

Survival in a Bear Market
Basics of Technical Trading

By

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Risk is the name of the game in agricultural production. The instant resources are committed there arises both a production risk and a market risk. A production risk occurs because full production may not materialize as a result of such things as drought, disease, insects, fire, theft or other factors. Market, or price risk, occurs when resource prices rise prior to the producers physical need for the resources or when the price of the finished production falls prior to the date when the product is ready for sale.

As a producer of agricultural products these two types of risks cannot be eliminated. They are a natural part of the production process and successful producers learn how to deal with them. The choice of insect and disease resistant varieties; the use of crop, fire, and theft insurance; and, the use of irrigation equipment are some of the ways producers deal with production risks.

Market risks are at least as important as the production risks but there is evidence that producers are less skilled or have less confidence in the skills they have for dealing with market risk. Producers may protect against market risk in two principal ways. They may forward

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contract resource purchases and product sales. As an alternative, the futures markets may be used to either forward price through the use of the basis hedge or multiple hedging may be employed.

The idea of the forward contract is a simple concept but difficult to apply in practice for a profit maximizing operator. The state of the arts in price-forecasting does not permit analysts to make consistent, accurate forecasts of major highs and lows. As a consequence, producers often place and/or lift hedges at inopportune times from the profit standpoint. Instead of profit maximizers they become satisfiers. They are content with an acceptable price if it reduces the anxieties associated with risk bearing.

But is it necessary that producers accept only satisfactory profits? Is there not some way in which they can come closer to maximizing profits? I think there is and the solution lies in the timing of the placement and lifting of hedges. Although a good, reliable series of forecasts would be ideal for such purposes they are not absolutely necessary. Profitable hedging decisions can be made knowing only when important turns in market price occur.

To focus on the issue more clearly, examine the price history for a live cattle futures contract early in the year. (Figure 1) We note that the market has risen sharply for eight weeks but has dropped sharply in the last three sessions - - and closing on the daily lows in two of the three sessions. Is this the top? Should sell hedges be set?

Look at some additional history. (Figure 2) We see here that price did eventually decline but rallied back during June and early July. But, by the end of July prices are faltering again. Furthermore, the high of July 27 is below the high of May 26. Is this the high? Should hedges

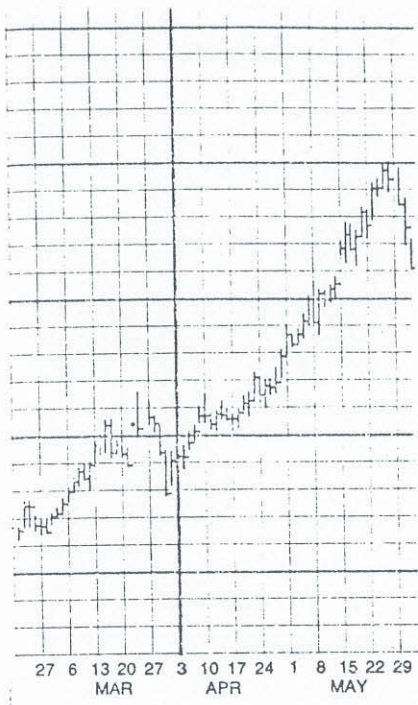


Figure 1.

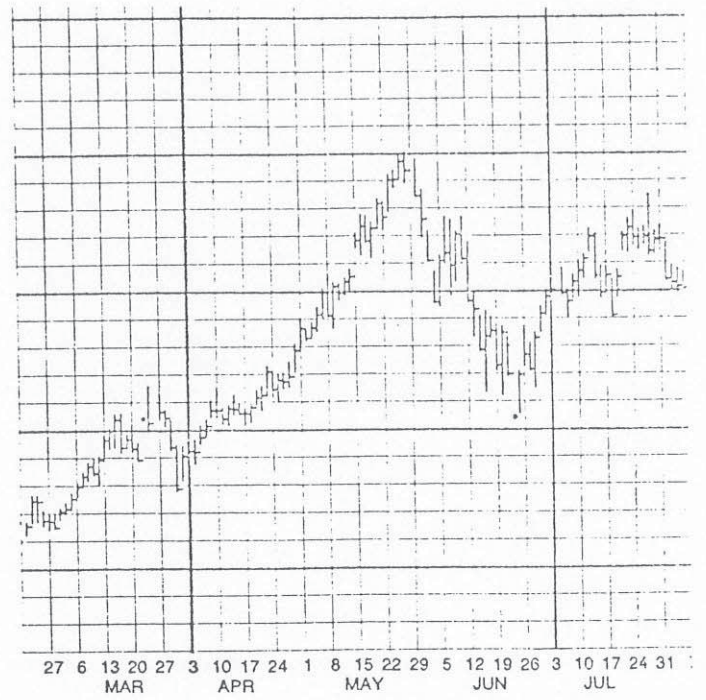


Figure 2.

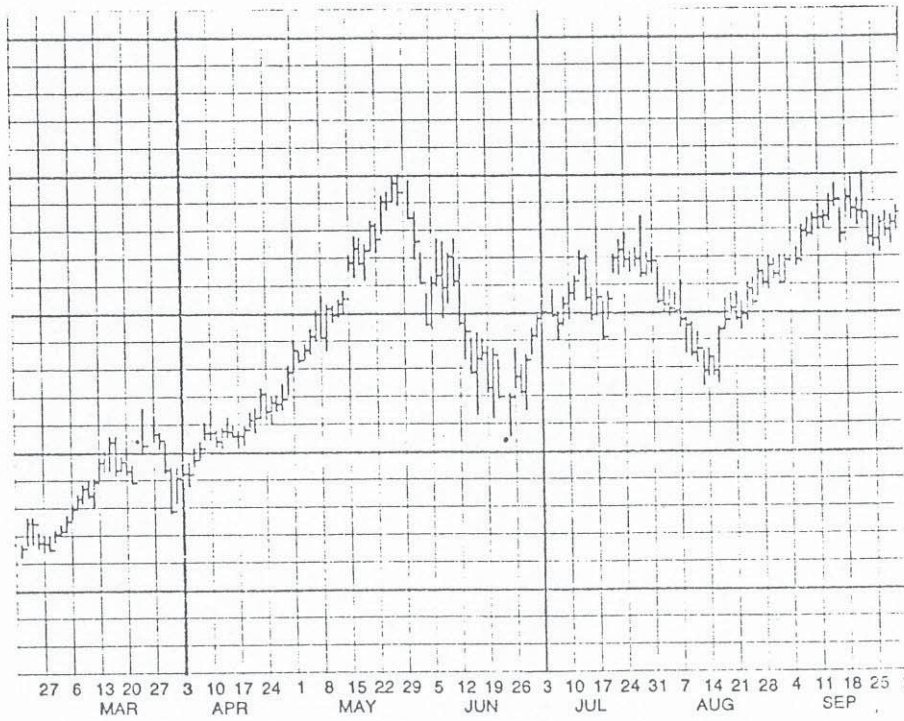


Figure 3.

be set or maintained here? Let's examine still more history.

In Figure 3 we see that by the latter part of September the market had equalled the price reached in May but was showing signs of weakness once again. The question can be raised once again - - is this the top? Should hedges be set or maintained? Figure 4 presents the remaining history of the April 1979 live cattle futures contract.

The exercise we have been through is admittedly artificial. But it's purpose was to demonstrate how difficult it is to know when a major top is forming.

Note that if a producer could set a sell hedge near the peaks in May, July, and October and lifted them near the lows in June, August, and October he could have added several dollars in futures profits to the cash price received upon sale of the cattle. This is the concept of the MULTIPLE HEDGE. Sell hedges are placed and buy hedges lifted on signals of price weakness; sell hedges are lifted and buy hedges placed on signals of price strength. It is apparent that the crux of the problem is in determining the exact time or price at which a signal to act is given. Technical tools of analysis are helpful in this regard.

Technical Analysis

Technical analysis is the study of price action itself, sometimes involving the volume of trading and the open interest statistics. It is based on a few key assumptions: 1) market price discounts all known and foreseeable developments, 2) prices move in trends and, 3) a trend remains in effect until a reversal is indicated. Much of technical analysis centers on the identification of price reversals.

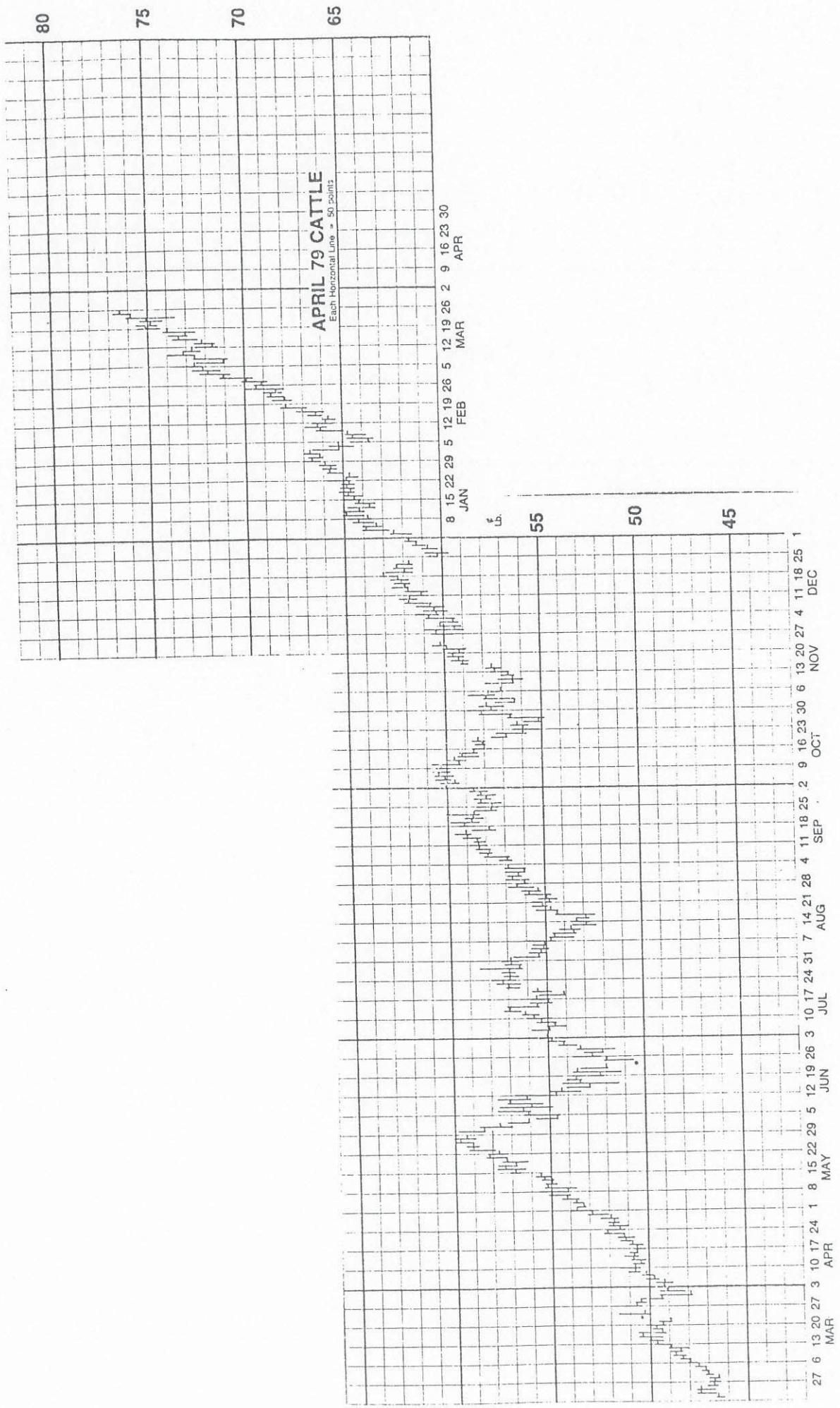


Figure 4.

There are many types of technical analysis and, unfortunately, there isn't time to treat even one exhaustively. We can, however consider some of the more important aspects of the technique known as bar charting.

Bar Charts

Bar charts are plots of price highs, price lows and closing prices on a daily, weekly or monthly basis. The April 1979 cattle contract used above in Figures 1-4 is an example. Although there is some merit in drawing your own charts it is time consuming and, therefore, many prefer to buy commercially prepared charts.

Trendlines

An important aspect of interpreting and using bar charts is the identification of the various trends. Figure 5 illustrates some of the trends that may be encountered. Line a-a' represents the major uptrend; line b-b' represents the major downtrend. Lines c-c' and d-d' represent intermediate uptrends within the major downtrend. Note that uptrends are drawn through important lows; downtrends are drawn through important highs.

Much of technical analysis is devoted to detecting changes in trend. One such indication is when prices decisively penetrate a trendline. Generally speaking, two significant closes which penetrate a trendline confirm a reversal. Not infrequently prices will move back to the vicinity of the trendline prior to establishing the new direction.

Trendlines are also useful to illustrate the important concepts of support and resistance. Support is defined as buying, actual or potential, sufficient in volume to halt a downtrend for an appreciable period. Each of the lows touching line a-a' represents a point where buying in sufficient volume appeared to halt and reverse minor downtrends until the penetration occurred in June 1979.

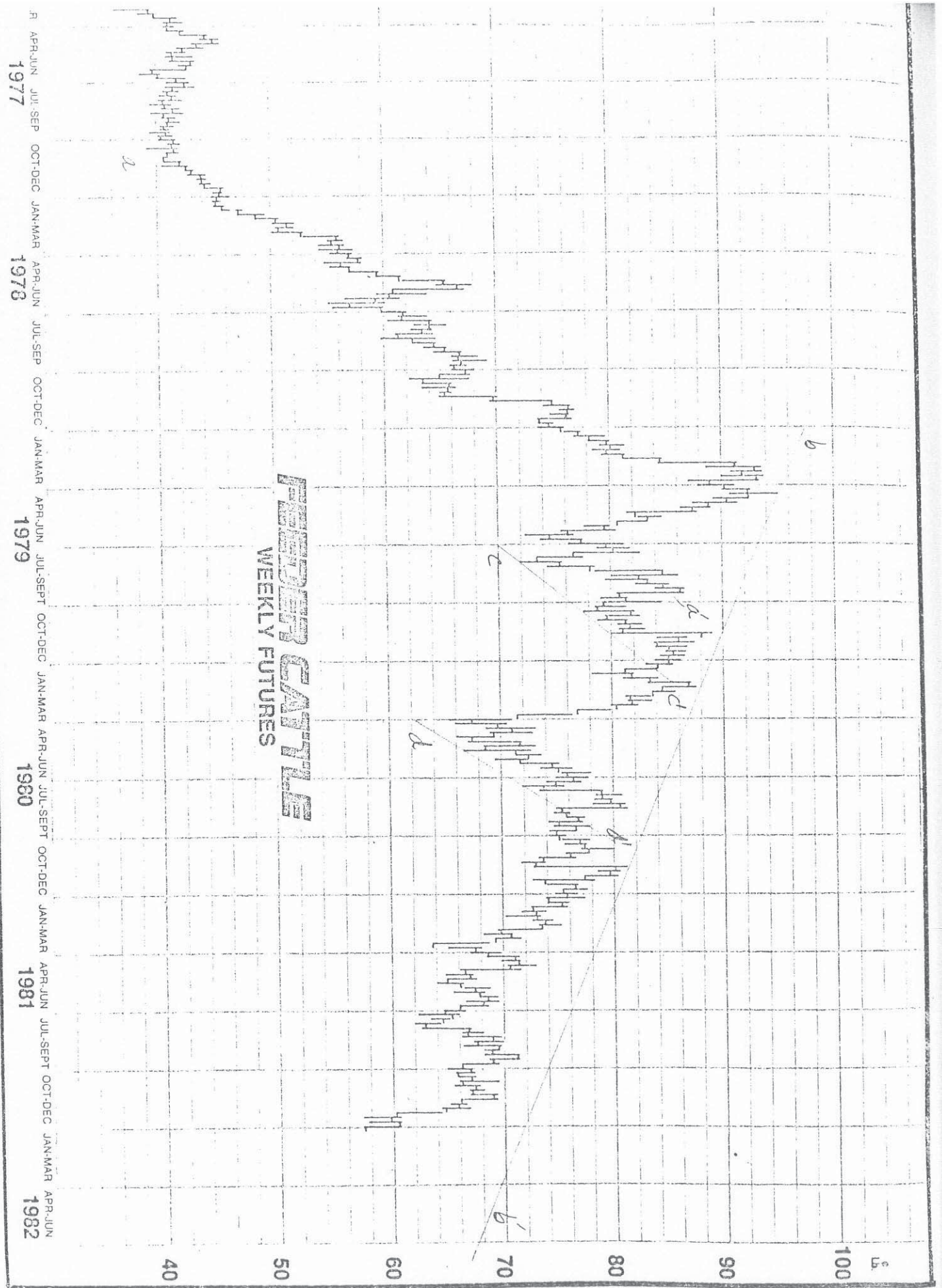


Figure 5.

Resistance is defined as selling, actual or potential, sufficient in volume to check prices from going higher for an appreciable period. Each of the highs in the vicinity of line b-b' illustrates that sufficient selling appeared to turn back a price rally.

Upon penetration, support and resistance reverse their roles; support becomes resistance and resistance becomes support. Note, for example, that when line d-d' was decisively penetrated prices rallied to the underside of d-d', then fell back.

In addition to the penetration of trendlines there are other means of detecting trend reversals. Certain chart formations have a tendency to presage a change in trend often enough to warrant the hedger's attention. A few of the more important formations are presented below.

Flags

Flags appear rather frequently on commodity charts and are useful because they are easy to identify. In addition, they can be used to estimate a price target and are considered to be reliable.

The June 1982 live cattle contract provides an illustration of two flags. The first is the larger of the two and appeared in late November - early December 1981. (Figure 6) It appeared as a two week congestion area during which volume of trading trended downward. The congestion area (or flag) formed following a sharp break from a previous congestion area. This sharp break is referred to as the flagpole, or mast.

An estimate of the price objective is obtained by laying off a distance equal to the length of the mast from the point where prices break out of the flag formation. In this case, the breakout from the large congestion area occurred in the vicinity of \$64.75/cwt. The price objective then becomes \$3.25/cwt below the point of the breakout from the flag - - \$62.00/cwt minus \$3.25/cst or \$58.75/cwt.

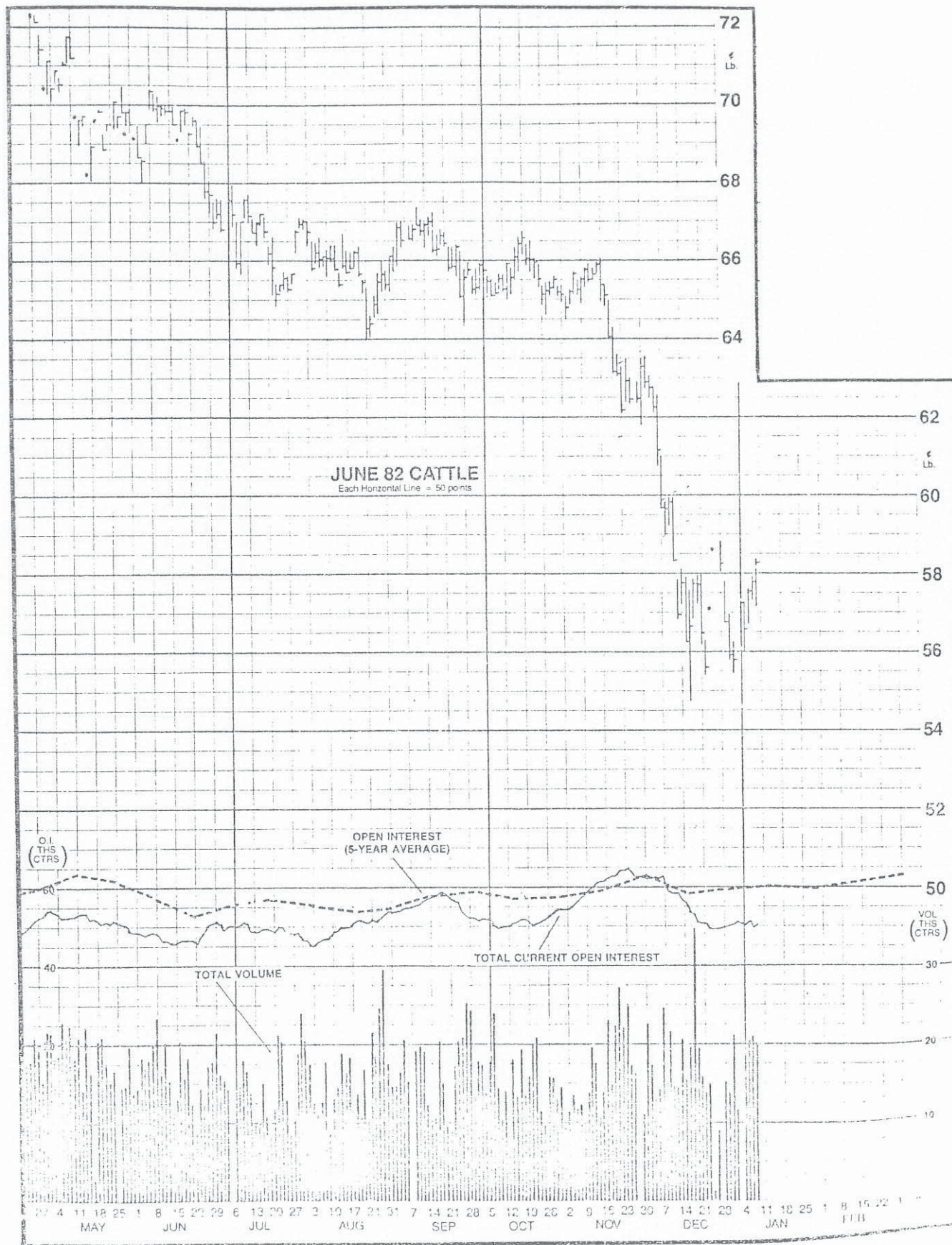


Figure 6.

Prices fell to \$59.00/cwt and a new, very small flag formed (note the declining volume) which projected to \$56.00/cwt. The mast for this small flag is \$62.00/cwt minus \$59.00/cwt, or \$3.00/cwt. The breakout at \$59.00/cwt less the \$3.00/cwt yields the target of \$56.00/cwt. Prices actually went a bit farther.

Head-and-Shoulders

The head-and-shoulders formation is another formation considered to be quite reliable. A head-and-shoulders formation for December 1981 corn is shown in Figure 7. Following price strength there is a period of price weakness to form the left shoulder. Another period of strength which carries price to new highs and then a decline to the general vicinity of the low which formed the left shoulder. This forms the head. Another rally on which price does not reach the price highs achieved at the head and on which volume remains very low from the right shoulder. A straight line connecting the lows between the head and the two shoulders represents the neckline. Penetration of the neckline signals a further decline. Prices can be expected to decline beyond the point of penetration at least as much as the vertical distance from the top of the head to the neckline. In the case of December 1981 corn they went considerably farther.

Triangles

There are three types of triangles to be considered: descending right triangles; ascending right triangles, and, symmetrical triangles. Figure 3 illustrates the descending right triangle. These form as consolidations in a downtrending market and have a downsloping top and a horizontal bottom. Volume declines throughout the pattern. The breakout occurs 2/3 - 3/4 of the way into the pattern and occurs with a penetration through the bottom, signalling lower prices. A line parallel to the top and drawn through the lower left corner of the triangle can be used to

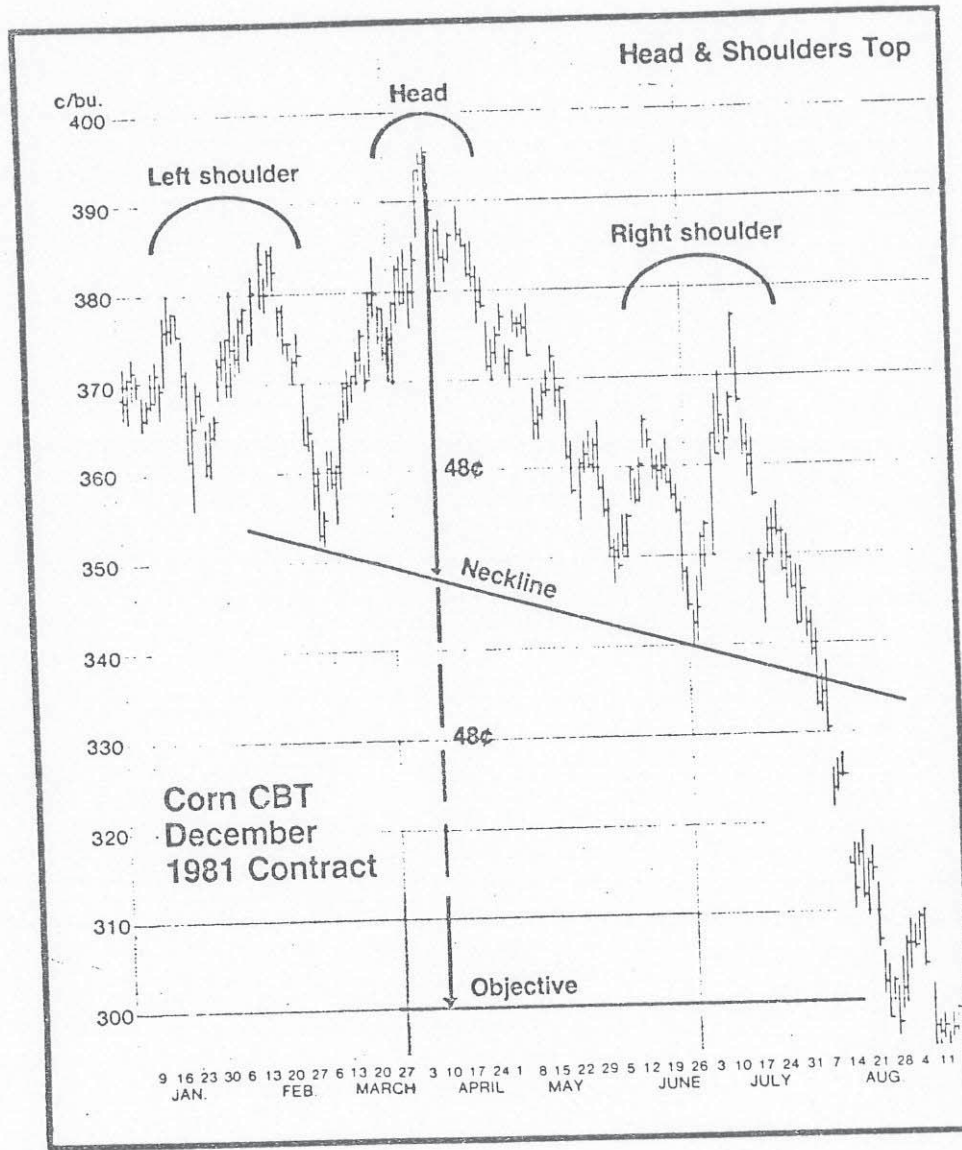


Figure 7.

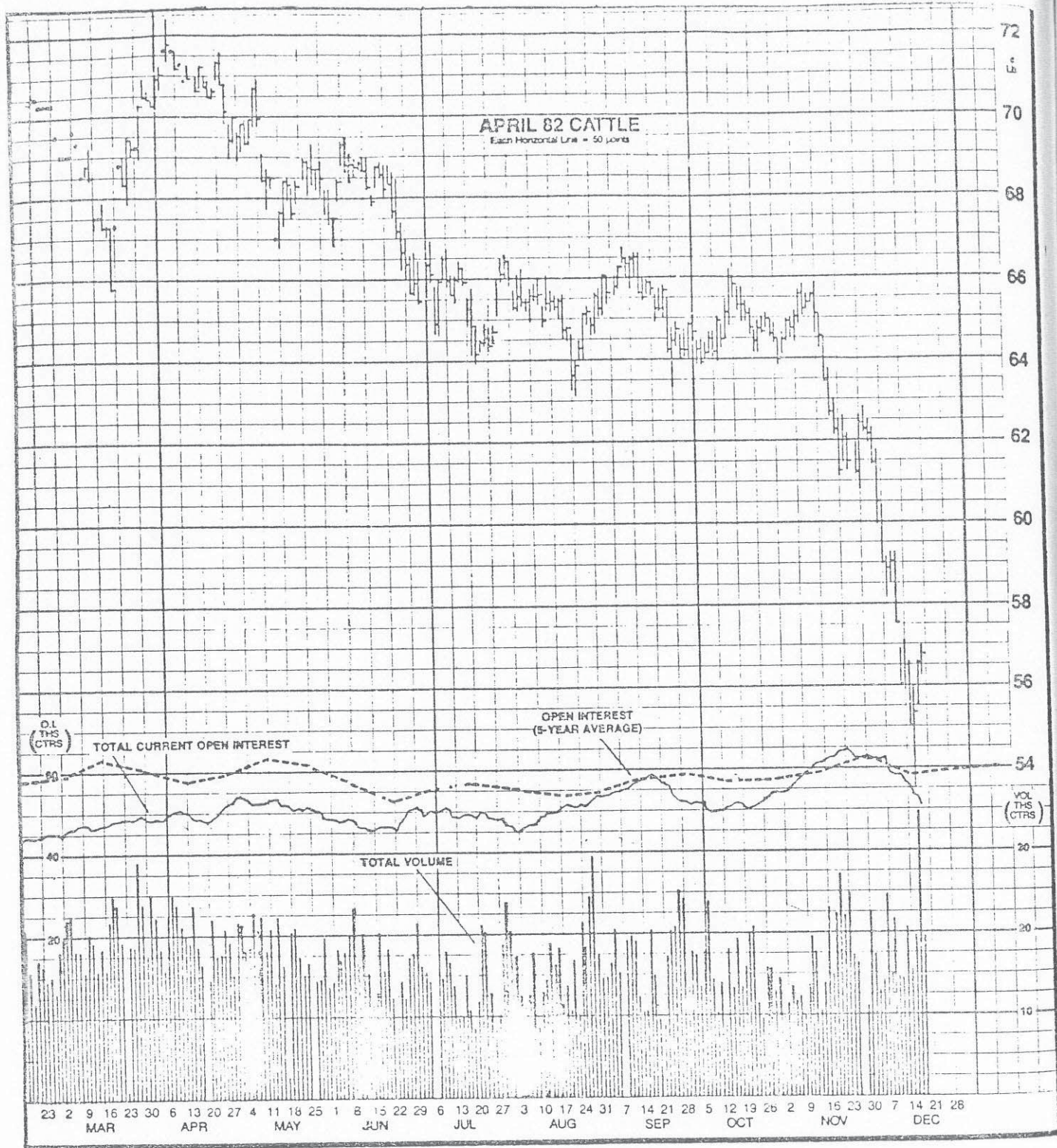


Figure 8.

estimate the price target.

• Ascending right triangles are analagous to the descending variety. They appear in uptrending markets, have a flat top boundary and an up-sloping lower boundary. Breakouts are to the upside and follow the same rules as for the descending variety. The right triangles are considered a reliable formation also.

The symmetrical triangle is illustrated in Figure 9. Volume should decline throughout the development of the formation. Breakouts follow the same rules as for the right triangles. Unfortunately, the direction of the breakout cannot be reliably foretold but they generally breakout to the upside if formed in an uptrending market and to the downside if formed in a downtrending market.

Gaps

Gaps seem to fascinate chart readers. They appear when the price range for two consecutive days (or weeks or months) of trading do not overlap. Interpretation depends upon the type of gap formed.

There are four types of gaps to be considered: 1) common or area gaps, 2) breakaway gaps, 3) midway (also called continuation or runaway) gaps and 4) exhaustion gaps. The most important are the midway and exhaustion because of the difference in their implications and the relative difficulty in distinguishing between them.

Common or area gaps generally occur within the construction of a congestion area. They are of no real value by themselves in detecting reversals so will not be considered further.

Breakaway gaps generally occur as prices leap across a trendline including those that form the boundaries of a pattern such as a triangle. These confirm that the market finally has enough information to establish a direction and that a move is finally underway.

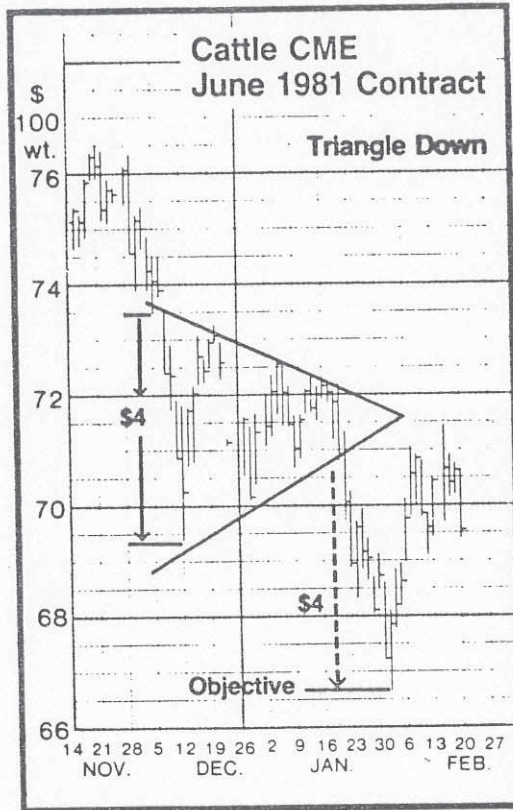


Figure 9.

Midway gaps appear about the distance from the point where a move begins to the point where it ends. These are important gaps because they can be used to estimate a price target. As a midway gap, price can be expected to go as far beyond the gap as it moved from a congestion area to the gap.

At the time of it's formation, the exhaustion gap can easily be confused with the midway gap. Determination of which gap has appeared can be made by examining the volume of the day which produces the gap. If volume is inordinately high the gap is very likely an exhaustion gap. This conclusion is reinforced if a price objective has been attained in the region of the gap. Figure 10 provides examples of gapping action.

Applying the Tools

The charting tools discussed above are not exhaustive. They do, however, comprise some of the more useful of the bar-chartists tools for use by hedgers. The task now is to illustrate how the use of these simple tools could have helped a cattleman protect his equity during the recent market decline.

At the outset assume cattle are to be placed in a feedlot to be market-ready in March. Further assume the producer's banker understands multiple hedging and is willing to provide hedge funds for this purpose. An even multiple of 40 head of steers is to be hedged and the cattle will not be marketed until March nor returned to grass nor any other strategem.

Ordinarily, cattle are hedged in the contract month during which the cattle are to be marketed or the closest more distant month. In this case, then, since there is no March contract for live cattle the April contract is selected for hedging.

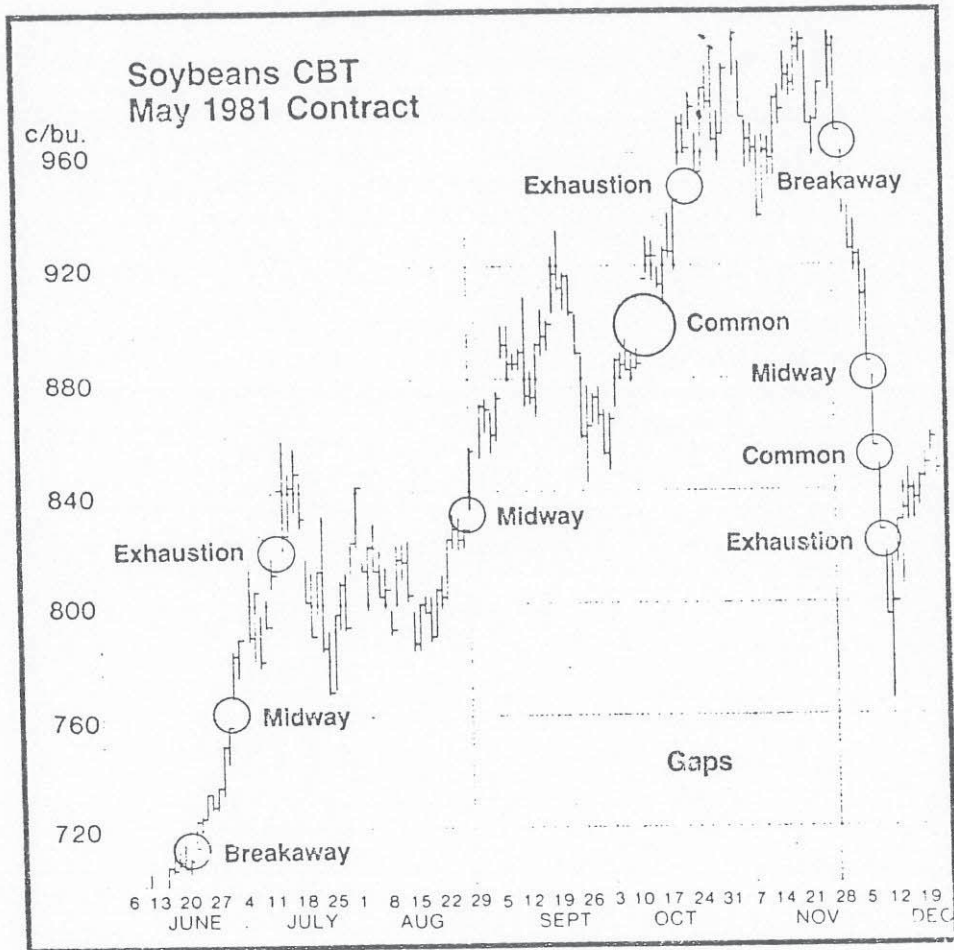


Figure 10.

Since the hedger will need to consider a hedging decision by October it is prudent to have an understanding of the history of the April live cattle contract history over a time period well before October. Figure 11 shows the history of the April contract through late December.

As October neared it was apparent that the market was trending lower. A pronounced bearish trendline can be drawn against the highs produced on April 9, April 28, May 11, June 9, June 19-23, and August 14. As the date for placement of the feeders nears, the operation must consider an appropriate price and date to place the hedge.

In early September the bear trendline was penetrated and for about two and one-half weeks it appeared as though no sell hedges would be warranted. The August 7-state cattle on-feed report was construed as bullish with a lower placements figure and higher marketings figure. Speeded up marketings and competition, however, were raising warning flags.

For the next several months the cattle futures market traded in a generally sideways fashion finding support at the \$64.00 per cwt level but making lower tops on rallies. The congestion pattern from late August to mid-November can be interpreted as a descending right triangle. Note the trend in volume throughout the pattern. The close below \$64.00 per cwt on November confirmed the downside breakout. The bear market had resumed and it was a definite signal to place sell hedges. Of course, it would have been better to set the hedges at near \$66 per cwt in early October and producers who felt the need for price protection could have done so. In fact, the OKOMA futures market update suggested sell signals had been generated (via other systems of analysis) during the week ending October 23. But, in terms of bar-chart analysis, the

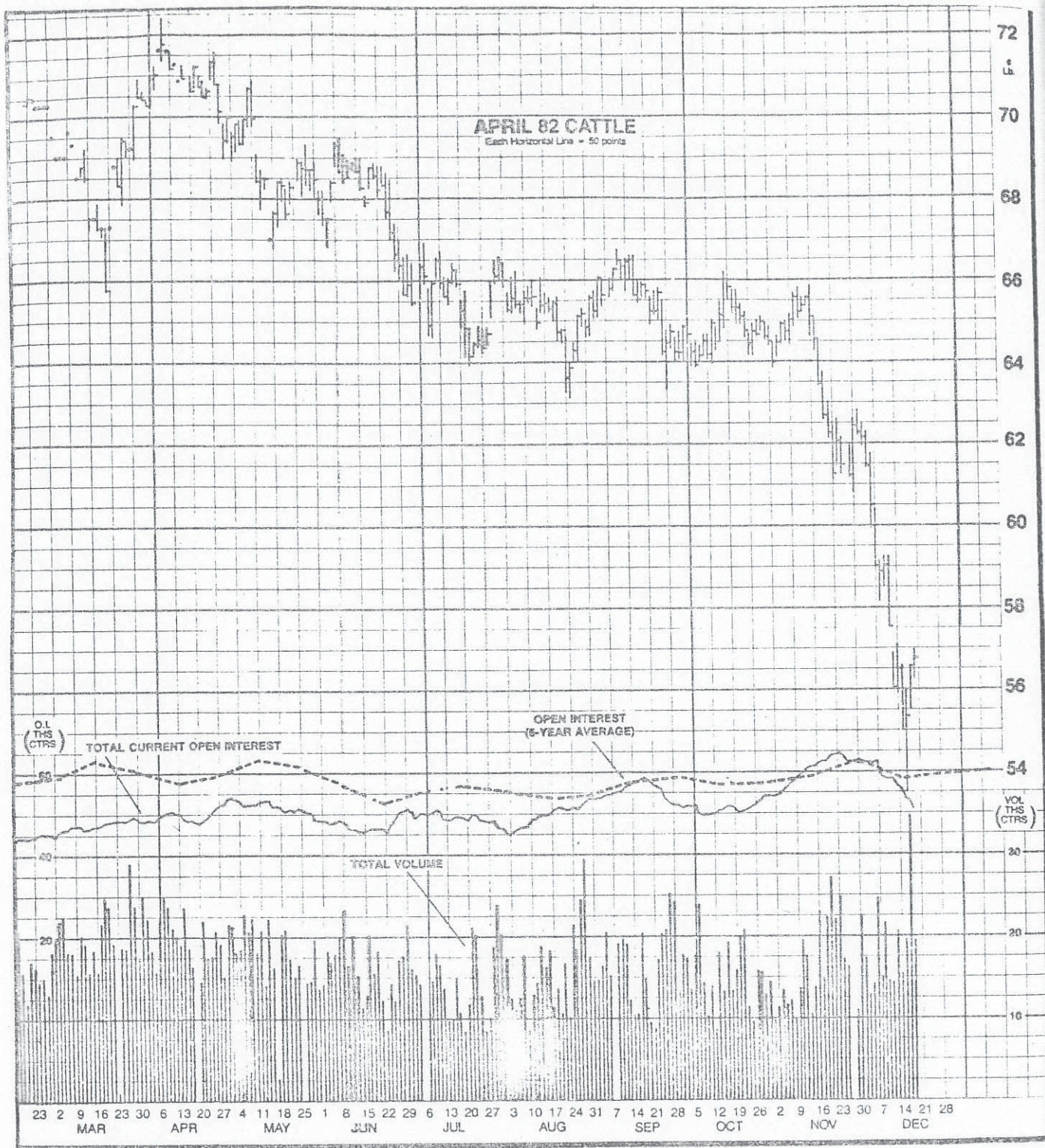


Figure 11.

November close under \$64 per cwt was the confirming signal.

• During the weeks of November 23 and November 30 a small congestion area formed. This formation can be interpreted as a bear flag. The mast has a length of about \$2.50 per cwt. Volume declined throughout the construction of the flag. The breakout occurred on November 4 on an increase in volume. The appearance of the bear flag and its implications gave added assurance that the market was headed lower.

The week of December 7 produced another very small bear flag with a breakout, on increased volume, December 10. This flag implied a further drop in price of about \$3.00 per cwt, or to the \$55.00 per cwt level. Prices actually went beyond this, intraday. However, in this case it did not close under \$55.00 per cwt.

During the remainder of December the contract produced a double bottom and a signal to lift hedges in the vicinity of \$58 - \$58.50 per cwt and by the third week of January was trading around \$61.00 per cwt.

Hedgers might also note that during the period from November 16 - December 16 cash cattle prices dropped by about \$3.50 per cwt while futures prices collapsed, registering a decline of more than \$9.00 per cwt. Those familiar with the concept of the basis will note the very favorable basis change.

Conclusions

Cattlemen live in a world of risk and market risk is one of the key components. It is unlikely that market risk can ever be totally eliminated but it can be managed. The ultimate success of the enterprise may hinge, in fact, on the degree of success achieved in managing market risk.

Although there are upside price risks associated with the purchases of resources, the downside price risks associated with the sale of finished products has been relatively more important to cattlemen in recent history. Success in the management of price risk during bear markets can mean financial survival of the firm. Poor risk management has meant the demise of a number of firms.

Recent research has demonstrated that the use of technical tools of analysis are helpful in dealing with the sharp bear market declines in cattle prices. Bar charting is one such tool.

Bar chart technicians have identified a number of patterns or formations which repeatedly have been indicative of impending price weakness. Formations such as the head-and-shoulders top, the bear flag, and descending right triangles are considered to be reliable indicators that price weakness will be forthcoming.

Cattlemen who learn to identify these chart formations are in a position to establish sell hedges at points in time when there is little prospect for additional price strength and rather significant potential for the emergence of or the continuation of a bear market. The use of these techniques, although not always able to provide a profit, can at least help minimize losses and maintain sufficient equity to preclude total financial collapse.