia is typically the sole exporter of lupin into the global market. Rather than competing against other export origins, it competes against substitute protein products – the biggest being the soybean complex. Lupin sold into export markets is typically valued at a price relative to that of soybean meal. Given this dynamic, Australian farm gate prices are heavily influenced by both local production volatility as well as international trade values for substitute protein products such as soybean meal.

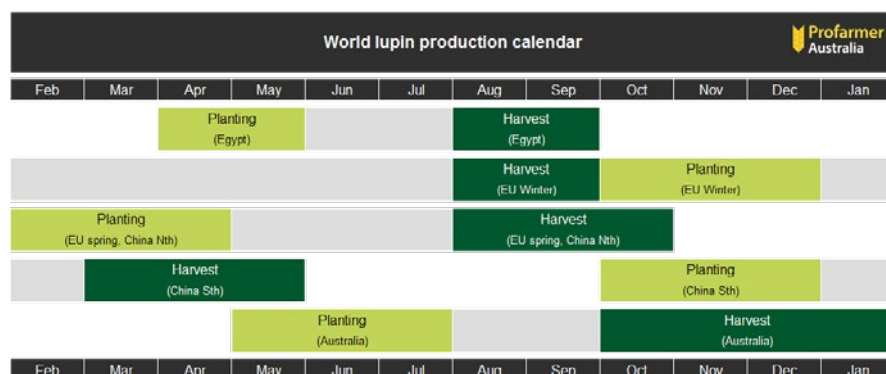
The biggest global influence on Australian lupin export values and pricing is the world price and availability of soybean meal. It is the most heavily produced protein that can act as a substitute for lupin.

Another major influence on pricing is the lupin production in origins outside Australia. While Australia is by far and away the biggest producer of lupin globally, if production increases in outside regions, this can impact the import requirements for Australian produce in the coming season. This is particularly true in the EU, where increases in production can result in a reduced appetite from neighbouring nations and key importers including Spain and the Netherlands. The global production calendar for lupin is shown in Figure 11.

SECTION 13 LUPIN

FEEDBACK

Figure 11: *Global lupin production calendar.*



(SOURCE: Profarmer Australia)

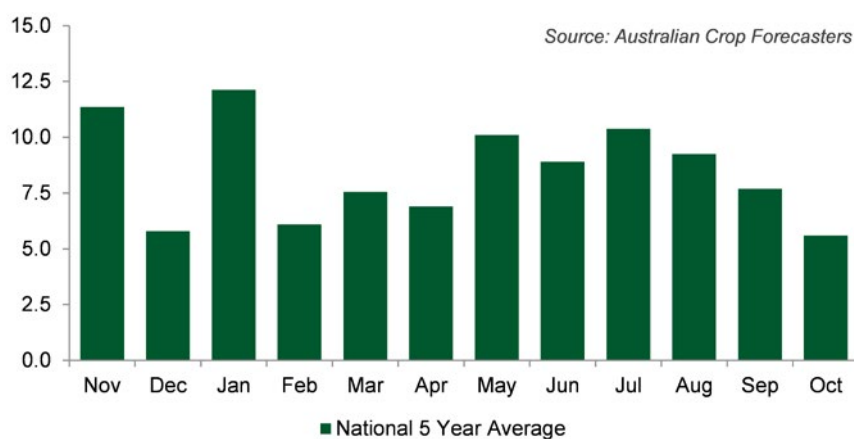
Local influences on Australian lupin pricing include:

- » Domestic production of each lupin variety
- » Availability and quality of local protein feeds
- » Seasonal conditions and the subsequent demand for feed grain.

Appetite for feed grains, including protein feed, can vary considerably in the western growing regions depending on seasonal conditions. Drought has seen sharp increases in appetite for the sweet lupin varieties as graziers are required to increase the volumes of feed they purchase.

Average monthly lupin export pace is outlined in Figure 12 and it highlights that Australian lupin exports are usually strongest shortly after the domestic harvest as buyers seek to move crop to fulfil immediate appetite.

Figure 12: *The five-year average monthly lupin export pace from Australia (in thousand tonnes).*



(SOURCE: Australian Crop Forecasters)

13.5.2 Ensuring market access for western lupin

The market for the western lupin crop varies greatly depending on the variety grown and the region of production. Narrow leafed lupin, which makes up 95 percent of WA lupin production, is typically sold into the local domestic feed market or exported as stockfeed. WA production exceeds local feed requirements, so a large portion is exported each season (about 60-70 percent). Interest in the human consumption market for lupin is increasing but remains small.

Close to half of the WA lupin crop is exported in bulk, which means the grain bulk handling system is often the most cost effective pathway to get produce to offshore customers. This is particularly prudent for lupin grown in the Geraldton port zone, where a large proportion of the crop is exported. The grain bulk handler should gain scale efficiencies through shipping big volumes.

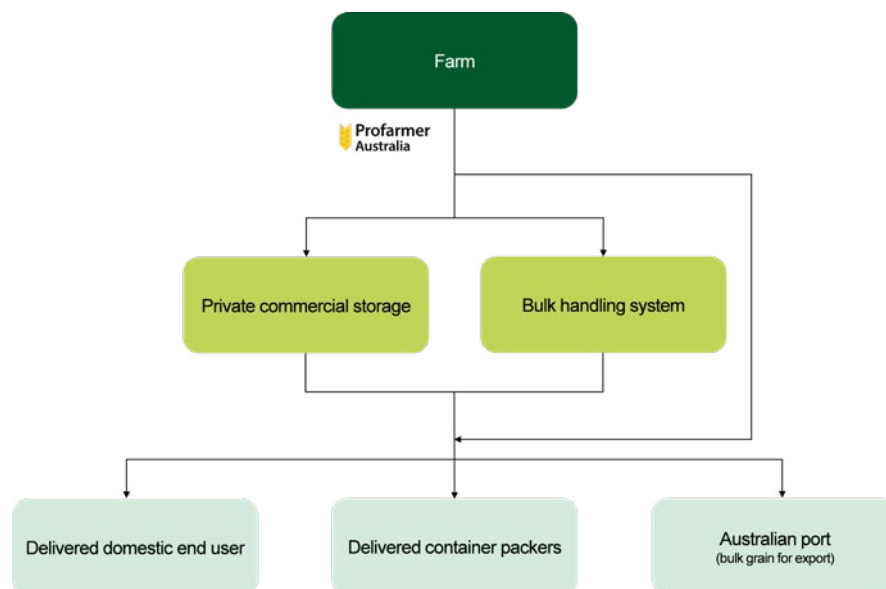
A large proportion of the WA lupin crop is also typically stored and sold out of the grain bulk handling system. But private commercial and on-farm storage is a reasonable alternative for accessing container export and domestic end-user markets. This is particularly prudent for growers outside the core Geraldton and Kwinana port zone production regions. Due to smaller production volumes of lupin grown in Esperance and Albany, most grain tends to be entirely absorbed by the domestic feed market. Private commercial and on-farm storage is likely going to be a more viable alternative to access end-markets.

The domestic feed market absorbs about 30-40 percent of WA lupin production, depending on seasonal conditions. Private commercial and on-farm storage allows greater flexibility in accessing this market when it is most favourable to the grower. This option is popular, given lupin stores well.

Albus lupin is predominately bound for export for human consumption purposes. Egypt remains the main buyer. Production is not big enough to warrant exporting in bulk vessels, which means any export activity for albus lupin is executed through the container or 'delivered' market. To ensure access to this market, grain is required to be stored on-farm or delivered directly to the 'packer' at the time of harvest.

Albus lupin that does not make the required specifications for export can be sold into the domestic feed market, with the same market access principles applied for Sweet lupin to be followed. The supply chain flow of lupin in Australia is outlined in Figure 13.

Figure 13: Australian Supply chain flow.



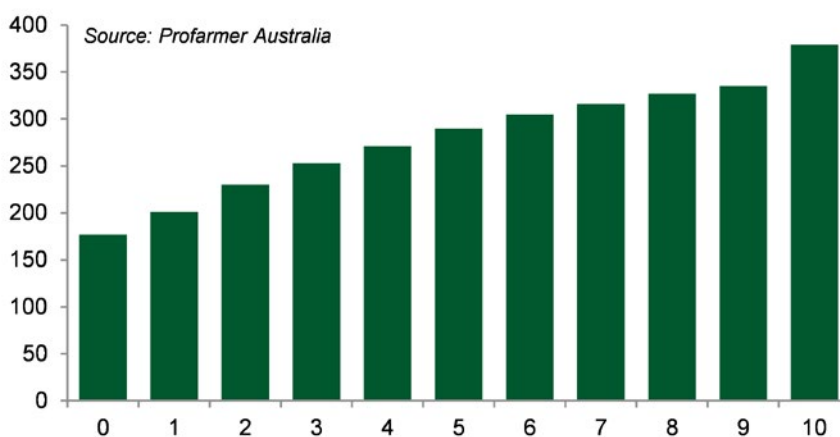
(SOURCE: Profarmer Australia)

Storage decisions should be determined by assessing market access. The large majority of WA lupin is exported in bulk or in containers. Private commercial storage, storage in the bulk grain handling system and on-farm storage can provide efficiencies to market.

13.5.3 Executing tonnes into cash for western lupin

Due to the volatile nature of lupin pricing, setting a target price using the principles outlined in this chapter minimises the risk of taking a non-profitable price or holding out for an unrealistically high price that may not occur. Pricing deciles for lupin, as shown in Figure 14, are provided as a guide.

Figure 14: Kwinana lupin deciles.



(SOURCE: Profarmer Australia)

Selling options for lupin include:

Store on-farm and then sell

This is a common tactic, particularly for Australian narrow leafed lupin varieties. Lupin is safe to store and require less maintenance than cereal grains. It does remain important to monitor quality, particularly for albus varieties, which will be required to meet export specification requirements. There must be consideration of cost of storage in target pricing.

Cash sale at harvest

This is the least preferred option, as buyer demand does not always coincide with harvest. This is particularly the case for albus lupin, where there are limited buyers and an influx of grower selling can push values lower.

Warehouse and then sell

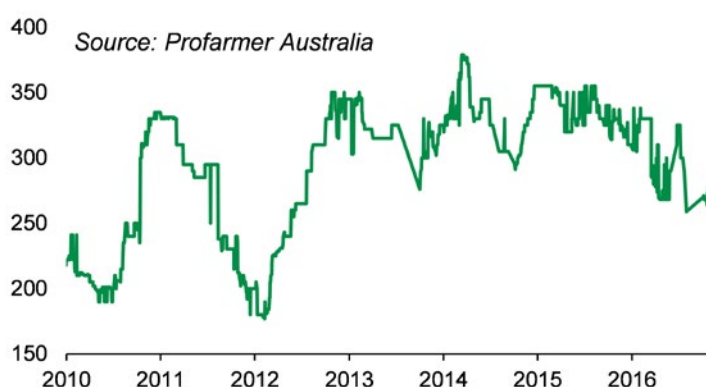
This provides flexibility for sales if on-farm storage is not available. There must be consideration of warehousing costs in the determination of cost of production and target prices. Warehousing lupin is typically available to growers in key production areas of the western region, depending on the particular bulk grain handling site segregation.

There are some forward price mechanisms available for lupin, with traditional fixed volume forward contracts and (less commonly) area contracts. Area-based contracts tend to price at a discount to fixed volume contracts and this discount needs to be weighed up against the level of production risk inherent in each contract.

As with all sales, counter-party risk and understanding contract of sale is essential. Counter-party risk considerations are especially important for pulse marketing, as there is often a higher risk of contract default in international pulse markets than for canola or cereals due to the markets they are traded into and lack of appropriate price risk tools (such as futures). This can place extra risk on Australian-based traders endeavouring to find homes for product.

Long-term Kwinana lupin price history is outlined in Figure 15.

Figure 15: Long term Kwinana lupin price history (dollars per tonne).



(SOURCE: Profarmer Australia).