

## A TECHNICAL STRATEGY FOR PLACING CATTLE HEDGES

**John R. Franzmann**

Department of Agricultural Economics, Oklahoma State University, Stillwater, Oklahoma

**Cattle feeders are constantly faced with large price risks. Despite the availability of a viable futures contract only small percentages of the cattle on feed are hedged. Although the reasons for such behavior are not clear the need for better methods of *timing* hedging activities has been indicated.**

**The analysis of bar charts, one of a number of technical tools for analyzing the futures markets, provides the hedger with a means of more accurately placing and lifting hedges. Illustrations of the use of this technique using the February 1975 and April 1976 contract are provided.**

Slaughter cattle prices have traced out a roller-coaster-like pattern in the recent past and particularly in the last year. During the periods of sharp decline, such as the drop that began in early August 1974 and ended at the beginning of March 1975, reports of severe financial stress in the cattle industry were circulated. It was common to hear stories of feedlot closings and sales at distress prices and of losses of up to \$150 per head on feeding operations.

Needless to say not all producers faced such dire circumstances. Some were able to time their procurement and marketing activities in synchronization with fluctuations in market price. Others were in a strong enough financial position to avoid total destruction despite large losses while others sought refuge in the futures market, hedging their inventories.

Figures published by the Commodity Exchange Authority on the commitments of traders indicate that from July 1974 through August 1975 an average of 477,460 head of cattle per month were hedged. At the price peak last July-August, 505,800 head were hedged. At the price low of February-March, 300,800 head were hedged and as the current highs were approached hedging activity was stepped up to 647,880 head as of August 31, 1975. The general pattern is indicative of attempts to hedge on a selective basis. However, the volume of cattle hedged is only a small percentage of the number on feed.

When cattle prices peaked in 1974, hedged cattle amounted to only 7.1 percent of the number on feed in the seven principal feeding states. Data are not available, but the percentage would obviously be much smaller if all cattle on feed were included. As we approach the current highs some improvement can be seen. By the end of August 1975 the percentage of hedged cattle relative to the inventory on feed in seven states increased to about eleven percent.

The question can be posed, why are so few cattle hedged when prices are at historical highs? One possibility is that, despite the historically high prices, producers believe that even higher prices will be forthcoming. The steady decline in feedlot placements has finally produced a small enough supply of the desired weights and grades to justify prices for live cattle in the fifty-cent area and perhaps higher. But this cannot explain why hedging remains at low levels after it is clear that a peak in prices has been reached.

Another possibility is that many producers are still poorly informed concerning the cattle futures markets and how they may be used to advantage. In some cases they are even misinformed. Comments can still be heard that the futures markets are "crap shoots" controlled by large speculators. This appears to be an unjustified claim with respect to the live cattle futures market since the end of August 1974. Table 1 shows the percent of the open interest held by the large and small traders and by the large short hedgers. It is particularly noteworthy that at the end of February, despite renewed selling, the large speculators did not force the market lower.

TABLE 1. *Distribution of open interest held by selected groups of traders of live cattle futures, C.M.E., August 31, 1974 — September 30, 1975*

Date	Small traders		Large traders		Large hedgers
	long	short	long	short	short
	%	%	%	%	%
8/31/74	71.7	37.1	28.3	62.9	47.6
9/30/74	65.9	44.5	34.1	55.5	42.8
10/31/74	72.9	38.6	27.1	61.4	46.7
11/30/74	71.9	40.7	28.1	59.3	44.3
12/31/74	69.8	47.2	30.2	52.8	39.6
1/31/75	64.1	47.7	35.9	52.3	37.5
2/28/75	65.4	44.6	34.6	55.4	36.0
3/31/75	62.4	45.9	37.6	54.1	38.2
4/30/75	64.6	43.8	35.4	56.2	45.9
5/30/75	59.0	45.7	41.0	54.3	46.4
6/30/75	66.6	48.8	33.4	51.2	42.5
7/31/75	60.8	44.9	39.2	55.1	44.1
8/31/75	58.6	43.7	41.4	56.3	46.7
9/30/75	53.4	44.5	46.6	55.5	45.9

Source: *Commitments of Traders in Commodity Futures*, U.S.D.A., Commodity Exchange Authority

Still another possibility is one that is basically psychological in nature. It assumes that cattlemen are fundamentally optimists. Therefore, even when cattle are retreating sharply from record highs, such as were witnessed in 1974, a large-scale increase in hedging does not occur because of a belief the market break is only temporary and one would not want to "hedge in the hole."

Regardless of which, if any, of the foregoing explanations has merit, the experience of the past several years indicates the need for techniques to help cattlemen and their creditors determine appropriate times to have cattle hedged and when to have them not hedged. Of course, the monitoring of slaughter, cattle on feed, carcass, live and retail prices, pork prices, market receipts, and other pertinent supply and demand information is necessary but not sufficient to obtain the best *timing* in the placement and lifting of hedges.

An additional set of techniques available to hedgers carries the label, technical tools. Among the technical tools the bar chart techniques can be used to provide guidance in the timing of hedging operations. In Figure 1 the day-by-day trading history for the February contract is shown over the period from March 19, 1974 through September 23, 1974.

A hedger using the chart techniques would note the convergent pattern formed between March 19 and April 18th. Price moved well toward the apex of the formation and volume over the period was high and irregular. At price levels of \$46 — \$49 per cwt the cattleman needed to be ready to place his hedge. The following day, the 19th, the signal to hedge occurred when price broke and closed below the lower boundary of the pattern.

The hedge would be maintained until the downward trend was ended on June 14th by a close above the trendline. A forewarn-

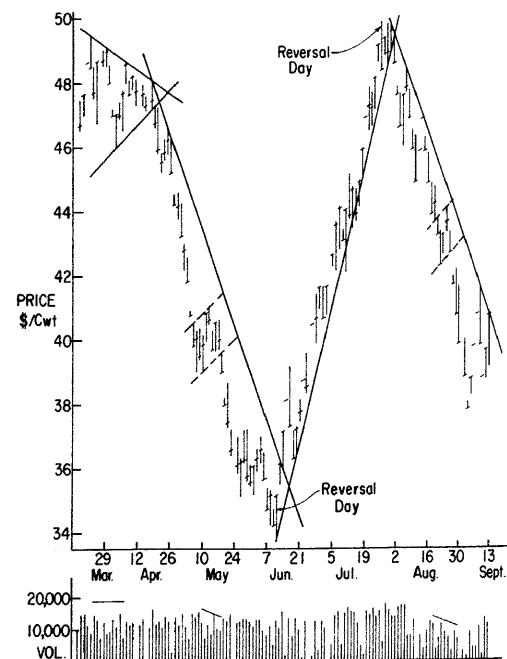


FIGURE 1. Technical formations in the February 1975 live cattle futures contract useful in tactical hedging

ing of the market turnabout was signalled two days earlier on June 12th when a reversal day occurred — a day in which prices traded for some time at the lows for the day, then closed strongly on the high for the day. A nonhedged position would then be maintained until on July 30th the upward trend was broken, which was also foreshadowed by a reversal day four days earlier.

In addition to the trend lines and the reversal days, the hedger can be guided by the "flag" formations at about \$40 and \$43 per cwt. Both of these "flags" have upward sloping boundaries in a downward trending market. The shape of the price pattern coupled with a declining volume throughout the pattern is indicative of further price decline. When these formations appear, complete hedges should be maintained and partial hedges increased.

In this particular instance, if the chart techniques had been employed to guide the hedging strategy over the period from March through July, then an additional \$22.20 per cwt would have been earned on each 40 head handled this way—\$10.425 during the downtrend plus \$11.775 during the uptrend. Of course, chart hedging strategies will not *always* work so effectively, but when such strong chart signals appear it is to the advantage of cattlemen to heed them.

What has been presented in the foregoing is history and useful now only for purposes of illustration. Current concern is beyond 1975. Are the charts "saying" anything now? Can a producer who will have cattle in the feedlot that won't be ready for market, say, until March obtain help with his hedging decisions from the futures charts?

The history of the April 1976 Live Cattle futures contract through November 7, 1975 is shown in Figure 2. As can be seen, April futures began an uptrend in early to mid-July as depicted by the line AB. Subsequent to August 5th the market turned sharply higher as revealed by the trend CD. This market action strongly suggests no technical justification for having cattle hedged in the April contract through August 29th. A trailing protective stop-loss order should, however, be carried at, say, 1½ cents per cwt under the trend.

On September 2nd the market penetrated the trend, CD, decisively closing more than a cent per cwt under the trend and signalled a potential trend reversal. If a trailing stop has not already been elected, then hedges should be placed as soon as practical. September 3rd provided an excellent opportunity as the market recovered somewhat, trading close to \$45.00 per cwt during the day. Once a hedge has been placed an initial protective stop should be placed just over the contract highs at \$45.525 per cwt.

During the next four weeks the market traded sideways or "congested" and formed a "head-and-shoulders" pattern. The left shoulder formed during the period from about August 15-29 producing a price bulge on increased volume. The head was formed from about August 29-September 18, again on substantially increased volume. The right shoulder was formed over the period from September 18-October 3 *on relatively low volume*. This formation is a strong indicator of lower prices in the future. The formation is considered confirmed upon the close on October 6 significantly below the "neckline" EF which connects the two lows formed on either side of the head.

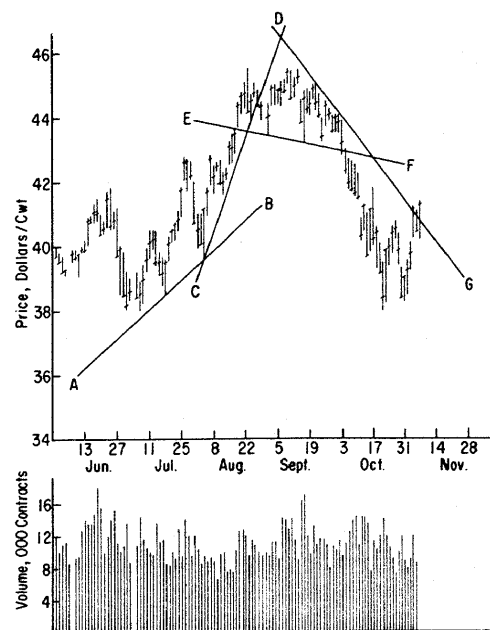


FIGURE 2. April 1976 live cattle futures prices June 3, 1975 – November 7, 1975.

"Head-and-shoulders" formations also provide an estimate of the minimum expected decline in price. Prices can be expected to drop below the neckline at the point of the breakout by an amount equal to the vertical distance from the top of the head to the neckline. In the case of the April 1976 contract this distance is \$2.20 per cwt and the minimum objective became \$40.70 per cwt ( $\$42.90 - \$2.20$ ), which was attained within two weeks.

Upon the completion of the head-and-shoulders formation a new down (or bear) trend can be established by connecting the high of September 23 and the high of October 3 to form DG. Once this trend is established the initial protective stop can be lowered each day to point, say, one-half cent over the trend value for that day. On October 31, for example, the trend value is \$41.425 per cwt and a close-only stop would be placed at \$41.925.

Following the low made on October 22nd the market attempted two rallies, the first of which failed. The second appeared to have failed when a decisive penetration of the trend DG did not follow the strong close of November 5th. However, on Friday, November 7th, price significantly penetrated the trend DG, closing at \$41.30 per cwt and electing the stop-loss order. This action is indicative of an important reversal in trend and the need to place a new initial protective stop-loss order at \$39.80 close only. The new stop order should be maintained until the new trend is well established.

In summary, cattle feeders face violent fluctuations in the price of their product capable of leading to financial ruin. Through the use of hedging strategies on the futures market, producers can eliminate or minimize this threat to their operations.

In order to hedge in a more effective manner, producers may employ technical strategies to enable them to place and lift their hedges at the most appropriate times. By recognizing the existence of important trends and formations that signal trend reversals cattle feeders are able to place their hedges at times when sharp price breaks are imminent and to lift them during periods of significant price strength. Proper use of the technical tools assures that the hedge is employed only when needed thereby adding to feedlot profits and reducing the threat of bankruptcy.