SELLING PRINCIPLES | NORTHERN SOYBEANS – MARKET DYNAMICS AND EXECUTION
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.

### 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 the target price and then working towards 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 our control and difficult to predict.

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

#### 15.1.1 Be prepared

Being prepared and having a selling plan is essential for managing uncertainty. The steps involved are to first form a selling strategy and then 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, which determines the pricing method
- market access, which determines where to sell
- relative value, which determines what to sell.

Figure 2 lists key selling principles when considering sales during the growing season.

Figure 2: Grower commodity selling principles timeline.

15.1.2 Establishing the business risk profile—when to sell
Establishing your 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.

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

Principle: ‘You can’t sell what you don’t have.’ Don’t increase business risk by overcommitting production.
Establish a production risk profile by:

- collating historical average yields for each crop type and a below-average and above-average range
- assessing the likelihood of achieving average based on recent seasonal conditions and seasonal outlook
- revising production outlooks as the season progresses.

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

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.

**Principle:** ‘Don’t lock in a loss.’ If 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 Figure 5.
Estimating cost of production - Wheat

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance and General Expenses</td>
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<tr>
<td>Finance</td>
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</tr>
<tr>
<td>Depreciation/Capital Replacement</td>
<td>$70,000</td>
</tr>
<tr>
<td>Drawings</td>
<td>$60,000</td>
</tr>
<tr>
<td>Other</td>
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</tr>
<tr>
<td><strong>Total fixed costs</strong></td>
<td><strong>$742,000</strong></td>
</tr>
<tr>
<td>Seed and sowing</td>
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</tr>
<tr>
<td>Fertiliser and application</td>
<td>$156,000</td>
</tr>
<tr>
<td>Herbicide and application</td>
<td>$78,000</td>
</tr>
<tr>
<td>Insect/fungicide and application</td>
<td>$36,000</td>
</tr>
<tr>
<td>Harvest costs</td>
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<tr>
<td>Crop insurance</td>
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<tr>
<td><strong>Total fixed and variable costs</strong></td>
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</tr>
<tr>
<td><strong>Per Tonne Equivalent (Total costs + Estimated production)</strong></td>
<td><strong>$212/t</strong></td>
</tr>
<tr>
<td>Levies</td>
<td>$3/t</td>
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<tr>
<td>Cartage</td>
<td>$12/t</td>
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<tr>
<td>Freight to Port</td>
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</tr>
<tr>
<td><strong>Total per tonne costs</strong></td>
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<tr>
<td><strong>Cost of production Port track equiv</strong></td>
<td><strong>$248.70</strong></td>
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<tr>
<td><strong>Target profit (ie 20%)</strong></td>
<td><strong>$50.00</strong></td>
</tr>
<tr>
<td><strong>Target price (port equiv)</strong></td>
<td><strong>$298.70</strong></td>
</tr>
</tbody>
</table>

**Figure 5:** Steps to calculate an estimated profitable price for soybeans.

The GRDC manual ‘Farming the business—sowing for your future’ also provides a cost-of-production template and tips on grain selling versus grain marketing.

**Income requirements**

Understanding farm business cash-flow requirements and peak cash debt enables grain sales to be timed 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.

A typical cash flow to grow a crop is illustrated in Figure 6. Costs are incurred upfront 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 7 demonstrates how managing sales can change the farm’s cash balance.
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Summary
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 your price—how to sell
This is the second part of the selling strategy.

Methods of price management
Pricing products provide varying levels of price risk coverage (Table 1).

Table 1: Pricing methods and their use for various crops

<table>
<thead>
<tr>
<th>Description</th>
<th>Wheat</th>
<th>Barley</th>
<th>Canola</th>
<th>Sorghum</th>
<th>Maize</th>
<th>Faba bean</th>
<th>Chick peas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed price products</td>
<td>Cash, futures, bank swaps</td>
<td>Cash, futures, bank swaps</td>
<td>Cash, futures, bank swaps</td>
<td>Cash, futures, bank swaps</td>
<td>Cash, futures, bank swaps</td>
<td>Cash</td>
<td>Cash</td>
</tr>
<tr>
<td>Floor price products</td>
<td>Options on futures, floor price pools</td>
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<td>Options on futures</td>
<td>Options on futures</td>
<td>Options on futures</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Floating price products</td>
<td>Pools</td>
<td>Pools</td>
<td>Pools</td>
<td>Pools</td>
<td>Pools</td>
<td>Pools</td>
<td>Pools</td>
</tr>
</tbody>
</table>

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.

Figure 6: Typical farm operating cash balance, assuming harvest cash sales.

Figure 7: Typical farm operating cash balance, assuming cash sales spread throughout the year.
Figure 8 provides a summary of where different methods of price management are suited for the majority of farm businesses.

**Figure 8:** Price strategy timeline through the growing season.

**Principle:** ‘If increasing production risk, take price risk off the table.’ When committing 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.

**Fixed price**

A fixed price is achieved via cash sales and/or selling a futures position (swaps), shown in Figure 9. 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.

**Floor price**

Floor price strategies can be achieved by utilising ‘options’ on a relevant futures exchange (if one exists) or via a managed sales program product by a third party (i.e., a pool with a defined floor price strategy). This pricing method protects against potential future downside while capturing any upside (Figure 10). The disadvantage is that the price ‘insurance’ has a cost, which adds to the farm businesses cost of production.
Floating price

Many of the pools or managed sales programs are a floating price where the net price received will move both 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 pre-harvest.

Summary

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.

15.1.4 Ensuring access to markets

Once the selling strategy of when and how to sell is sorted, planning moves to 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. Hence planning on where to store the commodity is important in ensuring access to the market that is likely to yield the highest return.

Figure 12: Effective storage decisions.
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 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 13).

**Principle:** ‘Harvest is the first priority.’ Getting the crop in the bin is most critical to business success during harvest; hence, selling should be planned to allow focus on harvest.

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. feed lot, 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. Hence 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.

**Principle:** ‘Storage is all about market access.’ Storage decisions depend on quality management and expected markets.

![Diagram of Grain Storage Alternatives](image)

**Figure 13: Grain-storage decision making.**
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 per month are typically $3–4/t, consisting 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 cash or against 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 what was offered at harvest.

The cost of carry applies to storing grain on-farm because there is a cost of capital invested in the farm storage plus the interest component. A reasonable assumption is $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 grain and selling it after harvest is part of the selling strategy (Figures 14 and 15).

Figure 14: Brisbane APW1 cash vs NPV

![Graph showing Brisbane APW1 cash vs NPV](source)

**Note to figure:** 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 APW1 wheat for March-June delivery on buyers call at $300/t + $3/t carry per month, if delivered in June would generate $309/t delivered.

Figure 15: Newcastle APW1 cash vs NPV

![Graph showing Newcastle APW1 cash vs NPV](source)

**Note to figure:** 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 APW1 wheat for March-June delivery on buyers call at $300/t + $3/t carry per month, if delivered in June would generate $309/t delivered.

Summary

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

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; and other market information pertinent to the particular commodity.

2. **Professional services.** Grain-selling professional service offerings and cost structures vary considerably. An effective grain-selling professional will put their clients’ best interests 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.

3. **Futures account and bank swap facility.** These accounts provide access to global futures markets. Hedging futures markets is not for everyone; however, strategies that utilise exchanges such as CBOT can add significant value.

For current financial members of Grain Trade Australia, including buyers, independent information providers, brokers, agents, and banks providing over-the-counter grain derivative products (swaps), go to [http://www.graintrade.org.au/membership](http://www.graintrade.org.au/membership).


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:

- **Price.** Future price is largely unpredictable; hence, 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 you are committing to delivery of the nominated amount of grain at the quality specified. Hence, 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, it relies on prudent execution management to ensure delivery within the contracted period.

- **Payment terms.** In Australia, the traditional method of contracting requires title of grain to be transferred ahead of payment; hence, counterparty risk must be managed.
Timing of delivery (title transfer) is agreed upon at time of contracting. Hence growers negotiate execution and storage risk they may have to manage.

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 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 grower’s net return.

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.

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.

Typical cash contracting, as per Grain Trade Australia standards.

The price point within a cash contract will depend on where the transfer of grain title will occur along the supply chain. Figure 17 depicts 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.
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.

**Figure 17: Costs and pricing points throughout the supply chain.**
Cash sales generally occur through three methods:

1. **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.

2. **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.

3. **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 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. The availability of this 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 the following:

- Deal only with known and trusted counterparties.
- Conduct a credit check (banks will do this) before dealing with a buyer you are unsure of.
- Only sell a small amount of grain to unknown counterparties.
- Consider credit insurance or a letter of credit from the buyer.
- Never deliver a second load of grain if payment has not been received for the first.
- Do not part with title of grain before payment or 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 whereby 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 counterparty risk management. Achieving $5/t more 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 hold commodities that are not well priced at any given time. That is, 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 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.

An example based on wheat and barley production systems is provided in Figure 18.
Figure 18: Brisbane Australian Standard White (ASW) wheat versus feed barley (A$/t).

**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 (Figure 19).

**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 wheat price, growers should allocate:
- lower grades of wheat to contracts with the lowest discounts
- higher grades of wheat to contracts with the highest premiums.

**Note to figure:**
In these two examples the only difference between achieving 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 19: Examples of contract allocation of grains.

**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 that interested in buying the commodity.

**Principle:** ‘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 $5/t above the next best bid, it may mean cash prices are susceptible to falling $5/t if that buyer satisfies their buying 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.

**Summary**

Figure 20 gives a summary of best practice for the selling process. 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

**15.2 Northern soybeans—market dynamics and execution**

**15.2.1 Price determinants for northern soybeans**

There are two main end uses of Australian soybean seed: the crush market for both oil and meal, and the edible market. The Australian soybean market remains relatively small but is part of a global complex that is one of the largest produced commodities in the world. The global soybean crop ranges from 200 to 320 Mt annually, with Australia only producing 50–100 Kt each year, a miniscule proportion of the overall global crop. The top seven global producers make up 94% of the total production and include US (107 Mt), Brazil (100 Mt), Argentina, China, Paraguay, India and Canada.

A large proportion of the Australian crop is consumed domestically; it is estimated that roughly half the crop is bound for the domestic crush market. The crush market generally sets the market price; however, the edible market has continued to grow and now consumes a considerable proportion of the domestic crop. Culinary-grade
soybeans are both exported for the edible trade and consumed locally. The darker variety hila is typically used by oilseed crushers, of which soymeal is a by-product and used for stockfeed. Comparatively, the lighter variety hila is typically used in the edible trade.

Local values are heavily impacted by global values due to the extensive volumes of soybean meal imported into Australia each season. ABARES forecast 730,000 t of soybean meal was imported into Australia throughout the 2014–15 season, which is considerably more than what was produced locally.

Hence, a significant influence of local soybean prices is the price of imported soybean meal. The largest user of soybean meal is the poultry industry, which acts as an important driver for determining imported volumes each season. Soybeans are predominately crushed for meal; however, they are also used for oil. Despite the oil share being lower than other oilseeds, values are still influenced by the cost of competitor oils.

The edible trade is usually priced at a notable premium based on a buyer’s preference for a particular grade variety. Importantly, the crush sector also acts as a ‘backstop’ for edible-grade soybeans that don’t make the culinary standards.

Figure 21: Comparison of global safflower and soybean crop calendars.

**15.2.2 Executing tonnes into cash for Northern soybeans**

Knowing where the northern Australian soybean crop is likely to end up will help refine a grower’s selling and logistics decisions. Broadly there are two customer types:

- **Customer type A.** Those buyers sourcing soybean varieties to process for the edible trade.
- **Customer type B.** Those buyers sourcing soybean varieties for the domestic crush.

Type A are typically oilseed processors who purchase soybeans for the crush market directly into their plant. Additionally, there are active merchants who have identified an opportunity and will purchase soybeans and on-sell the product to the end user. Soybeans bound for the crush market can be contracted prior to production or alternatively sold into the cash market post-harvest.

Comparatively, type B customers buy for either export or domestic use in the culinary market. Markets are fairly liquid; however, variety-specific segments exist. Given the need to meet strict culinary standards, crush and edible varieties must be segregated carefully. Buyers have a variety of grain standards and, given the premiums available for culinary standard soybeans, maintaining quality is of the utmost importance.

Closed-loop marketing is available for some specialty edible soybean varieties; however, this market segment remains comparatively small.