ECONOMIC IMPLICATIONS OF INTERLEVEL GOAL CONFLICT AND OPERATIONAL INCONSISTENCY IN THE BEEF MARKETING SYSTEM: THE PRODUCER-FEEDER SUBSECTOR

By

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#### PREFACE

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### CHAPTER I

#### INTRODUCTION

## The Current Situation

The production and feeding of cattle is of increasing importance to Oklahoma's economy. In 1971, Oklahoma January 1 beef cow inventories were 2,174,000 head.<sup>1</sup> In 1970, there were approximately 542,000 head of fed cattle marketed in Oklahoma.<sup>2</sup> This is an increase over 1960 numbers by 57 percent in cow inventories and 279 percent in fed cattle marketings.

The value of beef cattle and calves ranks number one in Oklahoma's agricultural economy. Wheat is the next highest valued commodity, but ranks a weak second to beef cattle and calves. In 1970, the value of beef cattle and calves was \$797,600,000; wheat was valued at \$123,970,000.<sup>3</sup>

Figure 1 shows the rise in per capita consumption of beef between 1955 and 1970 in the United States. This growth in the demand for beef will have a substantial impact upon the Oklahoma cattle industry and the state economy.

The specific impact of the livestock industry in Oklahoma can be seen from the employment and income multipliers developed by Doeksen.<sup>4</sup> The employment multiplier for livestock products is 2.37. Interpretation of this multiplier means that for each man-year directly employed in livestock production for delivery to final demand, a total of 2.37

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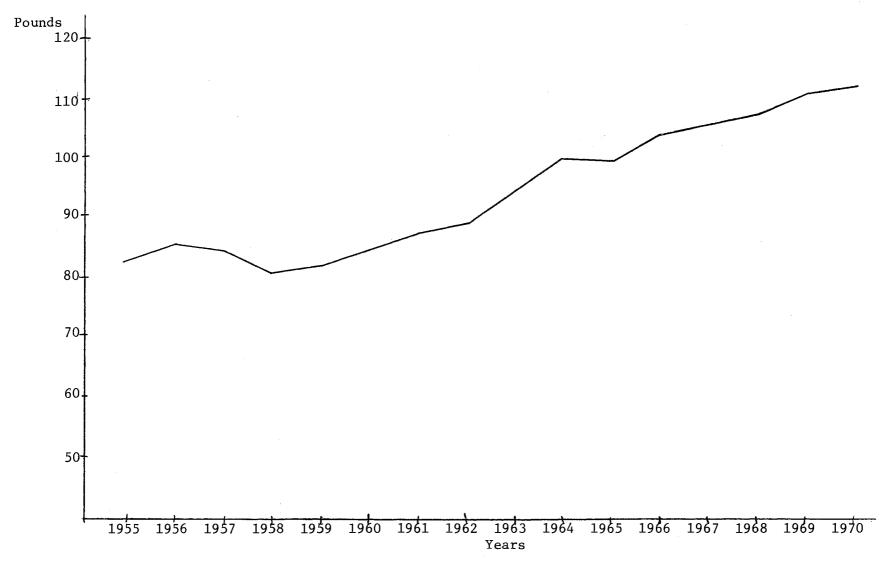


Figure 1. U.S. Per Capita Consumption of Beef, Pounds, 1955-70

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additional man-years of employment are generated throughout the state's economy. The income impact from livestock is 2.89. This income multiplier indicates that for each additional dollar of production income directly generated, a total of \$2.89 is generated throughout the entire Oklahoma economy.

The future of Oklahoma's fed cattle industry continues to look promising. The Southern Plains Feeding Area,<sup>5</sup> of which the Panhandle of Oklahoma is a part, fed eight percent of the nation's cattle in 1960. This share had grown to about 25 percent in 1969.<sup>6</sup> Continued demand by the American housewife coupled with readily available feed and feeder cattle supplies will maintain the prominence of this state in the fed cattle sector of the beef industry in the foreseeable future.

Slaughter capacity has also increased in the Southern Plains as packers continue to locate plants near areas of concentrated feeding. In 1965, 14 federally inspected slaughter plants were located in the Southern Plains Feeding Area; 31 plants are now in operation.<sup>7</sup> The ability of the Southern Plains packer to compete effectively in the "Gulf Coast Markets" for dressed beef has insured this area a strong and competitive market for slaughter beef.<sup>8</sup> This continued strength in slaughter activities, located in and near Oklahoma, will provide an additional incentive for more beef production and feeding in Oklahoma.

#### The Problem

In an era of rapid change and growth, Oklahoma's cattle industry has shown the potential to grow and adjust. Progress continues in production efficiency and development of managerial know-how. To facilitate continued growth in the beef cattle sector of Oklahoma's economy

an effective marketing system is essential. The role of the marketing system in this environment is to (1) provide timely information upon which managerial and marketing decisions can be based, and closely related, (2) to facilitate the development of an organizational structure which will allow for progressive adjustment.

More explicitly, the economic function of the marketing system is the coordination between what is desired by the consumer and what is produced--to create the time, form, place and possession utilities which the modern consumer demands. Observation and previous research in the beef marketing system implies that there is not sufficient coordination present.<sup>9</sup> Such interstage conflicts and inconsistencies as opposing goals, differences in opinion on desired animal characteristics and lack of coordination in both method of sale and timing of the buying and selling activities have appeared. These conflicts and inconsistencies hinder the efficiency and effectiveness of the marketing system and block the needed location and production adjustments called for by changes in consumer demands.

In an open market exchange system, control of various stages within the system rests with separate management centers. Though separate, the management centers are not isolated from the influences of the other market stages. All are joined by a technical relationship: the output of one stage is the input to the next higher stage in the system. The input must be available in sufficient quantity, when needed, and of a desired quality if each succeeding stage is to efficiently perform its function of transforming the input and moving it up through the marketing system.

Conflicting goals and/or inconsistent operational procedures at the separate management centers give rise to inefficiencies and tend to decrease the degree of interstage coordination in the marketing system. This reduces the effectiveness of the entire system in its efforts to transmit essential information and promote the orderly flow of product from one stage to another.

The inefficiency and lack of coordination between stages gives rise to pressures for change in the organizational structure of the marketing system. The structural changes can come from either vertical integration of the stages, thus eliminating the need to maintain separate management centers, or from increased vertical coordination between management stages via such means as contracts. Moves toward vertical integration constitute substantial change in the structure of the marketing system, typically eliminating one or more of the management centers which exist in an open market exchange system.

Little research has been completed concerning problems evolving from interlevel goals conflicts and operational inconsistencies in the beef marketing system. Most of the research is directed primarily toward activity at some one level or stage. More information is needed to fill this void in the available literature and provide the base upon which the manager can make better-informed decisions.

## Review of Literature

A search of the available literature provides several prior studies of indirect benefit to this project. The most recent articles will be discussed.

A study by Dunn<sup>10</sup> examined interlevel goal conflict and/or operational inconsistency in the packer-feeder subsector of the beef marketing system of Oklahoma and inferred the implications of such conflicts or inconsistencies to the level of coordination achieved. Dunn concluded that due to different planning horizons, the typical feeder seeks to maximize net returns to each lot of cattle sold; the typical packer seeks to maximize returns to his operation over a longer time period, such as a year. Feeders are not concerned over price and quantity variabilities which present problems to packers. Also, many feeders will not provide information needed by the packer to eliminate guessing at product value prior to exchange negotiations.

Purcell and Tapp<sup>11</sup> record a lack of coordination between the packer and feeder sectors by documenting the existence of excessive pencil shrinks in carcass grade and weight sales of beef in Oklahoma. They conclude that variable weighing and grading procedures decrease the effectiveness of the price mechanism as a means of communicating incentive for change and adjustment from consumer to producer.

Purcell<sup>12</sup> states that as the beef marketing system moves to contractual arrangements, formula pricing, vertical integration, and direct selling the role of price changes--in fact, diminishes. As would be expected, participants have different views of appropriate courses of action. However, attitudes are often so narrow that they do not consider the benefits and costs of better coordination. Continued resistance to adoption of new roles to accomodate changing market structure impairs the system's response to changing needs.

Clifton<sup>13</sup> notes that grocery retail outlets are able to gain a better bargaining position over packers because of their ability to

substitute products. On the other hand, packers lose a portion of their bargaining position since they produce only one product, meat. Hence, the packer is faced with the problem of maintaining his profit position at the feeder level. If a favorable situation is not achieved through mutual assistance, the packer is prone to integrate backwards into cattle feeding.

Earlier articles by Kohls<sup>14</sup> and Shaffer<sup>15</sup> demonstrated the need for a systems approach to studying problems in the marketing channel. However, until recently these comments have been ignored. There is a void in our understanding of how interlevel goal conflicts and/or operational inconsistencies affect the efficiency of the marketing channel. The cost of such conflicts to both the system as a whole and to the individual operators is unknown. Such information is needed to guide adjustments in procedure in the short-run and to direct changes in the organizational structure of the system over time.

## **Objectives**

The overall objective of this study was to identify, and establish the economic implications of, conflicts and inconsistencies in the goals and operating policies of the producer-feeder subsector of the beef marketing system. More specifically, the objectives were:

- To identify decision-making criteria which influence buying and selling activities by management at the feeding and producer levels;
- To identify future trends, practices, and attitudes of management and their implications to the efficiency of the marketing process;

- To identify interlevel goal conflicts and operational inconsistencies within the producer-feeder subsector of the beef marketing system; and
- 4. To infer the implications of selected conflicts and/or inconsistencies to the level of coordination achieved by the producer-feeder subsector of the Oklahoma beef marketing system.

#### Procedure

One source of secondary information available to aid in the development of the stated objectives is an unpublished M.S. Thesis by Dunn entitled <u>Economic Implications of Interlevel Goal Conflict and Opera-</u> <u>tional Inconsistency in the Beef Marketing System: The Packer-Feeder</u> <u>Subsector</u>.<sup>16</sup> The procedure developed by Dunn was used as a guideline and expanded upon to establish a methodology for this analysis dealing with the producer-feeder subsector.

As a part of this methodology, a total of six dimensions of the total interaction between the producer and feeder were selected. Identification of each dimension is equivalent to hypothesizing that conflicts or inconsistencies lie along that dimension. The six dimensions chosen were: (1) overall goal of operation, (2) current and future producer operating characteristics and marketing practices, (3) source and utilization of price information, (4) product characteristics and product valuation, (5) timing of the buying and selling activity, and (6) producers' knowledge of feeder and packer decision processes.

Questionnaires were designed, based upon these six dimensions, to explore the decision processes of the two groups. The questions

developed were devised to isolate any conflict or inconsistency hindering the efficient functioning of the system at this level and to establish a basis for inferring implications to the performance of the system. The questions developed are shown in Appendices A and B.

Two separate but related questionnaires were utilized. This was accomplished through a "mirror image" type of question designed to probe the same dimensions but from the viewpoint of the producer and feeder respectively. For example, three pictures of feeder steers were shown to both producers and feeders. The weight and quality grade of the steers were assumed identical. Each individual was asked to rank these animals (1, 2, 3) based upon the characteristics of frame and degree of finish. Each was to indicate which animal they would like to be selling (producer) or buying (feeder) today. In this manner questions dealing with similar subject matter were asked to both producer and feeder on separate questionnaires to aid in the isolation of conflicts within the producer-feeder subsector.

A section of the questionnaires was also devoted to questions of a more general nature to allow the analyst a more complete picture of the individual operator's decision model. Thus, not every question had a counterpart in the contrasting questionnaire.

Due to the length of the questionnaires personal interviews were conducted with both producers and feeders to help assure similar interpretation of the questions by each respondent. The interviews were conducted during the months of August and September, 1970. The respondents were selected by means of a stratified random sample from three areas of the state: Panhandle, Northeast and Central. The sample was structured to insure that representative operations from both large

and small producers and feeders would be included. The number of producers and feeders interviewed by area are shown in Figures 2 and 3, respectively. In total 92 interviews were conducted, 46 in each category.

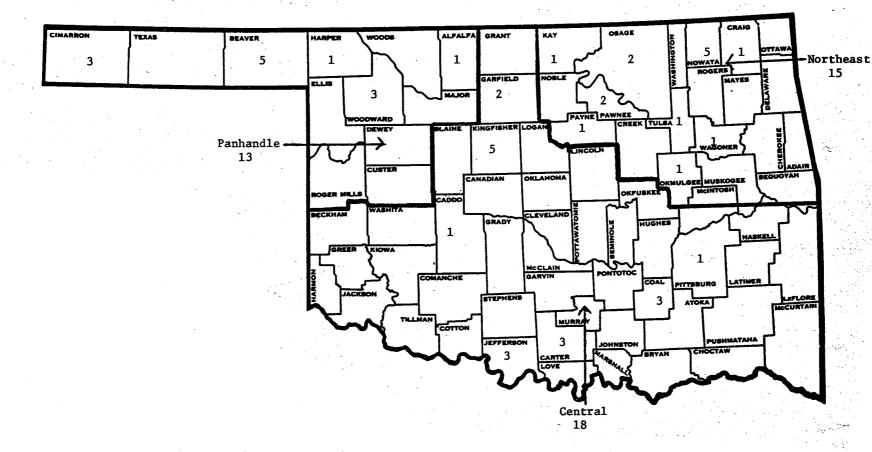


Figure 2. Number of Producers Interviewed by Counties Within Oklahoma

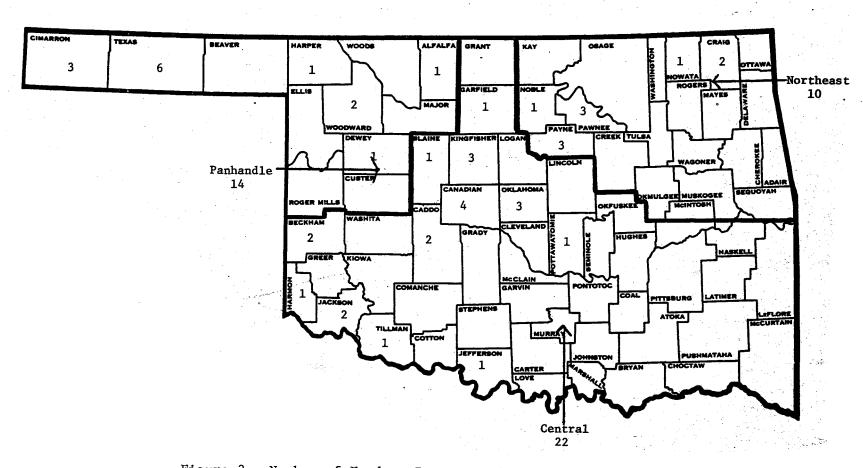


Figure 3. Number of Feeders Interviewed by Counties Within Oklahoma

## FOOTNOTES

<sup>1</sup>Oklahoma Crop and Livestock Reporting Service, <u>Livestock Numbers</u> and <u>Production</u>, Statistical Reporting Service (Oklahoma City), selected issues.

<sup>2</sup>Oklahoma Crop and Livestock Reporting Service, <u>Cattle on Feed</u>, Statistical Reporting Service (Oklahoma City), selected issues.

<sup>3</sup>Oklahoma Crop and Livestock Reporting Service, <u>Cash Receipts From</u> <u>Marketings</u>, Statistical Reporting Service (Oklahoma City), selected issues.

<sup>4</sup>Gerald A. Doeksen, "A Social Accounting System and Simulation Model Projecting Economic Variables and Analyzing the Structure of the Oklahoma Economy," unpublished Ph.D. Thesis, Oklahoma State University (Stillwater, 1971). The multipliers developed by Doeksen are average impact figures for all livestock and livestock products. Since beef cattle comprise more than 50 percent of the total net sales of livestock in Oklahoma it can be assumed the greatest amount of impact is related to beef production.

<sup>5</sup>The Southern Plains Feeding Area consists of the southeastern corner of Colorado, the southern one-half of Kansas, the western one-half of Oklahoma, the Panhandle area of Texas and the eastern edge of New Mexico.

<sup>6</sup>Wayne D. Purcell, "Are We Overdoing It?," Proceedings, 1969 Oklahoma Cattle Feeders Seminar (Stillwater, February 6 and 7, 1969).

Wayne D. Purcell, "Further Investment and Growth?," Paper presented to the Oklahoma Cattle Feeders' Seminar (Stillwater, February 4 and 5, 1971).

<sup>8</sup>Ibid.

<sup>9</sup>Terry L. Dunn, "Economic Implications of Interlevel Goal Conflict and Operations Inconsistency in the Beef Marketing System: The Packer-Feeder Subsector," unpublished Masters Thesis, Oklahoma State University (Stillwater, 1970), and Wayne D. Purcell and R. L. Tapp, <u>Variable</u> <u>Procedure in Carcass Grade and Weight Sales of Slaughter Beef: Implications to Oklahoma Cattle Feeders</u>, Oklahoma Agricultural Experiment Station Bulletin B-669, Stillwater, August, 1969.

<sup>10</sup>Terry L. Dunn, "Economic Implications of Interlevel Goal Conflict and Operations Inconsistency in the Beef Marketing System: The Packer-Feeder Subsector," unpublished Masters Thesis, Oklahoma State University (Stillwater, 1970).

<sup>11</sup>Wayne D. Purcell and R. L. Tapp, <u>Variable Procedure in Carcass</u> <u>Grade and Weight Sales of Slaughter Beef: Implications to Oklahoma</u> <u>Cattle Feeders</u>, Oklahoma Agricultural Experiment Station Bulletin B-669, Stillwater, August, 1969.

<sup>12</sup>Wayne D. Purcell, <u>An Appraisal of the Informational System in</u> <u>Beef Marketing</u>, Michigan State University Agricultural Economics Report No. 151, East Lansing, October, 1969.

<sup>13</sup>Elliott S. Clifton, "Effect on the Meat-Packing Firm of Short-Run Price Variations in Livestock," <u>Journal of Farm Economics</u>, XXXIX (1957), pp. 1645-1654.

<sup>14</sup>R. L. Kohls, "A Critical Evaluation of Agricultural Marketing Research," <u>Journal of Farm Economics</u>, XXXIX (1957), pp. 1600-1609.

<sup>15</sup>James D. Shaffer, "Changing Orientation of Marketing Research," American Journal of Agricultural Economics, L (1968), pp. 1437-1449.

<sup>16</sup>Terry L. Dunn, "Economic Implications of Interlevel Goal Conflict and Operations Inconsistency in the Beef Marketing System: The Producer-Feeder Subsector," unpublished Masters Thesis, Oklahoma State University (Stillwater, 1970).

#### CHAPTER II

# CONCEPTUAL ISSUES IN PRODUCER-FEEDER COORDINATION

A Conceptual Pricing Framework

The coordination of economic activity in the marketing system is traditionally expressed as a function of price and the pricing mechanism. Price is assigned the task of allocating resources and guiding production and thus is the primary impetus toward promoting coordination and efficient market activity.

The concept of a market equilibrium price is afforded a place of importance in the accepted theory. Knowledge of all economic factors affecting supply and demand are assumed readily available and understandable by the individual market participants. Therefore, the equilibrium market price (determined at the intersection of the aggregate supply and aggregate demand functions) indicates equality between the quantity consumers are willing to accept and producers are willing to offer at that price. Hence, price is determinate, and is single valued (Figure 4).

This framework implies that any change in market variables is readily identifiable by all market participants. Also implied is that all individuals can adapt to such changes with little or no difficulty. \_ Thus, any change in market variables, causing an established equilibrium to be interrupted, is easily corrected. The change in the

market-clearing price creates forces which cause price to tend back toward a stable condition. The new price will continue as the equilibrium price unless changes again occur in the market factors thereby setting the equilibrium process in action once more.

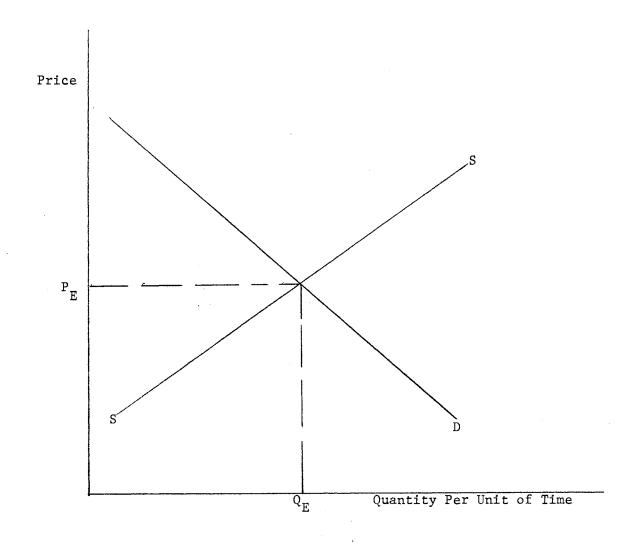


Figure 4. An Illustration of an Equilibrium Price

In practice, the concept of a general supply and demand equilibrium within a market structure approaching pure competition may be elusive to a participant in the market. In a negotiation between an individual buyer and seller (two of many possible negotiation combinations the market can offer) the general market equilibrium is not always known. The buyer and seller can at best only estimate the general market equilibrium.

In the process of price negotiation each market participant, employing past experience and his own analysis of the current situation, formulates a price expectation. The buyer's price estimate may not coincide with the seller's price estimate. The information received by the buyer and/or seller from the market could differ giving rise to different interpretations of variables affecting supply and demand. Even if the information received by buyer and seller was comparable, resource rigidities within a given participant's production process may create an adaptation problem. The participant may bring an unsuitable product to the market since he was not informed or was misinformed as to its worth. Hence, the buyer and seller approach the market with only limited information on how these factors affect the pricing mechanism and what will be the prevailing price. Figure 5 shows such a market position.

Price expectations can range from A to B depending upon formulated expectations of demand and supply. D'D' and D''D'' constitute the range in expectations with respect to demand in which the market participant might expect his price estimate to fall. DD is market demand over all buyers and sellers.<sup>1</sup> Likewise S'S': and S''S'' show the range

of expected supply by the individual about SS, the market supply function for all market participants.

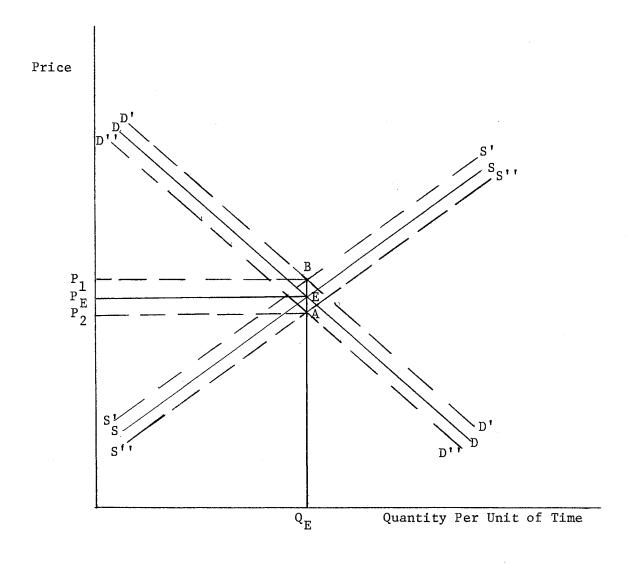


Figure 5. A Modification of the Demand-Supply Framework to Show Indeterminateness of Price

It is then possible to conceive that the individual's estimate of price may form a distribution about the equilibrium price  $P_E$ . The producer may be willing to sell his product at a lower price,  $P_2$ , based upon <u>his estimates</u> of the factors influencing supply and demand. Also, a buyer could buy at a higher price,  $P_1$ , if <u>his analysis</u> of the situation so indicated. In practice, and in a one-to-one negotiation between a buyer and a seller from the entire market, the forces of supply and demand do not generate a specific price but one that is indeterminate over some range influenced greatly by the individual's interpretation of the market variables.

In the following sections, a modified approach based upon an individual seller's and individual buyer's preference patterns between price and quantity of calves produced will be presented. A trading relationship is constructed which is graphically comparable to supply and demand analysis. This framework is utilized to illustrate a basic one-producer and one-feeder trading relation within a price exchange feeder calf marketing system.

After the basic trading agreement is established the valuation of an animal's quality characteristics (an element of the trade previously held constant) will be introduced and allowed to vary. The initial quality dimension will first be assumed equally understood and equally valued by individual producer and feeder in the trade. Then the assumption of equal valuation will be relaxed and the producer will be allowed to view quality differently than does the feeder. Implications of such modifications will be presented.

# <u>A Price-Quantity Trading Relation Between</u> <u>One Producer and One Feeder<sup>2</sup></u>

The individual producer's basic position is explained in Figure 6. The vertical axis shows the amount of money returns available to the producer from the sale of his cattle. The horizontal axis relates the quantity of cattle the producer can sell with Q being the total amount of cattle he can produce and make available for sale. Sales from this quantity Q are measured from right to left along the horizontal axis.

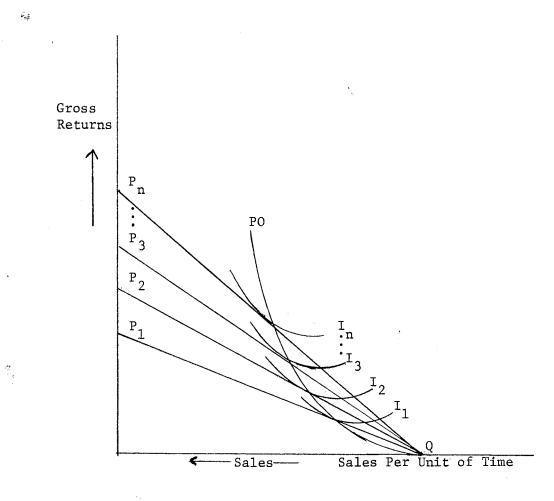


Figure 6. An Offer Curve for the Producer

Lines  $P_1$ ,  $P_2$ , ...,  $P_n$  are price rays, each ray showing the possible combinations of cattle sales and returns at that price level. The curves  $I_1$ ,  $I_2$ , ...,  $I_n$  are indifference curves, each showing the combinations of returns and sales which yield a constant level of utility to the producer. The curve PO is a locus of points of tangency between the price rays and indifference curves. Since it shows the number of cattle the producer will produce and sell for certain return-price combinations, PO can be considered to be an "offer" curve for the producer.

In Figure 7 a "consumption" curve for the buying cattle feeder is derived in a similar fashion. Starting with a given number of dollars and measuring increasing use of these dollars to purchase cattle downward on the vertical axis, a set of price rays can be constructed from the point of zero expenditures. Each price ray  $P_1$ ,  $P_2$ , ...,  $P_n$  shows combinations of expenditures and cattle at a particular price. The curves  $I_1$ ,  $I_2$ , ...,  $I_n$  are indifference curves, each showing the combinations of expenditures (or the lack of expenditures) and the number of cattle which yield a constant level of utility to the feeder. The curve PO is a locus of the points of tangency between price rays and indifference curves and, since it shows the number of cattle desired for each expenditure-price combination, it is a feeder "consumption" curve.

In Figure 8, the "offer" curve of the producer and the "consumption" curve of the feeder are presented in the form of a modified Edgeworth Box diagram. The consumption curve for the feeder has been superimposed to illustrate the framework within which bargaining takes place. The point of intersection of the offer and consumption curves,

the point labeled H, is the only point of mutual agreement on price and quantity. For all quantities less than Q (or Q') price will need to be negotiated and will fall some place on or between the offer and consumption curves at that particular quantity. Consequently, the shaded area of Figure 8 represents the "bargaining arena" for the offer and consumption curves which are shown in the figure.

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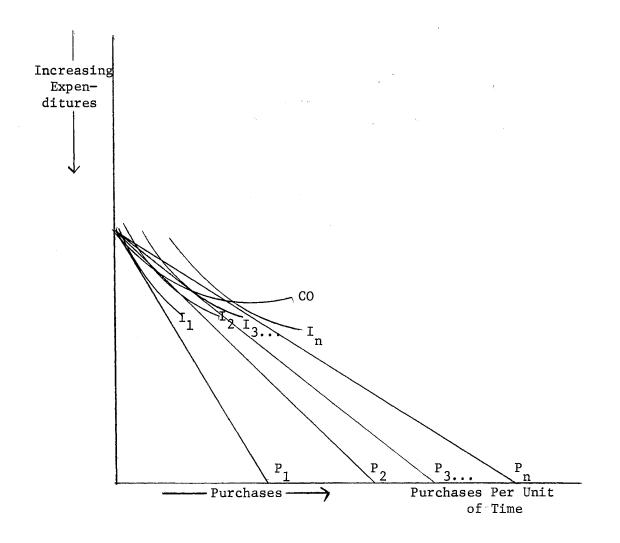


Figure 7. A Consumption Curve for the Cattle Feeder

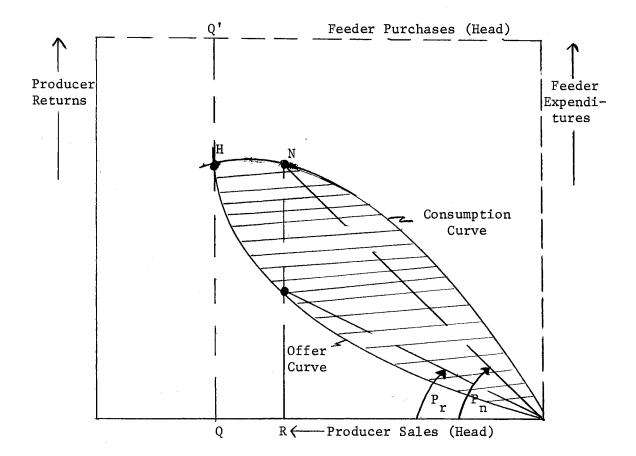


Figure 8. The Producer-Feeder Bargaining Framework: Quality Differences Ignored

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At point H, price is determinate--there is no reason for bargaining since both buyer and seller are agreed upon the appropriate price for a quantity Q. For any lesser quantity, price is indeterminate in that the price level will be a function of factors such as the relative bargaining position of the two negotiating parties.

A family of offer and consumption curves would yield a locus of points (at the points of intersection of each pair of offer and consumption curves) which is comparable to the conventional "contract curve". Examination of Figures 6 and 7 suggest any movement upward and to the left from points such as H will be resisted by the feeder. For a given quantity, expenditures will be higher for the feeder than at points on his consumption curve. Such movements would also be resisted by the producer. For a given quantity the returns received will be lower for the producer than at points on his offer course. Thus, movements away from points such as H bring price into a state of indeterminateness.

Points such as H are Pareto-Optimum as compared to any other point lying within the shaded area of Figure 8. In addition, the exchange process at H is more efficient, in the context of pricing efficiency, than any point lying off the "contract" curve. Given that estimates of the economic forces underlying supply and demand affect the shape and location of both offer and consumption curves, point H is the only point representing agreement between buyer and seller estimates of those economic forces.

Examination in more detail will show the nature of the bargaining process and how moves toward point H might be accomplished. Let us assume the feeder initiates the negotiation. He offers a price of Pr for R amount of cattle. The producer, on the other hand, may want to sell more cattle, perhaps quantity Q the producer will opt for a higher price, such as Pn, for a quantity R.

If the producer wants to sell more animals he must entice the feeder. This is possible by lowering the price per unit of quantity offered for sale. The producer may be willing to make a price concession per unit in return for a guarantee of higher total sales and higher gross returns. In this situation the quantity finally negotiated

through a bargaining process (quantity Q) allows the parties to reach point H on their contract curve.

One assumption is crucial to the model. Each individual in the market views the quality per unit of quantity equally. Therefore, a quality estimate of " $Q_5$ " to the feedlot operator is equivalent to a quality estimate of " $Q_5$ " to the feeder calf producer. This assumption produces an axis of similar quality units to both producer and feeder.

The producer's offering curve relates his willingness (in monetary terms) to produce and sell a particular quantity of animals of a given quality at various prices. The feeder's consumption curve explains his willingness to purchase varying quantities of cattle of a given quality at various prices. At point H, the price and quantity with a given quality unit produced by the producer is equivalent to the price and quantity and given quality wanted by the feeder. The price is now determinate with these three variables. The Pareto-Optimum condition is reached and stability is present within the market.

The bargaining process, to typify real-world conditions, must also take into consideration quality as defined by both producer and feeder. The price and quantity agreed upon will not be conditioned by the quality unit associated with a particular group of animals.

#### Impact of the Quality Variable

A more complete understanding of the producer-feeder trading arrangement is possible with the introduction of the quality dimension of the agreement. For purposes of exposition, the quantity of animals negotiated is now held constant and quality units are varied along with money (producer returns of feeder expenditure).

Quality is measured on a per unit basis. The units employed could be the degree of finish, amount of frame, etc. It is assumed that the feeder is well informed on what type of cattle he should feed for maximum profit--i.e., "high" versus "low" quality is a function of the feeder's preference pattern. Also, initially assumed is that both producer and feeder equally value an animal's quality traits. These assumptions will facilitate the trading process between producer and feeder. Figure 9 illustrates these assumptions.

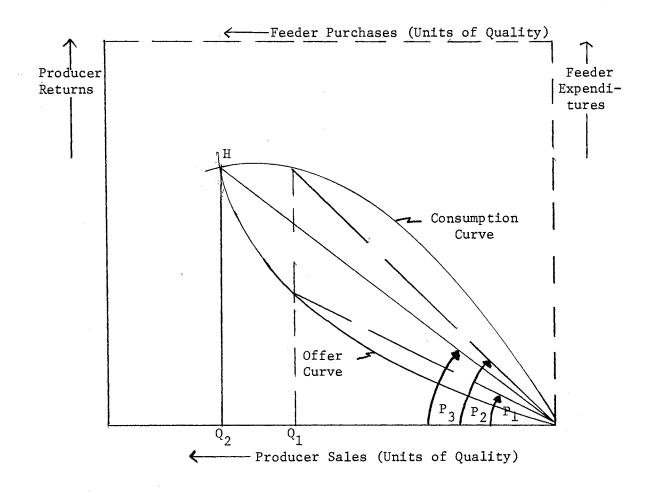


Figure 9. The Producer-Feeder Bargaining Framework: Equal Valuation of Quality

In the context of Figure 8 the horizontal axis represents units of quality. The producer's offering curve and the feeder's consumption curve are a collection of points of tangency between different price lines and indifference curve levels. These two curves now represent the amount of quality, given a constant quantity, the individual producer is willing to produce and sell and the quality the feeder is willing to take at varying prices.

Under the assumption of equal valuation of quality by producer and feeder, the bargaining process might proceed as follows: The feeder offers a price of  $P_1$  for quality  $Q_1$ , a price far less than he would pay for the recognized quality. The producer responds by asking some higher price (such as  $P_2$ ) for quality  $Q_1$ . Concessions are made and the final solution--a price of  $P_3$  for  $Q_2$  units of quality--is reached where the two curves intersect at point H.

<u>Changing Axes Assumption</u>. When we relax the assumption of comparable valuation of quality (called the "similar axes assumption") the trading arrangement becomes more complex. The producer now does not necessarily view the animal's quality exactly as the feeder. In fact, it is conceivable that the feeder and producer do not agree at all on the quality unit possessed by the animals. This condition is shown in Figure 10.

The feeder again offers an initial price of  $P_1$  and is bidding for  $Q_1$  units of quality. For purposes of comparison it will be assumed that the feeder knows the proper quality designation. The producer responds indicating that he would accept no price less than  $P_2$  for a quality  $Q_1$ . In essence, the producer is overvaluing each unit of quality. The

offer curve shifts upward to the right-showing a need for a higher price for quality  $Q_1$  and subsequent quality units.

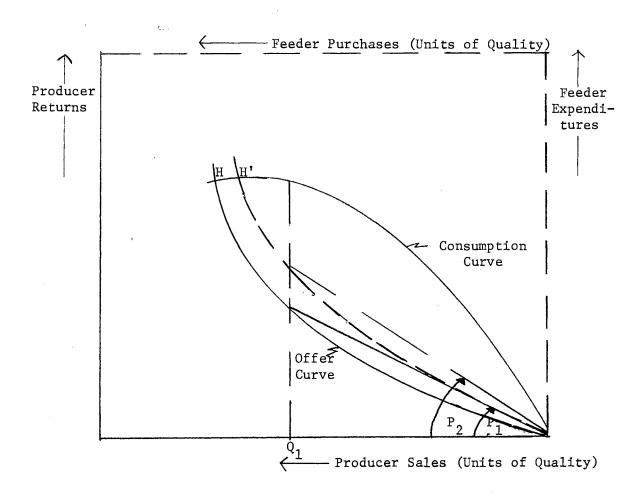


Figure 10. The Producer-Feeder Bargaining Framework: Producer Overvalues Quality

Given the producer's over-valuation of the quality of his product, there are two possible sets of results:

- There will be no transaction due to the inconsistency in valuation of the quality of the product; or
- 2. The transaction will be consummated at a price-quality combination denoted by point H' in Figure 10.

The producer would be willing to move to H' if the feeder would offer the higher prices associated with the "over valued" offer curve. The feeder would be required to re-evaluate his pattern of offers and make a discrete and possibly large price concession. At point H' the price per unit of quality is higher and the level of quality traded is less than at point H--the equilibrium situation under the assumption of equal valuation of quality. The end result is decreased pricing efficiency, and subsequent lack of coordination, arising due to the inequality in interpretation of quality.

# Impact of Varying Operating Levels

The importance of maintaining full operating capacity should not be overlooked by a feeder. The amount of capacity utilized reflects the eventual amount of beef produced. Assuming a feeder has very little control over price as a determinant of gross revenue then the relevance of capacity considerations is apparent. Thus, much of the feeder's managerial ability could logically focus upon the feedlot's cost structure where an element of control can be exercised.

Decreases in lot space utilization may cause production costs per unit to increase. The severity of the increase will depend upon how long these pens remain empty.<sup>3</sup> Hence, time is a relevant factor in the feeder's capacity of utilization.

A steady flow of feeder cattle to the feedlot operation by the producing units increases the number of head fed per time interval and increases lot utilization, thus decreasing the cost per head of cattle fed. Timing of the buying activity centers around the feeder calf flow input enabling the feeder to better regulate his costs of operation. With proper cattle flows--slaughter cattle leaving and feeder cattle entering--idle capacity can be minimized, thus adding to the feeder's daily profit per head.

# Feeder's Cost Structure at Full Capacity

The total cost structure of the feeder is comprised of (1) fixed costs, (2) nonfeed variable costs, and (3) feed costs. Feed costs are normally related to the number of cattle fed each year and are considered completely variable in this study. Fixed costs and a portion of the nonfeed variable costs per head per day are also a function of lot size. Their percentage of total costs per head per day can change significantly with the utilization rate of pen space at any given time interval.

The fixed cost position of a 10,000 head one-time capacity feedlot is shown in Figure 11.<sup>4</sup> Line AA represents the feeder's fixed costs assuming 100 percent utilization rate of pen space over varying onetime capacities. The fixed costs per head per day for this 10,000 head lot is the distance NP. The gross revenue per head per day is assumed constant at \$.085 and is represented by line RR. The return per head per day, before feed costs, for this 10,000 head feedlot is given by the distance PS. If the feeder were forced to drop back to 50 percent of capacity the return per head per day is decreased to  $Q_5$ .

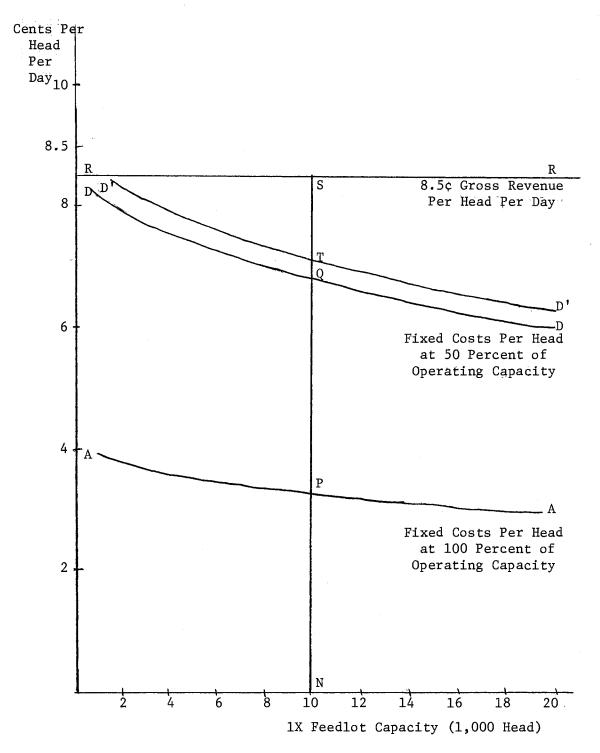


Figure 11. Fixed Costs Per Head for Varying Size Beef Feedlots and Different Utilization Rates

Time and Costs in the Feeder's Decision Process

The importance of proper timing in the feeder's buying activity in relation to his total costs can be seen with reference to a simple illustration. Suppose the feeder has contracted with a producer to deliver 700 pound Choice feeder steers in April. The feeder asks his producer to release these animals in March to prevent a decrease in lot utilization.

The contract change benefits the feeder. He may now sell his slaughter animals and continue to operate at 100 percent of operating capacity. If the feeder were not able to obtain the earlier release his fixed costs per head per day would shift upward as the utilization rate declines. The feeder is forced to spread his fixed costs over fewer cattle. The severity of the increase in cost depends upon the length of time the pens remain idle. Also, depending upon the length of time pens remain idle, some nonfeed variable costs will need to be considered fixed.<sup>5</sup>

Movement of the cost curves under idle capacity is shown in Figure 11. Line DD represents fixed costs at 50 percent of capacity. D'D' is an estimate of nonfeed variable costs under a short-term capacity curtailment situation. The distance PQ is the increase in fixed costs per head per day associated with a 50 percent cutback in a 10,000 head feedlot's capacity. The cost increase is PT when some nonfeed variable costs must also be considered fixed. The decrease in returns per head per day is identical to the cost increase.

### Value of Continuous Flow to Producer

The value of a continuous feeder calf flow to the producer is somewhat arbitrary. The producer loses a certain amount of poundage--money income--by not carrying the animal on pasture for the additional month. The problem then arises as to what the feeder can pay for obtaining these animals one month earlier--what the producer should receive for allowing the release.

The feeder can pay up to the distance PT above the going market price per head per day to the producer to initiate the earlier delivery. If the feeder paid all of this, assuming no procurement costs, he would not be in a worse position than if he remained idle over the time interval. Actually, the feeder would likely pay only part of the distance PT, shifting his cost curve upward but not the extent of the 50 percent curtailment in capacity.

### An Overview

There are a number of dimensions in the overall pattern of producerfeeder interaction which influence the level of coordination realized. A few of these are especially important.

Poor information or poorly informed interpretation of available information can lead in indeterminateness of price. Price levels become a function of such subjective factors as bargaining power and the capacity of price to effect coordination is diminished.

Differing valuations of quality can both affect price level and contribute to poor coordination in terms of quality needs. Again, common or like interpretation is needed for effective pricing. Among other important dimensions are the operating level by the feeder and the timing of the flow of feeder cattle into feedlots. Lack of concern for such issues by the producer, especially when combined with lack of understanding as to why the issues are important to the feeder, contributes to poor pricing and low levels of interstage coordination.

#### FOOTNOTES

<sup>1</sup>If DD is the midpoint between D'D' and D''D'', this implies the various estimates of demand are normally distributed. Assuming such a distribution, then DD is the "expected value" of the demand functions in both the conceptual and statistical senses.

<sup>2</sup>Many of the following thoughts and statements are taken from Tibor Scitorsky's <u>Welfare and Competition</u>, <u>The Economics of a Fully</u> <u>Employed Economy</u>, pp. 83-92 and 414-422. The ideas and concepts have been adapted and expanded to fit the needs of the producer-feeder subsector of the Oklahoma beef cattle industry.

<sup>3</sup>A related problem deals with the difference in the amount of expected gain per head per day from maintaining slaughter cattle or replacing with lighter feeder cattle. In this situation time affects a feeder's variable costs, especially feed costs. A feeder's decision to keep his pens full at all times is related to his fixed cost structure at a particular time interval.

<sup>4</sup>Figure 11 is taken from William L. Brant, "Management Decision As Affected By Lot Size and Volume," Paper presented at the Oklahoma Cattle Feeder's Seminar, Stillwater, February 4-5, 1971.

<sup>5</sup> If the idle period is two weeks it is unlikely that the feeder would dimiss part of his labor force, but would put them to work at other jobs. Hence, the nonfeed variable costs per head per day will likely increase--increasing the production costs associated with idle pen space.

### CHAPTER III

## PRESENTATION AND INTERPRETATION OF PRODUCER

# SURVEY RESULTS

In this chapter the producer survey data are analyzed in terms of goals, attitudes, market procedure and other selected operational procedures. The analysis will attempt to isolate differences within the producer subsector due to (1) size of operation, (2) type of operation and (3) location of producer within the state. This breakdown will provide basic information of value in later analysis of the questionnaires and will help to determine the decision model used by the producer in marketing his product.

To obtain a general understanding of the factors involved in the producer's decision model and to establish a basis for drawing inferences concerning the level of coordination, the producer questionnaire will be divided into two parts: (1) current producer operating characteristics and marketing practices, and (2) areas which may have implications to the degree of interlevel coordination achieved.

# Producer Operating Patterns and Market Characteristics

The producers surveyed, categorized by size of operation, are divided into five groups in Table I. The categories are broad and designed to facilitate isolation of significant differences in

operations. These 46 producers reflect the organizational structure of the cattle industry in Oklahoma.

#### TABLE I

# DISTRIBUTION OF THE SAMPLE PRODUCERS BY SIZE OF OPERATION

Size of Operation (Head)	Number of Operators Interviewed	Number of Feeder Cattle	Average Number of Feeder Cattle Per Operator		
0-250	11	1,599	145		
251-500	11	4,270	388		
501-750	11	7,041	640		
751-1000	7	6,473	925		
>1000	6	9,051	1,584		

Table II indicates the type of operators within the state. Each type is considered to be potentially different in terms of managerial procedures and marketing practices. The cow-calf operator produces and sells weaned calves. The "stocker" operator buys the animal as a weaned calf and carries it further along the animal's growth curve, selling feeders at 500-700 pounds to the cattle feeder. The "combination" operator is both producing weaned calves and carrying either his own or purchased calves to a higher weight.

### TABLE II

Type of Operation	Number of Operators Interviewed	Number of Feeder Cattle	Average Number of Feeder Cattle Per Operator	
Cow-Calf	21	10,541	502	
Stocker	15	9,141	609	
Combination	10	8,752	875	

### DISTRIBUTION OF THE SAMPLE PRODUCERS BY TYPE OF OPERATION

The location of the producers within Oklahoma (Figure 2, Chapter I) was selected as another factor which could play a significant role in analyzing how members of this subsector operate. Location of the production facility will, to some degree, determine the type of marketing channel most accessible to the producer.

# Primary Marketing Method

Table III relates marketing methods to the selected dimensions of size, type of operation, and location. The smaller operators are more likely to sell through the auction channel. None of the operators in the size categories above 500 head sell completely through auctions. Direct sales to the feeders, either with or without a contract, is the route usually employed by the larger producers.

The influence of producer location relative to auction markets, especially the market in Oklahoma City, can be seen in Table III. Ten of 16 producers interviewed in the central section of Oklahoma indicated

	TABLE	III
12		

## MARKETING METHODS USED BY FEEDER CALF PRODUCERS BY SIZE AND LOCATION

	Number of Producers Responding								
		Siz	e of Oper	ation		Location	Within Sta	te	
Marketing Method	0-250	251-500	501-750	751-1,000	>1,000	Panhandle	Northeast	Central	
Direct Sale	1	3	5	4	5	8	6	4	
Traders, Commission Men	1	3	3	2	1	4	4	2	
Auction Sales	8	4	1	0	0	1	2	10	

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they sell their animals primarily to an auction rather than selling directly to a feeder. The Panhandle and Northeastern areas were more inclined to sell direct, often by contract.

Concerning contracting between producers and feeders, 21 of 26 producers indicated the price negotiated was set the day the contract was consummated. The average length of the forward contracts was 3.4 months. Specific requirements most often included were castration and dehorning. Weaning and immunization were occasionally required but the practice of bunk-breaking was seldom considered. Producers indicated (1) fear of receiving a price penalty, and (2) such management practices are part of their regular program as the main reasons for their inclusion in the contract.

## Sources of Price Information

The informational sources producers rely upon to keep aware of price movements within the market remain constant across the selected categories. The producer utilizes traders, commission agents, neighbors, and Oklahoma City and local auctions as his sources of price information. Alternative indicators, such as university or USDA outlook reports, receive less attention. When asked which source of price information they relied upon to form a decision as to an expected price his cattle would bring when ready for sale, the producer again indicated private sources and reports from Oklahoma City and local auctions.

## Valuation of a Stocker Animal,

An important decision facing the "stocker" operator and combination man is how to determine what they can pay for a stocker animal.

The cow-calf operator does not make this decision since he either sells his animals as stocker calves or holds the calf to a weight desired by feeders. As noted in Table IV, the entrepreneur who is described as a "stocker" stresses price at the feeder and packer levels more than does the combination man. This implies a greater realization of the interdependency of levels within the marketing channel by the "stocker" operator than the combination man.

### TABLE IV

	Factors	<u>Number of Produ</u> Stocker	icers Responding Combination
Α.	Weight	2	6
в.	Grade	4	3
C.	Level of Slaughter Cattle Prices	2	1
D.	Prices at Which Feed- lots are Buying	4	0
E.	Other	3	0

### PRIMARY FACTORS DETERMINING STOCKER CATTLE WORTH

The reasons for the difference are not immediately obvious. It is conceivable that the combination man has the necessary feed (land) on hand prior to moving into the stocker calf segment of his cattle operation. Thus, considering this to be a fixed resource he would

41 44

maximize his returns per acre of pasture by buying stockers to fully utilize any excess pasture. The problem then is not so much what these animals will bring as feeder calves but to maintain the full utilization of his pasture resource. This may explain the "production orientation" of these operators.

On the other hand, the "stocker" operator may look further ahead, especially as the number of animals he feeds increases. If he is faced with the decision of renting more pasture (grass or wheat) as his stocker operation grows, then he must take into consideration feeder calf prices in some future time period so that he can cover his pasture costs as well as maintaining a reasonable return to management.

### Areas Affecting Interlevel Coordination

Six dimensions of possible conflict or inconsistency were designated in Chapter I as areas which might obstruct effective and efficient coordination between producer and feeder. This section will examine the producer subsector in terms of the six selected dimensions.

### Overall Management Goals of Operation

The producers were presented with two goals defining their operation. These goals were designed to obtain an understanding of how the operators viewed their position in the marketing system. Table V lists the two goals and indicates differences between types of operators in Oklahoma.

The cow-calf men split 12 to eight in their views as to whether they were producers of a raw material or producers of a finished product. Eighty percent of the "stockers" and combination men considered

themselves producers of a raw product, meaning the end product is designed to fit the needs of the feeder.

### TABLE V

Overall Management Goal	Number of Producers Responding by Type of Operation							
of Operation	Cow-Calf		Combination					
Produces a raw material to meet needs of the feeder	12	12	8					
Produces an animal to meet producer's ideals of excellence	8	3	2					

### PRODUCERS' OVERALL MANAGEMENT GOAL OF OPERATION

There are two broad lines of reasoning which may underly the producers' pattern of responses. Seventy-five percent of the producers who viewed themselves as "raw material providers" now sell, or would sell in the future, directly to feeders. Only 54 percent of the "finished product producers" sell or would consider selling directly to the feeder. The effect of direct sales to feedlot buyers as opposed to sales through traders or auctions may have influenced the producers' operational goals. The exact type of feeder animal needed by the cattle feeder could be clearer to the seller who sells directly to, and interacts with, the cattle feeder. The second consideration is the influence out-of-state sales of feeder cattle exerts on the state's feeder calf producers. Eleven of 18 producers selling their feeders out-of-state viewed themselves as producing a raw material desired by the feeder.<sup>1</sup>

Looking further up the marketing channel and comparing the producers' goals with factors that influence the price a packer will pay for a 1,100-pound choice slaughter steer, an interesting phenomenon occurs. Fifty percent of the producers who considered themselves "raw material producers" felt that packer's price on the basis of carcass cutability, 36 percent chose dressing percentage and 11 percent chose quality grade. In direct contrast, only 23 percent of those who produce a "finished product" felt carcass cutability was an important determinant of price. Specifically, 46, 42, and 50 percent of cow-calf men, "stockers" and combination men respectively, who viewed themselves as "raw material producers", believed packers price on the basis of carcass cutability. Twenty-five, 33, and zero percent of the group of producers who considered themselves "finished product producers" felt packers priced on carcass cutability.

# <u>Present and Future Changes in Management</u> and <u>Marketing Practices</u>

The producers' concern about disease, stress, etc., are apparent in the changes made in his management practices within the last five years (Table VI). It is apparent that the "stocker" is more sensitive to these changes than cow-calf or combination men. It also seems true that as the level of time, effort, and cost required to perform these management tasks increases the number of producers performing these functions diminishes.

# TABLE VI

# PRODUCER MANAGEMENT PRACTICE CHANGES WITHIN THE LAST FIVE YEARS BY SIZE AND TYPE OF OPERATION

	Number of Producers Responding								
Management	-	Siz	e of Oper	ation		Тур	e of Oper	ation	
Practice Changes	0-250	251-500	501-750	751-1,000	>1,000	Cow-Calf	Stocker	Combinatior	
A. Immunization	5	5	5	3	3	8	9	5	
B. Weaning	3	2	3	0	2	6	0	5	
C. Supplement Feeding (not winter)	4	7	6	5	4	8	11	7	
D. Bunk-breaking	4	2	1	1	2	2	5	3	
Total number of respondents per question	11	11	10	7	6	20	15	10	

With respect to changes in marketing techniques, the responding producers indicated they anticipate considerably more contracts between themselves and feeders in the future (Table VII). Increased sales directly to feeders also seemed likely. Few producers anticipated they would begin custom feeding their own animals within the next five years.

When asked about the general change in producers' marketing techniques, the respondents answered along the lines of more direct sales to feeders (Table VIII). Eleven cow-calf men out of 21 and seven combination men out of ten agreed that direct sales to feeders is the future trend in feeder cattle marketing. "Stocker" responses were split between direct sales and the increasing importance of traders. The auctions were given more weight by the smaller producers and cattlemen located near Oklahoma City's auction. The respondents indicated that the smaller man has little to offer the feedlot buyer. It would be difficult for this man to supply enough animals to justify the feeder's effort in making up a pen of cattle.

### Pricing Model Employed by the Producer

Throughout the analysis categories--size, type of operation, and location--the two price information choices most often selected were private sources and Oklahoma City daily auction prices. Only in the larger size categories of producers was there an indication that the fat cattle market price was used as a market indicator of price movement.

The same pattern of private sources and Oklahoma City auction prices is seen when the producer was asked what source he uses to set a specific price on his marketable animals. Those producers selling

# TABLE VII

# ANTICIPATED CHANGES BY PRODUCER IN THE NEXT FIVE YEARS BY SIZE AND TYPE OF OPERATION

	<u> </u>		Nu	mber of Pro	ducers R	esponding		
Changes by	· · · · ·	Siz	e of Oper	Type of Operation				
Producer	0-250	251-500	501-750	751-1,000	>1,000	Cow-Calf	Stocker	Combination
Weaning and Bunk- breaking					-			
Yes	6	4	1	2	1	4	6	4
Possibly	0	3 4	5 5	1	0	3	4	2
No	5	4	5	4	5	14	5	4
Direct Sales to Feeder								
Yes	4	4	4	5	2	6	8	5
Possibly	3	3	4	1	1	6	4	2
No	4	4	3	1.	3	9	3	3
More Contracts								
Yes	4	3	4	5	3	4	10	5
Possibly	4	5	4	1	1	8	4	3
No	3	5 3	4 3	1	2	9	1	2
More Custom Feeding by Producer								
Yes	· · · 0 ·	1	2	3	1	3	2	2
Possibly	2	4	1 .	0	0	3	2	6
No	9	6	8	4	0	15	11	6

# TABLE VIII

# PRODUCERS' OPINION OF FUTURE FEEDER CATTLE PURCHASING PRACTICES BY SIZE AND TYPE OF OPERATION

				Nu	mber of Pro	ducers Re	esponding		<u> </u>
			Šiz	e of Oper	ation		Тур	e of Oper	ation
Ρu	rchasing Practice	0-250	251-500	501-750	751-1,000	>1,000	Cow-Calf	Stocker	Combination
Α.	Direct Sales to				¢	· · · · ·			· · · · · -
	Feeder	5	4	8	4	3	11	6	7
в.	Greater Use of								
	Traders	3	2	2	1	1	3	5	1
с.	Greater Use of								
	Auctions	2	3	0	1	0	4	2	0
D.	Greater Sales to								
	Wheat Pasture	•	-		0	0		0	-
	Stockers	0	1	0	0	0	0	0	T
Ε.	More Custom Feed-								
	ing by Producer	1	0	0	1	2	) 7	1	1

on a contract basis make less use of these two sources, preferring to take bids from buyers and make their selling decisions on the basis of these bids. It was also interesting to note that the Northeastern producer did not rely heavily upon the Oklahoma City auction prices but relied more upon the local area auctions and bids from prospective buyers. The Central producers were almost evenly split between local auctions, the Oklahoma City auction, and bids from many buyers; there was some evidence suggesting greater reliance upon Oklahoma City's auction. The Panhandle area relied more heavily upon categories other than auctions.

Considering size or type of operation, there is some indication the smaller producers rely more upon auctions and the larger producers upon competitive bids. The cow-calf man leans more toward the auction indicators while the "stocker" uses competitive bids.

All of the factors--size of operation, type of operation, and location within the state--play a part in influencing which informational sources a producer uses in his decision model. But, when it comes down to the problem of selling cattle today or postponing the selling decision and "holding", the condition or availability of a cattleman's pasture plays a part in his decision process. When asked "what factors influence your price expectations in a hold-sell decision?", the producers' response pattern stressed the condition of his grass or wheat pasture and not factors which aid in price determination (Table IX). Thirty-seven of 42 producers responding to this question selected condition of their pasture as the primary factor affecting their hold-sell decision.

### TABLE IX

Influencing	Number of Producers Responding by Size of Operation						
Factors	0-250	251-500	501-750	751-1,000	>1,000		
Knowledge of Past Seasonal Price Movements	0	1	1	0	0		
Condition of Pasture	11	9	7	7	3		
Number of Cattle in Feedlots	0	0	1	0	1		
Slaughter Cattle Prices	0	0	0	0	1		
Future Prices	0	0	0	0	0		

FACTORS AFFECTING PRODUCERS' "HOLD-SELL" DECISION

Reliance upon feed availability can certainly affect the performance of the marketing system. If producers have sufficient feed on hand and anticipate continued price rises, holding cattle off the market can cause bunching of cattle sales in certain months. The result is seasonal price movement in cattle sales and prices. The same holds true when feed is short and producers are forced to sell animals sooner than expected.

Such action not only affects the producer but also the feeder. Cattle are readily available in times of sparse feed and more difficult to obtain in times of good pasture conditions. Hence, the needed steady flow of cattle into feedlots is not obtainable. Reliance upon pasture conditions to indicate when to hold or sell diminishes the marketing system's ability to achieve an acceptable level of coordination between producer and feeder.

# <u>Product</u> <u>Characteristics</u> and <u>Evaluation</u> of <u>Product</u>

Pictures of three feeder steers having equal weights and all grading Choice were shown to the producers interviewed.<sup>2</sup> The object was to determine what value the producer placed upon the product characteristics of frame<sup>3</sup> and degree of finish. Each man surveyed was asked to judge these animals, based upon the two characteristics, as to which animal he would like to be selling today. An attempt was made to eliminate breed bias, since the animals were not all one breed, by asking each man to look at these animals as if they were the breed he was currently producing and to concentrate on the characteristics of frame and finish.

Table X indicates the producer's preferences on the three steers. The cow-calf man favored the No. 1 picture, the "stocker" the No. 2 and 3 pictures and the combination man seemed split between No. 1 and 3 pictures. It is apparent from these selections that the "stocker" places more emphasis upon the characteristics of frame and less upon degree of finish while the cow-calf man does just the opposite.

To cross check the respondents answers to the pictures, a verbal question was asked concerning the producer's desires for frame versus degree of finish (Table XI).<sup>4</sup> This question specifically asked "which factors do you consider important in determining the worth of a 650-pound Choice feeder steer?" A check list was provided for the respondents. The cow-calf man selected breed and frame to be about equal in importance with degree of finish a poor third. The "stocker" and

combination men considered frame the primary determining factor with

breed, age, and degree of finish all playing minor roles.

### TABLE X

# PRIMARY PRODUCERS' PICTURE SELECTIONS OF FAVORABLE FEEDER CATTLE CHARACTERISTICS

	Number of Producers Responding by Type of Operation					
Pictures	Cow-Calf	Støcker	Combination			
Picture No. 1 (low in frame, heavy finish)	10	2	4			
Picture No. 2 (moderate in frame and finish)	6	7	2			
<pre>Picture No. 3 (high in frame, low finish)</pre>	4	6	4			

### TABLE XI

**1**.

PRODUCERS' VERBAL RESPONSE ON DESIRED ANIMAL CHARACTERISTICS

	Number of Producers Responding by Type of Operation					
Animal Characteristics			Combination			
Age of Animal	1	1	0			
Breed of Animal (pure)	8	1	1			
Frame (big-boned, long and tall)	7	12	8			
Degree of Finish (heavy)	3	1	1			

Several influences are apparent which may aid in explaining the producers' choices. First, producers may know frame is important but can not recognize it. Second, the pictures could have been inadequate in reflecting frame. Third, the "stocker" may absorb more of the feeder influence because of his relatively closer position in the marketing system. The cow-calf man is located further away from the feeder in the marketing system and he may or may not sell his animals directly to the feeder. Hence, the "stocker" has a better opportunity to absorb the feeder's influences than does the cow-calf operator. The combination man appears to lie somewhere between the "stocker" and cowcalf man in amount of feeder influence he may receive. Also, the "stocker" can more readily adapt to the feeder's influence since he turns his complete cattle inventory once a year while the cow-calf man exhibits less flexibility. Finally, there is the influence of out-ofstate feeders upon the producer's ideas of the value of an animal's characteristics. Frame and degree of finish could mean something different and have different value to out-of-state feeders as compared to Oklahoma-based feeders. The producer could, therefore, receive two completely different "signals" from the marketing system.

When final destination of feeder calves was compared to the producer picture choices (Table XII) this dual influence is apparent. The No. 1 animal was chosen far above the other two animals (58, 21, and 21 percent respectively) as the type of feeder calf wanted for feeding outside of Oklahoma. Although only four producers interviewed indicated they sold feeders exclusively to Oklahoma feedlots, their picture choices were unanimously for the No. 3 animal. Hence, it seems

apparent that the Oklahoma producer selling his feeder cattle outside of Oklahoma is responding to the wishes of the out-of-state buyer.

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#### TABLE XII

# PRODUCER PICTURE CHOICES COMPARED WITH FEEDER FINAL DESTINATION

Number of Producers	Feeder Final Destination		
Responding	In-State	Out-of-State	
First Choice			
Number 1	0	11	
Number 2	1	5	
Number 3	3	3	
Second Choice			
Number 1	0	4	
Number 2	3	9.	
Number 3	1	6	
Third Choice			
Number 1	4	4	
Number 2	0	5	
Number 3	0	10	

# Timing of Buying and Selling Activities

The cattle feeders are concerned about maintaining a steady flow of animals into their lots. To keep per unit fixed costs down, it is important that the feeder have a readily available supply of feeder cattle to replace an outgoing lot of slaughter cattle. Without a steady flow, the total per unit costs of production could rise considerably. This problem is also extremely important to the producer. Whether or not the producers <u>recognize</u> the problem and are willing or motivated to cooperate with the feeder in finding a solution is of interest. When asked if this problem was important to the producer, the "stocker" and combination men answered a sound yes, but the cow-calf men were split in their opinions (Table XIII).

### TABLE XIII

Producers Should be Concerned With	Number of Producers Responding by Type of Operation		
Stable Flow	Cow-Calf	Stocker	Combination
Yes	10	14	9
No	11	1	1

PRODUCERS' CONCERN FOR FEEDER CATTLE FLOW STABILITY

Those respondents who considered the problem of importance gave two main reasons for their belief: (1) the feeder is the market for my animals, and (2) a steady flow of feeder cattle would lessen the fluctuation in yearly feeder prices. The producers answering no stated: (1) the problem was the feeders' and it did not concern the producer, (2) the producer must sell his animals when they are ready which doesn't allow him the opportunity to cooperate with the feeder, and (3) for a cow-calf man selling at a weight lighter than the 650pound figure given in the question the problem had no relevancy. A related question followed the feedlot "flow" question. If the producer was concerned about the feeders' flow problem, then would the producer release his animals one month earlier to maintain a steady flow? Thirty-two producers agreed they would sell their animals one month earlier; 14 producers said they would not. The respondents answering yes qualified their decisions with a need to receive a higher price per hundredweight before they would consider selling. The producers answering no stated that it would be impractical for them to sell earlier since the cattle was their means of marketing their grass.

Eleven of the 13 producers answering "no" were cow-calf men. Here again the indication of a fixed cost involved in pasture seems to play a more important role in the cow-calf man's decision process than the variability in the market. The "stocker" and combination men were of the opposite opinion, favoring the steadier market and were less influenced by possible fixed pasture costs and need for complete utilization.

A question was addressed to those answering "yes" to determine what specific price differential would be necessary for the producer to sell his 700-pound feeder steer one month earlier at 650 pounds. The producer was asked to assume the 700-pound steer had been contracted for \$32.50-thus establishing a price to facilitate a comparable set of responses across all producers. The producer was also told the total cost of carrying this animal from 650 to 700 pounds would be \$5.00 per head. Given the above information an "equal profit" position was calculated for the 650-pound steer, requiring a price of \$34.25 per hundredweight.

Most producers indicated they would require a price equal to or above the \$34.25 "equal profit" price. Twenty-five of 43 respondents

agreed the "equal profit" price was sufficient, 15 producers felt the price was below their needs, and three respondents believed the price to be more than enough for release of the cattle one month earlier. The actual range of prices suggested by producers was \$33.00 to \$35.75.

# <u>Producer's Knowledge of Feeder and Packer</u> <u>Decision Models</u>

An efficient marketing system transmits relevant information from one stage of the marketing channel to another, guiding managers at each stage in decision making. A general understanding of the feeder's decision model is important to the producer since his output is the feeder's input. Therefore, any changes in the feeder's buying practices and/or cost structure can heavily influence the producer's profit position and the overall conditions he faces in the market place.

The operators interviewed were asked what they thought a feeder could pay for a 650-pound Choice feeder steer if the feeder received \$30.00 per hundredweight for an 1,100-pound Choice slaughter steer. In response to this question, the 40 producers' opinions ranged from \$29.00 to \$35.00 with an average of \$32.28 per hundredweight. Forty-four feeders answering the same question averaged \$31.49. The difference between the producer's response and the price feeders were willing to pay may indicate producers do not fully understand the feeder's operation.

The feedlot's cost structure, both fixed and variable, is an important factor in the feeder's buying decision. Feedlot cost changes can result in decreases or increases in the number of cattle the lot will purchase in a certain time period. Information about what happens to feedlot buying policies and cost structure when operating levels vary is potentially important to the producer. The producers were asked a question dealing with how a 50 percent cut back in a feeder's annual operating capacity would affect the feeders total costs per unit. Thirty-seven producers of 43 responding anticipated that the total costs would increase by an average of 17.6 percent. Five of the producers stated that they believed the costs would decrease or remain constant.

A general knowledge of the packer's decision model is also important to the producer. Table XIV presents the factors producers feel influence the packer's price for a 1,100-pound Choice slaughter steer. Again, the influence of the stocker operator's direct contact with the cattle feeder is apparent. The cow-calf man was the only producer category surveyed who chose the live weight of an animal as the packer's primary factor in determining what he will pay for an animal.

#### TABLE XIV

Packers' Price Variables	Number of Producers Responding by Type of Operation		
			Combination
Cutability of Carcass	7	6	4
Live Weight	4	0	0
Dressing Percentage	7	4	3
Quality Grade	0	4	2
Breed of Animal.	0	0	0

# PRODUCERS' OPINION OF VARIABLES INFLUENCING THE PRICE PACKERS WILL PAY FOR AN 1,100 POUND SLAUGHTER STEER

Producers feel carcass cutability, dressing percentage, and quality grade, respectively, are the primary factors important in determining the packer's offering price. This indicates the producer is aware of the packer's desire for lean meat from each carcass. However, Table XV shows a discrepancy between this packer influence and the type of animal now being produced by certain producers. Approximately one-third of the respondents indicated that the packer evaluation criteria did influence them in the type of animal they produced, but these same producers selected the most heavily-finished animal shown in the picture series, the animal with less frame and lower gain potential.

#### TABLE XV

Does Packer Carcass Evaluation	Number of Producers Responding by Picture Choice		
Criteria Influence the Type of Animal You Produce	Picture No. 1	Picture No. 2	Picture No. 3
Yes	11	14	11
No	4	1	2

# THE INFLUENCE UPON PRODUCERS' PICTURE CHOICES OF PACKER CARCASS EVALUATION CRITERIA

Several possible reasons for the apparent inconsistency could be advanced including (1) breed bias was not completely eliminated or controlled, (2) the producer does not know what his animal looks like as a carcass, and (3) the producer does not fully understand the pricing criteria employed by the packer. Increased understanding of the packer's operation might increase the producer's willingness or ability to more nearly coordinate his activities with those of the feeder.

Still another indication of possible problems evolved when questions dealing with market performance were asked the producer. The producer was asked to mark one of the following statements which best reflected his opinion of how the market performed:

- Feeder cattle are sold at an average price without the use of premiums or discounts;
- The poorer cattle are discounted but no premium is paid for the better cattle;
- 3. A premium is paid for the better cattle and everything else is paid an average price; and
- 4. Cattle are sold with premiums for the better cattle and discounts for the poorer cattle.

Forty of 44 respondents chose opinion number four, that cattle are paid premiums and discounts. Other evidence runs counter to this response pattern, however. There is indication premiums or discounts are not always paid.<sup>5</sup> Too, the <u>magnitude</u> of the premiums or discounts may not be appropriate--this possibility will receive more attention in Chapter V.

### FOOTNOTES

<sup>1</sup>Just what type of "raw material" these producers had in mind is of course important. More detailed consideration of the type of animal going to out-of-state buyers will come later in the chapter.

 $^2$ Pictures of the feeder cattle are shown in Appendix A.

<sup>3</sup>The term "frame" is used to indicate the size--height, length, etc.--of the animal. In the trade, a "framy" animal is the tall, long animal with slight to moderate finish and much gain potential.

<sup>4</sup>The specific question can be found in Appendix A, Product Characteristics, Number I.

<sup>5</sup>Wayne D. Purcell, "Identification and Coordination of Product Attributes: Relation to Vertical Coordination in Beef Marketing, Presented at the Workshop on Vertical Coordination in Livestock Marketing in the South, Houston, Texas, March 11-14, 1969, p. 4.

#### CHAPTER IV

# PRESENTATION AND INTERPRETATION OF THE

### FEEDER SURVEY RESULTS

The data from the feeder survey will be presented in two parts: (1) general organizational characteristics of the feeder sector; and (2) conflicts in goals or variations in operating procedures within the feeder sector. The size of operations and the location of feedlots within the state will be examined on a selective basis for any relationship to isolated conflicts or important variabilities in procedure.

> General Organizational Characteristics of the Feeder Subsector

The one-time capacity levels of the operations of the feeders interviewed are shown in Table XVI. In total, 46 feeders with one-time capacities of 239,075 head were surveyed. The lots ranged from 100 to 34,000 head per feeding period with an average of 5,200 head.

The location of the feeders interviewed indicates the stratification of the feeding subsector in Oklahoma (Table XVII). The Central region leads with the greatest number of lots (22), but the Panhandle area definitely has the larger one-time capacity (172,400 head).

Marketing methods used by the feeders in the survey were quite varied and highly dependent upon both the size of the feeder and his location. The auction method of sale placed first in both categories.

However, the interviews did show considerable differences in marketing methods by size and location (Table XVIII).

## TABLE XVI

# CLASSIFICATION OF FEEDERS INTERVIEWED BY SIZE OF OPERATION

Size of Feedlot (One-Time Capacity)	Number of Feeders Interviewed	Number of Cattle Fed
0-500	12	4,125
501-1,000	6	4,600
1,001-5,000	15	34,850
>5,000	13	195,500

# TABLE XVII

# CLASSIFICATION OF FEEDERS INTERVIEWED BY LOCATION OF FEEDLOT

Area of State	Number of Feeders Interviewed	Total One-Time Capacity	Average One-Time Capacity
Panhandle	14	172,400	12,314
Northeast	10	10,425	1,043
Central	22	56,250	2,257

## TABLE XVIII

## MARKETING METHODS USED BY FEEDERS BY SIZE AND LOCATION OF OPERATION

		Number	of Feeders U	Jsing Each Method Responding				
Marketing		· · · · · · · · · · · · · · · · · · ·	By Size			By Location		
Method	0–500	501-1,000	1,001-5,000	>5,000	Panhandle	Northeast	Central	
Buying Direct	1	0	1	2	2	0	2	
Traders, Commission Men	1	0	3	7	5	1	4	
Auctions	9.	5	10	2	4	7	16	
Sales to "Stocker" Operators	0	0	0	0	0	0	0	
Growing Lot	0	0	0	0	0	0	0	
Custom Feeding	0	0	0	2	2	0	0	
Other	1	1	0	0	1	1	0	

The Panhandle region chose traders, commission agents, etc., as their most important market outlets. The same choice held true for the feeders with lots of greater than 5,000 head capacity. Only two lots in this size category were located outside the Panhandle. The Northeast and Central areas, especially the Central region, relied more upon the auction method of sale. The size categories smaller than 5,000 head, categories which the Northeast and Central regions dominate, exhibit similar tendencies.

Concerning contracting arrangements between feeders and producers, it was apparent from the survey that the feedlot operator was less enthusiastic about such arrangements than was the producer. Only ten of 45 responding feeders indicated they had at some time contracted for feeder cattle. All but one of these contracting feeders were larger than 1,000 head capacity. The remaining feedlot operators indicated they had never contracted with producers for feeder animals.

Of the feeders that did contract, the price paid was determined at the time the contract was consummated. The price, in general, was tied to some market indicator in a future time period. The average length of a contract was 2.3 months. Only four feeders reported contracts which required management practices, such as castrating and dehorning, to be completed by the producer.

## Conflicts in Goals or Variability in Operating Procedures Within the Feedlot Subsector

#### <u>Current</u> and <u>Future</u> <u>Changes</u> in <u>Market</u> Practices or Structure

There were few feeders who felt they had observed important changes in producer management practices over the last five years (Table XIX).

## TABLE XIX

	Number of Feeders Responding								
Management Practice			Size			Location			
Changes	0-500	501-1,000	1,001-5,000	>5,000	Panhandle	Northeast	Central		
Vaccination Only	0	0	0	0	0	0	0		
Weaning Only	2	3	7	0	0	4	8		
Weaning and Vaccination	0	0	1	2	2	0	1		
Bunk-Breaking	1	0	0	0	1	0	0		
Weaning, Vaccination and Bunk-Breaking	2	0	0	1	1	1	1		
Weaning and Bunk-Breaking	2	1	2	0	2	0	3		
Total Number of Respondents	7	4	10	3	6	5	13		
Respondents Making no Change	5	2	5	. 10	8	5	9		

## PRODUCER MANAGEMENT PRACTICE CHANGES OBSERVED DURING LAST FIVE YEARS BY SIZE AND LOCATION OF FEEDLOTS

Less than one-third of the feedlot operators interviewed indicated they had wanted changes in producer management practices. Feeders' who did favor changes were quite varied in their responses. The general impression given by feeders concerning such management practices as those in Table XIX was that (1) such practices as vaccination can usually be performed cheaper by the feeder, and (2) practices such as bunk-breaking when grain is used takes away from the feedlot's profit position. Weaning was by far the grestest practice desired since it reduces stress and increases the animal's initial performance.

When asked what changes they had made during the last five years, few feeders could point to specific changes (Tabel XX). Only 13 of 46 feedlot operators said they had made changes. Nine feeders had begun buying directly from the cow-calf producer, one started buying from a growing lot and three entered the custom feeding business. The reasons for not changing current practices ranged from the time involved in making up uniform lots (when buying direct from the cow-calf man) to being able to buy animals cheaper at auctions, to a traditional stand that they have always bought animals in a specified manner. Those feeders who did make changes in their buying process, especially in buying direct, indicated they could eliminate middlemen costs, exercise greater bargaining power, and better standardize lot characteristics by buying directly from the cow-calf man.

Since the feeder will likely play a role in the determination of what changes will occur in the producer subsector, feeders were questioned on the need for changes at the producer level within the next five years. In the Panhandle area, 79 percent of the feeders indicated they wanted more weaning and bunk-breaking of feeder cattle. In the

## TABLE XX

## FEEDER BUYING PRACTICE CHANGES IN LAST FIVE YEARS BY SIZE AND LOCATION OF FEEDLOTS

		-	Number o	f Feeders	s Responding		· ·
Buying Practice			Size			Location	· · · · · · · · · · · · · · · · · · ·
Changes	0-500	501-1,000	1,001-5,000	>5,000	Panhandle	Northeast	Central
Direct Buying	4	1	2	2	4	3	2
Growing Lot	0	1	, 0	Ó	0	1	Ö
Custom Feeding	0.	2	0	1	1	2	0
Custom Feeding and Direct Buying	0	. 0	- 3	4	1	1	5
Custom Feeding and Buying from Growing Lot	0	0	0	1	1	0	0
No Changes	8	2	9	5	7	3	4
A11 Changes	0	0	1	0	0	0	1

Central and Northeast regions the same types of practices were favored by 59 and 50 percent of the feeders respectively. However, the responses must be qualified by recognizing that the majority of feeders do not want animals started or exposed to bunk feeding on a grain ration. A high roughage ration was recommended.

There was no clear consensus on the need for increased direct movement of feeder cattle. The same situation held for increased use of contracts and for increases in custom feeding. Some feeders responded negatively, some positively and some were not willing to express a definite position. Table XXI summarizes these bits of information.

Feeders offered a variety of responses to questions on how most feeder cattle will be bought in the future (Table XXII). The tendency for the larger lots to foreseemore "management practices" on the part of the producer is again apparent. Also apparent is a tendency to expect increased direct movement of feeders from producers to feeders. Expectations on other changes appeard to be largely a function of location of the feeder; for example, feeders in the Central area--where auctions are important--expected increased sales through auctions.

#### Price Information Important to Feeders

The feeder, like the producer, is aware of a need for price information to aid in his decisions underlying both buying and selling activities. It is important to know, in attempting to analyze his decision processes, the relative weight attached to the sources of information available to the feeder subsector.

The source of information which received the greatest amount of attention when checked by size of operation and location was the level

## TABLE XXI

## PRODUCER CHANGES DESIRED BY FEEDERS IN THE NEXT FIVE YEARS BY SIZE AND LOCATION OF FEEDLOTS

		<u></u>	Number c	of Feeder	s Responding		
Changes By			Size			Location	
Producer	0-500	501-1,000	1,001-5,000	>5,000	Panhandle	Northeast	Central
Weaning and Bunk-Breaking		•	-	· · · ·			
Yes	5	5	11	8	11 .	5	13
Possibly	4	1	2	3	1	4	5
No	3	0	2	2	2	1	2
Direct Sales to Feeder							
Yes	4	2	7	8	7	5	9
Possibly	2	2	3	1	2	1	5
No	6	2	5	4	5	4	8
More Contracts							
Yes	3	2	5	4	3	4	7
Possibly	2	1	4	3	2	1	7
No	7	3	6	6	9	5	8
More Custom Feeding by Producer							
Yes	2	5	5	8	8	4	8
Possibly	2	1	2	1	1	2	3
No	8	0	8	4	5	4	11

## TABLE XXII

## FEEDERS' OPINION OF FUTURE BUYING PRACTICES FOR FEEDER CATTLE BY SIZE AND LOCATION OF FEEDLOTS

	Number of Feeders Responding								
Purchasing			Size			Location			
Practices	0-500	501-1,000	1,001-5,000	>5,000	Panhandle	Northeast	Central		
More Contracts	1	1	0	1	0	3	0		
More Management Practices	2	0	2	5	6	0	3		
Warm-Up Lots	2	1	0	0	1	1	1		
Direct Sales	1	3	. 2	1	2	3	2		
Greater Use of Traders	1	0	2	1	0	0	4		
Greater Use of Auctions	3	0	5	1	0	3 ·	6		
Greater Sales to Wheat Pasture Stockers	0	0	1	1	1	0	1		
More Custom Feeding By Producer	0	0	2	2	2	0	2		
Total Respondents	10	5	14	12	12	10	19		

of slaughter cattle prices (Table XXIII). This appears logical since it is the most direct source available to the feeder. Also apparent is the movement away from private sources toward more of the published sources, i.e., toward futures quotes and published seasonal indices.

The daily auction quotes received from the Oklahoma City market showed some relative strength in each of the locational categories. However, again the Central area feeders relied more heavily upon this market's information than did the Panhandle or Northeast area feedlot operators.

When the responding feeders were asked what criteria they used to gain an indication of a specific price to offer for a feeder animal, the majority of the feeders indicated an estimate of the animal's selling price during the time period in which the animal would be slaughtered. The estimated cost of the animal's weight gain was their second choice and the number of days the animal was expected to be on feed was a poor third (Table XXIV).

In order to investigate fully the decision process employed in a feedlot's buying function a question was devised to isolate the factors important in the feeder's replacement decision (Table XXV). In the feeders' response pattern, as shown in Table XXV, the price of the slaughter animal and the price of the feeder calf both influence the feeders' decisions. The amount of gain expected and its cost remained much less significant factors in the feeder's replacement decision.

The importance of slaughter cattle and feeder cattle prices can also be seen in the feeder's goals of operation (Table XXVI). Feeders who operated on the basis of buying feeder cattle when prices were favorable definitely related slaughter prices to feeder prices before

## TABLE XXIII

## SOURCES OF FEEDER CATTLE PRICE INFORMATION UTILIZED BY FEEDERS BY SIZE AND LOCATION OF FEEDLOTS

	Number of Feeders Responding								
Sources of Price			Size			Location			
Information	0-500	501-1,000	1,001-5,000	>5,000	Panhandle	Northeast	Central		
Private Sources	1	1	2	2	3	0	3		
OKC Daily Auction Prices	4	0	4	1	2	2	5		
Current Live-Cattle Futures Quotes	1	1	2	3	2	2	2		
USDA and University Outlook Reports	0	1	0	0	1	0	0		
Current Price Seasonally Adjusted	2	1	- 1	0	0	2	2		
Slaughter Cattle Prices	4	2	6	7	6	4	9		

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## TABLE XXIV

## CRITERIA EMPLOYED TO DETERMINE OFFERING PRICE FOR FEEDER CATTLE BY SIZE AND LOCATION OF FEEDLOT

	Number of Feeders Responding								
Criteria			Size			Location			
Employed	0-500	501-1,000	1,001-5,000	>5,000	Panhandle	Northeast	Central		
Estimated Days on Feed	2	0	1	1	0	2	2		
Estimated Cost of Gain	0	1	6	2	3	0	6		
Estimated Slaughter Price	. 9	5	7	9	11	8	11		
Idle Pen or Lot Capacity	0	0	0	0	0	0	0		
Total Responding	<b>1</b> 1	6	14	12	14	10	19		

## TABLE XXV

## PRIMARY FACTORS INFLUENCING FEEDER'S REPLACEMENT DECISION BY SIZE AND LOCATION OF FEEDLOT

	<u></u>	· · · · · · · · · · · · · · · · · · ·	Number o	f Feeders	Responding	r 9	
Replacement			Size			Location	
Factors	0-500	501-1,000	1,001-5,000	>5,000	Panhandle	Northeast	Central
Price of Slaughter Animal	3	3	6	6	6	3	9
Price of Feeder	4	1	3	6	5	4	5
Amount of Expected Gain	0	0	0	0	0	0	0
Cost of Expected Gain	0	0	0	0	0	0	0
Feed Costs	2	1	1	0	1	1	2
When Animal Will Grade	2	1	2	0	1	2	2
Total Responding	11	6	12	12	13	10	18

## TABLE XXVI

## FEEDER PRICING CONSIDERATIONS USED TO MEET ALTERNATIVE BUYING OBJECTIVES

	Number of Feeders Responding by Factors Affecting Buying Objectives							
Buying Objectives	Number of Days on Feed	Estimated Cost of Gain	Animal's	Idle Pen or Lot Capacity				
Maintain a Full Lot	0	5	5	0				
Buy After Present Lot is Sold	0	0	1	0				
Favorable Feeder Cattle Prices	2	3	10	0				
Replacement Model or Criteria	2	0	7	0				

a new lot of animals was purchased. Those operators who viewed themselves as working under the objective of maintaining a full lot relied upon the level of slaughter prices as well as an estimate of the cost of gain. The feeders who claimed to maintain a more formalized replacement model considered the slaughter cattle prices in their replacement decision.

#### Feedlot Buying and Selling Activities

Buying cattle to maintain full pens has become an important function of the feedlot owner or manager. In relation to this problem, a question was asked to obtain the feeders' impressions of producers' attitudes toward the maintenance of a steady flow of feeder cattle to the feedlot. Attitudes of the feeders both indicate the prevailing situation and suggest the likelihood of any appreciable change.

The lots smaller than 1,000 head indicated a greater feeling of optimism about the producer's willingness and ability to cooperate than was shown by the feeders over 1,000 head. By location within the state no one area believed the producer was greatly concerned with the steady flow problem; however, there was no indication that feeders considered producers to be completely indifferent either. Only in the state's Central region was there any sign of optimism toward the producer being aware of the feeder's need for a smooth and continual feeder calf supply.

The feeders' who responded positively gave as their reasons for the optimistic outlook the following: (1) the feeder is the producer's market, and (2) the producer realizes that a steady flow to the feeder will curtail the seasonal price variation in the marketing system.

Negative reasons expressed included: (1) pasture conditions and the desire for higher weights cause seasonal bunching of feeder cattle, and (2) the feeling that producers are only concerned with obtaining a favorable price and are not concerned with the feeder's ability or in-ability to gain a more orderly flow of a cattle.

The feeders were asked if they would consider buying animals at lighter weights (lighter than they would normally buy) in order to obtain this steady flow of feeder cattle. There were varied reactions to this question. The lots under 5,000 head were generally undecided about the benefits this move would give them; however, the larger lots with capacity over 5,000 head would buy lighter weight animals to maintain their pen capacity. All but two of the lots interviewed with over 5,000 head capacity are located in the Panhandle region.

The feeders answering "yes" pointed out two main reasons for their responses: (1) the cheapest gain possible from an animal comes from its first gain, and (2) the steadier flow would help keep costs down. The negatively responding group were largely feeders who fed cattle only once a year. Many of these lots were also combined with farming operations which called for cattle feeding in certain months of the year and farming in the other months. Lighter weight cattle would only increase the length of the feeding period. Hence, conflicts between cattle feeding and other farming enterprises would likely increase.

# Product Characteristics and Evaluation of Product

The same three feeder steer pictures shown to the producers were given to the feedlot managers and their opinions were recorded (Table XXVII). In this instance, the feeders were to rank the animals based

upon which feeder calf they would like to be buying "today". The identical assumptions of equal grades and weights were utilized and again an attempt was made to eliminate breed bias. Nine feeders from the responding 45 indicated they preferred the No. 1 animal, 16 preferred the No. 2 animal and 20 feeders chose the No. 3 animal.

#### TABLE XXVII

Pictures		Feeders Resp Northeast	the second s
Picture No. 1	2	4	3
Picture No. 2	5	2	9
Picture No. 3	7	4	9

## FEEDER'S PICTURE RANKINGS OF FAVORABLE FEEDER CATTLE CHARACTERISTICS BY LOCATION OF FEEDLOT

Within each locational designation, the No. 1 animal was selected at least once. However, the responding Northeastern feeders chose this animal more times than the Panhandle or Central area feeders. A reasonable explanation, although not an all inclusive one, is that many of the Northeastern and several Central feeders sell their animals to small packing plants located close to their feedyards. The smaller plants were not equipped to handle the larger steer carcass and they needed a smaller or heifer carcass. The choice of the No. 1 animal, which was more heavily finished, would be somewhat consistent with the need for an animal which finishes (grades Choice) at a lighter weight. The animal might well be ready for an earlier slaughter than the other two animals shown to the feedlot operator.

To check the validity of the feeder's picture choices in which the majority of feeders indicated a preference for frame over degree of finish, a verbal question concerning desired animal characteristics was asked each feeder (Table XXVIII). Twenty-three feeders verbally ranked frame as the most important characteristics to be found in a feeder animal, eight wanted the hybrid-vigor found in a cross-bred animal and seven wanted a lightly finished feeder calf. The Panhandle region overwhelmingly wanted an animal with a considerable amount of frame, while the Northeast and Central regions were less decisive upon one particular animal characteristic.

#### TABLE XXVIII

	: <u>.</u>		
Animal Characteristics	Number of Panhandle	Feeders Resp Northeast	oonding Central
Age of Animal	, <b>O</b>	1	2
Breed of Animal (Cross)	2	2	6
Frame (Big-Boned, Long and Tall)	11	4	8
Degree of Finish (Light)	1	2	5

FEEDERS' VERBAL RESPONSE ON DESIRED ANIMAL CHARACTERISTICS BY LOCATION OF FEEDLOT The feeders' view that the Oklahoma feeder calf producer is not producing an animal with a sufficient amount of the desired characteristics as needed by the feeder is reinforced by a comparison of the feeder picture choices with their opinion of the producer's goal and/or objectives of operation (Table XXIX). Thirty-six feeders felt the animals available to them from the producer were not at all what they desired. Eighty-one percent of those feeders wanting the characteristic of frame above all other animal traits (animal No. 3) believed they could not obtain it today from an Oklahoma producer. Those feeders wanting a tradeoff between frame and degree of finish indicated, with the same magnitude, doubt whether the producer could or would provide an animal which constitutes a suitable raw material.

#### TABLE XXIX

FEEDER'S OPINION OF DESIRED ANIMAL CHARACTERISTICS AND PRODUCER'S WILLINGNESS TOWARD SUPPLYING THESE CHARACTERISTICS

		Number of Feeders Responding Producer's Tendency				
Pictures	Raw Material Producer	Finished Product Producer				
Picture No. 1	3	6				
Picture No. 2	3	13				
Picture No. 3	4	17				

#### Feeder Buying Goals

The feeder's feeder calf buying policy is diverse both by size of operation and location within the state (Table XXX). The lots interviewed which were smaller than 1,000 head did not want to maintain a full lot; rather, they felt buying feeder calves when the price was favorable to the feeder was more advantageous. This opinion was present in the responses of Northeastern and smaller Central feeders. Most of the feeder operators handling animals on a once-a-year basis usually marketed their grain as beef, and did not feed on a continuous in-out feeding operation.

The lots greater than 1,000 head capacity were more concerned with maintaining a full lot or operating under a specified replacement model. This is evident in the Panhandle area and among the larger Central region feeders. The implication which evolves is the need to keep the lot operating as close to capacity as possible to maintain a low fixed cost per pound of beef produced. The distinction between less than 1,000 head and greater than 1,000 head capacity may well suggest a delineation between a commercial feeder and a farm based feeding operation.

The attempt to identify a relationship between the feeders' buying objectives and methods of replacement indicated a similarity between the responding feeders (Table XXXI). The choice of goal under which the feeder operated did little to affect the factors it relied upon in making a replacement decision. The process of replacing one pen with a new group of feeder animals was based upon either the current level of slaughter cattle or feeder cattle prices. The actual decision would probably be based on a combination of the two price levels.

## TABLE XXX

## FEEDERS' FEEDER CALF BUYING POLICY BY SIZE AND LOCATION OF FEEDLOTS

· · · · · · · ·	Number of Feeders Responding						
Feeder Calf	Size					Location	
Buying Policies	0-500	501-1,000	1,001-5,000	>5,000	Panhandle	Northeast	Central
Buy to Maintain a Full Lot	0	0	6	5	5	0	6
Buy After Present Lot Has Been Sold	1	1	0	0	1	0	1
Concentrate Buying When Feeder Prices Are Favorable	7	2	5	3	3	6	8
Buy When New Lots Profit Potential is Greater Than Old Lot's Profit Making Ability	3	2	2	3	3	3	4

## TABLE XXXI

## EFFECT OF FEEDER'S BUYING GOAL UPON HIS REPLACEMENT CRITERION

		Number of Feeders Responding by Operating Goals					
Replacement Criterion	Maintain a Full Lot	Buy After Present Lot is Sold	Buy When Feeder Prices are Favorable	Profit of New Lot of Cattle Greater Than Current Lot			
Price of Slaughter Animal	4	0	7	5			
Price of Feeder	4	0	5	3			
Amount of Expected Gain	0	0.	0	0			
Cost of Expected Gain	0	0	0	0			
Feed Costs	1	1	0	0			
When Animals Will Grade	0	· <b>1</b> .	1	0			

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#### Market Performance - Feeder Evaluation

The feeders were asked an opinion question about their feelings toward the producer's overall goals of operation. Both by size and location, the feeders indicated that they believed the producer was not operating under a goal directed toward meeting the animal characteristic needs of the feeder. Thirty-six feeders said the producer was attempting to meet their own specifications for excellence and quality and were not producing a readily attainable raw material designed to meet the feeder's needs (Table XXXII). However, even with this view highly apparent, many feeders did indicate that the producer was slowly moving into a position more consistent with needs of the feeders.

The overall market performance of the beef marketing system in Oklahoma viewed through the feeder's vantage point seemed good. Thirtysix feeders felt that the market was able to distinguish between the better and poorer cattle and would segregate them accordingly in the pricing process. Whether the magnitude of premiums or discounts is appropriate could not be determined. Four feeders indicated that the market discounted the poorer animals but would not pay a premium for the better quality animals. Three feeders said discounts and premiums were not used--the animals are sold at an average price.

## TABLE XXXII

## FEEDERS' OPINION OF PRODUCERS' OVERALL MANAGEMENT GOALS BY SIZE AND LOCATION OF FEEDLOTS

	Number of Feeders Responding						
Producer Management	Size				Location		
Goals	0-500	501-1,000	1,001-5,000	>5,000	Panhandle	Northeast	Central
Produces a Raw Material Expressly for Feeder Input Utilization	3	2	4	2	4	2	4
Produces an Animal Under Producer's Standards of Excellence	9	4	11	11	11	8	17

#### CHAPTER V

## ANALYSIS OF INTERLEVEL CONFLICTS AND OPERATIONAL INCONSISTENCIES IN THE FEEDER-PRODUCER

#### SUBSECTOR

No effort has been made to analyze the conflicts and/or inconsistencies between the producer and feeder levels. The two stages have been treated separately with only slight reference to possible problem areas which affect the level of coordination achieved between the two stages. In this chapter, identifiable conflicts and inconsistencies between the two stages will be examined in terms of implications to operational efficiency, the degree of interlevel coordination achieved, and the possible impact on future organizational structure.

#### Selected Conflicts and Inconsistencies

The important dimensions of performance at the producer and feeder stages, which are in turn the potential sources of conflict and/or inconsistency, were identified in Chapters III and IV. Each will be examined using the informational base developed in the earlier chapters.

## Overall Goal of Operation

The majority of feeder cattle producers viewed themselves as producing a raw material designed to meet the needs of the feeders. Conversely, the feedlot operators indicated they did not feel the producer

was attempting to supply an animal which would meet the feeders' requirements. The feeders felt the producer was and is attempting to meet the producers' own standards of excellence and quality (Table XXXIII).

#### TABLE XXXIII

#### PRODUCERS' OVERALL GOAL AS VIEWED BY PRODUCERS AND FEEDERS

Producers'	Number of Respor		
Management Goal	Producer	Feeder	
Produces a raw material to meet needs of the feeder	32	11	
Produces an animal to meet pro- ducer's standards of excellence	13	35	

Different criteria are apparently used to determine the desired animal input between producer and feeder. Such differences in valuation of animal characteristics makes estimation of the worth of the feeder animal as an output to the producer and input to the feeder nebulous at best.

The development (or lack of development) of a usable input becomes a determinant of the realized level of coordination between the producing and feeding stages. In pursuing a production plan oriented toward a set of animal characteristics not always desired by the feedlot operator, the producer accentuates the problem of coordinating the objectives between the two stages.

The possible implications of this inconsistency concerning what characteristics are important are manyfold. The inability of feeders to procure suitable animals makes difficult any attempt to maintain a continuous flow of animals of consistent quality into the feedlot. Fluctuations in the supply of animals meeting the feeder's minimal standards contributes to price variability. Increased costs of feeding an undesirable animal to achieve the feeder's normal selling weight and/or quality grade may also be incurred. The producer, in turn, receives a more variable---and possible smaller---income stream than would be probable if more consistency in goals between the two levels could be realized.

The unpredictable supply may also force the feeder to seek an alternative source of feeder cattle to protect against supply fluctuations and insure a more usable input. Structural change may come through an effort to integrate backwards to guarantee, through ownership, the type of input the open-market system does not provide. The continued buying of out-of-state feeder calves, if they are more suitable as inputs, is another avenue the Oklahoma feeder can and does follow. Another alternative, the use of restrictive contracts with specific clauses designed to guarantee desired animal traits, may be implemented by the feeder.

It should be noted that the producer goal of operation as viewed by both producer and feeder gives rise to other conflicts or inconsistencies. Many of the problems discussed in the following sections of

the chapter will therefore relate to the inconsistency in overall goals, either directly or indirectly.

#### Changes in Management and Marketing Practices

<u>Management Practices</u>. Changes in management practices are occurring within and between the producer and feeder stages. Some producers are experimenting with preconditioning practices such as vaccination, weaning, and bunk-breaking to facilitate the production of a more desired product. The feeder is also testing the possible merits attributable to such management practices. The ability of these practices to help promote a higher degree of coordination between producer and feeder is dependent upon the level and distribution of benefits accruing to the two parties.

More specifically, Table XXXIV shows the present producer management practices offered by producers and those desired by feeders. The producer has taken the initiative in implementation. The feeder has lagged behind in pushing for their utilization, apparently believing that he (the feeder) can complete such practices at less expense. Such is especially true with regard to immunization of feeder calves moving into the feedlot.

Table XXV indicates the possible changes in weaning and bunkbreaking in the future. Feeders appear to want these changes. Their negative attitude toward bunk-breaking is related to <u>the amount of</u> <u>grain fed</u> prior to arrival of an animal at the feedlot. The feeders felt that an animal accustomed to eating and drinking, prior to shipment, would gain weight faster. However, the feeders prefer an animal fed a high roughage ration. Too much grain in the ration means a heavy

feeder calf with "too much" finish going into the lot thus, decreasing the amount of expected gain per day that a feeder could achieve.

#### TABLE XXXIV

## PRODUCER MANAGEMENT PRACTICES IMPLEMENTED BY PRODUCERS AND THOSE DESIRED BY FEEDERS OVER THE LAST FIVE YEARS

Management	Number of Resp	ondents
Practice Changes	Producers' Implementing	Feeders' Desiring
Immunization	21	0
Weaning	10	12
Bunk-Breaking	10	1

## TABLE XXXV

#### ANTICIPATED CHANGES IN MANAGEMENT PRACTICES IN THE NEXT FIVE YEARS

	Number of Respondents			
Changes	Producer	Feeder		
Weaning and Bunk-Breaking				
Yes	15	2 <b>9</b>		
Possibly	9	10		
No	23	7		

The feeders' desire for a weaned animal in the future is also favorable. Feeders indicated that sickness, stress and weight loss, attributed to not weaning a feeder calf, could partially be averted if an animal was weaned prior to shipment.

The producers interviewed were generally less favorable toward continuation of, or increased, weaning and bunk-breaking. Their feeling was that the costs incurred in performing these management practices are not being recognized by the feeders in the price they pay for feeder cattle.

The preconditioning practices can contribute to interstage coordination if the feeder is assured they are implemented under conditions beneficial to him. On the other hand, the producer will perform the practices only if feeders will pay adequately for them. Under these limitations management practices can facilitate the building of an increased level of coordination which could be beneficial to both stages. At present, it appears (1) the absence of any guarantee of completion on such practices as immunization, and (2) the lack of willingness on the part of the feeder to pay what producers' feel the management practices are worth prevent more widespread adoption of such practices.

<u>Marketing Practices</u>. Both feeders and producers are trying different techniques in buying and selling feeder cattle. An increase in direct sales to feeders from producers is occurring, especially from the larger producer operations. The smaller producers interviewed indicated this selling method would not fit their small-volume operations since buyers require volume if direct contracts are to be made.

Feeders buy direct because it increases their ability to obtain the type of animal they want at the time the animal is needed in their feeding processes.

Table XXXVI shows the selling and buying methods presently used by 41 producers and 42 feeders responding to this question. Eighteen producers indicated they use the direct sales technique. Eleven of the 18 producers selling direct sell their cattle out-of-state. The remaining 23 producers sell their feeder cattle through traders or auctions.

#### TABLE XXXVI

	Number of Respondents			
Marketing Method	Producer	Feeder		
Direct Sale	18	4		
Traders, Commission Men	10	11		
Auction Sales	13	27		

PRIMARY PRODUCER AND FEEDER MARKETING ARRANGEMENTS

The feeders surveyed indicated a broad range of methods used to obtain feeder cattle. Four feeders interviewed rely primarily upon direct sales; 11 rely upon traders; and 27 rely primarily upon auctions. The feeders smaller than 1,000 head one-time capacity use auctions generally as their primary input source. Feeders greater than 1,000 head reported they use direct sales and traders, especially direct sales, to a large degree.

The producers and feeders interviewed believe the direct sales method will account for most future market transactions (Table XXXVII). Nineteen producers and 21 feeders indicated that direct sales would be the future trend in marketing feeder cattle. The idea of contracting along with the direct sale appear to be favored more by the producer than by the feeder. Although 19 producers and 14 feeders agreed that more contracting would occur in the next few years, 12 producers and 22 feeders thought such would not be the trend.

#### TABLE XXXVII

	Number of Respondents			
Marketing Method	Producer	Feeder		
Direct Sale				
Yes	19	21		
Possibly	12	8		
No	15	17		
More Contracts				
Yes	19	14		
Possibly	15	10		
No	12	22		

#### FUTURE MARKETING METHODS EMPLOYED BY PRODUCER AND FEEDER

Better relations between the producer and feeder through the use of new and different management and marketing practices is a relevant determinate of the interstage coordination achievable between these levels. Actual contact in the selling activity through direct selling combined with management practices to improve the producer's product could bring about better alignment between the feeder's input needs and the producer's ability to meet those needs.

## Pricing Model Employed by Producers and Feeders

Both producer and feeder are influenced by the level of feeder cattle prices, but different sources of price information are utilized by each stage to arrive at a specific price estimate for the feeder animals (Table XXXVIII). Most producers interviewed based their selling decisions upon prices quoted by neighbors and auctions. The responding feeders generally thought the best price information came from fat cattle prices reported by USDA or commercial reports.

#### TABLE XXXVIII

## SOURCES OF PRICE INFORMATION UTILIZED BY PRODUCERS AND FEEDERS IN PRICING FEEDER CATTLE

Sources of Price	Number of Respondent		
Information	Producer	Feeder	
Private Sources	21	6	
OKC Daily Auction Prices	17	9	
Current Live-Cattle Futures Quotes	2	6	
USDA and University Outlook Reports	0	1	
Current Prices Seasonally Adjusted	1	4	
Slaughter Cattle Prices	1	19	

To complicate the decision process, producers indicated that price is at times ignored. When the producer is faced with a "hold-sell" decision, the condition of his pasture becomes a primary influencing variable. The current price of feeder cattle is not considered a highly critical factor. The introduction of pasture condition as a decision criterion hinders the market pricing mechanism since the supply and demand forces working within the market cannot affect the producer's pasture. Thus, "pasture conditions" becomes an exogenous variable which conditions the producer's decision and which--through its effect on weekly or monthly supply--becomes a barrier to interstage coordination by exerting an influence on price.

The level of coordination achieved is dependent upon a price which evolves from a common body of information available to buyer and seller. The reliance upon different sources of price information and the ignoring of price during particular time periods reduces the level of coordination achieved between stages. Price used in this manner permits market instability and accentuates the misuse of information carried by the market price.

The inability of price to reconcile differences between the stages may cause feeders to change their operating procedure to effect a change in market structure. A structural change aimed at increasing the power of price to reflect the needs of the feedlot may well evolve. Vertical integration and/or greater utilization of contracts may well bring about the conditions needed for price, or some substitute for price, to induce better coordination.

#### Product Characteristics and Evaluation of Product

Another potential problem area facing the producer-feeder sector evolves from conflicting interpretation of the worth of a feeder animal. Conceptually, the valuation of an animal as a feeder is an accurate measurement of the product's worth at the producer stage. Subsequently, alteration to the product by the feeder changes the animal's value and this modification is reflected in the value-added price received by the cattle feeder.

The value of an animal to the feeder depends upon the weight gaining potential of the animal. As a general rule, the more valuable feeder animal is one with more frame and less finish. The producer, however, may base valuation of the animal on different factors. The producer values the animal at its present weight multiplied by price. Since weight is the more easily controlled, the producer may seek to maximize weight--which usually means a high degree of finish. The difference in evaluation, unless it is accurately reflected through price premiums or discounts, creates market inefficiencies which leads to a breakdown of coordination between producer and feeder.

The producer and feeder were shown pictures of three 650-pound Choice feeder steers. Each producer and feeder were asked to rank in order (1st., 2nd., 3rd.) which animal they would like to be selling (producer) or buying (feeder) today.<sup>1</sup> A related question asked for a verbal expression of the factors important in valuation of a feeder animal. The factors given were age, breed, frame and degree of finish. These two questions were designed to help isolate differences in producer and feeder evaluation of characteristics determining the worth of a feeder animal. Table XXXIX indicates the relative weight attached by producer and feeder, on an aggregated basis, to the animal traits.

The producer respondents verbally choosing breed as an animals most important attribute considered picture No. 1 most representative of the feeder calf they would like to be selling today. Producers verbally selecting frame were approximately split between picture No. 3 and No. 2 with picture No. 1 receiving slight recognition. Finishconscious producers chose pictures No. 1 and No. 2.

The feeders surveyed who verbally emphasized breed as a feeder calf's most important characteristic specified picture No. 3 as most representative of the animal they would want to buy today. Feeders choosing frame selected picture No. 3 first then picture No. 2 and finally picture No. 1. The remaining feeders specifying finish chose picture No. 2, No. 1 and then picture No. 3.

On the surface, the analysis appears to show a fairly consistent attitude between producer and feeder toward frame and finish. Fourteen of 42 producers chose picture No. 3 and 14 the "trade-off" animal picture No. 2. Nineteen feeders selected picture No. 3 and 14 picture No. 2. However, the aggregation of producer and feeder responses has concealed part of the problem. A better indication of the bearing comparable evaluation (or lack thereof) of animal traits has upon interstage coordination is seen when producer responses are related to the producer's operational structure (Table XL). Similarly, feeder responses appear better related to their geographic location (which for all practical purposes is identical to size of operation). Table XLI shows these relationships.

## TABLE XXXIX

## AGGREGATED PRODUCER AND FEEDER VERBAL AND PICTORIAL RESPONSES TO MOST DESIRED ANIMAL CHARACTERISTICS

	Number of Respondents						
Verbal Indication of	Producer			Feeder			
the Most Important Characteristic	Picture No. 1	Picture No. 2	Picture No. 3	Picture No. 1	Picture No. 2	Picture No. 3	
Breed	8	0	2	2	1.	7	
Frame	4	12	11	4	8	11	
Finish	2	2	1	2	5	1	

### TABLE XL

## PRODUCER VERBAL AND PICTORIAL INDICATIONS OF MOST DESIRED ANIMAL CHARACTERISTICS

	Number of Responses to Pictures 1, 2 and 3 by Type of OperationCow-Calf"Stocker"Combination								
Verbal Responses	Picture No. 1	Picture No. 2	Picture No. 3		Picture No. 2	Picture No. 3	Picture No. 1	Picture No. 2	Picture No. 3
Breed	6	0	2	1	0	0	1	0	0
Frame	1	4	2	0	6	6	3	2	3
Finish	2	1 .	0	0	1	0	0	0	1

## TABLE XLI

## FEEDER VERBAL AND PICTORIAL RESPONSES TO THEIR MOST DESIRED ANIMAL CHARACTERISTICS

	Number of Respondents to Pictures 1, 2 and 3 by Areas								
	· · · ·	Panhandle	2	Northeast			Central		
Verbal Responses	Picture No. 1	Picture No. 2	Picture No. 3	Picture No. 1	Picture No. 2	Picture No. 3	Picture No. 1	Picture No. 2	Picture No. 3
Breed	0	0	0	2	0	0	0	1	8
Frame	1	4	5	0	0	3	3	4	2
Finish	0	1	0	0	1	0	0	1	0

The cow-calf man generally appears to favor the animal in picture No. 1. Nine of the 18 cow-calf producers responding selected picture No. 1, five selected picture No. 2, and four selected picture No. 3. Table XL shows how these 18 respondents were divided in their related preferences with regard to breed, frame and finish. Note that six of the nine who preferred picture No. 1 voiced an opinion that breed is the most important characteristic.

Similar information on the response patterns for the combination men and "stocker" operators is recorded in Table XL. An interesting aspect of the response pattern of the combination men is the apparent inconsistency. Eight of ten respondents verbally chose frame but only three of the eight selected picture No. 3. Twelve of the "stocker" operators selected frame as the most important value-related characteristic. Six of these 12 chose picture No. 3 and six chose picture No. 2. It could be possible that the "stocker" operator, by virtue of his closer working relation with the cattle feeder, receives a better price signal than the other producer sub-groups.

Table XLI reveals that the feeders who verbally selected breed as the most important value-related characteristic are located in the Northeastern and Central areas. The feeders most concerned about frame were the larger feeders located in the Panhandle area. As noted, eight of the feeders chose picture No. 3. However, only four of the eight were those feeders who had verbally chosen frame. Two selected finish but were concerned with "light" or "low" finish--the logical equivalent of "frame".

The inconsistencies within and between stages accentuate the possibility of organizational structure changes in the producer-feeder

subsector. Meaningful communication of an animal's value through market price can be achieved only through use of criteria common to, and interpreted the same, by both parties to a trade.

#### Timing of Buying and Selling Activities

The feeders of greater than 1,000 head capacity, of which most are located in the western Oklahoma counties, indicated a buying objective of maintaining a continuous flow of feeder cattle into their lots at all times. The majority of producers interviewed recognized this problem and considered it their problem as well since it involved their output market. The producers also showed some willingness to help achieve a continuous feeder calf flow.

To determine the extent of willingness the producers and feeders surveyed were asked a question designed to isolate a monetary figure descriptive of their willingness. Both producers and feeders were to assume that they had contracted steers to weigh 700 pounds at \$32.50 per hundredweight. The producer is asked to release these animals to the feeder one month earlier at 650 pounds to meet the feeder's fullcapacity objective. A total cost for carrying these animals one month on pasture (650 to 700 pounds) was given as \$5.00. The producer was asked what it would be worth to him to allow an earlier release. Conversely, the feeder was asked what he would pay for receiving the animals one month earlier.

A break-even profit figure (\$34.25) was calculated for the producer. This figure would allow the producer the same amount of profit selling at 650 pounds as he would have received if he sold at 700 pounds. Both producer and feeder were asked if this figure was

sufficient, too high, or too low. On the average, the break-even profit figure (\$34.25) fell \$.12 per hundredweight below what the producer considered a reasonable price (\$34.37) for such an arrangement with the feeder. The range of producer responses was from \$33.25 to \$35.75 with 40 of 43 producers at or above the break-even profit figure.

The feeders' average payment suggestion was \$33.33 per hundredweight. The responses ranged from \$32.50 to \$35.25. Nine feeders chose the break-even figure and 30 chose below. There was a \$1.04 difference (\$34.37 - \$33.33), on average, between how the producer and feeder viewed the worth of maintaining a continuous flow of feeder cattle.

The monetary value attached to such moves is a relevant determinant of this subsector's ability to achieve a higher level of coordination through the timing of buying and selling operations. The producer's willingness to supply cattle at an earlier date is largely negated by the requirement of a price considerably above the break-even price. The feeder, who will receive the initial benefit of the continuous flow, is not willing to match even the break-even price. The expressed willingness by both groups is overweighted by the prices each group would require to effect such a flow mechanism.

Conceptually, the continuous flow should allow the feeder to operate with full pens and eliminate problems relating to variable capacity. This permits fixed costs associated with the feeder's operation to be spread over a greater volume of cattle. Also, the feeder who works on this flow principal may enjoy a cheaper cost per pound of gain from the lighter average weight of animals he receives. Both changes should allow the feeder a lower cost per pound of beef produced. The reduction in costs from utilizing a lighter animal and consistent volume should enable the feeder to pay a premium above the market price for the producer's willingness to maintain the flow and deliver the animal earlier.

The producer can benefit and lose from the earlier sale. Benefits arise from a curtailment of interest charges on cattle in his possession. Cost cuts are obtainable through decreases in time, effort, facilities and materials needed to operate.

Losses arise from a drop in the producer's gross revenue received. The lighter weight calf will yield a smaller gross return unless a higher price compensates for the lighter weight. The problem of the producer is whether or not the production cost reductions and/or higher prices are sufficient to overcome any decreases in gross revenue, maintaining the same or a higher net revenue position.

The producers interviewed appeared to believe that the cost reductions and/or price increases were not large enough to offset their gross revenue loss. The movement of cattle one month earlier, they felt, would decrease their net revenue position. This belief on the part of the producer would require the feeder to pay at least the breakeven price to obtain the cattle at an earlier date. More complete understanding of the monetary implications of bringing feeder cattle in at a lighter weight, to meet needs of the feeder, would increase the likelihood of the feeder and producer working together to the mutual benefit of each.

#### General Market Performance

An efficient and effective marketing system provides each stage with an awareness of the functions performed by the other stages

within the system. If this is the case, any change in the feeders' buying practices and/or cost structure should be realized and pertinent actions implemented by the producer to maintain his position in the market. However, this situation does not always hold between the producer and feeder. The information needed by the producer, to enable him to make a managerial decision consistent with the needs of the feeder is not always present. The lack of understanding of actions by the feeder affects the producer's orientation, holds down the level of coordination achieved, and perpetuates the inefficiencies of isolationism inherent in the marketing system.

## Producer's Knowledge of Feeder Segment

The producers interviewed were asked about the feeder's ability to operate with negative margins. The 40 producers responding, on the average, indicated that a feeder receiving \$30.00 per cwt. for an 1,100 pound Choice slaughter steer should be able to pay the producer \$32.28 per hundredweight for a 650 pound Choice feeder steer. The overall range of responses was from \$29.00 to \$35.00 per hundredweight. Two producers were below \$30.00, five at \$30.00 and 33 above \$30.00.

Looking at the groups within the producers, the responding cowcalf men indicated a price of \$31.88 with a range of \$29.00 to \$35.00. The "stocker" operators average estimate was \$32.86 with a range of estimates from \$32.00 to \$35.00. The combination men were in the middle with a price of \$32.22 and range of \$30.50 and \$34.00.

The feeders interviewed indicated that they could, on the average, pay \$31.49 per hundredweight for this animal. The estimates ranged from \$28.00 to \$34.00. The distribution of feeder responses were: six below \$30.00, four at \$30.00, and 33 above \$30.00. The larger feeders located in the Panhandle ranged from \$31.00 to \$34.00 with an average of \$32.12. The Central area feeders averaged \$31.67 with a range of \$28.50 to \$34.00. The smaller Northeastern feeders averaged \$30.30 and ranged from \$28.00 to \$33.00.

It appears that only the larger Panhandle feeders feel they could operate with the average negative margin indicated by the producers as a whole. The Central and Northeastern feeders would be pushed to the limit of their price ranges to meet the price producers have estimated.

The \$.79 per hundredweight difference between the producer's average response (\$32.28) and the average price the feeders were willing to pay (\$31.49) leaves room for doubt as to the producer's knowledge of the conditions under which the feeder operates.

The producer exhibited considerably greater understanding of the feeder's operating procedure when asked about the feeder's cost structure. Thirty-seven of 42 producers believed that a 50 percent curtailment in a 10,000 head feedlot's capacity would increase the feeder's cost structure. Five producers believed it would decrease or not affect the feeder's costs.

The extent of the cost increase did not receive such agreement. The range of cost increases ran from two percent to 50 percent. The average increase was 17.26 percent. The recognition of such a cut-back in capacity as having a definite impact upon the feeder's cost structure is a point in favor of the producer. However, the variability in the actual increase leads one to believe that the impact of such a curtailment is not fully understood by the producer.

## Producer's Knowledge of Packer Segment

The producer's knowledge of the packer's operation was also tested. Producers were asked to identify the primary pricing criteria they believed the packer utilized to evaluate an animal. The purpose was to check the producers' understanding of the type of animal the feeder could sell most effectively.

Carcass cutability was considered the most important variable by the producer. Quality grade was second and dressing percentage was third (Table XLII).

#### TABLE XLII

## PRIMARY FACTORS PRODUCER FEELS INFLUENCE THE PRICE A PACKER WILL PAY FOR AN 1,100 POUND CHOICE SLAUGHTER STEER

Factors Influencing	Number of Respondents				
Price Formation	Cow-Calf	"Stocker"	Combination		
Cutability of Carcass	7	6	4		
Dressing Percentage	4	0	0		
Quality Grade	7	4	3		

This is another point in favor of the producer. The cutability of an animal can and does affect the profit position of the packer, meaning the packer may well pay more for the high cutability animal. Percentagewise, the "stocker" operator realized this point more than the cow-calf and combination men. Six of ten "stocker" operators chose cutability of carcass as the packer's primary evaluation criteria while seven of 18 cow-calf men and four of seven combination men made such a choice.

When the influence of the packer's pricing criteria was checked against the producers picture response the progressiveness of the "stocker" operator was seen again (Table XLIII). Twelve of 13 "stocker" operators agreed that the packer's valuation criteria influenced the animal they produced with six choosing picture No. 2 and six picture No. 3. Seven of 16 cow-calf men chose picture No. 1, six picture No. 2 and three picture No. 3. If the No. 3 animal would in fact yield a carcass with higher cutability, the cow-calf people did not make a choice consistent with their response concerning cutability. The combination man was found to be in the middle with three operators saying the packer's criteria influenced them but they produced animal one, two produced animal two and four animal three. Again there appears to be some inconsistency within the producer level.

The misconceptions by the producer about the feeder and packer operating procedures increase the probability of inefficiency between stages. The feeling is given that the producer is aware of some problems in the other sectors but in many instances maintains an isolationist attitude toward their solution or only partially understands the problems.

# TABLE XLIII

## INFLUENCE OF PACKER ANIMAL VALUATION CRITERIA UPON TYPE OF ANIMAL PRODUCER IS NOW PRODUCING

	· · · · · · · · · · · · · · · · · · ·							<u> </u>	
Has Packer Animal Valuation Criteria		Cow-Calf	<del> </del>		of Respo "Stocker"		C	ombinatio	
Influenced Type of Animal You Now Produce	Picture		Picture No. 3		Picture No. 2			Picture No. 2	
Yes	7	6	3	1	6	6	3	2	4
No	2	0	0	1	1	0	1	0	0

FOOTNOTE

<sup>1</sup>The pictures of the three animals are shown in Appendix A. The author with the aid of several buyers located at the Oklahoma City auction selected the picture series. The animals were chosen to designate a heavily fleshed animal (Picture No. 1) a medium fleshed animal with medium frame (Picture No. 2) and an animal with a large amount of frame and little finish (Picture No. 3).

### CHAPTER VI

#### SUMMARY, CONCLUSIONS AND INFERENCES

The working hypothesis underlying this study is as follows: There exists goal conflicts and operational inconsistencies between feeder cattle producers and cattle feeders which block the realization of a higher level of interlevel coordination within the producer-feeder subsector of the Oklahoma beef marketing system. The overall objective revolved, therefore, around an attempt to isolate such conflicts and/or inconsistencies and establish their relationship with the realized level of coordination within the producer-feeder subsector.

Surveys were conducted at the producer and feeder levels. Questionnaires were developed which explored the activities of producers and feeders along selected dimensions of the total connection between the two levels. The questions were like a "mirror image" in that the same topics were covered, but for buyer and seller respectively. Selection of each of the "dimensions" was equivalent to hypothesizing that significant problems of conflict and/or consistency prevailed along the dimension identified. Each of these dimensions or areas will be discussed briefly with emphasis on the conclusions emerging from the analysis and the implication of these conclusions.

The interviews indicated several inconsistencies and/or misconceptions between producer and feeder. These conflicts add support to the hypothesis that the pricing mechanism at this level is not properly

performing its theoretically designated functions. Price does not appear to convey the information needed for interlevel coordination.

## Overall Goal of Operation

Thirty-two of 45 producers viewed themselves as producing a raw material designed to meet the needs of the feeders. However, 35 of 46 feeders interviewed believed the producer was not providing a desirable input but was meeting his (the producer's) own standards of quality and excellence.

The difference in goal evaluation exerts significant influence on the pattern of interaction between producer and feeder. The producer's belief that he does produce an adequate input suggests that variables, other than those indicated by Oklahoma feeder's needs, affect his stated goal of operation--his own standards of quality and excellence and/or factors based on out-of-state influences.

Decisions formulated under a goal of operation contrary to feeder's expressed desires curtails attempts toward achieving interlevel coordination. The possible implications of such an inconsistency are manyfold. The inability of feeders to procure suitable animals makes difficult any attempt to maintain a continuous flow of animals of consistent quality into the feedlot. Fluctuations in this supply of animals meeting the feeder's minimal standards contributes to price variability. Increased costs from feeding an undesirable animal to achieve the feeder's normal selling weight and/or quality grade may also be incurred. The producer, in turn, may receive a more variable--and possibly smaller---income stream than would be probable if more consistency between the two levels could be achieved.

The unpredictable supply of feeder cattle may force the feeder to seek alternative sources to help protect against supply fluctuations and to insure a more usable input. Alternatives include continued outof-state buying of feeder cattle, contracts designed to guarantee certain feeder animal attributes and vertical integration backwards into the production of feeder animals.

It should be noted that the producer goal of operation as viewed by both producer and feeder gives rise to other conflicts or inconsistencies. Many of the problems discussed in the following sections are related to the inconsistency in overall goal evaluation.

Changes in Management and Marketing Practices

## Management Practices

Currently, the producer and feeder are testing the possible merits of such management practices as (1) weaning, (2) immunization, and (3) bunk-breaking. The producer has initiated implementation of such practices but feeders do not always support their actions. Feeders have generally believed they can perform these tasks at less expense. This is especially true with regard to immunization. However, weaning is definitely desired by the feeder.

The continuation of selected management practices is favored by the feeder. Twenty-nine of 46 feeders favored the continuation of weaning and bunk-breaking. However, the future of bunk-breaking is conditioned upon the producer feeding roughage and not a grain ration. Feeders still believe they can vaccinate at less expense and be sure the animal is immunized to the feeder's specifications. Twenty-three of 46 producers, especially the larger operations, were not inclined toward future use of weaning and bunk-breaking. It was their belief that the costs incurred in performing these practices were not recognized by feeders in the price they offered for feeder cattle.

The implementation of these practices to provide an input designed to eliminate problems of sickness and slow starts will aid in attaining a higher level of coordination between producer and feeder. The degree of effectiveness is dependent upon the level and distribution of benefits to each market participant. At present, it appears that (1) the absence of any guarantee of completion in such practices as immunization, and (2) the lack of willingness on the part of the feeder to pay what the producers feel the management practices are worth prevent more widespread adoption of such practices.

#### Marketing Practices

Both feeders and producers are trying different techniques in buying and selling feeder cattle. Currently, 18 of the 46 responding producers were selling direct. The majority of these producers owned more than 500 head of cattle and negotiated sales with out-of-state buyers. The smaller producers are hindered in the direct contact approach by virtue of their smaller volume. Ten of the smaller producers sold through traders and 13 utilized auctions.

The feeders interviewed used a wide range of methods in purchasing animals. Four feeders rely completely upon direct sales, 11 rely on traders and 27 primarily upon auctions. Feeders smaller than 1,000

head one-time capacity use auctions as their greatest source of feeder cattle supply. The larger feeders use traders and direct purchases.

Nineteen producers and 21 feeders indicated that direct sales would be the future trend in marketing feeder cattle. Feeders favored the direct purchasing since it increased their ability to obtain the type of animal they wanted when the calf was needed. Producers indicated that direct sales eliminated some of the costs involved in marketing their animals.

This general agreement between producer and feeder concerning future marketing transactions is a favorable step toward interlevel coordination. The contact afforded by direct sales brings about a stronger relationship between producer and feeder. Each party obtains "first-hand" information. The possibility of distortion of feeder price signals is curtailed and producers are able to receive better information for the production of a desired feeder input.

#### Pricing Model Employed by Producers and Feeders

Producers and feeders are influenced by the level of feeder cattle prices, but different sources of price information are utilized by each group to arrive at a specific price estimate for the animals. Twenty-one producers relied upon prices neighbors had received and 17 upon auction prices. Nineteen of 45 feeders watched slaughter cattle prices.

Reliance upon the same source for price information by producer and feeder would aid in the coordination process, allowing standardization of information by both operators. Producers relying upon sources of information different than feeders may not react in the same manner

nor in the same magnitude as feeders would expect them to react to changes in market conditions.

The information carried by the pricing mechanism is further reduced if and when producers reduce the influence of price and substitute non-economic variables such as "pasture conditions" in their "holdsell" decision process. Thirty-seven of 42 producers responding indicated that when faced with a decision to sell now or wait an additional month, the condition of their pasture became the primary influencing variable. Current prices of feeder and slaughter cattle were not considered highly critical factors.

### Product Characteristics and Valuation

Another potential problem area facing the producer-feeder sector evolves from conflicting interpretation of the worth of a feeder animal. The value of a feeder animal to the feedlot operator depends upon the animal's weight gaining potential. Typically, an animal with more frame and less finish will have more efficient gain potential. The producer often places less value on the frame variable, however. The weight of a feeder calf--which usually means a high degree of finish--is more easily controlled and is equated with worth (weight x price = worth). This difference in evaluation, unless it is accurately reflected through price premiums or discounts, creates market inefficiencies which lead to a breakdown of coordination between producer and feeder.

In an effort to isolate differences in producer and feeder evaluation of an animal's characteristics, two questions were devised. One question asked for a choice among three alternative pictures, the other

for a verbal expression of characteristics important in determining a feeder calf's worth.

Fourteen of 42 producers chose the picture of the feeder animal selected for frame with very little finish. There were also 14 who chose the picture of the animal with moderate frame and finish. The producers were asked to pick the picture which best typified the type of animal they would prefer to be producing. Responding to the question of which animal they would prefer to be buying, 19 feeders selected the picture showing frame and little finish, 14 the animal with moderate finish and eight the picture of the third animal characterized by heavy finish.

Overall, the feeder group showed more consistency between their picture selections and their verbal expressions of what characteristics give value to the feeder animal. The larger feeders, located primarily in the Panhandle and Western counties, mentioned frame (with low levels of finish) as being most important and usually selected the picture consistent with their stated preferences. The inconsistencies came from the smaller feeders and those located in the North Central area, an area in which the packers slaughter a relative high proportion of heifers.

The producers exhibited less consistency between their verbal expressions and their picture selections. This was especially true of the cow-calf men, those producers who typically sell weaned calves through auction markets or dealers. When frame was selected as the appropriate characteristic, the picture choice was often contradictory. The picture of the animal exhibiting a heavy degree of finish and thereby an absence of frame was selected. The subgroup of producers

labeled the "stockers", those who carry the weaned calf to higher weights and often sell directly to feeders, were less prone to make contradictory choices. The stocker's direct contact with the feeder apparently gives him information in the form of understanding the needs of the feeder which the cow-calf man does not receive.

The function of price in the market place is to transmit the feeder's designation of an animal's "true worth" to the producer. This can be achieved only if price properly reflects the monetary value of characteristics making up the animal's worth to the feeder. This enables the desired input to be transmitted to the producer for incorporation in his production process. If the value of these worth yielding characteristics is not correctly transferred through price the producer may overvalue characteristics or emphasize the wrong traits in his production and marketing decisions.

A common valuation of characteristics by producer and feeder is needed. Unless producer and feeder operate on a standard set of criteria the pricing mechanism is unable to properly obtain a feeder desired input. Thus, the system does not move closer toward a meaningful level of interstage coordination.

## Timing of Buying and Selling Activity

The feeders of greater than 1,000 head one-time capacity indicated a buying objective of maintaining a continuous flow of feeder cattle into their lots at all times. The majority of responding producers recognized this problem and deemed it relevant to their output market. Producers also indicated a willingness to achieve a continuous feeder calf flow.

To determine the extent of willingness the producers and feeders queried to isolate a monetary figure reflecting their willingness and for need. Both producers and feeders were to assume that each had contracted 700 pound steers at \$32.50 per cwt. The producer is then asked to release these animals to the feeder one month earlier at 650 pounds to meet the feeder's full-capacity objective. A total cost for carrying these animals one month on pasture (650-700 pounds) was given as \$5.00. A break-even profit figure (\$34.25) was calculated for the producer. Both producer and feeder were asked if this figure was sufficient, too high or too low.

On the average, the break-even profit figure fell \$.12 per cwt. below what the producer considered a reasonable price (\$34.37) for such an arrangement. Forty of 43 producers selected the break-even figure or a higher figure. The range of producer responses was from \$33.25 to \$35.75.

The feeders average payment suggestion was \$33.33 per cwt. Nine feeders chose the break-even figure and 30 selected a figure below the break-even point. The responses ranged from \$32.50 to \$35.25. The difference between how the producer and feeder valued the continuous flow was \$1.04 per cwt.

The expressed willingness to cooperate is apparent. However, this willingness is all but negated by the monetary values needed to institute the flow. It appears that neither producer or feeder fully realize the benefits their respective operations could obtain nor the overall benefit of interlevel coordination.

### Understanding of General Market Performance

#### The Feeder Segment

To test the producers' understanding of the feeders' operations and related needs, the producers were asked about the feeders' ability to operate with negative margins. Forty producers indicated that a feeder receiving \$30.00 per cwt. for a 1,100-pound Choice slaughter steer should be able to pay the producer, on the average, \$32.28 per cwt. for a 650-pound Choice feeder steer. The feeders indicated they could, on the average, pay \$31.49 per cwt.

More specifically, responses of the cow-calf men averaged \$31.88 ranging from \$29.00 to \$35.00. Combination men indicated an average price of \$32.22 with a range of \$30.50 to \$34.00. "Stocker" operators averaged \$32.86 with a range of estimates from \$32.00 to \$35.00.

The Panhandle feeders ranged from \$31.00 to \$34.00 with an average of \$32.12. Central area feeders averaged \$31.67 with a range of \$28.50 to \$34.00. The smaller Northeastern feeders averaged \$30.30 and ranged from \$28.00 to \$33.00.

The difference between the response patterns of the two groups and the variability within each group is potentially important. It would appear better understanding on the part of the producer group in particular of feeders' margin requirements would facilitate improved or increased levels of coordination between groups.

The producer indicated a better understanding of the feeder's cost structure. Thirty-seven of 42 producers agreed that a 50 percent curtailment in a feeder's lot capacity would increase the feeder's per unit costs. However, the range of estimates was from two to 50 percent. It is apparent from the variability of responses that the impact of a 50 percent curtailment is not completely understood by the producer and improved understanding is needed. Failure to recognize the cost implications of temporary reductions in operating levels is likely to mean failure to be concerned with the need for stable flows of feeder cattle.

### The Packer Segment

The producers' knowledge of the packer's operation was also tested to guage producers' understanding of the market confronting the feeder. Producers were asked to identify the primary pricing criteria by a packer in his evaluation of a slaughter animal. The producer selected carcass cutability as the most important variable in the packer's decision. Quality grade ranked second and dressing percentage last.

Understanding that the cutability of an animal influences the profit position of the packer aids interlevel coordination by reflecting the desires of the packer into the producing level. Specifically, six of ten "stocker" operators chose cutability of carcass as the packer's primary evaluation criteria while seven of 18 cow-calf men made such a choice.

The progressiveness of the "stocker" operator can be observed again in reference to the packer's influence and producer picture choices. Twelve of 13 "stocker" operators agreed that the packer's evaluation criteria influenced the animal they produce. Six of these operators chose the animal with the most frame and potentially highest cutability and six the next best cutting animal. Only three of 16 cowcalf men chose the animal which should offer the highest cutability.

Again there appears to be some conflict within the producer level which would block interlevel coordination.

The misconceptions by the producer about feeder and packer operating procedures increases the potential market inefficiencies between levels. The feeling is given that the producer is aware of some problems in the other sectors but may lack complete understanding of the problems.

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APPENDIX A

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## APPENDIX A

#### PRODUCER QUESTIONNAIRE

General Information

- I. Type of Operation: \_\_\_\_\_ cow-calf, \_\_\_\_ feeder calf-pasture.
- III. What percent of your gross income in 1969 came from your cattle operation?
- IV. What marketing practices do you use to sell your animals?

\_\_\_\_A. Sell Directly to Feedlot; where located \_\_\_\_\_

\_\_\_\_1. Contract basis

\_\_\_\_a. Price determination

- \_\_\_\_ price to be paid is determined at the time the contract is negotiated.
- \_\_\_\_ price is based on a specified market or market indicator on or near the agreed upon date of delivery.
- b. Length of Contract

Month contract starts -- \_\_\_\_\_ Month animals are delivered -- \_\_\_\_\_

c. What management practices are required by the contract?

\_\_\_\_\_dehorning, \_\_\_\_\_\_castration, \_\_\_\_\_immunization, \_\_\_\_weaning, \_\_\_\_\_bunk-breaking, \_\_\_\_\_other (specify) \_\_\_\_\_\_

d. Why are these practices required?

\_\_\_\_2. No contract basis.

a. What management practices are required by the feedlot?

dehorning,	castration,	immunization,
weaning,	bunk-breaking,	
other (specify)	)	

B. Sell to dealer

Sell to auction

\_\_\_\_ Sell to another producer.

1. What is the final destination of these animals:

in state, \_\_\_\_ county; \_\_\_\_ out of state,

what state

- 2. Why do you sell through a dealer, auction or to another producer as opposed to selling to a feedlot or growing lot?
- \_\_\_\_ C. Sell to warm up operation (growing lot). If this question is checked, refer to question IV and answer those questions.

## D. Custom feed.

- 1. Where is the lot located?
- 2. How is the charge determined?
  - a. on a per head basis for a specified feeding period
- \_\_\_\_b. yardage fee per head plus feed mark-up
- c. complete charge is in feed mark-up
- d. other (specify)
- V. What changes have you made in your operating practices in the last five years?
  - A. Management practices

gréater use of vaccines

\_\_\_\_ weaning of calves prior to shipment

\_\_\_\_ bunk-breaking

\_\_\_\_ feeding supplements with pasture

otł	ner	(specif;	y)

What are your reasons for making these changes?

	в.	Marketing	practices
--	----	-----------	-----------

began selling directly to feedlot

- \_\_\_\_ began selling directly to growing lot
- \_\_\_\_ began custom feeding my animals
- \_\_\_\_other (specify) \_\_\_\_\_
- VI. What are your reasons for making these changes?
- VII. What changes do you plan to make in the next five years?
  - A. Practice weaning and bunk breaking calves.

100% sure \_\_, 50% \_\_, 0% \_\_\_

B. Sell more directly to feedlot or growing lot. 100% sure \_\_\_\_, 50% \_\_\_\_, 0%

C. Use contracts more often to sell my cattle.

100% sure \_\_, 50% \_\_, 0% \_\_\_

D. Custom feed my animals.

100% sure \_\_, 50% \_\_, 0% \_\_\_

E. Other changes (specify)

VIII. Why do you plan to make these changes?

- IX. Which of the following statements reflects your feelings on how the majority of feeder cattle will be sold in the future. (Rank in order of importance)
  - \_\_\_\_ A. more animals being sold directly to feedlot
  - B. greater use of dealers
  - C. greater use of auctions
  - \_\_\_\_ D. greater sales to wheat pasture or grass pasture operations

E. greater use of custom feeding by producer

\_\_\_F. other (specify) \_\_\_\_\_

X. Why do you consider these changes to be likely in the future?

## Timing of Buying and Selling Activities

- I. Feedlots need a steady flow of animals into their lots. As handler of calves do you consider this problem to be of importance to you? Yes , No , Why or why not?
- II. Would you consider selling your animals at a lighter weight (lighter than you would normally sell) in order to maintain this steady flow to the feeder? Yes \_\_\_, No \_\_\_, Why or why not?
- III. You have contracted steers to weigh 700 pounds at \$32.50 per cwt. Your buyer asks for delivery one month earlier at 650 pounds. Would you go along and, if so, at what price? (Total cost per head from 650 to 700 pounds is \$5.00)

>-1.00 (how much greater)
-1.00
75¢
50¢
25¢
34.25 (breakeven price; equal profits from either sale)
+.25¢
+.50¢
+.75¢
+1.00

>+1.00 (how much greater)

#### Pricing

- I. What source of price information is most important to you when you begin to negotiate the sale of your animals? (Rank in order of importance.)
- \_\_\_\_A. private sources; commission agents, traders, etc.
- B. OKC auction daily prices
- \_\_\_\_C. current trading prices on live cattle futures
- D. outlook reports from university and/or USDA market analysts
- E. current price seasonally adjusted
- \_\_\_\_F. other (specify)
- II. Assume you are ready to negotiate the sale of your animals. Which of the following items are of importance to you in setting a price for these animals? (Rank in order of importance.)
  - A. cost of gain
  - B. first price you are bid
  - C. prices from local auctions or dealers
  - \_\_\_\_ D. OKC auction prices
  - \_\_\_\_ E. bids from many buyers
  - \_\_\_\_F. current trading prices on live cattle futures
  - G. other (specify)
- III. If you buy feeder calves, what factors influence you in deciding what you can pay for an animal? (Rank in order of importance.)
  - A, weight of animal
  - \_\_\_\_ B. grade of animal
  - C. length of feeding period
  - \_\_\_\_ D. level of slaughter cattle prices
  - E. price at which feedlots are buying

- IV. What factors do you consider, when making a hold-sell decision, in restimating what you expect price to do? (Rank in order of importance.)
  - \_\_\_\_A. knowledge of past seasonal price movements
  - \_\_\_\_ B. condition of grass or wheat pasture
  - C. number of cattle in feedlots
  - \_\_\_\_ D. slaughter cattle prices
  - \_\_\_ E. futures prices
  - F. other (specify)
- V. What are the primary factors that influence your decision of whether or not to hold a 650 pound steer to a weight of 700 pounds. (Rank in order of importance.)
- \_\_\_\_A. price now compared to expected price at 700 pounds
- \_\_\_\_B. adequacy of feed supply
- \_\_\_\_C. expected rate of gain
- \_\_\_\_ D. slaughter prices or carcass market prices
- E. estimated cost of additional gain
- F. other (specify)

Product Characteristics and Evaluation of Product

- I. Which factors do you consider important in determining the worth of a 650 pound choice steer? (Rank in order of importance.)
  - (Q.1) (Q.2)
- \_\_\_\_A. \_\_\_ age of animal
- B. breed of animal (pure or cross)
- C. frame (big-boned, long and tall)
- \_\_\_\_ D. \_\_\_\_ degree of finish
- \_\_\_\_E. \_\_\_ other (specify) \_\_\_\_\_

II. How would you think a buyer would evaluate the worth of this 650 pound animal? (Use answer blanks of question I.) (Rank in order of how buyer would evaluate.)

#### Overall Goals

Which of the following views best describes how you picture the animal you produce?

- 1. \_\_\_\_ You produce a raw material to meet the needs and requirements of the cattle feeder.
- 2. \_\_\_\_You produce a finished product to meet your own requirements for quality and excellence.
- 3. \_\_\_\_ Other (specify) \_\_\_\_\_\_

## Market and Feeder Performance As Viewed By The Producer

- I. Mark one of the following statements which best reflects your opinion of how the market performs?
- \_\_\_\_ A. Feeder cattle are sold at an average price without the use of premiums or discounts.
- \_\_\_\_\_ B. The poorer cattle are discounted but no premium is paid for the better cattle.
- C. A premium is paid for the better cattle and everything else is paid on average price.
- \_\_\_\_ D. Cattle are sold with premiums for the better cattle and discounts for the poorer cattle.
- \_\_\_ E. Other, (specify) \_\_\_\_\_
- II. If you selected A, B, C, or E in the above question, please select the <u>one</u> statement which best explains the reason why the market does not perform very well.
  - \_\_\_\_\_A. Insufficient competition among feeders allows them to discount poorer cattle and avoid premiums on better cattle.
  - B. Only producers with favorable reputations receive premiums on better quality cattle.
  - \_\_\_\_C. Unequal knowledge about the price the producer should receive allows the feeder to avoid paying premiums.

- \_\_\_\_ D. Because of the large number of cattle producers, the feeder can usually pay the lowest price possible for the animals he needs.
- \_\_\_ E. Other (specify) \_\_\_\_\_
- III. What factors do you think influence the price the packer will pay for a 1100 pound steer? (Rank in order of importance.)
  - \_\_\_\_ A. cutability of carcass (proportion of lean cuts to carcass weight)
  - \_\_\_\_ B. live weight
  - \_\_\_ C. dressing percentage
  - D. quality grade
  - E. breed of animal
  - F. other (specify)
- IV. Have these factors influenced you in the type of animal you are now producing? Yes \_\_\_\_, No \_\_\_\_
  - How?
- V. Assume a feeder can get \$30.00/cwt. for a 1100 pound slaughter steer; what do you think he would be willing to pay per cwt. for a 650 pound animal? (Assume total cost of gain from 650 to 1100 pounds is \$67.50 -- \$.15 per pound.)

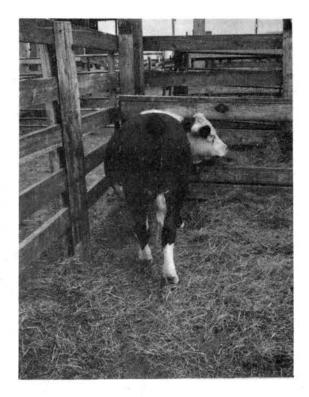
A.	28.00	F.	30.50	K.	33.00	P. 35.50
<sup>B</sup> .	28.50	G.	31.00	L.	33.50	Q. 36.00
C.	29.00	Н.	31.50	M.	34.00	R. >36.00
D.	29.50	I.	32.00	N.	34.50 if	so how much
E.	30.00	J.	32.50	0.	35.00	

- VI. If a 10,000 head feedlot fed 25,000 head per year what do you think would happen in an average year to the total costs of this feedlot if it was forced to cut back to 12,500 head.
  - A. Costs would <u>increase</u> by \_\_\_\_\_ percent per pound of beef produced.
  - \_\_\_\_\_B. Costs would <u>decrease</u> by \_\_\_\_\_\_ percent per pound of beef produced.
  - C. Costs would remain the same per pound of beef produced.

# Assuming Three Different 650 Pound Steer's Pictures Are Shown to the Producer

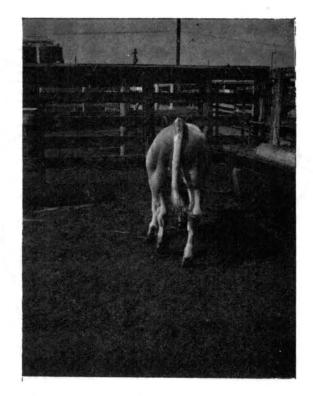
- I. Rank in order of (lst., 2nd., and 3rd.), which animal you would like to be selling today. lst. \_\_\_\_\_, 2nd. \_\_\_\_\_, 3rd. \_\_\_\_\_
- II. How would you expect the buyer of these animals to rank them? lst. \_\_\_\_\_, 2nd. \_\_\_\_\_, 3rd. \_\_\_\_\_
- III. Is your first choice the type of animal you are now producing? Yes \_\_\_\_, No \_\_\_\_. If no, do you intend to move toward the production of this animal in the near future? Yes \_\_\_\_, No \_\_\_\_. Why?

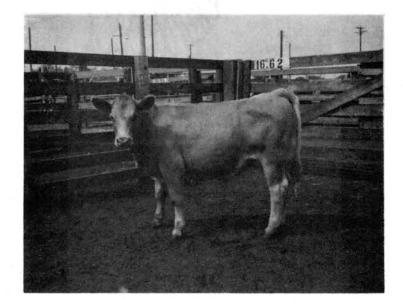
# Picture Choices





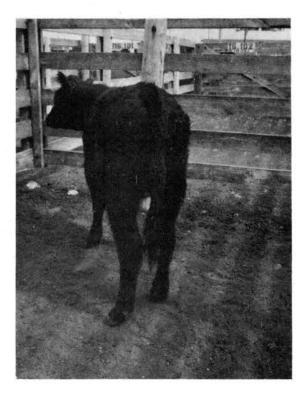
Picture 1

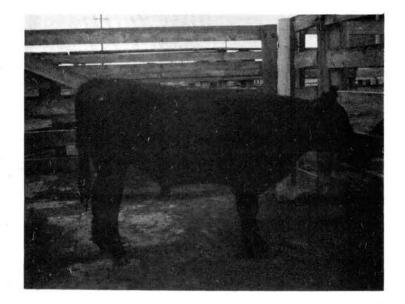




137

Picture 2





138

Picture 3

APPENDIX B

### APPENDIX B

### FEEDER QUESTIONNAIRE

# General Information

- I. What is the capacity of your lot (one-time) \_\_\_\_\_ head.
- II. Where do you buy your feeder calves? (Percent of animals purchased from each source.)
  - A. % purchased directly from cow-calf producer
  - B. % purchased from dealers, commission men etc.
  - C. % purchased from auction
  - D. % purchased from another producer (i.e., stocker)
  - E. % purchased from growing-lot
  - F. \_\_\_% custom feed
  - G. % other sources (specify)
- III. Do you use contracts when buying animals?

Yes \_\_, No \_\_\_

IV. If yes to question III, then answer the following:

\_\_\_\_ A. price determination

\_\_\_\_ price to be paid is determined at the time the contract is negotiated.

\_\_\_\_ price is based on a specified market or market indicator on or near the agreed upon date of delivery.

B. Length of typical contract

month contract starts month animals are delivered

C. What management practices are required by the contract?

dehorning,	castration,	immunization,
weaning,	bunk-breaking,	Other

D. Why are these practices required?

V. What changes have you made in your buying practices in the last five years?

A. Management practices

\_\_\_\_ 1. want animals vaccinated prior to purchase

2. want animals weaned prior to purchase

3. want animals bunk-broken prior to purchase

4. other (specify)

What are your reasons for making these changes? \_\_\_\_\_

- B. Buying practices
- 1. began buying directly from cow-calf producer
- \_\_\_\_2. began buying from growing lot
- 3. custom feeding more animals
- 4. other (specify)

What are your reasons for making these changes?

- VI. What changes would you like to see on the part of the producer in the next five years?
  - A. The practice of weaning and bunk-breaking calves prior to sale.

100% sure \_\_\_, 50% \_\_\_, 0% \_\_\_

B. Selling directly to feedlot or growing lot.

100% sure \_, 50% \_, 0%

C. More use of contracts in selling cattle.

100% sure \_\_, 50% \_\_, 0% \_\_\_

D. More custom feeding.

100% sure \_\_, 50% \_\_, 0% \_\_\_

- E. Other changes (specify)
- VII. Which of the following statements reflect your feelings on how the majority of feeder cattle will be bought in the future. (Rank in order of importance.)
  - A. more contracts between producer and feeder
  - \_\_\_\_ B. more management practices of weaning, immunization and bunkbreaking
  - \_\_\_\_ C. more animals being sold to warm-up lots
  - \_\_\_\_ D. more animals being sold directly to feedlot by cow-calf producers
  - E. greater use of dealers
  - \_\_\_\_ F. greater use of auctions
  - \_\_\_\_G. greater sales to wheat pasture or grass pasture operators by cow-calf producers
  - H. more cattle fed on a custom basis
  - \_\_\_\_I. other (specify)
- VIII. Why do you consider these changes to be likely in the future?

## Timing of Buying and Selling Activities

- I. As a feedlot operator do you feel producers are concerned about maintaining a steady flow of animals into the feedlot when they are needed? Yes \_\_\_\_, No \_\_\_ Why or why not? \_\_\_\_\_
- II. Would you consider trying to buy animals at a lighter weight (lighter than you would normally buy) in order to maintain this steady flow of feeder calves into your lot? Yes \_\_, No \_\_, Why or why not?
- III. You have contracted steers to weigh 700 pounds at \$32.50 per cwt. You ask the producer to let you have these animals one month earlier at 650 pounds in order to keep your lot full. What would it be worth to you per cwt. if the producer would deliver earlier? (Total cost per head from 650 to 700 pounds is \$5.00.)

>-1.00 (how much greater)

\_\_\_\_\_ -1.00

### Pricing

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- I. What source of price information is most important to you in deciding on the price you will offer for feeder cattle? (Rank in order of importance.)
- \_\_\_\_A. private sources; commission agents, traders, etc.
- B. OKC auction daily prices
- \_\_\_\_C. current trading prices on live cattle futures
- \_\_\_\_D. outlook reports from university and/or USDA market analysts
- E. current prices seasonally adjusted
- \_\_\_F. other (specify) \_\_\_\_\_
- II. Assume you are ready to negotiate the purchase of a group of animals. Which of the following items are of importance to you in setting the price you can afford to pay for these animals. (Rank in order of importance.)
  - A. how many days cattle will be on feed
  - \_\_\_\_\_B. estimated cost of gain
  - C. estimate of selling price for cattle when finished
  - D. whether you have too many pens setting empty
  - \_\_\_\_E. other (specify) \_\_\_\_\_

- III. What factors do you rely upon in making your decision to replace a lot of slaughter steers with a new lot of feeder steers. (Rank in order of importance.)
  - \_\_\_\_1. price of slaughter steers
  - \_\_\_\_2. price of feeder steers
  - 3, amount of expected gain
  - 4. cost of expected gain
  - \_\_\_\_5. feed costs
  - \_\_\_\_ 6. when they will grade
  - \_\_\_7. other (specify) \_\_\_\_\_

Product Characteristics and Evaluation of Product

- I. Which factors do you consider important in determining the worth of a 650 pound choice steer. (Rank in order of importance.)
  - (Q.1) (Q.2)
- \_\_\_\_A. \_\_\_\_age of animal
- B. breed of animal (pure or cross)
- \_\_\_\_C. \_\_\_\_frame (big-boned, long and tall)
- \_\_\_\_ D. \_\_\_\_ degree of finish
  - E. \_\_\_\_other (specify) \_\_\_\_\_
- II. How would you think the producer would evaluate the worth of this 650 pound animal? (Rank in order of how producer would evaluate.) (Use answer blanks of question I.)
- III. Assuming three different 650 pound steer's pictures are shown to the feeder. Rank in order of (lst, 2nd, or 3rd), which you would like to be buying today.

lst. \_\_\_\_, 2nd. \_\_\_\_, 3rd. \_\_\_\_

- Why? \_\_\_\_\_
- IV. How would you expect the seller of these animals to rank them?

1st. \_\_\_\_, 2nd. \_\_\_\_, 3rd. \_\_\_\_

If different from listing in III, why the difference?

## Overall Goals

- I. Which of the following views best describes how you feel the producer pictures the animal he produces.
  - \_\_\_\_1. He produces a raw material to meet the needs and requirements of the cattle feeder.
  - \_\_\_\_2. He produces a finished product to meet his own requirements for quality and excellence.
  - \_\_\_\_ 3. Other (specify) \_\_\_\_\_
- II. Which of the following best describes the objectives or goals of your feeder calf buying policy?
  - \_\_\_ A. buy to maintain a full lot
  - \_\_\_\_ B. buy after present lot has been sold
  - C. concentrate buying when feeder calf prices are good
  - \_\_\_\_ D. buy when new lot's profit potential is greater than old lot's profit making ability
  - \_\_\_ E. other (specify) \_\_\_\_\_

# Market Performance As Viewed By Feeder

- I. Mark one of the following statements which best reflects your opinion of how the market performs.
- \_\_\_\_ A. Cattle are purchased at an average price without the use of premiums or discounts.
- B. The poorer cattle are discounted but no premium is paid for the better cattle.
- \_\_\_\_C. A premium is paid for the better cattle and everything else is paid an average price.
- \_\_\_\_ D. Cattle are sold with premiums for the better cattle and discounts for the poorer cattle.
- E. other (specify)
- II. If you selected A, B, C, or E in the above question, please select the <u>one</u> statement which best explains the reason why the market does not perform very well.

- \_\_\_\_A. Insufficient competition among feeders allows them to discount poorer cattle and avoid premiums on better cattle.
- \_\_\_\_ B. Only producers with favorable reputations receive premiums on better quality cattle.
- \_\_\_\_C. Unequal knowledge about the price the producer should receive allows the feeder to avoid paying premiums.
- \_\_\_\_ D. Because of the large number of cattle producers, the feeder can usually pay the lowest price possible for the animals he needs.
- \_\_\_ E. Other (specify) \_\_\_\_\_
- III. Assume as a feeder you can get \$30.00/cwt. for a 1100 pound slaughter steer; what would you then be willing to pay for a 650 pound feeder steer.

A.	28.00	F.	30.50	K.	33.00	P. 35.50
B.	28.50	G.	31.00	L.	33.50	Q. 36.00
C.	29.00	H.	31.50	M.	34.00	R. >36.00
D.	29.50	I.	32.00	N.	34.50	if so how much
E.	30.00	J.	32.50	0.	35.00	

# VITA 🍾

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Candidate for the Degree of

Master of Science

Thesis: ECONOMIC IMPLICATIONS OF INTERLEVEL GOAL CONFLICT AND OPERA-TIONAL INCONSISTENCY IN THE BEEF MARKETING SYSTEM: THE PRODUCER-FEEDER SUBSECTOR

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