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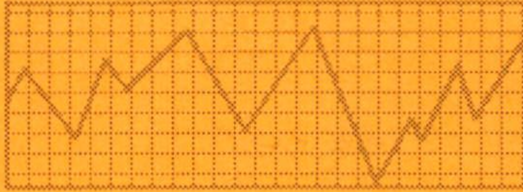

WEEKLY OUTLOOK

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CALL OPTIONS AS AN ALTERNATIVE TO STORAGE

The current low prices of corn and soybeans have encouraged many producers to store much of their newly harvested crops. A case for higher prices can be made for both crops. Those higher prices, however, may not be reached until late in the marketing year. That scenario is particularly true for corn. Higher soybean prices could be achieved earlier in the marketing year, depending on planting and growing conditions in South America. It is relatively expensive to own and store corn and soybeans. In addition, long term storage could create a cash flow problem. Finally, there is a risk that prices may decline or not increase enough to pay the ownership and storage costs.

The cost of grain ownership cannot be eliminated, but there are a number of marketing alternatives which can address the cash flow and price risk aspects of storage. All soybean producers and corn producers who participated in the 1990 acreage reduction program are eligible for Commodity Credit Corporation (CCC) loans on stored crops. Those loan rates are well below the market prices of corn and soybeans, but the loans are a source of positive cash flow. The full cost of ownership as well as price risk is still incurred on crops stored under CCC loans.

An alternative to storage is ownership of corn and soybean futures. That is, producers could sell current inventories and buy an equivalent amount of futures contracts. This process transfers the producer's price speculation from the cash market to the futures market. One advantage of this transfer is that the producer receives the full value of the crops. Only a fraction of that value is required to buy futures contracts. The direct cost of owning futures is the interest on margin money and commission fees. Ownership of futures, however, does not eliminate the risk of lower prices. In addition, the indirect cost of owning futures is the improvement in basis, if any, after the crop is sold. Ownership of futures may or may not be less costly than storage.

A basis contract offers the same basic advantages and disadvantages as ownership of futures. With a basis contract, however, the producer does not have to trade futures contracts directly.

A third alternative is the ownership of call options. Buying call options to replace crops that have been sold also transfers the producer's price speculation from the cash to the futures market. In comparison to direct ownership of futures, ownership of call options has the advantage of reducing the risk of lower prices. The potential loss is limited to the magnitude of the premium paid for the option. The major disadvantage is the additional cost of the option.

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Consider the following example comparing commercial corn storage to the ownership of call options on corn futures. The cost of storage includes the interest on the value of the corn, the direct warehouse cost, and the charge for drying and shrinkage below 15 percent moisture. The total cost will depend on the length of storage. Interest cost from November 1, 1990 to June 1, 1991 on corn currently valued at $2.15 might total 15 cents per bushel. Commercial storage costs might run 20 cents per bushel, and extra drying and shrinkage could add 5 cents. The total cost would be about 40 cents per bushel.

The direct cost of buying an at-the-money July call option (strike price of $2.50) is the premium of 16 cents per bushel, plus interest on the premium and commission fees. The total cost might be about 18 cents. The indirect cost of owning call options rather than corn is the improvement in basis from early November to early June. In this example, the current cash price is 35 cents under July futures. In central Illinois, that basis is expected to improve to about 10 cents by early June. The potential improvement in the basis is 25 cents, bringing the total cost of the call option to about 43 cents per bushel.

In this example, the cost of owning the call option is slightly higher than the cost of commercial storage. The risk of the two alternatives is substantially different. With storage, the risk is that cash prices decline and losses are incurred. With the call option the risk is that the basis improves more than projected. In general, price risk is greater than basis risk.

In the case of on-farm storage, the out of pocket costs could be substantially less than the cost estimated in this example. Lower storage costs would make call options less attractive from a cost standpoint.

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