ASK MOST FARMERS about risk and one word probably comes to mind: debt. The 1980s farm financial crisis vividly illustrated what happens when you can’t pay off the money you’ve borrowed to buy land, machinery, and crop inputs. Even 10 years later, bankruptcy, foreclosure, and the loss of the family farm remain powerful warnings of the risks of leveraging. Yet producers face another big threat to their business income and stability: price risk.

Whether it’s stored grain or the crop you’ll plant in the spring, not having price protection puts you at risk. If prices fall, your revenues also fall.

Some farmers can afford to take a lot of price risk. Farmers with little debt and strong earnings can wait until prices rally to sell their production. And if prices fall—well, they’ve got more than enough money to put in another crop and do it again. By taking a lot of price risk they may increase the ultimate rewards they coax from the market.

But most farmers don’t have the luxury of waiting for the market. The risk from weather and debt is just about all the risk they can afford to take. Fortunately, there are plenty of ways to reduce price risk. Here’s a rundown of the most popular risk-reducing tools farmers are using.

**Forward cash contract**

With this agreement, sometimes called fixed or flat price contract, you lock in a final price for a commodity you’re either storing or expect to raise. You can forward contract the commodity that’s growing in the field to lock in a good price from a summertime weather scare rally. You can also forward contract stored inventory, using a post-harvest rally to price the crop you’ll store until the river system opens, for example.

A risk minimizing approach is to fix both the futures and basis portions of your price at the same time, with a forward cash contract when a portion of your production is known. Basis is the amount your cash price differs from the futures price.

**Buy a put option**

Since 1985, farmers have been able to trade options on commodity futures. Agriculture options convey the right to buy or sell a specific futures contract at a set “strike price.” In exchange for that right, the buyer of an option pays the seller a fee or premium. Agriculture options don’t last indefinitely; they usually expire a week or two before the beginning of the delivery month for the futures contract they involve.

A put option is the opposite of a call. It’s the right to sell a specified futures contract at a specific strike price. If futures are higher than that price, the put is “out of the money” and not worth much. If futures are lower than the put’s strike price, the put is “in the money” and worth more because it could be exercised and the resulting futures position closed out for an immediate profit.

An option to sell futures is a put option. For example, a farmer who pays a 10-cent premium and buys a December $3 corn put owns the right to sell December futures for $3 a bushel.

If prices are higher than $3, that right obviously isn’t worth very much. If prices are lower than $2.90, the option could be exercised immediately for a profit.

**Minimum price contract**

Just as elevators have begun offering cash contracts based on futures, they have designed agreements using options.

Under a minimum price contract, you sell grain to the elevator for a fixed price, less the cost of a call option you select. If prices rise, you may be able to add to your selling price. If the market doesn’t rise, you’re guaranteed the minimum price.

These prices can be used both before and after harvest. Specific details vary: some elevators let you sell the option and fix your price at any time, while others require holding the option until expiration. Some of these contracts fix the basis; others combine the call with a hedge to arrive.
Although most farmers still prefer to buy options through a broker, these option-derived cash contracts have carved out a niche.

**Hedge-to-arrive**

These cash contracts fix the futures portion of your price, but let you spot the basis later. They contain the potential for a lot of flexibility. For example, you can close out a sale in one futures contract month and then sell again in another month. This "rolling" feature lets you seek additional basis gains; you can also profit on the spread, or difference, between futures contract months.

Of course, too much flexibility can be dangerous, as farmers and elevators found out in 1996. When the spreads between old and new crop futures soared twice as high as ever before, hedge-to-arrive contracts incurred huge losses for farmers who had priced 1996 and 1997 corn crop with 1995 crop futures.

Because of the problems, many elevators have instituted tighter controls over their hedge to arrive contracts. Rolls are limited to the same crop year as the original hedge, and you may have to pay the elevator the equivalent of margin money if futures prices rise.

**Sell futures**

Fixing futures and basis at the same time has one drawback. The futures and cash markets are not always strong at the same time because basis changes. It reflects the cost of storing a commodity until the delivery period and transporting it to the delivery site set by the futures contract. Demand also figures in. The more customers need the crop, the more they're willing to pay for it, strengthening the cash market and the basis. By contrast, when a commodity is plentiful (for example, at harvest), storage and transportation costs increase, and supply overwhelms the demand—all factors that weaken the basis.

As a result, fixing the futures and basis parts of your price at different times may help you realize a higher overall price. One way to do this is to sell exchange traded futures contracts directly through a broker. This is what your elevator does to hedge its risk after it forward contracts grain with you.

Futures contracts list a delivery month and a quantity. For example, 5,000 bushels at the Chicago Board of Trade and 1,000 bushels at the Mid-America Commodity Exchange. But, very few contracts are ever exercised. Instead, buyers and sellers of grain use the contracts as surrogates to lock in a price for the commodity. Then, they offset the position—a seller buys back the previous sale—and add or subtract any profits or losses from the price they negotiate in the cash market.

To trade futures, you must start an account with a futures broker and deposit margin money to guarantee each position you open. If your position shows a loss, you must deposit more funds on a dollar-for-dollar basis. You'll also incur commissions and exchange fees every time you open a position.

Financing a futures account can be a major obstacle, especially if you intend to stay with a hedge all the way until harvest, and prices rise significantly after you initiate the futures sale. Some banks provide funds for hedges; many don’t.

Using futures directly, however, gives you greater flexibility than cash instruments. For example, if you want to store after harvest to wait for basis to strengthen, you could sell futures on spring and summer rallies, then buy back the positions later (at harvest), when prices are typically lower. You’d then be free to wait for a cash market rally or to hedge again in a contract month for later delivery.

Moreover, selling with a cash contract commits you to delivering the commodity. If it begins to look like your yields might come up short, you can’t simply cancel the contract as easily as you can with a futures position.
“Most farmers don’t have the luxury of waiting for the market (until prices are high). The risk from weather and debt is just about all the risk they can afford to take.”

Farmers often have opinions about prospective changes in prices of the commodities they produce or buy. For example, a farmer may expect the price of corn for December delivery to rise or fall as harvest approaches. If a price rise is confidently expected, then the farmer might want to wait and sell the crop after harvest. If the price is expected to fall, a larger than normal forward sale may be desirable.

Farmers have both advantages and disadvantages compared with other traders when it comes to anticipating price changes. Farmers are often the first to observe local weather and yield developments. However, few farmers have the time and expertise to perform thorough price analyses themselves, nor the funds to hire the best professional advice.

Price forecasting methods fall into two categories: fundamental analysis and technical analysis. Fundamental analysis involves identifying and evaluating the factors that affect the supply and demand for a commodity and assessing their effects on price. Fundamental analysis ranges from informal assessment of the effects of the latest news on prices to the use of elaborate statistical models. The information needed for fundamental analysis of agricultural prices includes planting, weather, numbers of livestock raised or on feed, production, stock, exports, and general economic conditions. The U.S. Department of Agriculture collects and disseminates much of this information in its crop and livestock production reports.

Technical analysis involves searching for patterns in price movements that repeat over time. The objective is to recognize a pattern as it begins to develop, and to trade accordingly. The traditional method is to plot the price series on a chart and watch for patterns. Another common approach is to search for trends by comparing the latest price with a moving average of past prices. Computers greatly facilitate the use of technical price forecasting methods. A number of firms sell charts of daily commodity futures prices, and many books on technical analysis are available. However, the usefulness of technical analysis for commodity price forecasting is a subject of continuing debate. Because many technical price forecasting methods rely on the application of individual judgment, their performance is difficult to evaluate. The wide use of technical analysis by traders may itself introduce patterns in price movements.

Any proposed price forecasting method or trading rule should be examined critically before it is used. Even the best price forecasting methods are likely to be wrong or useless much of the time.

**Storage**

Your grain bins are one of the most basic risk management tools on your farm. By holding grain at harvest, you avoid selling right off the combine, when prices typically are weakest. Many farmers store at least half their crops, selling them in increments. Selling a little at a time over the year also increases the odds you’ll get an average price—another risk management strategy.

The downside to storage, of course, is that it costs money, whether you use farm bins or the elevator in town. Some years prices don’t rally after harvest, and often the best prices of the year come during the growing season.