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CORN STORAGE AND ALTERNATIVES TO STORAGE

WITH A BIG CROP AND LOW PRICES, many corn producers will be planning to store their crop this fall. The economics of storage, including alternatives for storage, should be fully evaluated.

The easiest situation to evaluate is for the producer who is eligible for the Commodity Credit Corporation (CCC) loan program (assuming the rules are not changed). The national loan rate is $2.55 per bushel. If the cash price at harvest is below the loan rate by more than the cost of storing corn, taking the loan and storing corn is clearly the best alternative.

For example, at $2.10, the new crop corn bid is 45 cents below the loan rate. The cost of storing corn for 9 months includes interest on the value of the corn, warehouse costs, and extra drying and shrinkage costs associated with drying corn below 15.5 percent moisture. These costs vary from area to area, but might total about 40 cents in the case of commercial storage.

A producer who takes out the CCC loan and eventually forfeits the loan, would not incur interest cost. The total cost would be only about 25 cents. In this case, the net price received would be 20 cents above the current bid of $2.10. The producer would redeem the loan only if the market price exceeds the CCC loan rate by more than the magnitude of accrued interest. That is, for each month of storage under the loan, the market price would have to be about 2 cents above the loan rate to make redemption more attractive than forfeiture.

For the producer not eligible for the CCC loan, the total cost of storage must be evaluated in terms of expectations about future cash price increases. Under the cost assumptions made here, cash corn prices will have to rebound by more than 40 cents by next summer in order for storage to pay.

Alternatives for corn storage do exist if price increases are expected. The sale of cash corn could be offset with the purchase of futures. (Basis contracts are an indirect method of owning futures). In this case, the producer is speculating that futures prices, not cash prices, will increase. The cost of this alternative includes the direct cost of trading futures (maybe about 3 cents per bushel) plus the improvement in basis that occurs after the purchase of futures. At $2.10, for example, the cash bid for new crop corn on August 2 was 29 cents less than July futures. Any improvement in the basis is an indirect cost of owning futures rather than corn.

If it costs 40 cents to store corn for 9 months, and the direct cost of trading futures is 3 cents, any basis improvement less than 37 cents would make it more attractive to own futures than corn. In the case of storage, a loss occurs if cash prices fail to increase by 40 cents over 9 months. In the case of buying futures, a loss occurs if futures fail to increase by at least 3 cents.

An alternative to buying futures when corn is sold is the purchase of a call option. For a fee (called the premium), the producer purchasing the call option is buying the right to buy corn futures at a later date at a specific strike price. If the price of futures increase, the producer can sell the option at a higher premium. If the price of futures declines, the option will be sold for a lower premium, but the loss is limited to the magnitude of the original premium. Buying a call option is a more expensive alternative than buying futures, but unlike owning futures, the loss from a price decline is limited. On August 2, the premium on a July call option with a $2.40 strike price, for example, was 15 cents per bushel.

The same calculations should be made for soybeans that have been made for corn. All producers are eligible for the CCC loan program. The national average loan rate is $5.02 per bushel.

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