Exchange Arrangements: Fed Beef Cattle*

by

V. James Rhodes
University of Missouri-Columbia

Predominant Exchange Arrangements

Most fed cattle are sold to packers via direct negotiation at the feedlot with delivery taking place within one to seven days.[1/] About four-fifths of the cattle are priced on some sort of live weight basis while the others are priced on one of the several versions of carcass grade and yield.[2/] There is a small volume that moves outside the market; in 1972, packers owned 6.8 percent of the fed cattle marketings.[3/] Since packer-owned cattle are considered to be "sold" on a grade and yield, packer-owned cattle are almost one-third of total grade and yield "sales."

Exchange Characteristics

Live Weight Selling. The open market exchange process has these typical characteristics:

(1) Payment on a live weight, determined at the feedlot in the High Plains and adjusted for a four percent pencil shrink, and that may be determined at packer or feedlot in Iowa with a variety of rules as to shrinkage.[4/]

*This paper is based upon field work by the author and his associates Glenn Grimes and Roger Schneider in Colorado, Kansas, Oklahoma and Texas in June, 1974 and by Ronald Raikes of ISU and his students in Iowa in September and October 1974. The observations reported pertain to the areas listed and may not necessarily pertain to other areas of the U.S.; an obvious exception is occasional use of national data from P&S. Presented at NC-117 Seminar Chicago, November 14, 1974.

(2) The initial negotations are at the feedlot after the prospective buyer has inspected the cattle[5/] and after he frequently has been furnished information as to average weight when put on feed, and length of feed.[6/]

(3) The pricing process ordinarily involves the give and take of negotiation; it is customary for the feedlot manager, or cattle owner, to make the first offer.[7/] Counter-offers may ensue until a deal is struck, negotiations may be terminated, or a bid or offer may be left until the end of the marketing day. Managers in the High Plains frequently report a buyer bid to the owner of the cattle that evening and then immediately notify the bidder by telephone if it is accepted.[8/]

(4) While there are customary procedures as to weighing, shrink, days kept on feed until delivery, a sorting of tail-enders at a price discount, etc., these non-price factors may occasionally become subjects of negotiation.[9/] Iowa cattle are typically shipped within the next two working days. High Plains cattle are typically shipped within the next seven to ten days after purchase. While High Plains cattle are occasionally shipped the next day, such hand-to-mouth procurement is unusual.

Carcass Selling. Grade and yield selling of carcasses has been frequently supported by livestock marketing economists as a method of improving pricing efficiency.[10] While carcass pricing is still much less frequent nationally than live weight pricing, it is of considerable importance in Iowa. There are major differences in the carcass selling methods used in Iowa and the High Plains, which are worthy of considerable discussion.

While there are many small modifications possible in methods of carcass selling, there is generally a most basic difference between Iowa and the High Plains. A firm price per pound of carcass weight is determined in Iowa at time of sale. In the High Plains, the price is typically determined at time of slaughter on the basis of current wholesale prices for the various quality and yield grades of the shipment. The High Plains procedure obviously eliminates the live estimation of ultimate value, while the Iowa procedure only eliminates the estimation of dressing percent.[11] However, even more important is the difference that the Iowa carcass price is a firm price bid while the High Plains transaction is a consignment at a set of prices to be determined later.

Considering the contrasting bargaining influence on carcass price which the sellers have in these two areas, it may not be surprising that seller attitudes vary accordingly. Numerous Iowa feeders customarily sell "in the meat." Other Iowa feeders ask for bids both in the meat and live and choose whichever bid seems more advantageous. In 1972, 36.4 percent of the steers and heifers purchased by Iowa slaughter plants were purchased in the meat.12/

While there are a few feeders in the High Plains who sell regularly on grade and yield, it is widely and bitterly criticized as "grade and steal."13/ Much of the volume of grade and yield occurs during short periods of sharply falling market prices, when many packers will insist on buying in this manner. The percentages of steers and heifers purchased on a carcass basis by packers in 1972 were Texas 10.8, Oklahoma 2.5, Kansas 11.2 and Colorado 48.2.14/

Market Information. Market news collection and dissemination over the total production area is a staggering task. The large feedlot aggregations in the High Plains facilitate the tasks of both collection and dissemination as compared to Iowa. Private news services such as Cattle-Fax of ANCA, the regional network of the Texas Cattle Feeders, the Yellow Sheet coverage of the meat trade, and the USDA market news service provide an impressive and continuous stream of national market information that is available on teletype to most High Plains lots and via telephone and radio to Iowa farmers.

The greater problem of market information is its interpretation--particularly by infrequent users such as smaller feeders. Even if the currently reported price range is fairly narrow on 1000-pound Choice cattle, yield grade 2's and 3's, the market participants must determine what percentage of this pen are Good grade or yield grades 4's and 5's.

Shifts in Exchange Arrangements

Most of the commercial cattle feeding in the High Plains has developed in the past 15 years. The exchange arrangements which have arisen there are in great contrast to those in the Corn Belt of 15 years ago. However, there have not been particularly large changes within the High Plains in exchange arrangements since the commercial sector developed. There have been more significant changes in Iowa in the past 10 to 15 years. The list of changes for both regions includes:

(1) The virtual demise of selling cattle through the Corn Belt terminal markets, which was very important 15 years ago and still important even 10 years ago, and the rise of do-it-yourself selling.[15]

(2) A rapid growth of carcass selling in Iowa.[16]

(3) The rise of large, commercial, custom feedlots in the High Plains as places for large-scale marketing as well as large-scale production. More importantly, they now dominate cattle industry thinking and leadership.

(4) The rise of private market news systems oriented to country sales. The chattering teletype in the office lobby of the feedlot has replaced the radio market report as the symbol of market intelligence.

(5) The introduction of futures trading and the possibilities of marketing contracts.

(6) A few succesful cases of vertical integration best exemplified by Monfort and Sterling packing companies in Colorado.

(7) One of the more significant happenings may have been a potential shift that regulatory agencies appear to have nipped in the bud. The Packers and Stockyards Administration in its recent regulatory move against ownership integration of custom feedlots and packing plants claimed that very substantial vertical integration was being planned.

Causes of Shifts in Exchange Arrangements

Our field studies were too brief to delve very deeply into causes. What follows is mainly the restatement of a few time honored explanations.

Packers and farmers have found it expedient to bypass the terminals. Few, if any, of the several new beef plants of recent years have been built at terminals. The 1956 survey was prophetic when it noted that the biggest single criticism of terminal markets by farmers was: "marketing costs are too high for services rendered."[17/] Even in Iowa, most feedlots today are large enough that the assembly function of the terminals is no longer essential. Along with the growth in size of shipments has been an accompanying growth in seller sophistication which encourages him to match wits with the buyer without the aid of a commission seller.[18/]

The rise of private market news services can probably be explained in terms of the rapid growth in importance of a market segment of larger feeders which demanded more comprehensive information more quickly than was available from a public market news service set up to serve the entire industry.

Reasons for the differing developments of feedlot selling in Iowa and the High Plains will be discussed after a more detailed analysis of those exchange arrangements.

A Further Examination of the Negotiation Process

The supply-demand model is useful for explaining the general pricing conditions of cattle and beef, undifferentiated products, traded in competitive markets. Such a model explains readily why average price in month 5 was different than price in month 2 and how one may expect it to differ again in month 10. Adapted to a vertical channel, the model explains general price relationships at various market levels.

Such a model falls short as an explanation of specific transaction prices in fed cattle or even the daily average prices. A model of competitive bargaining[19] appears to be a useful complement to the supply-demand model. While the former model does not resolve all of the remaining indeterminancy, it does facilitate understanding by focusing on those elements central to the price-negotiation process.

It appears from our field work that there is a very important difference in the bargaining environment between terminal market and feedlot selling. Each involves competitive bargaining, of course. The difference is in the continuity of the price-negotiation process. The terminal market has ordinarily accepted the near-necessity of daily market clearing. The aggregate number to be sold on any given day was known by buyers and sellers at the beginning of price negotiations: the task of the negotiators was to find the band of market clearing prices. In High Plains feedlot selling, there is no such breaking of the market into daily slices. No one knows the total number of cattle for sale today--some days few, if any, are sold; but sometimes, a half week's slaughter is sold in the space of a few hours.

The competitive bargaining situation appears to be somewhat as follows. Each seller (buyer) faces two classes of alternatives as he considers a buyer's (seller's) offer:

(1) the offers that other buyers (sellers) may make today, and

(2) the level of offers that even this buyer(seller) may make "tomorrow" when "the market" rises or falls.

Thus the buyer searches for those sellers who are not quite as skillful in bargaining for the full value of their cattle or who are pessimistic enough about "tomorrow's market" to bargain less forcefully than other sellers. The converse strategy applies to sellers, of course.

There are times when the larger source of price indeterminancy is market expectations rather than bargaining skills or differing views of prospective buyers and sellers as to the market value of the beef beneath those hides. Bargaining skills play a part, of course.[20/] Many transactions would have been priced 50 cents differently if the bargaining skills of the buyer and seller had been reversed.

Stated more formally, each negotiator views his counterpart's bids within a context of what he assumes are his alternatives in the immediate or the near future. Thus a buyer's offers are likely to rise no higher than what he perceives to be his immediate market alternatives in other feedlots (BM) nor than his anticipation of tomorrow's price levels (BT).[21] Likewise a seller has similar minimum price limits SM and ST. Thus, one may state various bargaining possibilities. A few examples are:

(1) When BM≥SM, a transaction is almost certain.

(2) When SM>BM slightly, but ST<SM or BT>BM, then a transaction is likely.

(3) When BM=SM, then the <u>size</u> of the transaction may reflect anticipations: BT>BM would lead the buyer to seek to buy more pens at that price[22] while ST>SM would lead the seller to seek to sell more.

Such limits are subjective expectations in varying degrees. Sometimes a seller may base SM on bids already received which hold for that business day; at other times SM is based on the teletype or the grapevine market news which may or may not be substantiated today by an actual bid from another buyer. Expectations about price offers tomorrow or next week are even less certain. Nevertheless, the apparent resistance of many sellers in falling markets to today's prices suggests that ST can be a very important factor in competitive bargaining.

Expectations of buyers and sellers are likely to be most homogeneous, when the cattle flow to market has been reasonably uniform for several weeks, and there are normal numbers of cattle ready for market. On the other hand, when there are large numbers of overfat cattle, market expectations have a wide dispersion for two reasons. First, the large available inventories allow a very wide range as to the sales quantities and prices that might develop in any given day. Second, assessment of the value in the meat becomes more difficult in these overfat cattle. While the usual outcome in such a situation--the packers buying on the rail, priced day of slaughter--is an obvious reflection of their buying power in such a buyer's market, it is also a defensive move by individual packers to reduce their inventories of cattle in a period of rapidly changing prices.

Consequences of Shifts in Exchange Arrangements

Packers have greater control over the daily slaughter but less control over daily price in feedlot selling than in terminal markets. It was readily apparent, of course, that feeding gained more power in negotiating price when their cattle were in their lots rather than already shipped to market. What came to be realized later was the trade-off: feeders have less control over timing of sales. One cannot be a price bargainer and sell whatever he wishes when he wishes. While there seem to be apparent benefits in his bargaining position, a feeder who is receiving no packer bids at what he understands to be the market price can become very frustrated. The price taker's freedom to sell whatever volume he wishes is more valuable than generally realized. In the High Plains, packers as much as feeders determine a particular day's flow. When daily volume of sales slows and a backlog develops, it is as much because packers "aren't buying" as because feeders "aren't selling."

Prices and volumes in terminal markets sometimes had a daily instability as masses of feeders increased or decreased the daily runs because of market price anticipations. While much of this sort of volume instability is avoided in feedlot selling, there is still much price instability.

One of the striking aspects of the High Plains exchange procedure is that the daily flow to slaughter is much more even than the flow of transactions. While packer buyers visit lots five days a week, much of the time they are "inventorying." That is they look at many pens for sale, receive offers and/or make bids, but very few transactions occur. Then on some particular day of the week, as much as half of the week's transactions may occur.[23/] No completely satisfactory explanation for this bunching was ever received from buyers or sellers. The bunching seems to reflect the fact that most participants are usually in a position where they can and must play guessing games with the market. Such guessing games are both a cause and effect of the fact that market price can readily shift 5 percent in a day and 10 percent in a week.[24/] Such inefficiencies need to be reduced.

Technical efficiency has been improved by the move from terminal to direct selling. It also seems likely that day to day scheduling of slaughter has been improved by the greater control over daily movements which packers--particularly those in the High Plains--have with the direct method of marketing.

These shifts in exchange arrangements are likely to produce still further changes in conduct and even in structure. Some of the more isolated feedlots in Colorado were found to be very concerned about market access. They expressed an interest in vertical integration that was very different from the attitudes of Kansas and Texas feedlots which are visited regularly by more packer buyers. As another example, industry leaders are trying to strengthen their bargaining power by group action. The ANCA Marketing Committee recently adopted resolutions:

(1) against show cards (lists given buyers of pens for sale) and other lot practices which help the buyer "inventory" and also become informed as to how many pens of cattle are ready for market,

(2) against grade and yield selling under normal market conditions,

(3) against consignment selling on the rail at any time,

(4) against extension of delivery time after sale beyond seven days.[25/]

We lack the evidence to suggest the extent to which such changes in the rules of negotation would influence the outcomes, although some of these would seem helpful to feeders.

One can speculate as to why such different versions of carcass pricing have developed in Iowa and Texas. First, the lack of a steady stream of buyers to the Iowa feedlot places the seller in a bargaining position in which SM and ST are much less tangible than in Texas. Second, even today's more sophisticated Iowa seller is typically less skilled and informed than his Texas counterpart about live and carcass values, probable dressing percentages, etc. Third, the scales are usually at the packing house in Iowa, so the feeder has no more reason to distrust rail weights than live weights, whereas Texas live weights are taken at the feedlot. Thus it seems likely that there is much less of a reversal of seller bargaining power in Iowa between sellers' and buyers' markets than occurs in Texas. It also seems that on the rail selling has gained acceptance as a normal sales procedure in Iowa, reflecting structural conditions (scales, seller skills, size of sales, etc.) not found in Texas feedlots. Of course, the whole matter is likely more complex than this.[26/]

Further research should be able to reveal much about the pricing performance of the exchange systems in both the Cornbelt and the High Plains. Moreover, considerable emphasis should be given to development of arrangements which would avoid the breakdown of seller bargaining power in these temporary periods of consignment selling. These breakdowns are very disturbing to cattle feeders, and they appear to be the most serious weakness to the evolving decentralized system of cattle marketing.

Footnotes

1/ Packers reported for 1972 that 81.1 percent of steers and heifers were purchased "direct, country dealers, etc.," 11.9 percent through terminal markets and 7.0 percent through auctions, P&S Resume, December, 1973, Table 5.

2/ Packers reported 22.9 percent purchased on a carcass grade and weight basis for 1972, P&S Resume, December, 1973, Table 11.

3/ These are cattle owned by packers 30 or more days prior to slaughter and included cattle fed in custom lots as well as cattle fed in packer-owned lots. These packer figures presumably include at least one large packing plant which is wholly owned by cattle feeders.

4/ Major variations include: (1) a one to three percent pencil shrink after weighing at the packing plant; (2) a three percent pencil shrink after weighing at the feedlot; (3) over-night off feed and water on farm, then shipped, and weighed at the packing plant. The amount of pencil shrink is usually inversely related to the distance shipped. Except for some Colorado packers, transportation is furnished on all live weight purchases by packers in the High Plains. In Iowa, the feeder delivers the cattle to the plant.

5/ One large commercial lot reported selling all cattle for 3 years without prior buyer inspection; several other large lots reported an occasional sale to a distant packer without prior inspection. Iowa packers report 1% live and 3% carcass are purchased without buyer inspection.

6/ Furnishing of this information was criticized by several feedlot managers as an unwarranted assistance to the buyers, but virtually all High Plains lots did it.

7/ Packer buyers in the High Plains complained that some managers refuse to "price their cattle" and so the buyer makes the first bid. One manager suggested that some absentee owners insist on getting packer bids rather than the manager setting a price. In Iowa, packers report that they make the first bid about 38 percent of the time.

8/ Occasionally, a packer buyer will deal directly with the owner of cattle in a custom lot without any intermediary role by the feedlot manager.

Footnotes (Page 2)

9/ Physical sorting in order to avoid purchase of under-finished cattle in a pen is apparently not unusual in Iowa, while it is most unusual in the High Plains. The High Plains feeder's desire to sell the whole pen seems readily understandable where there is custom feeding.

10/ See, for example several papers in Long Run Adjustments in the Livestock and Meat Industry: Implications and Alternatives, North Central Reg. Res. Pub. 199, Ohio ARDC Research Bul. 1037, March, 1970.

11/ About 1/5 of carcass sales in Iowa have price contingent upon quality grade.

12/ P&S Resume, December, 1973, Table 11.

13/ Even packer buyers in the area were generally critical of the practice. Several High Plains feeders were quite critical of Cornbelt grade and yield selling as being detrimental to prices received nationally by feeders, but they may not have recognized that price is set at time of sale in Iowa. The few feeders who sold fairly regularly may have had some method close to that in Iowa. There are also reports of a few Texas cattle sold grade and yield for slaughter at end of week with the expectation that a weekend in the cooler will improve the carcass grades received.

14/ P&S Resume, December, 1973, Table 11. The high Colorado percentage is mainly due to packer-owned cattle.

15/ The NCM-18 survey of livestock marketing in the N.C. Region in 1956 found 68 percent of slaughter steers and heifers going through terminals and only 14 percent direct to packers. R.R. Newberg, Livestock Marketing in the North Central Region: I. Where Farmers and Ranchers Buy and Sell, N.C. Reg. Pub. 104, Ohio Ag. Res. Bul. 846, December, 1959, p. 32. A special survey of the Sioux City market area in 1967 found 55 percent of slaughter cattle going through terminals. See North Central Reg. Res. Pub. 199, op.cit., p. 53. For 1972, Iowa packers reported to P&S that 87.4 percent of their purchases of steers and heifers were direct and only 10.6 percent were through terminals. For the ENC and WNC regions for 1972, the terminal percentages were 27.6 and 14.6. See P&S Resume, December, 1973, Table 5.

16/ The 1956 survey found almost no carcass selling in the NC region, although no information was available from Iowa on that point. Newberg, op.cit., p. 66.

Footnotes (Page 3)

17/ Newberg, op.cit., p. 121.

18/ However, there is a small volume of cattle sold on Iowa farms through negotiation of commission agents and packer buyers.

19/ See, for example Ch. 2 of Tibor Scitovsky, Welfare and Competition, Rev. ed., Homewood, Illinois, R.D. Irwin, 1971.

20/ A fascinating analysis of negotiating skills, varying bargaining situations, long and short term considerations in both peasant and modern wholesale markets is found in Ralph Cassady, Jr., Exchange by Private Treaty, Austin, Texas, University of Texas Bureau of Business Research, 1974, 287 pp.

21/ The relationship of BT and BM as limits varies with the buyer's situation. If he needs a purchase today for tomorrow morning's kill, then tomorrow's market is of much less concern than today's alternatives.

22/ Some packers and some buyers are much more cautious than others about such speculative buying ahead.

23/ The range in daily volume of sales in the Texas High Plains was reported by a market news reporter to be from zero to more than half of a normal week's sales. This bunching seemed to be less characteristic in Colorado than in the other three states.

24/ The argument is that these price anticipations are a cause but not the only cause of market fluctuations. There are changes in the total flow through feedlots and in retail demands which have large influences on price movements, but these are complicated by buyer and seller attempts to outguess the market which influences the daily and weekly flow of transactions and prices.

25/ CALF News, March, 1975, p. 12.

26/ For example, packer buyers may find it easier to develop and maintain records on grade and yield characteristics of cattle from a few large Texas feedlots than from many Iowa feeders, so that they buy live with less accuracy in Iowa. Another factor may be the continued presence of terminals which would provide an outlet to Iowa feeders if packers were to pressure for a consignment type of carcass selling. Still another factor reducing packer short-term bargaining power in Iowa as compared to Texas is the hand-to-mouth buying procedure in Iowa.