**Hedging Corn in the Futures Market**

J. William Uhrig, Donald Hilger, David C. Lyons, Mark Miller and Gary Van Hoozer
Department of Agricultural Economics

Of all the marketing alternatives available to corn producers, the futures market is the most complex and the most sophisticated. To use it successfully, you’ll have to learn much about how the futures market operates, the mechanics of trading, the many different possibilities available to you as a producer, how to judge when you should act, and how to fit futures trading into your farm production and marketing plans.

A futures market is a market in which prices are established for commodities that will be delivered at some time in the future. It is a highly active market in which there are many buyers and sellers. The physical commodity itself is not bought and sold in the futures market. Instead, trading is in contracts for the delivery of a standardized quantity and quality of a commodity at some future date at a designated price.

The primary function of the futures market is to establish expected prices of commodities for several delivery months in advance. The contracts, in effect, are temporary substitutes for actual cash sales.

As a corn producer, the futures market can help you lock in a predictable price for your crop, even before the crop is planted -- or while the crop is growing or in storage. Futures trading can help you avoid marketing uncertainty and can help you eliminate worry about daily cash market fluctuations. It can make it easier for you to get credit.

The futures market also offers you great flexibility. With a cash contract, you agree to actually deliver your corn to a given buyer on a given date. When you sign the contract, you give up the option to later change your mind unless there is a cancellation clause in the contract. But with a futures contract, you can establish a price for your corn and you still have the flexibility of deferring your choice of a buyer for your corn and your choice of the exact time you want to sell your corn in the cash market. When you actually want to deliver your hedged crop, you simply buy back your futures contract on that day and sell your corn for cash to a local buyer.

Commodity futures, then, offer you a way to shift your marketing risk to someone else who also is participating in the futures market and is willing to accept such a risk. Once you lock in your desired selling price by selling a contract in the futures market, you are no longer worried about whether the futures prices go up or down. Since cash and futures prices tend to come together as the futures contract approaches maturity, any loss you might sustain in the futures market will normally be offset by higher prices than you expected in the cash market where you actually sell your corn.

**Hedging Versus Speculating**

Both hedgers and speculators trade in the futures market. Hedgers are individuals who use futures to establish a price for a commodity which is either owned or committed for production and will be deliverable at some time in the future. Speculators, on the other hand, have no commodity to deliver. When the speculator offsets his contract, he has no product to sell on the cash market. Thus, the speculator has no profits or losses in the cash market to offset his profits or losses in the futures market. He profits only to the extent that he is able to guess correctly which way the market is going.

Hedging is a method of forward pricing that reduces risk. But speculating is a way of increasing risk because you put yourself into a position of having to outguess the market.
Most producers are, in fact, speculators. They invest time and money into production, and yet they have no idea whether they will make any money until their crop is sold.

If you use the futures market to forward price your corn crop, you are a hedger.

The Contract
A corn futures contract is a firm commitment to deliver or receive specified quantities and grades of corn during a designated month, with price being determined by public auction in the pits of a commodity exchange. A futures contract is a legally binding instrument -- just as legal as any contract you may sign.

The more important specifications of the corn contract on the Chicago Board of Trade are:

I. Contract unit: 5,000 bushels
II. Grade deliverable: USDA No. 2 yellow
III. Delivery points: Authorized warehouses in Chicago, Illinois or St. Louis, Missouri (4¢/bushel discount)
IV. Termination of contract: 7 business days from the end of the contract month
V. Delivery dates: Any business day between the first of the contract month and termination of the contract.
VI. Price fluctuation:
   1. Minimum -- 1/4 cent per bushel ($12.50 per contract)
   2. Maximum -- 10-cent change up or down from previous day's close (sometimes adjusted to different levels)
VII. Delivery months: September, December, March, May, July
VIII. Commission fee: Negotiable, usually $40-$50 per contract, round turn (April 1978)
IX. Trading hours: 9:30 a.m. to 1:15 p.m. central time

Futures contracts are bought and sold at various commodity exchanges. The Chicago Board of Trade handles most of the grains and storable products, and the Chicago Mercantile Exchange handles most of the livestock and nonstorable products.

Futures Exchange's Functions
-- Provide meeting place for buyers and sellers
-- Assure equitable trading
-- Provide complete price information

The Importance of Basis
You must thoroughly understand the concept of basis if you are to be successful in your own hedging operation. Basis is the difference between the Chicago futures market price for corn and your local cash price at the time you complete a hedge -- or the time you buy back your offsetting futures contract and sell your corn in your local cash market.

Corn prices quoted in the futures market apply to U.S. No. 2 yellow corn delivered to Chicago at a given time. You get these prices only if you deliver your corn to Chicago and if they are the same quality called for in the futures contract. Since most producers will sell their corn in their local cash market using the futures market only to forward price their crop, they have to adjust the Chicago futures price for (1) location differential from the producer's farm to Chicago, (2) differences in quality of the corn, (3) differences in the exact time the corn will be sold in the cash market, etc. This procedure is called "localizing the futures price."

Basis varies from one location to another and changes from month to month, normally narrowing as the delivery month of a futures contract approaches. The basis normally reflects the cost of transportation and storage.

Price differences among most major market locations are predictable and are determined by patterns of trade among areas,
costs of transporting commodities between the areas and storage costs. Since both patterns of trade and transfer costs tend to be stable from year to year, the basis for your area also tends to be stable or predictable. You can't predict the basis exactly in any given year, but you can predict basis much more accurately than you can predict actual cash prices for corn.

You can usually get basis estimates for your local area from your land grant universities, your local elevator manager or your commodity broker.

If basis data aren't readily available for your area, you can calculate your local basis rather simply. The best way is to examine past differences between Chicago futures prices and cash prices for your local market. You can get cash prices from your newspaper or from local buyers, and you can get futures prices for the same day from newspapers or from brokerage firms. You can then compute your local basis by finding the difference between the two prices. You can record these differences over time and get a basis pattern for your area.

Hedging Procedure

If you decide to hedge some of your corn, here are the steps you should follow:

1. Observe futures price movements. Become familiar with futures prices and their movements and keep up with them daily.

2. Determine your hedging objectives. Decide whether you are (a) after a higher price, (b) trying to lock in an acceptable price and avoid large price declines, or (c) trying to make management decisions based on the futures market.

3. Estimate your production costs and arrive at an asking price for your corn. You must figure your production costs, then add your desired return to management and your desired profit. This will give you an asking price per bushel.

4. Localize the futures prices. Select the appropriate contract month which should be the nearest month to the date but not before the date that you expect to have your corn ready to deliver on the cash market. Then adjust the futures to the local market price by subtracting your local basis to see what the futures market is offering you.

5. Make the hedging decision. You must decide whether to accept the price that the futures market is offering. This will depend largely upon your hedging objective.

6. Open an account with a broker. To initiate a futures transaction, you must open an account with a commodity broker who is represented on the exchange where your commodity is traded.

7. Give an order. You must instruct your broker so he can act for you.

8. Supply margin money. Contracts in the futures market are sold on margin. You must put up margin money initially -- usually 7 to 10 percent of the contract value. You may have to put up additional "maintenance margin." Margin funds serve as a performance bond for both buyer and seller.

9. Decide when to sell. In practice, only very few futures contracts are settled by delivery of the corn. Most growers buy offsetting futures contract and sell their corn locally when the crop is ready to deliver. It is important, however, to buy back your contract and sell your corn on your local cash market on the same day.

Pitfalls to Avoid

-- Don't lock in a loss unless doing so would prevent a larger loss.
-- Calculate basis properly.
-- Be prepared to meet margin calls.
-- Don't shift from hedger to speculator.
-- Be sure to close out your transaction.

Summary

Through the proper use of the futures market, you can lock in an acceptable price for your corn weeks or months ahead of delivery. If you use the futures market to forward price your corn, you are a hedger. Speculators trade in the futures market also,
but they have no product to deliver. The only way they can make money is to correctly guess which way the market is going. To be successful at hedging, you must thoroughly understand the concept of "basis," and you must determine your hedging objective.

From this point on, your most important steps to success are (1) figure your production costs and arrive at an asking price, (2) localize the futures price, and (3) make the hedging decision.