CIS 1080

Tools to Manage Price Risk in Grain Marketing

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Risk is often defined as the chance of an adverse event, or the possibility that an outcome will not meet your expectations. Agriculture faces five primary types of risk: production, marketing, financial, legal, and human resource. Risk management tools are available that are specific to each type of risk. Market or price risk can be viewed as the chance of selling at a price below that needed to maintain your operation's economic viability. The challenge for you is not to eliminate this risk, but to manage it. You first need to determine what level of risk you can tolerate, what risk reducing alternatives are available, and what these risk reducing alternatives will cost. Risk should not be viewed as good or bad, but merely as part of the business environment in which you operate.

Marketing is more than just selling what you produce. Your marketing decisions should begin before you plant, rather than after harvest. Deciding which crop or variety to grow is the first step in marketing. Evaluating your marketing alternatives is the second. Choosing a marketing alternative determines not only the type and level of risk you will face, but your potential risk management alternatives as well.

Marketing is a frustrating activity for many producers. There is no one "best" or "recommended" marketing strategy that fits all growers, or even one strategy that fits a specific grower from year-to-year. Marketing is a complex activity because there are alternatives and because markets change constantly. Markets are influenced by a wide variety of economic variables that are influenced by uncertain forces. These forces include human behavior, international politics, and weather conditions around the world. Marketing should be viewed as an inexact science, and marketing activities must be adjusted as conditions change. The challenge is to approach marketing decisions with careful thought, rather than reacting with emotion—particularly in times of rapid change.

Develop and use a marketing plan

A marketing plan is a useful tool to help you manage risk and to avoid marketing decisions based on emotion. A marketing plan is nothing more than a written course of action that improves your chances of selling at a time that meets your marketing goals. The plan allows you to respond to changing market conditions because you already evaluated the alternatives. The plan should be viewed as a map to help guide decision making, not a constraint that prohibits you from responding to changes in the market. A marketing plan will help you manage the risk of unpredictable prices. The marketing plan should, however, be part of an overall farm plan that outlines the financial and personal goals of the farm manager and the manager's family.

Your marketing plan is only as good as the information used in the plan's development. You need to understand all the available marketing alternatives, the conditions under which each alternative tends to perform best, and how each alternative is affected by changes in market conditions. Each alternative has distinct advantages and disadvantages, depending on expected price movements.

The following information shows the advantages and disadvantages of the most common marketing alternatives available to grain producers. This information can be useful in helping you develop your marketing plan.

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Marketing alternatives

Successful marketing means selecting the best marketing alternative. Complexity, level of assumed risk, impact of major changes in the market, and expected price will vary for each alternative. Even though you may have constraints that limit alternatives, you should be aware of the advantages and disadvantages of all the potential choices. The following marketing alternatives apply to grain, but many fit other commodities as well.

Cash market based marketing alternatives

Sell at harvest

Grain is sold for cash at harvest, minimizing handling charges and eliminating the inconvenience and cost of storage. You deliver the grain to a convenient cash market and accept the price at harvest.

Advantages	*Disadvantages*
1. No costs or inconvenience associated with storage.	1. Shortens marketing period to only a few weeks of the year.
2. No accumulating interest costs.	2. Harvest price is frequently the year's lowest.
3. Easily understood.	3. Tends to limit a careful evaluation of alternative cash markets.
4. Price is known immediately, and price risk is eliminated.	4. Congestion at elevators.

Storing for later sale:

Grain is placed in either on-farm or commercial storage after harvest. Your grain is then sold based on some guideline (for example, an acceptable market price or when there is a need for cash).

Advantages	*Disadvantages*
1. Extends time period to make a pricing decision.	1. Quality may deteriorate.
2. Increases delivery flexibility (stored on farm) or increases delivery convenience (stored commercially).	2. If stored commercially, decreases delivery flexibility.
3. Offers the potential to obtain a return for storage.	3. Increases costs (commercial storage fees or on-farm storage costs, and interest).
	4. Exposure to adverse price changes during the storage period.

Cash forward contract:

A cash forward contract is a legal agreement to deliver a fixed quantity and grade of wheat, at a specified price, and at a specified location. Premiums and discounts for grade, protein, and moisture are generally specified, as are the penalties for noncompliance.

Advantages	*Disadvantages*
1. Extends time period to make a pricing decision.	1. Increases production risk because delivery is an obligation.
2. Eliminates the risk of an adverse price or basis change.	2. Reduces profit potential. Grain merchants usually hedge forward contracts with futures. There may be more profit potential if you hedge directly.
3. Easy to understand and available in convenient quantities.	3. Reduces flexibility to change your marketing strategy if market conditions change.
4. Not necessary to hold a futures position and maintain a margin account.	

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Delayed (deferred) pricing contract:

You deliver grain to a commercial elevator and sell at a price to be established at some time in the future. Generally, pricing must occur by some agreed date. Price is usually tied to the local posted bid or an established differential from a terminal bid (for example, 65 cents off Portland). A partial payment may be received at delivery and storage fees may be eliminated or reduced. Failure by the farmer to establish a price by the agreed date generally means the elevator sets a price on the termination date, or as agreed to in the contract.

Advantages	*Disadvantages*
1. Extends time period to make a pricing decision.	1. Increased costs including interest and any storage fees.
2. May eliminate or reduce commercial storage costs.	2. Bankruptcy risk since the grower becomes an unsecured creditor.
3. Cash availability if contract has an advance payment at signing.	3. Exposure to adverse price changes until the grain is actually priced.
4. Can contract in convenient quantities.	4. Potential for repayment of some of the advance if price drops substantially.

Basis contract:

Producer delivers grain to the elevator and agrees to sell before a specified date at a specified amount above or below a designated futures price (or basis). The contract generally specifies the relevant futures contract (for example, Kansas City December Wheat) along with the amount of the basis. A partial payment may be made on delivery and storage costs may be waived or reduced.

Advantages	*Disadvantages*
1. Extends time period to make a pricing decision.	1. Interest cost of holding crop and storage fees.
2. May reduce commercial storage costs.	2. Bankruptcy risk because the grower becomes an unsecured creditor.
3. No risk of an adverse basis change.	3. Exposure to adverse price changes until the grain is actually priced.
4. Can contract in convenient quantities.	4. Potential for repayment of some of the advance if price drops substantially.
5. Cash available if partial payment is made.	

Futures and options based marketing alternatives

Hedging with a futures contract:

Grain is still sold in the traditional local cash market. You sell an appropriate amount of futures contracts (wheat futures contracts are available in 1,000 or 5,000 bushel increments) to offset your current or expected cash market position. The futures positions are "bought back" when the wheat is sold on the cash market. The initial sale in the futures market can be pre-harvest or post-harvest and can even take place before planting. The net price received by the grower is a combination of the cash market and futures market transactions. Generally, what is lost or gained in one market is offset by a gain or loss in the other market. Whether your price objective is achieved depends on your ability to predict basis. Additional information on using futures markets in grain marketing is discussed in "Understanding Commodity Futures and Options for Grain Marketing" (Bulletin 781) by Makus and Patterson.

Advantages	*Disadvantages*
1. Extends time period to make a pricing decision.	1. Risk of an adverse change in basis.
2. Risk of an adverse price change is eliminated.	2. Margin requirements increase interest costs and may cause cash flow problems.
3. Generally a very liquid market, allowing the producer to reverse positions quickly.	3. Contracts are in fixed increments of 1,000 or 5,000 bushels.

Hedging with a futures contract:(cont)

Advantages	Disadvantages
	4. Requires understanding of futures markets and basis relationships.
	5. Eliminates gains from rising prices.

Using an options contract:

Grain is still sold in the traditional local cash market. You buy put options that are converted to money (if they have value) when the grain is sold on the cash market. Otherwise, the options are allowed to expire. The options are for a position in the futures market, so they are in 1,000 or 5,000 bushel increments. A put option can be exercised (giving the producer a short position in the futures market) as a means to obtain the option's value. However, if an option has potential value through exercising, the market recognizes this value and the option can just be sold. The net price the producer receives for the grain is a combination of the cash market and options market transactions. Options allow the producer to establish a minimum price without giving up all of the gain in a rising cash market. The ability to predict basis determines whether the minimum price objective is achieved. The amount paid for the price protection (the premium) is known at the time of purchase. Unlike hedging with a futures contract, there is no margin account to maintain. Additional information on using options in grain marketing is discussed in "Understanding Commodity Futures and Options for Grain Marketing" (Bulletin 781) by Makus and Patterson.

Advantages	Disadvantages
1. Extends time period to make a pricing decision.	1. Risk of an adverse change in basis.
2. Risk of an adverse change in price is eliminated.	2. Cost of options (premium) may be greater than the value of the price protection.
3. Producer obtains some of the gain from rising prices.	3. Options sold in fixed increments of 1,000 and 5,000 bushels.
4. Eliminates margin requirements.	4. Requires understanding of options, futures market, and basis.
5. Generally a very liquid market allowing the producer to quickly reverse positions.	5. Data are substantial and can be confusing.

While risk cannot be eliminated if you stay in farming, it can be managed. You determine the type and the level of price risk when you choose from the available marketing alternatives. Using marketing alternatives effectively as a risk management tool requires understanding the advantages and disadvantages, in addition to the knowledge of how and when to use them.

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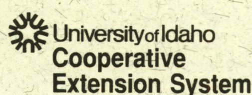

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