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## GUIDELINES FOR USING THE CATTLE FUTURES MARKET

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### Introduction

The commodity futures market is one on which people's views are extremely varied. On the one extreme are beliefs that the futures market is a cure-all; the greatest thing since sliced bread; a tool which the cattle feeder cannot afford to do without. On the other extreme are beliefs that the futures market is the next thing to a Nevada casino; it is the surest way to make a small fortune out of a big one; something which should be avoided like the plague.

Certainly, neither extreme is completely correct - the futures market should be in the tool kit of some cattlemen and not in others. The main theme of this presentation is to help the cattleman to evaluate if and how the futures market may benefit him. Main emphasis will be on the general concepts which apply to any futures contract. However, when examples are used, they will generally relate to cattle feeding. It must be remembered that, in addition to fed cattle contracts which "lock-in" final product prices, there are also grain and feeder cattle contracts which can be used to "lock-in" input costs. The fact that discussion of these contracts is omitted here does not imply that they are not important.

### Categories of Futures Market Users

There are three major categories of people who use the futures market:

- (1) Speculator
- (2) Hedger
- (3) Observer

The speculator is the person who accepts the risk of a price change for a given commodity in the hope of making a profit. He would most likely ask the question: "How can I benefit from price fluctuations?" When he buys or sells a contract, he is doing so because he believes price movements will be in his favor. He expects contract prices to go up when he buys and down when he sells.

The hedger is the person who uses the futures market to minimize the risk of a price change. He wants to shift this risk to someone else and, as he does so, settles for a somewhat fixed price. He would most likely ask the question: "How can I protect myself from up and down movements of price?" When he buys or sells a contract, he is more interested in having similar price movements for his cash commodity and the futures contract than he is in the direction of these price changes.

The observer is the person who uses the futures market as a guideline of things to come. He does not buy or sell futures contracts. He would probably ask the question: "Is there any way I can use the futures market without active involvement?" Although he does not use the futures market as an exact price predictor, he uses it as an indicator of direction of change or as a barometer of the reaction of the cattle industry to changing conditions.

The major emphasis of this presentation will be on the hedger. Only a few comments will be made on the speculator or observer.

#### Excuses for Not Using the Futures Market

People who do not hedge on the futures market usually have a ready made excuse. In the event that you need one, the following are offered:

- (1) It's too complicated - I don't understand it!
- (2) I (or someone I know) got burned once and that was enough!
- (3) I can't afford to use the futures market - it costs too much!
- (4) I don't want to shift price risk - I want to accept it along with the potential gains and losses.

Of the excuses listed, and you may have a better one, only the last one is really acceptable. Granted, the first three may apply to some people, but they can usually be overcome if the interest is there. Whether this presentation removes or enforces the above excuses remains to be seen.

#### Cattle Hedging Example

The following example illustrates some of the actions which might be taken by a cattle feeder who hedges his cattle. The example, while illustrating the procedures, is over-simplified. Also, the example is that of a perfect hedge, one where price movements of the cash and futures markets are the same. This is unlikely in a real-world situation. Also, only the fed cattle are hedged. Both grain and feeder cattle contracts can be used to "lock-in" these input prices.

Assume that on October 15 a cattle feeder evaluates his situation as follows:

- (1) He can buy 600 pound steers at \$42.00 per hundredweight.
- (2) He knows he can add 500 pounds in 180 days (by April 15) at a cost of 32¢ per pound of gain.
- (3) The current price for an April contract is \$40.00.
- (4) Price forecasts for April range from \$35.00 to \$45.00 per hundredweight.

On the basis of the above information, the feeder decides to buy the cattle, aim for the April market and hedge his cattle. The following table illustrates the results of his enterprise, both if prices went up and if they went down.

On Cash Market

Oct. 15 Buy 600# choice steers at  
\$42.00/cwt. = \$252.00

Oct. thru Apr. Adds 500# at  
\$32.00/cwt. = \$160.00

Total Cost = \$412.00 or \$37.45/cwt.

On Futures Market


Oct. 15 Sells April fed cattle  
futures contract at  
\$40.00/cwt.

Oct. thru Apr. Hold futures contract  
but continue to evaluate it  
to see if the hedge should  
be lifted

IF MARKET GOES UP

Apr. 15 Sells 1100# steers at  
\$45.00 = net above costs  
of \$7.55/cwt. or \$83.00/head

Apr. 15 (or before) Buy April con-  
tract at \$45.00 = net loss  
of \$5.00/cwt. or \$55.00/head




\$83.00 Gain on cash market  
55.00 Loss on futures market  
 Net = \$28.00/head

IF MARKET GOES DOWN

Apr. 15 Sells 1100# steers at  
\$35.00 = loss over costs  
of \$2.45/cwt. or \$27.00/head

Apr. 15 (or before) Buy April con-  
tract at \$35.00 = net gain  
of \$5.00/cwt. or \$55.00/head



\$27.00 Loss on cash market  
55.00 Gain on futures market  
 Net = \$28.00/head

The producer would have been better off by not hedging in the situation where a price increase was assumed (he would have a profit of \$83.00 without the hedge and only \$28.00 with the hedge). However, if prices had decreased, he would have had a loss of \$27.00 without the hedge, but with the hedge a \$28.00 profit was realized.

What You Should Know As A Hedger

There are several items which the hedger must know. The following list may not be complete, but it covers most of the essentials:

- (1) Production costs
- (2) Limits and requirements of the contracts
- (3) Basis
- (4) A broker and banker who understand hedging
- (5) Knowledge of factors affecting the market
- (6) How the contract affects the hedger.

Costs - Knowledge of production costs is always important, whether or not one uses the futures market. However, the importance is accented when hedging on the futures market because the final product price is established more firmly than when the product is not hedged. The example used earlier might best illustrate the point. There, the cattle feeder could buy 600 pound feeders for \$42 per hundredweight. Also, he could use the futures market to lock-in a price of \$40 for his 1100 pound steers. Should the producer feed the cattle and, should he hedge on the futures market? In order to answer these questions, the cattle feeder must know his production costs. Costs greater than \$140 per head would result in a loss, while lower costs would result in a profit. Once again, the cattle feeder should know his production costs even if he doesn't hedge. But, if a final product price is not locked in, there may be a greater tendency to "hope" for a price to cover all costs. Cattlemen seem to be eternal optimists - they like to believe the "high price" rumors. When a final price can be established prior to production, costs seem to become more important in the decision-making evaluation.

Limits and Requirements - Futures contracts are written in very specific language. Products involved are described carefully, with a discount schedule noted for delivery of products which do not meet specifications. Some of the specifics are noted at the end of this paper.

Often, the hedger's live cattle do not completely meet all of the contract specifications. Thus, the price risk is not entirely shifted. How much is shifted depends on how close the contract specifications are met and, if different, how many differences there are in prices for the different categories.

Basis - The difference between the cash price at any location and the futures price on any futures exchange is known as the basis. For example, if 1100 pound choice fed steers in Sioux City are \$40.00 and a futures contract for fed steers on the Chicago Mercantile Exchange is selling for \$42.00, the basis is -\$2.00. For storeable commodities, the futures price is usually higher than the current cash price. However, for cattle, this is not always the case. The basis depends on:

- (1) The overall supply and demand of the commodity
- (2) The overall supply, demand and prices of substitute commodities
- (3) Geographical disparities in supply and demand
- (4) Transportation problems and prices
- (5) Storage space available
- (6) Quality factors and condition capacities
- (7) The demand for the futures contract.

Since many of the above factors vary by location the basis must be computed for each location. For example, the "net" or localized price for a fed steer in location A might be only \$38.00, while in location B it might be \$41.00 if the futures contract is priced at \$40.00, but location A has a -\$2.00 basis and location B has a +\$1.00 basis. Granted, the above example is an extreme, but it is possible for one location to have a much different basis than another, even to the extent where one is positive and the other is negative.

Computation of the basis for fed cattle in South Dakota yields a complex set of patterns. Generally, the establishment of a firm, localized net price is not as precise as in the case for grain. For example, in 1976, the Omaha cash - Chicago nearby futures contract basis ranged from +\$1.50 in January to -\$3.58 in May. For the same months and locations in 1977, the basis was +\$.54 and -\$1.34, respectively. Thus, the localized prices in 1977 were closer to the Chicago futures price than was the case in 1976. The variation in basis by the amounts noted results in a wider range of "locked-in" prices than if the basis was more stable. Even then, if the basis does not vary as much as the cash price, some risk can be shifted.

Broker and Banker - The hedger must know a good broker (knowledgeable and trustworthy) and a good banker (also knowledgeable and trustworthy). The broker is important because he is the man who buys or sells the contracts and also has current advise on "what to do." The banker is important because he supplies the credit, probably for both the cash commodity enterprise (feedlot) and the futures market costs (margins and brokerage fees).

Market Factors - Since both the cash price and futures price are affected by market conditions, changes in these conditions and the effect of these changes must be monitored. What may have been a good hedge today, may not be tomorrow. What may have been profitable under one set of circumstances may not be under another. Therefore, the feedlot operator must continually evaluate the market to see if he should hedge, remove a hedge or do nothing. This evaluation is not something he shouldn't already be doing. Rather, if he uses the futures market, he may be required to evaluate on a more continuing, structured basis.

Effect on the Hedger - The hedger must analyze the impact of placing a hedge on both his operation and his general well-being. Such questions as:

- (1) Do I like risk?
- (2) Can I afford a big loss?
- (3) Does the futures market make me more or less comfortable?
- (4) Is credit easier or harder to obtain?
- (5) Do I feel safer?

might be asked to see if the hedge offers more pluses than minuses. If the benefits do not outweigh the costs, the futures market is probably a bad idea. Only the user knows for sure.

### What To Watch For

The futures market is not necessarily all good or all bad. It can be a useful tool. Some of the major factors to keep in mind when deciding whether or not to use the futures market are discussed in this section.

It's Not What You Know, But Who - As noted earlier, the hedger must know a good broker and a good banker. A vast amount of knowledge about the futures market can be wasted if you do not have a good broker to go thru. He must both give sound advise and also activate your requests as you want them activated. Also, if your banker does not understand or trust the futures market, he may discourage its use. Sometimes this discouragement comes in the form of "no credit."

There Ain't No Such Thing As A Free Lunch - What must be given up by the hedger in order to get price protection? After all, no one expects to get "somethin for nothin." First, there is a broker's fee. Although this fee is not large, it will be about \$40 or \$50 per contract. Since a contract usually involves about 38 head, the cost is slightly over \$1.00 per head. Second, margin money is required. Even when you sell a contract you do not get money. Rather, you must put up earnest money. An interest charge should be made against this earnest money. Usually, the margin requirement for a bonafide hedger is less than 10 percent of the contract value. For a 40,000 pound contract at \$40.00 per hundredweight, a margin of less than \$1,600 would probably be required. Interest on \$1,600 at 10 percent would be about \$160 per year or, if a contract were held three months, about \$1.00 per head. Finally, the act of shifting price risk usually removes not only the potential for large losses due to price changes, it also removes the potential for landslide profits due to price changes. The band of possible profits or losses is narrowed. To some, the loss of windfall profits may be the highest cost of those mentioned. They enjoy the risk - and the potential gain or loss which goes along with it.

Nobody's Perfect - Even though the cash and futures prices generally move in the same direction, there are exceptions. In addition, the magnitude and/or timing of the move, even if in the same direction, are usually not the same. Thus, even though one can say that the futures market can be used to shift price risk, the above imperfections prevent this from being fully accomplished. But, if a portion of the risk is shifted, some of the goal is attained.

As was noted earlier, the basis is a key to the use of the futures market. If the basis were always completely predictable, the perfect hedge could be more nearly attained. Once again, however, if the basis varies less than the cash price, some risk usually can be shifted.

Once a Loser, Always a Loser - The futures market is not a gimmick which will automatically remove losses which go to the inefficient operator or which would occur in an unprofitable market situation. In fact, the futures market, by "locking-in" a price for the final product, can just as easily lock-in a loss as it can a profit. At times, locking-in a loss may be advantageous, especially if it prevents a much larger loss. Merely going into the futures

market will not change an unprofitable operation into a profitable one. In fact, there may be instances when it may be to an inefficient producer's advantage not to use the futures market. That is, if he does not lock-in a price in the futures market, there is still the possibility that an extremely high price can bail him out. Of course, the extremely large losses resulting from very low prices are also possible.

Do The Opposite - When using the futures market as a hedge, the principle rule is "do the opposite" in the futures market than you do in the cash market. For example, when buying feeder cattle to put on feed, sell a futures contract. When selling the cattle (or before), buy back the futures contract for the same product and month sold. If the opposite transaction is not followed, but rather the same position is taken in both markets, the result is a cash side which is not hedged plus ownership of a speculative contract on the futures side.

The opposite transactions provide the hedge because, generally, the cash and futures market move in the same direction. Losses in one market are offset by gains in the other, with the net result a shift in some of the price risk.

Apples are not Oranges - The quality specifications on a fed cattle contract, as noted earlier and at the end of this paper, are very specific. Specific weights, quality grades, yields and sex are noted along with the price discounts which are made if these specifications are not met. Many cattle feeders do not feed cattle which meet these rigid specifications and, economically, they probably shouldn't. But, this means that if the futures market is used, the hedge will be on something different than the cash commodity. The greater the difference there is, the poorer the hedge is in terms of shifting price risk, especially since all grades, weights and sexes are not priced the same. The extent of these price differences is the key. It may not be as bad as comparing apples and oranges, but certainly an 800 pound, yield grade 4, good quality grade heifer is not the same as a 1,100 pound, yield grade 2, choice quality grade steer.

A Pinch of Salt - There is an old saying that if a pinch of salt is good, a cup is better. Many people get burned in the futures market because they apply the above concept to their futures market activities. They believe that if it makes good dollar sense to hedge all or most of their cattle, it makes more sense to "hedge" several times what they actually have. Remember, the hedge is an attempt to shift price risk. It is not possible to shift price risk on something you don't own or expect to own. Going into the futures market with a volume greater than that on the cash side means an acceptance of price risk - i.e., a speculator. The speculator's goal is profit. He doesn't need or want cattle to do that. It is extremely important to recognize the difference.

#### What If You Don't Hedge?

The futures market's active participants are the hedger and speculator. If neither of these roles is feasible or acceptable, the cattle feeder can



still use the futures market. Basically, there are two ways he can do this:

- (1) Use the futures market as a guide to what prices are expected to be.
- (2) Use the futures market as a barometer in measuring the trade's reaction to livestock marketing information as it develops.

The futures market is not designed to be a price predictor. But, since there must be both a buyer and seller of a futures contract, some people are, in effect, predicting a price increase (the buyers) and others are predicting a price decrease (the sellers). In net, the predictions balance out so that usually at least the direction, if not the magnitude, of the expected price changes can be discerned. Again, although not perfect, it may be better than what many producers are currently using.

The use of the futures market as a barometer can also be beneficial. Basically, the futures market reacts to changes in supply and demand conditions. Since traders often have many dollars at stake, they are very current on these conditions and, when conditions change, the traders react accordingly. Just how much reaction takes place (how much prices go up or down) may give an indication to the non-trader as to what will happen. Because the futures market may be more psychological than the cash market, the barometer is not always completely trustworthy. But again, it may be better than the barometer currently used by many cattle feeders.

#### Summary

The futures market is not a cure-all. Not everyone should be a trader although most should be observers. However, by becoming and keeping informed, by following some of the general guidelines noted in this presentation, and by going through a good broker (if you are an active trader), the cattle feeder can gain from the futures market. Since it will not be without effort and will require some sacrifices, the decision on whether or not to use the futures market is one which must be made on an individual basis.

BASIC SPECIFICATIONS (PAR DELIVERY AND SUBSTITUTIONS)  
FOR FED CATTLE CONTRACTS

Par Delivery Unit

A par delivery unit is 40,000 pounds of USDA yield grade 1, 2, 3 or 4 choice quality grade live steers, averaging between 1,050 pounds and 1,200 pounds with no individual steer weighing more than 100 pounds above or below the average weight for the unit. Not more than 8 head of estimated yield grade 4 choice steers shall be permitted in a par delivery unit. No individual animal weighing less than 950 pounds or more than 1,300 pounds shall be deliverable.

Par delivery units containing steers with an average weight between 1,050 pounds and 1,125.5 pounds shall have an estimated average hot yield of 62%. Par delivery units containing steers with an average weight between 1,125.6 pounds and 1,200 pounds shall have an estimated average hot yield of 63%.

All cattle contained in a delivery unit shall be healthy. Cattle which are unmerchantable, such as crippled, sick, obviously damaged or bruised, or which for any reason do not appear to be in satisfactory condition to withstand shipment by rail or truck shall be excluded. No cattle showing a predominance of dairy breeding or showing a prominent hump on the forepart of the body shall be deliverable. Such determination shall be made by the grader and shall be binding on all parties.

Weight Deviations

Steers weighing from 100 to 200 pounds over or under the average weight of the steers in the delivery unit shall be deliverable at an allowance of 3¢ per pound provided that no individual animal weighing less than 950 pounds or more than 1,300 pounds shall be deliverable. For purposes of computing such allowance, the weight of the over or under weight animals shall be considered the same as the average weight per head of the delivered unit.

Steers weighing more than 200 pounds over or under the average weight of the load are not acceptable. The judgment of the grader as to the number of such overweight or underweight cattle in the delivery unit shall be final and shall be so certified on the grading certificate.

Yield Deviations

Delivery units with an estimated average hot yield under par shall be acceptable with an allowance of one-half cent per pound for each one-half percent or less by which the estimated yield is under par. Units with an estimated average hot yield of less than 60 percent shall not be deliverable.

### Yield Grade Deviations

Estimated yield grade 4 Choice quality steers, up to and including 8 head are deliverable at par.

All Good quality grade, yield grade 4 steers are deliverable at 3¢ per pound allowance for yield grade plus the quality allowance.

If 9 or more steers of yield grade 4 (Good and Choice quality grade) are contained in the delivery unit, all yield grade 4 cattle in excess of 8 up through a maximum of 18 head are deliverable at a 3¢ per pound allowance.

For purposes of computing such allowance, the weight of such yield grade 4 steers shall be considered the same as the average weight per head of the delivered unit.

Any delivery unit containing more than 18 head of cattle with an estimated yield grade of 4 shall not be deliverable. Cattle with an estimated yield grade of 5 shall not be deliverable.

### Quality Grade Deviations

Delivery units containing not more than eight head of USDA Good grade steers may be substituted at a 3¢ per pound allowance for each Good grade steer. For the purpose of computing such allowances, the weight of such Good grade steers shall be considered the same as the average weight per head of the delivered unit.

### Quantity Deviations

Variations in quantity of a delivery unit not in excess of 5% of 40,000 pounds shall be permitted at the time of delivery, with appropriate adjustment to reflect delivered weight but with no further penalty.

### Delivery Points and Allowances

A par delivery of live beef cattle shall be made from approved livestock yards in Peoria, Illinois; Joliet, Illinois; Omaha, Nebraska and Sioux City, Iowa. Deliveries may be made from approved livestock yards at Guymon, Oklahoma, with an allowance of \$.75 per cwt., \$.50 effective with June 1977 contract.