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To the Graduate Council:

I am submitting a thesis written by Howard Stanley Wills entitled "Outlook for the Tennessee Producers Livestock Marketing Association in Selling Middle Tennessee Livestock." I recommend that it be accepted for nine quarter hours credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Economics.

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OUTLOOK FOR THE TENNESSEE PRODUCERS LIVESTOCK MARKETING ASSOCIATION IN SELLING MIDDLE TENNESSEE LIVESTOCK

A Thesis

Presented to

the Graduate Council of

The University of Tennessee

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

---

by

Howard Stanley Wills

March 1961

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CHAPTER I

INTRODUCTION

Livestock production is one of Tennessee's most important sources of farm income. In 1957, the income from the sale of livestock was $132.1 million. Of this, $72.2 million was for cattle and calves, $56.3 million for hogs, and $3.6 million for sheep.[1] Livestock produced by farmers can be of greatest value to producers when they are marketed to outlets that give highest returns. Tennessee livestock producers have more than 60 markets from which to choose a sales outlet. In addition, there are more than a score of easily accessible outlets outside the state boundaries. Also, farmers may deal with agencies or dealers who purchase livestock direct from farmers and then forward the animals for sale either on the terminal market or direct to the packer. Some of these dealers devote much of their time to this type of transaction, and the group includes farmers, truckers, and speculators.

Livestock enterprises are operated under different conditions and have different opportunities for marketing. Each farmer should make his own market decision in the light of how he can get the greatest net returns from his sales. To determine this, such factors as quoted prices, sorting practices, reputation of the market, and various costs involved in marketing all should be considered. Neither high prices for the

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[1] Agricultural Trends in Tennessee, Tennessee Department of Agriculture, November, 1958, pp. 124, 130, 138.

animals nor low costs for selling services are adequate guides by themselves. In some cases, the terminal market may bring greatest net sales revenue; in other cases, auctions or direct sales to packers may be more profitable.

Livestock production is important in all sections of Tennessee. In 1954, 42.8 percent of the state's livestock was produced in the 35-county livestock trade area surrounding Nashville.[2] Market outlets in the trade area include 28 auction markets and the terminal market at Nashville, in addition to many local buyers, packers, and speculators. Historically, the terminal market in Nashville has been the key market of the area from the standpoint of establishing prices. The terminal market, at the Nashville Union Stockyard, is five blocks from the state Capitol Building and seven blocks from the downtown business district. To reach the market, farmers must drive approximately 10 miles through suburban and urban traffic (Figure 1). Many farmers are not familiar with driving a large truck through traffic so in areas in which auction markets have been established, they tend to use these markets rather than drive through city traffic to the terminal stockyards.

The terminal market is so near the business district of Nashville, and therefore, the value of the stockyards company's property for other uses has been increasing rapidly. Facilities at the stockyards are not in the best repair; buildings and pens need painting; unloading and

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[2]U. S. Bureau of the Census, Tennessee Census of Agriculture 1954, Washington, D. C., p. 132.

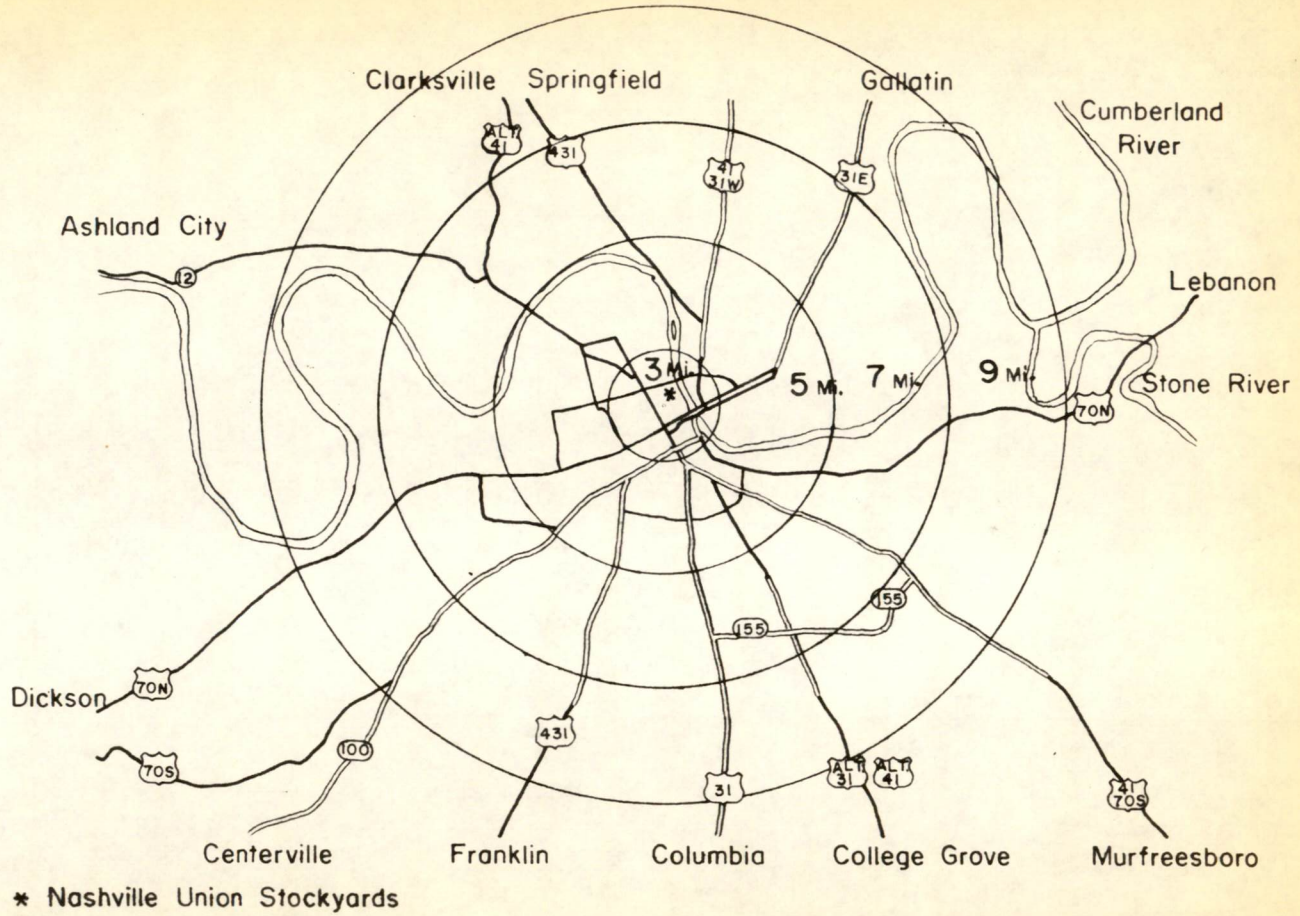

Figure 1. Suburban Area of Nashville, Tennessee, indicating routes trucks must travel to reach the Nashville Union Stockyards.

loading facilities are not the best for handling the livestock brought to the market; and additional scales and space are needed.

With this situation at the terminal market, and the continued growth of local auction markets, there has been a steady decline in the number of livestock marketed at the terminal market. In 1959, 387,194 head of livestock were sold through the Nashville Terminal Market as compared to 452,619 head in 1957 (Table I).

One of the major firms operating on the Nashville Terminal Market is the Tennessee Producers Livestock Marketing Association. This cooperative association, established in 1930, plays an important role in marketing live meat animals at the terminal market. The Producers' association and the whole terminal market has experienced a decline in the number of animals handled. However, Tennessee Producers Livestock Marketing Association has handled an increasing percentage of the total livestock marketed at the Nashville market (Table II). In 1959, 75,821 head of livestock were consigned to the Producers' association as compared to 82,982 head in 1957 (Table III).

Aware of these difficulties, of declining volume, and market accessibility, the association requested help from the Farmer Cooperative Service of the United States Department of Agriculture in meeting the problem posed by the declining volume of business on the terminal market. The Farmer Cooperative Service, in conjunction with the University of Tennessee Agricultural Experiment Station, undertook to study the situation faced by the Producers' association to provide information that would help the association to adjust to the changing livestock marketing situation in its trade area. The work plan for the joint effort covers these major points:

TABLE I

NUMBER OF LIVESTOCK HANDLED BY THE NASHVILLE TERMINAL MARKET, 1952-1959[a]

Species	1952	1953	1954	1955	1956	1957	1958	1959
Cattle	132,049	142,931	169,465	152,637	150,049	156,429	137,387	118,238
Calves	44,503	44,044	50,543	44,022	43,973	42,151	36,504	30,879
Hogs	185,710	111,818	108,399	120,257	174,576	184,143	159,017	183,942
Sheep	72,145	78,168	74,488	74,200	78,403	69,891	65,229	54,135
Total	434,407	376,961	402,895	391,116	447,001	452,614	398,137	387,194

[a]Records of the Nashville Union Stockyards 1952-1959.

TABLE II

THE PERCENT OF LIVESTOCK, BY SPECIES, CONSIGNED FOR SALE TO TENNESSEE PRODUCERS LIVESTOCK MARKETING ASSOCIATION OF THE TOTAL RECEIPTS HANDLED BY THE NASHVILLE UNION STOCKYARDS, 1952 to 1959[a]

Year	Species				Total
	Cattle	Calves	Hog	Sheep	
	Percent	Percent	Percent	Percent	Percent
1952	14.0	13.4	17.3	20.3	16.5
1953	14.3	13.5	19.3	19.9	16.8
1954	15.2	12.3	19.1	21.1	17.0
1955	15.8	11.8	20.4	20.7	17.7
1956	16.4	11.3	20.8	20.5	18.4
1957	15.9	12.1	20.7	20.9	18.3
1958	16.9	11.8	22.6	23.5	19.8
1959	17.8	11.7	21.1	22.2	19.5

[a]Source: Records of the Nashville Union Stockyards, 1952 to 1959.

TABLE III

NUMBER OF LIVESTOCK HANDLED BY THE TENNESSEE PRODUCERS LIVESTOCK MARKETING ASSOCIATION, 1952-1959[a]

Species	1952	1953	1954	1955	1956	1957	1958	1959
Cattle	19,207	20,457	25,811	24,192	24,668	24,918	23,341	21,164
Calves	5,989	5,984	6,235	5,232	5,006	5,126	4,332	3,610
Hogs	32,189	21,633	20,724	24,611	36,484	38,289	36,008	38,907
Sheep	14,687	15,631	15,760	15,370	16,098	14,649	15,364	12,040
Total	72,072	63,705	68,530	69,405	82,256	82,982	79,045	75,721

[a]Records of the Tennessee Producers Livestock Marketing Association, 1952-1959.

(1) A cost and income analysis of the association for the years 1952-1958.

(2) The percent of livestock marketed in Middle Tennessee that the association is currently handling.

(3) The adequacy of the present marketing facilities and services for livestock producers in the association's trade area.

(4) The possibility of the association establishing auctions and other types of marketing programs to compensate for the declining volume of business at the terminal market.

I. PURPOSE OF STUDY

The major purpose of this study is to determine the adequacy of existing livestock marketing facilities and services in the producers' association's trade area, and determining the position of Tennessee Producers Livestock Marketing Association in this marketing structure.

More specifically, the objectives of this study are:

1. To determine the existing facilities[3] and services[4] available to sellers of livestock in the 35-county area of Middle Tennessee served by the Tennessee Producers Livestock Marketing Association.

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[3]Physical facilities include: size of land area, size of buildings, direction of livestock flow, number of pens, scales unloading and loading chutes.

[4]Services include: market time, market cost, loading and unloading time, method of payment, number of buyers, and the order of sale.

2. To establish the facilities and services that would be adequate for anticipated volumes of animals moving through the terminal and auction markets in the trade area of the Tennessee Producers Livestock Association and to use these figures as a criteria for measuring "adequacy" of the existing facilities.
3. To determine the factors affecting the decisions of livestock producers among alternative market outlets in the 35-county trade area of Middle Tennessee served by Tennessee Producers Livestock Marketing Association.

II. METHOD AND PROCEDURE OF STUDY

Area Studied

The area selected for this study was the 35 counties which compose the normal trade area of the Tennessee Producers Livestock Marketing Association at the Nashville terminal market (Figures 2 and 3). The items studied in this area were the Nashville terminal market, the auction markets, the patrons of the Producers' association and the non-patrons of the Producers' association. The markets were studied to gather and evaluate information on the physical facilities and services to determine their adequacy. The study of the patrons of the Producers' association was to determine the attitudes of the members toward services offered by the association and by alternative marketing agencies offered by the association and by alternative marketing agencies offering the same services in the area. The non-patrons of the association were studied and information was gathered from them on attitudes toward the Tennessee Producers Livestock

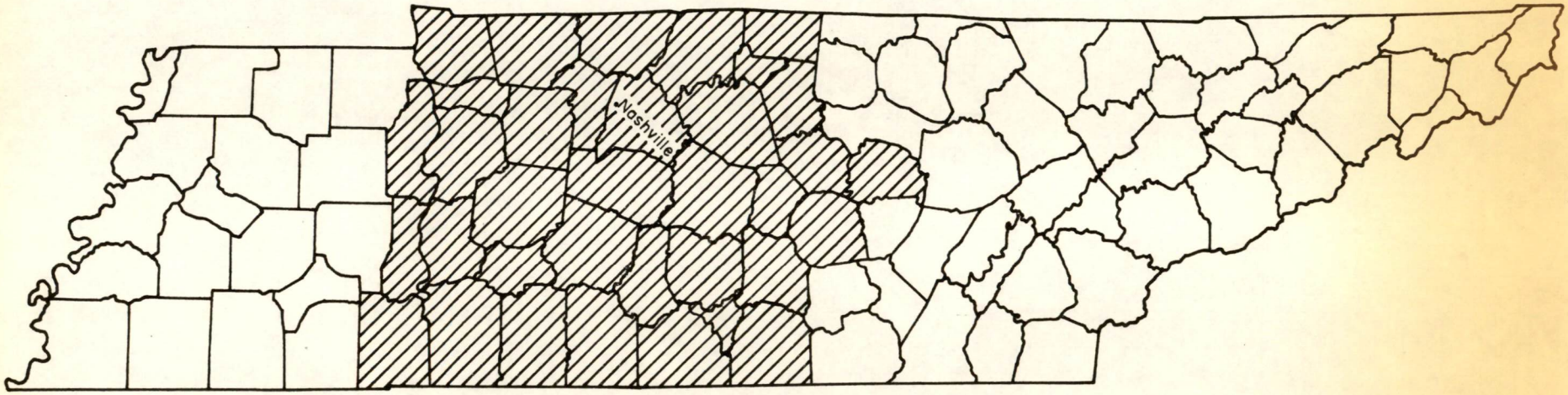

Figure 2. Sample Area, 35 Middle Tennessee Counties, representing the trade area of Tennessee Producers Livestock Marketing Association.

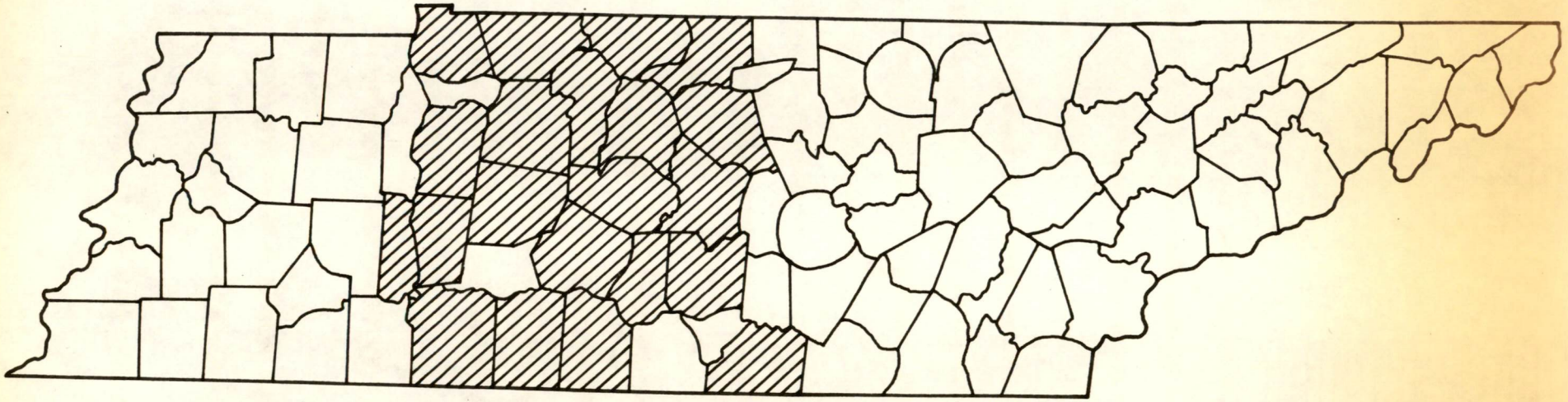

Figure 3. Counties in the 35-County Trade Area of Tennessee Producers Livestock Marketing Association, from which schedules were taken.

Marketing Association and services offered by alternative livestock marketing agencies operating in this area.

Sampling Procedure

From the 35-county trade area of Tennessee Producers Livestock Marketing Association, the following sample was taken from the auction markets and livestock producers in the area:

(1) Auction Markets

The manager or owners of 24[5] Middle Tennessee auction markets were interviewed on market procedure and facilities that existed at their markets. The survey questionnaire is found in Appendix A.

(2) Livestock Producers

(A) Members of Tennessee Producers Livestock Marketing Association.

A random sample of 100 producers was taken from a list of members from each county distributed by the proportion of livestock marketed through producers in 1958 (Table IV). The survey questionnaire is found in Appendix B.

(B) Non-members of Tennessee Producers Livestock Marketing Association.

To select this sample each of the 100 members of Tennessee Producers Livestock Marketing Association

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[5]There are 28 auction markets in this 35-county trade area, but only 24 reported in the survey.

TABLE IV

PERCENT OF LIVESTOCK SOLD, BY COUNTY AND BY DISTRICT, TENNESSEE PRODUCERS LIVESTOCK MARKETING ASSOCIATION AT THE NASHVILLE UNION STOCKYARDS, NASHVILLE, TENNESSEE, 1958[a]

District	County	Percent
1	Davidson	11.20
1	Cheatham	3.10
2	Robertson	7.20
3	Macon	.05
3	Sumner	6.51
3	Tromdale	.35
4	Houston	.12
4	Montgomery	3.36
4	Stewart	.44
5	Benton	.25
5	Dickson	7.10
5	Humphreys	1.50
6	Decatur	.54
6	Hickman	5.01
6	Lewis	.32
6	Perry	1.36
7	Hardin	.16
7	Lawrence	1.80
7	Wayne	1.72
8	Giles	1.14
9	Maury	18.06
10	Williamson	12.21
11	DeKalb	.44
11	White	.05
11	Wilson	3.48
12	Smith	.35
13	Cannon	.20
13	Rutherford	2.92
13	Warren	.80
14	Bedford	3.50
14	Moore	.04
14	Coffee	.52
15	Franklin	1.72
15	Lincoln	.06
15	Marshall	2.12
Total		100.00

[a]Source: Ten percent sample of livestock sold on through Procedures on the Nashville terminal market in 1958.

interviewed was asked the name of his nearest neighbor who did not patronize Tennessee Producers Livestock Marketing Association. The survey questionnaire is found in Appendix C.

(3) A study also was made at the Nashville terminal market to determine their market facilities and services.

CHAPTER II

FACILITIES AND SERVICES OFFERED BY TENNESSEE AUCTION MARKETS

The auction market is one of the oldest methods of marketing livestock in the United States. Records consulted indicate that the first livestock auction in the United States was held in Ohio in 1863.[1] The only available record indicates that Tennessee's first livestock auction was established at the Fayetteville stockyards in Fayetteville in 1891.[2]

> The early growth of auctions was slow and it was not until after 1920 that appreciable numbers of livestock were sold by this method. The rapid growth of livestock auctions after the 1920's is not traceable to a single cause but may be explained by a combination of factors: (1) the overall movement toward decentralization of livestock marketing; (2) low prices of livestock caused by the depression starting late in 1929; (3) the wider dissemination of market information; (4) the farmer's desire to maintain more control over his livestock through the marketing operation; (5) the producers' dissatisfaction with what they thought were high marketing charges, and (6) the need of small producers for local markets.[3]

I. MARKET OPERATIONS

Introduction

It was found that nearly all Tennessee auction markets sort livestock into grades and market classes. Animals which are graded, are

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[1] Stewart H. Fowler, The Marketing of Livestock and Meat, The Interstate Printers and Publishers, Inc., Illinois, 1957, p. 222.

[2] This date was established by the author during interviews at 24 auction markets that were surveyed. No earlier date could be established from records kept by the State of Tennessee Stockyard License Bureau.

[3] George E. Turner, et al., Texas Livestock Auction Markets, Method and Facilities, Texas Agricultural Experiment Station, Texas Miscellaneous Publication 93, April 1953, p. 3.

weighed as they are received; those that are sorted into market classes are weighed as they are sold. Calves, sheep, goats, and hogs normally are sorted into grades and cattle in market classes. Occasionally, when the hogs and sheep consignments are small, they are not graded. Instead, they are sold on an individual consignment basis. Other operating practices at these markets include: (1) marking or tagging animals according to ownership; (2) yarding or placing livestock of the same grade or market class of several consignors in the same pen; (3) selling livestock, either by lots or individually in the sales ring; and (4) returning livestock, following their sale to the pens in which they were previously yarded to await removal from the yards by the buyer.

In Tennessee, auction markets may be classified by the method of weighing and selling livestock: (1) markets that weigh all species of livestock immediately following their sale; (2) markets that sort and weigh hogs and sheep on arrival before sale, and weigh cattle immediately following their sale; (3) markets that weigh all species on arrival; and (4) markets that buy hogs and sheep direct daily but do not sell them through the sales ring on market day, rather they sell the livestock direct to an order buyer.

In the survey of 24 Tennessee auction markets most auctions use the marketing procedure of sorting cattle into grades, weighing after they are sold and weighing hogs, sheep and calves upon arrival. These steps in the market operation can be grouped into 3 major operating cycles: (1) receiving; (2) selling; and (3) loading out.

Receiving Livestock

In the survey of Middle Tennessee auction markets, manager indicated that livestock arrived at the markets in trucks or trailers. All species of livestock arriving at the market are unloaded at the same truck dock. Located on the truck dock are from 3 to 11 chutes which vary in height to accommodate varying sizes of vehicles delivering the livestock. Most of the livestock markets surveyed began receiving livestock at 6:00 a.m. and continued until all the livestock are in the market, usually about 1:00 p.m. The receiving period was approximately the same for all markets regardless of the volume handled. Generally, receipts in the summer months were highest between 8:00 a.m. and 11:00 a.m.

The variation in time required to unload livestock on an auction market is determined by: (1) number of livestock hauled in an individual vehicle; (2) numbers of workers employed by the stockyards, and (3) methods used by the stockyards receiving livestock. The average time required for unloading trucks, by the auctions surveyed, ranged from 5 to 15 minutes after the truck reached the unloading dock. On days in the peak marketing season, however, most trucks had to wait in line from 10 to 20 minutes before reaching the docks. Taking into consideration the waiting time and unloading a truck was 12.4 minutes.

After unloading from the truck at the market the animals are: (1) driven into alleys where they are sorted, graded, and marked or tagged; (2) driven on to the scale platform where a scale ticket is prepared and each animal is weighed, if graded; or if the animal is placed in a pen according to its market class, being weighed after it is sold;

and (3) placed in holding pens until time for sale. Most of these operations are performed in the indicated sequence. When livestock are sold by the head the weighing operation was omitted.

Selling Livestock

The selling of livestock on the auction markets surveyed generally began about 1:30 p.m. Most auctions attempt to receive all livestock offered for sale on a given day before the selling cycle actually begins because labor use in receiving livestock is shifted to the duties involved in the selling cycle. Once selling begins, it continues until all the animals in the market are sold, usually ending about 3:30 to 4:00 p.m.

The auctions surveyed indicated that they followed a similar order of sale in selling livestock. The order of sale seemed to be more important to the buyers than the managers because buyers want to know when a particular grade or market class is sold so he could be at the market and not have to spend the day waiting for the species or market class of livestock in which he is interested to be sold. Sixty-six percent of the surveyed auctions use the following sale order; graded hogs, ungraded hogs, sows, boars, veal calves, light cattle, heavy cattle, bulls, milk cows, and sheep. In some cases all graded livestock are sold in pens rather than being driven through the ring and all ungraded livestock are sold individually through the ring.

The number of buyers on the market is usually determined by the volume and grade of livestock sold through the market. Of the 24 auction markets surveyed, the number of buyers varied from 9 to 32 (Table V). Everyone, however, attending the auction market is a potential buyer.

TABLE V

LOWEST AND HIGHEST NUMBER OF BUYERS REPORTED PRESENT ON MARKET DAYS AT 24 MIDDLE TENNESSEE AUCTIONS, 1960, BY TYPE OF BUYER

Type Buyer	Low	High
Order	1	6
Packer	3	6
Other[a]	5	20
Total	9	32

[a]Other buyers include local traders and speculators.

Payment to the livestock producer was made either by check on the day of sale or check sent by mail the following day. The producer generally has his choice of which method he desires.

Market Charges

Selling charges in Tennessee vary from market to market. The charges usually are for: (1) yardage and (2) commission or handling charges. These charges are of three types based on: (1) weight of the animals; (2) dollar value of the animals. Nineteen of the auction markets surveyed in Middle Tennessee used the commission charges in (Tables VI, VII, and VIII) five markets in the survey used a combination of these charges. Market charges are set by the individual auction manager but are regulated and controlled by the Packers and Stockyards Division of the United States Department of Agriculture.

Volume Handled

The volume handled by an individual auction market depends upon: (1) location; (2) prices paid; (3) number of animals in the supply area.

Livestock marketing is seasonal in nature, thus causes the markets to have a greater volume of livestock at various seasons of the year. Those markets that market primarily hogs had two peak seasons, spring and fall, and cattle markets usually had their peak season in the fall and the peak season for sheep and lambs in the spring.

The auction cannot predetermine the volume expected per market day and therefore must be able to market any quantity that arrives on the market day (Table IX).

TABLE VI

AUCTION MARKET YARDAGE CHARGE, BASED ON THE WEIGHT AS INDICATED BY MANAGERS OF 5 AUCTION MARKETS SURVEYED IN MIDDLE TENNESSEE,[a] 1960

Species and weight class	Dollars per animal
Milk cows	2.25
Bulls	2.25
Cattle and calves 301 pounds and over	1.25
Cattle and calves 101 to 300 pounds	.75
Cattle and calves under 100 pounds	.50
Hogs	.25
Lambs	.25

[a]These markets also charge a 1 percent commission on the gross sales after the yardage is deducted.

TABLE VII

MARKETING CHARGES REPORTED BY 8 MIDDLE TENNESSEE AUCTION MARKETS BASED ON DOLLAR VALUE OF THE ANIMALS, 1960[a]

Species	Dollars per animal
Cattle and calves	
Bulls	2.50
Milk cows	2.50
$75.01 and up	2.50
$50.01 to $75.00	1.75
$25.01 to $50.00	1.50
$10.01 to $25.00	1.00
$1.00 to $10.00	.50
Hogs	
Soward boar	1.00
Shoats	.60
Sheep	
Ewes	1.00
Lambs	.50

[a]These auction markets also charge 1/2 of 1% of the gross sales for insurance.

TABLE VIII

MARKETING CHARGES OF 6 MIDDLE TENNESSEE AUCTIONS BASED ON WEIGHT AND DOLLAR VALUE OF THE ANIMALS, 1960[a]

Species	Dollars per animal
Bulls	2.50
Milk cows	2.50
Cattle 400 pounds and over bringing over $175.01	2.00
Cattle 400 pounds and over bringing $40.01 to $75	1.75
Cattle under 400 pounds and bring under $40	1.50
Calves under 400 pounds and bring $25.01 to $75	1.75
Calves under 400 pounds and bring $10.01 to $25	1.00
Calves under 400 pounds and bring $3.01 to $10	.75
Calves under 400 pounds and bring $3.00	.50
Mature hogs	1.00
Shoats	.50
Sheep	.50

[a]These markets also charge a 1 percent yardage charge on the gross sale after the commission charge is deducted.

TABLE IX

NUMBERS OF ANIMALS REPORTED SOLD PER MARKET DAY,
AT 21 MIDDLE TENNESSEE AUCTIONS, 1960

Species	Daily volume		
	Peak of season	Average for year	Range during the year[a]
	No. head	No. head	No. head
Cattle	361	149	35-2,000
Calves	230	100	12-1,200
Hogs[b]	391	195	20-800
Sheep[c]	164		20-500

[a]Range includes the lowest number marketed to highest on 21 auction markets in Middle Tennessee. Three of the 24 auctions failed to indicate the market volume.

[b]Hogs are bought daily at some auctions.

[c]Sheep marketing is seasonal and has a peak period but no average.

Physical Market Facilities

Livestock auction markets are operated to make a profit. To do this they must have the facilities necessary to carry out the marketing operations to the satisfaction of the livestock producer. Physical facilities of an auction market include: (1) land; (2) building under roof; (3) pens not under roof; (4) loading and unloading chutes; (5) scales; (6) parking area; (7) number of employees; and (8) total market area.

Size of Auction Markets

Livestock auction markets in Tennessee vary in size according to the major type of livestock sold and the expected volume. Most of the 24 auction markets surveyed were built in the early 1930's. They did not need a large space on which to construct the market because livestock was hauled primarily in wagons or small trucks. Markets built then used about three-fourths of an acre. The newer markets that have been constructed, however, have land area of 3 to 6 acres. The sizes of the auction barns also vary. The older barns ranged from 7,500 square feet to 15,000 square feet, while the range of newer barns is from 10,000 to 25,000 square feet.

The number of pens located under cover in the auction barns also varies with the size of the barn, type livestock sold and the volume of livestock expected to be sold. The number of pens in the markets surveyed ranged from 5 to 25 cattle pens and 2 to 15 hog pens. In most of the auction barns these pens may be used for more than one species of livestock. Of the markets surveyed, only one had any facilities for handling overflow livestock or for holding animals after they had been purchased.

This particular auction had 3 outside pens measuring 20 by 50 feet that could be used for this purpose.

Receiving Livestock

Receiving livestock at auction markets was described earlier in this chapter but a brief explanation of the facilities needed to receive livestock is in order. The necessary facilities required to receive livestock at the yard include: (1) chutes and unloading docks, and (2) scales.

On the 24 markets surveyed the number of chutes ranged from 3 to 11 used for both unloading and loading purposes. All the auctions had at least one chute constructed to load or unload double decked trucks. The chutes were designed to unload trucks of various heights. The number of chutes of a market was determined by the size of the market and the volume of livestock sold.

Only two of the surveyed markets had more than one set of scales. These two markets had two sets but said they used only one except in the peak season of marketing.

Parking Area

Parking facilities for auction markets vary from market to market. The size of the parking area was determined by the year the market was built. The size of the parking area varied from nothing but the street or road side up to 174,240 square feet (Table X).

The parking area consisted of either a graveled area or an open field. In many instances the auctions had a small area which was graveled

TABLE X

AREA ALLOTTED FOR PARKING AT 24 MIDDLE TENNESSEE AUCTION MARKETS,[a] 1960

Area (square feet)	Number of markets
None	2
1-1,000	3
1,001-5,000	3
5,001-10,000	9
10,001-15,000	3
15,001 and over	4

[a]Four markets did not supply information to this question.

and an open ungraveled area that was used by the patrons for an overflow parking space.

Market Employees

The number of employees of an auction market was determined by the size of the market and the volume of livestock sold. Employees of the auction markets surveyed varied from 3 to 7 office workers and 3 to 14 yard workers.

Employees of an auction market in many instances are shifted from one job to another as the marketing cycle takes place.

In all of the auctions surveyed but two, the number of employees in the office did not vary with the season of livestock marketing. In all cases except one, however, total yard number of employees always increased in the spring and fall peak marketing seasons.

Market Supply Area

The radius of supply of livestock to an auction market cannot be actually determined as the livestock producer has his preference as to where he desires to market his livestock. Most markets, however, consider the county in which they operate as their area of supply. If there is not a livestock market in an adjoining county when this area can also be considered their market area. The average radius estimated by the auction surveyed markets was from 20 to 50 miles.

Physical Facilities and Services

The facilities and services necessary for marketing livestock in Middle Tennessee vary from one market to another. In Chapter III a

possible arrangement for an auction market was established, containing 31 pens, 3 loading and unloading chutes, 1 set of scales and parking area for 100 to 150 vehicles. These facilities meet the requirements for marketing the average number of livestock, 158 head of cattle, 100 calves, 200 hogs, and 75 head of sheep marketed on an average market day at a Middle Tennessee auction market.

CHAPTER III

PHYSICAL FACILITIES AND SERVICES NEEDED BY AN AUCTION MARKET

With the growth of auction markets in Tennessee and the increased volume of these markets, a means of measuring adequacy of the facilities and services offered to producers needs to be developed. To help develop this measure of adequacy 24 Middle Tennessee auction markets were surveyed to determine (among other) items their average volume of business. According to this survey the average volume[1] of livestock sold on a market day was 158 head of cattle, 100 head of calves, 200 hogs and 75 sheep.[2] To accommodate these numbers of livestock, certain facilities and services are required, and these facilities for receiving, penning, selling, holding, feeding, watering the livestock, and parking trucks and (2) services which are concerned with receiving, selling, and loading out.

I. MARKET FACILITIES

The proposed layout provides an area for: (1) receiving livestock; (2) facilities for penning; (3) facilities for selling; (4) holding

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[1]The average volume was determined by taking the volume of livestock in the peak season and the average volume marketing on an average market day and finding the average number of the two volumes. This, however, does not omit the necessity for overflow pens and the need for some markets to be larger to handle the volume of livestock in the area.

[2]Sheep marketing is seasonal and a larger volume will be expected in the spring. Seventy-five is the number that the average market would handle per market day over a period of one year.

facilities after sale; (5) feeding and watering; and (6) parking facilities.

Facilities for Receiving Livestock

The receiving facilities required to accommodate the average volume of livestock indicated in the model market consists of: (1) two truck docks with 3 chutes, one of which will be double-decked for loading and unloading double-decked trucks; (2) two sorting pens adjacent to the scales; (3) one set of scales; and (4) two alleys and walkways. These facilities should be designed so that the flow of livestock will not become congested during a particular marketing cycle (Figure 4).

Facilities for Penning

The type, size and number of pens needed depend on such factors as: (1) volume of livestock handled per sale; and (2) species of livestock sold.

Because of the seasonal variation in marketing of livestock the volume of business handled may vary greatly from one market day to another. To minimize the number of specially designed pens needed, each pen should be constructed so as to be used interchangeably as needed for various species of livestock. Overflow pens also are suggested for handling added volume when livestock numbers are heavy. The varying proportions of the different species handled for individual sales makes it impractical to design special pens for each species.

Pen space requirements for the various species handled should be based on such factors as: (1) length of time animals are held in pens; (2) climatic conditions of the area; and (3) weight of the animals. Based on these factors, the estimated numbers of square feet of pen space per head of livestock are presented in Table XI.

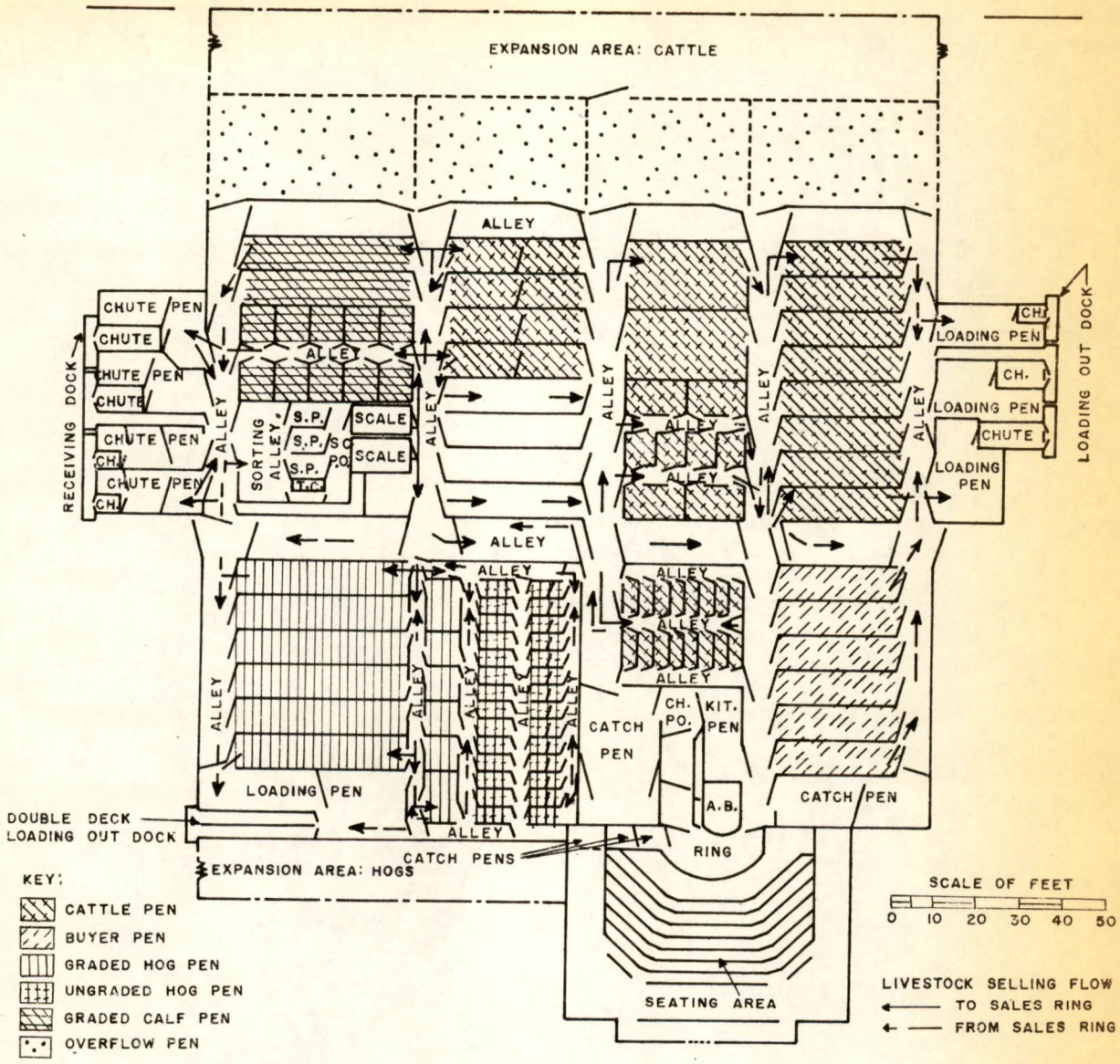

Figure 4. Movement of livestock from the receiving operation to other areas of the market.[a]

[a]Source: United States Agriculture Marketing Service, Livestock Auction Markets, Marketing Research Report No. 309, March 1959, p. 57.

TABLE XI

REQUIRED PEN AREA PER HEAD OF LIVESTOCK
BY SPECIES AND WEIGHT[a]

Weight and species	Square feet
Cattle and calves	
180-300	14
500-700	16
700-1000	18
Sheep	5
Hogs	6

[a]U. S. Agriculture Marketing Service, Livestock Auction Markets, Marketing Research Report No. 309, March 1959.

Based on these pen requirements, the number of pens needed to handle the volume of animals on the average Tennessee auction market is 8 pens for cattle, 5 pens for calves, 8 pens for sheep and hogs, 2 for hulls, 4 for sick and unmarketable livestock, 2 sorting and 2 outside overflow pens was suggested to hold the livestock in heavy runs. A total of 31 pens containing approximately 10,200 square feet of space would be necessary to carry out the normal market operations in an orderly manner.

The number of alleys in the yards should be adequate to provide a continuous flow of livestock between the unloading, selling and loading out cycle of market operations. The alleys need to be at least 10 feet wide to allow free movement of livestock throughout the market. The gates to the pens should be wide enough to cross the alley forming block gates.

Selling Facilities

The sales barn includes the selling facilities, auctioneers' box, sales ring, pen area, seating and standing area, a lobby, rest room and office space (Figure 5).

The auctioneers' box should be in the center of the sales ring facing all the potential buyers. It should be large enough for the auctioneer and 1 to 3 assistants (Figure 6).

The sales ring should be constructed of heavy timbers or metal pipes to prevent the escape of animals from the ring. It should be constructed in a semicircle with catch pens located at each end. The gates entering the sales ring and at the exit should open into the sales ring (Figure 7).

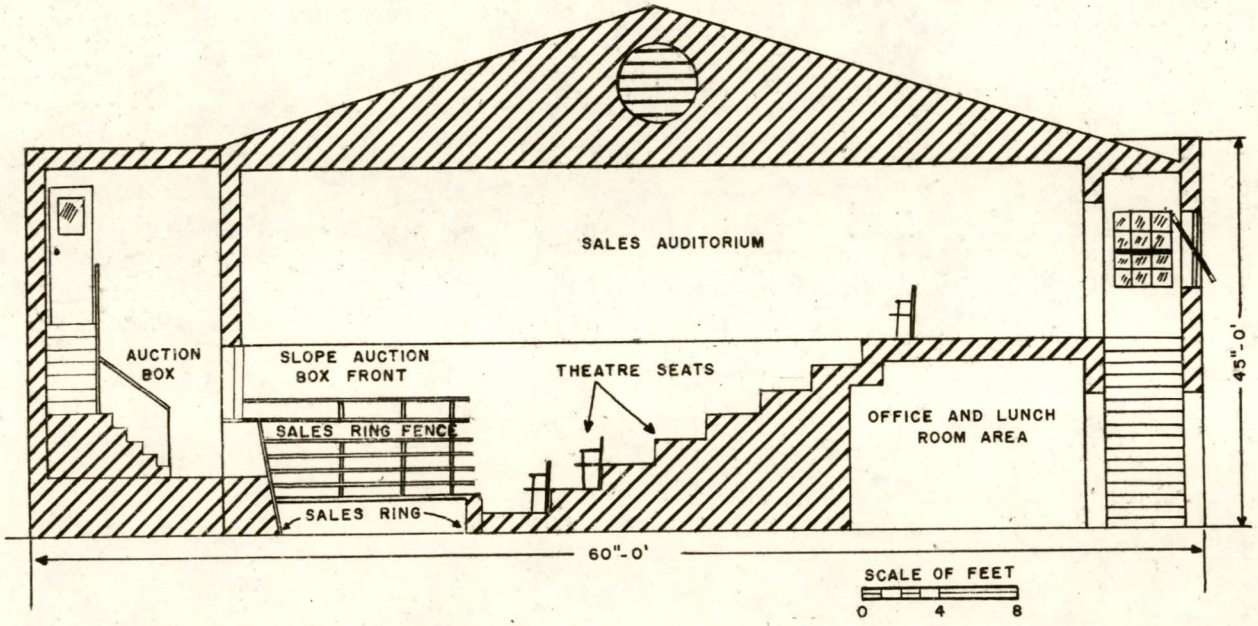

Figure 5. Location of office and other facilities in the Sales Barn.[a]

[a]Source: United States Agriculture Marketing Service, Livestock Auction Markets, Marketing Research Report No. 309, March 1959, p. 31.

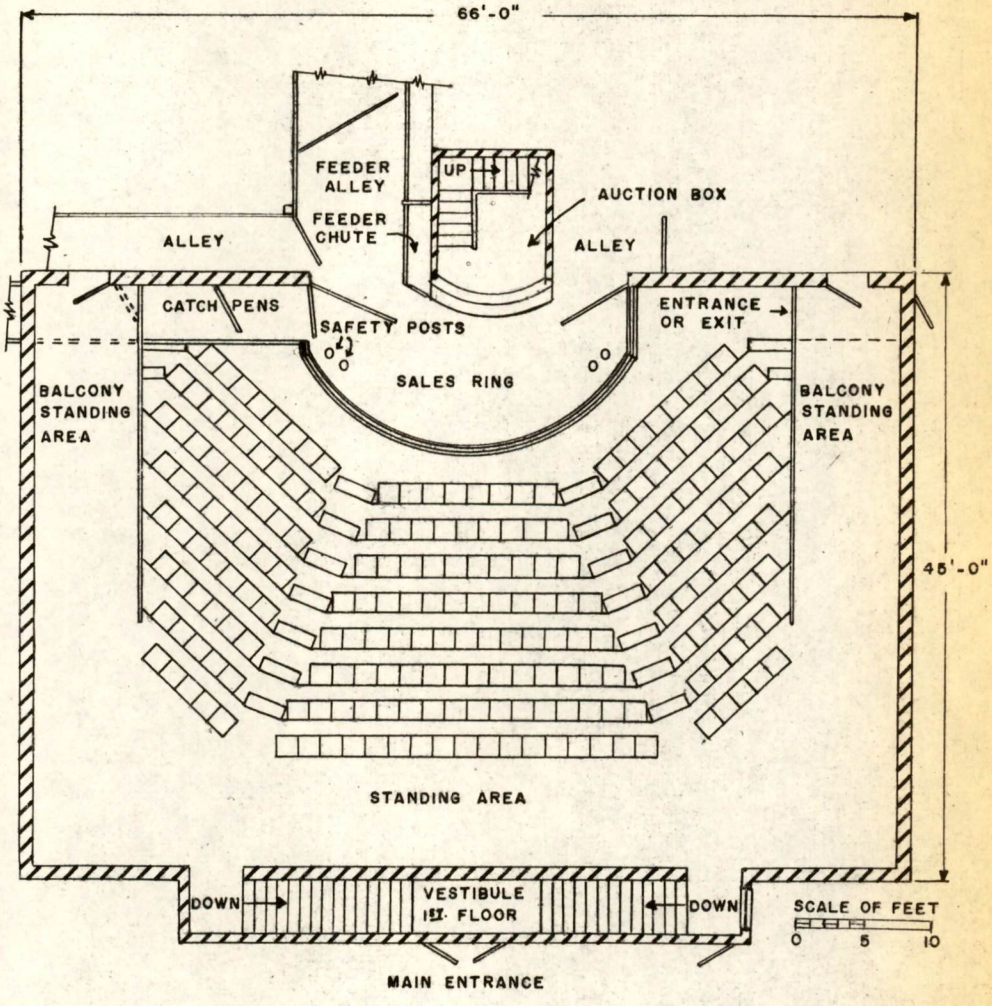

Figure 6. Sales Ring with auctioneers' box and seating arrangement.[a]

[a]Source: United States Department of Agriculture, Livestock Auction Markets, Marketing Research Report No. 309, March 1959, p. 30.

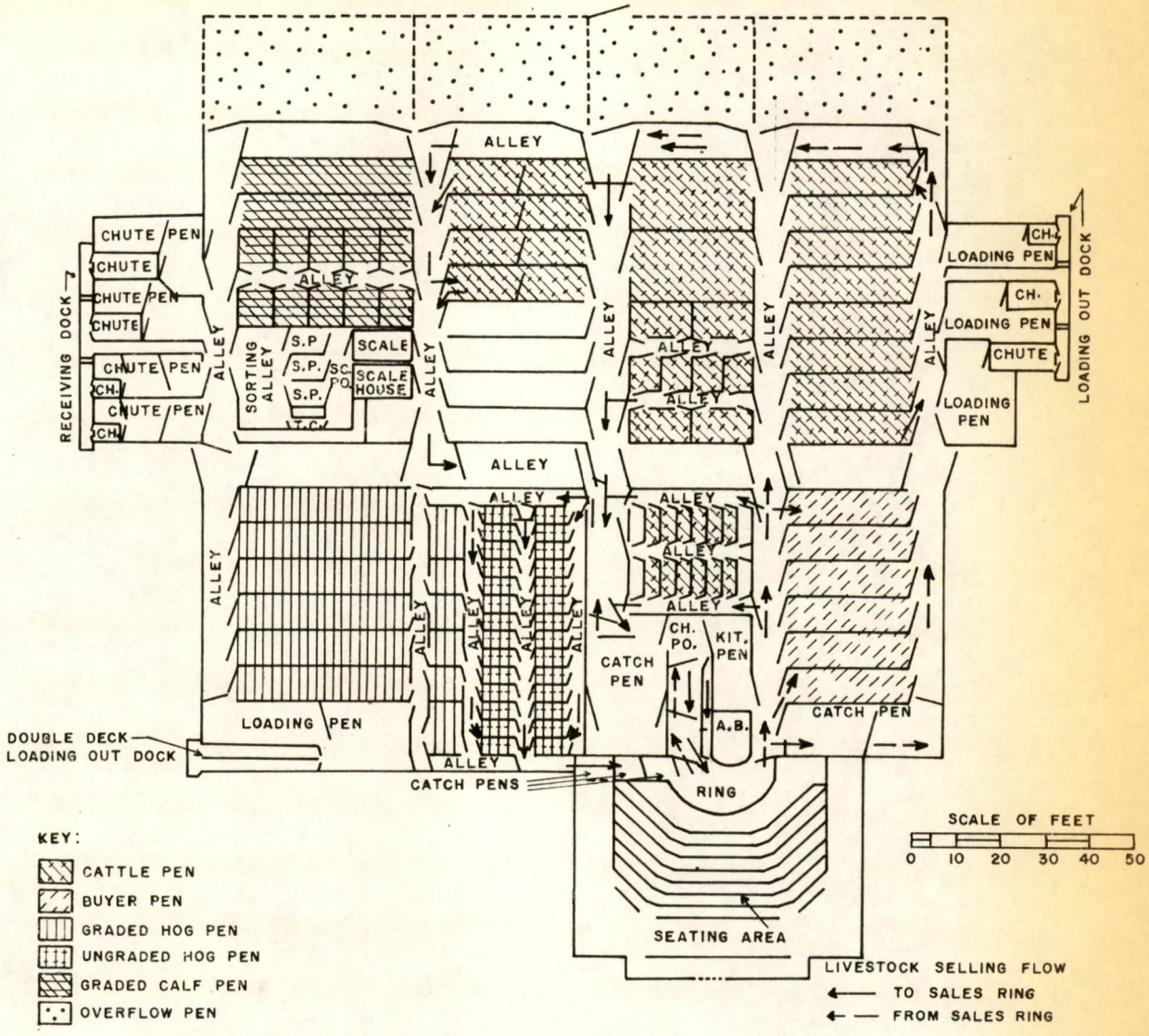

Figure 7. Movement of livestock into and out of the sales ring to buyers pens.[a]

[a]Source: United States Agriculture Marketing Service, Livestock Auction Markets, Marketing Research Report No. 309, March 1959, p. 58.

Holding Facilities

Each auction market should have pens constructed to hold livestock after the sale for one to two days. This will enable order buyers to visit the auction market and purchase part of a load and go to another sale the following day and complete his shipment. The auction market should also provide facilities for feeding and watering the animals. Facilities, such as these, should encourage additional buyers to attend the market, thus increasing competition and higher prices that would attract a greater volume of livestock.

Parking Area and Market Layout

The livestock auction market should be located on an easily accessible road outside the city limits. This will enable the market to operate without interference from the sanitation laws of the city and be more accessible to the farmer. The total auction facilities should consist of the market building and 3 to 5 acres of land. The parking area should be constructed on well drained soil and with a surface of crushed stone. The area needs to provide a parking space for 100-150 motor vehicles and out of the traffic lanes but easily accessible (Figure 8).

II. SERVICE FACILITIES

The movement of livestock through an auction market facility is accomplished through three cycles or groups of operations: (1) receiving; (2) selling; and (3) loading out. The operations in each cycle are performed in a regular sequence in which animals are driven directly from one operation to another.

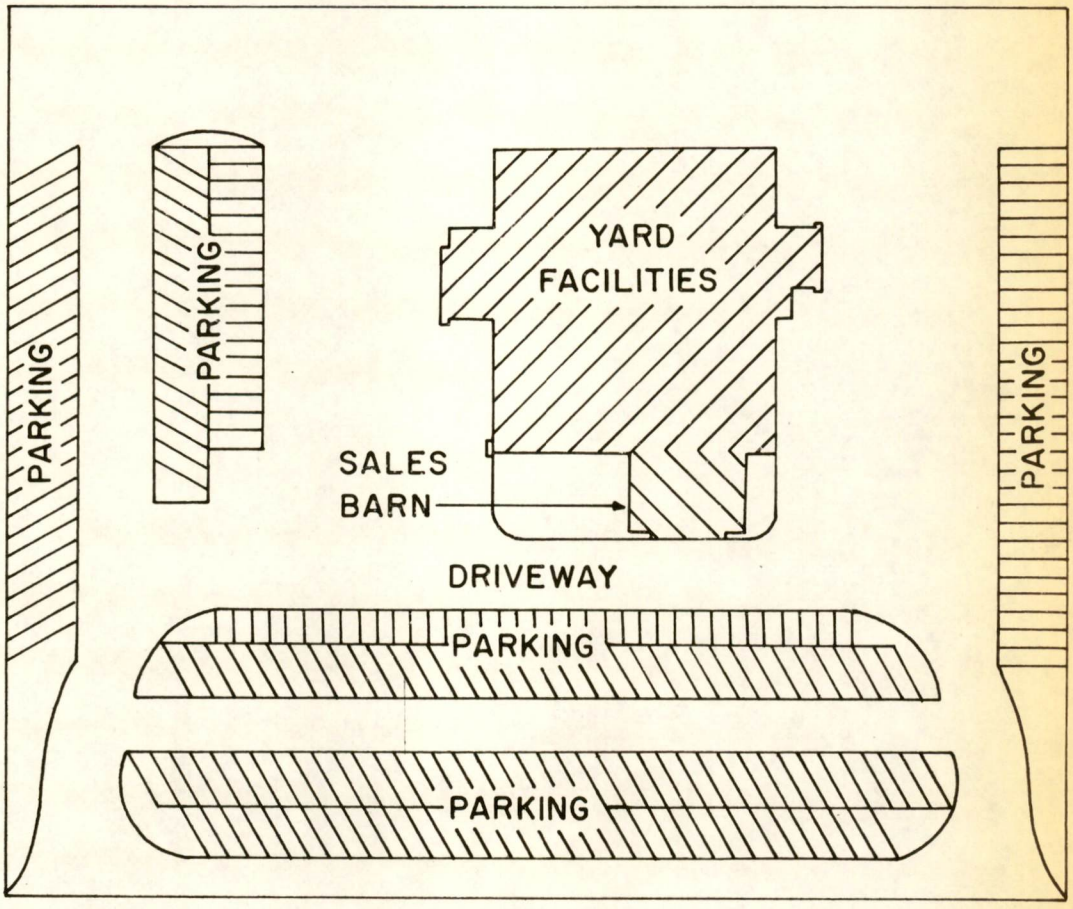

Figure 8. Layout of market area, showing yard facilities and parking arrangement.[a]

[a]Source: United States Agriculture Marketing Service, Livestock Auction Markets, Marketing Research Report No. 309, March 1959, p. 54.

Receiving

The operations performed in receiving animals from a pick-up truck, automobile trailers and other trucks are: (1) unloading the animals; (2) tagging, sorting and grading; (3) preparing a sales ticket and weighing; and (4) driving animals from receiving facilities to assigned pens and penning. In some instances these steps are altered but all occur within the operations before selling. Of the 24 markets surveyed in Tennessee, about eight large trucks or twenty-five small trucks may be unloaded per hour.

Selling

The rate at which animals are sold sets the pace for all other operations in the selling cycle. In selling the animals, the following must be done: (1) bring livestock up to the sales ring; (2) driving livestock into the sales ring; (3) selling; (4) weighing if necessary, (in many instances this may be done in the receiving operations) and (5) assignment of animals to the buyers' pens. According to a study by Turner, the average time required to sell single animals, both cattle and hogs was 0.53 minutes.[3] Turner also indicated in his study that the average time required per head of livestock marketed decreased as the size of the lot sold increased.

The managers of the 24 auction markets surveyed indicated that the size of the market crew helped to determine the time a marketing cycle could be performed. The average size crew on Tennessee yards was 8.5

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[3]Turner, op. cit., p. 3.

yard workers and 3.5 office workers during the average season. During the peak season one or more additional workers were needed to perform the duties of the model market also. The worker, however, must be shifted from one marketing cycle to another as the selling activities at the market progress that day, so marketing may be performed efficiently.

Payment to the livestock producer should be made by check on the day of sale or mailed out to the producer the afternoon preceding the sale. This method of payment was used at all of the 24 auction markets surveyed; the check also serves as a bill of sale for both the buyer and the seller.

Loading Out

The cycle for loading out operations involves: (1) checking the tag numbers or marking of the animals against the buyers' sheet; (2) driving livestock from the buyers' pens to the loading dock; and (3) loading onto trucks. Turner in his study found the average time required to load a pick-up truck was 8 minutes, straight truck 12.7 minutes and semi-trailers 25.1 minutes.

Adequacy of Facilities and Services

To determine if Tennessee auction markets are performing adequate services and have the adequate facilities necessary to handle a particular volume of livestock, it would be necessary to consider each auction market individually.

Auction markets in Tennessee, as indicated previously in this chapter, are constructed to meet the requirements of the anticipated volume. A small market in many instances may be as efficient as a larger one. The determinants of the efficiency of an auction market must be made by those livestock producers patronizing the market.

CHAPTER IV

FACILITIES AND SERVICES OF THE NASHVILLE UNION STOCKYARDS

The earliest public stockyards or terminal markets were centered in Boston, New York, and Philadelphia. The market in Boston was originally established about 1756 by John Winship, who started with the holding pens serving his own slaughter house. For 20 years after the American Revolution, Boston remained the cattle market for all the New England states.

The concentration of livestock for slaughter at large terminal markets began in the 1860's and 1870's and was based on rail transportation. The opening of the Union Stockyards in Chicago in 1865 was significant for the shift from the cattle drive and water transportation to rail transportation. With rapid extension of the railroads throughout the Midwest and South, the Nashville Union Stockyards was established in 1927.

Most of the present stockyards have been modeled after the one in Chicago. In the entire organization system of terminal markets, it might be said that the terminal market is operated as a "livestock hotel," being owned by a stockyards company. This company owns all buildings and land on which the market is located. In this "hotel" livestock can be unloaded, fed, and anyone can buy and sell livestock. Basically, the essential points adopted by the terminal markets throughout the United States are: (1) the stockyards company, owning all the pens, feeding and loading facilities and scales; (2) anyone has the

privilege of buying and selling, but sellers usually secure the services of a commission agency which is familiar with the market, and (3) anyone with proper moral and financial responsibility may engage in the commission business.[1]

I. MARKET FACILITIES

Facilities of the Nashville terminal market consist of: (1) a stockyards exchange and (2) facilities necessary for carrying out definite marketing procedure. These facilities being: (1) land area; (2) pen space; (3) parking area; and (4) unloading and weighing facilities.

Stockyard Exchange

The Stockyard Exchange consists of an office building, containing office space for the various commission firms and buyers, market information center, Packers and Stockyards Division of the United States Department of Agriculture, marketing reporter offices, an exchange bank, offices of the stockyards company and restroom and restaurant facilities.

Marketing Procedure

The facilities necessary for marketing livestock include: (1) receiving; (2) selling; and (3) loading out.

The terminal market opens each morning, Monday through Friday, at 7:30 o'clock to receive livestock. The truckers, upon arrival at the

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[1]Stewart H. Fowler, The Marketing of Livestock and Meat, The Interstate Printers and Publishers, Inc., Illinois, 1957, pp. 189, 190.

market, must wait in line to unload their livestock. If more than one species is contained in the truck, the driver must move from one dock to another to unload. There are two unloading docks at the Nashville terminal market, one located at the cattle barn with 8 chutes, and another at the hog, sheep, and calf barn that has 11 chutes.

Selling Procedures

The trading and selling practices employed at terminal markets are such that professional services are generally employed. While farmers have the privilege of selling their own livestock if they desire, owners seldom avail themselves of the opportunity. It would be expensive for the individual livestock producer to hire yardmen and rent scales to weigh their livestock. In addition, an individual seller would be at a disadvantage due to the fact that buyers failure to trade with strangers during the rush of business on the market. Other reasons are that the average seller is not trained to secure the best price with the buyer. Hence, most producers employ the services of a commission firm and let the professional seller move their animals.

Located on the Nashville terminal are five commission firms which act as professional sellers for the livestock producer patronizing the Nashville terminal market. Each of these firms has an office in the exchange building which is owned by the stockyards company.

To illustrate the selling procedure on the yard, a group of cattle might be traced through the market. Upon arrival at the terminal market the livestock are unloaded by employees of the stockyards company and delivered to the commission firm designated by the producer to serve as

his sales agent. The cattle are then yarded in the sales pens of the commission firms. Here the cattle may be grouped according to size or grade in order for the producer to receive the best price for his livestock. The cattle may be fed and watered if deemed necessary. The cattle remain in the commission firm's pens until a buyer of that particular grade of cattle comes to his pens. The buyer looks over the cattle. If they meet his standards and he and the commission salesman can agree on a price, they are sold. The cattle are then weighed and become the property of the buyer subject to this price and weight. The producer may now pick up the weigh card from the commission salesman, go to the commission office and receive payment for his livestock.

Market Layout

The Nashville terminal market consists of three sections: (1) exchange building; (2) cattle barn; and (3) hog, sheep, and calf barn (Figure 9). Located in the cattle barn are 156 pens, which are allotted to the commission firms for selling purposes and to the cattle buyers as holding pens, 2 sets of scales, and an unloading dock with 8 chutes. The calf, sheep, and hog section is a two-story barn with the cattle and sheep section located over the hog section. The calf and sheep section of the yards has 84 pens and one set of scales. The hog section of the barn has 89 holding pens, 1 set of scales and 11 chutes. In many instances in the peak marketing season the hog, sheep, and calf sections are used interchangeably.

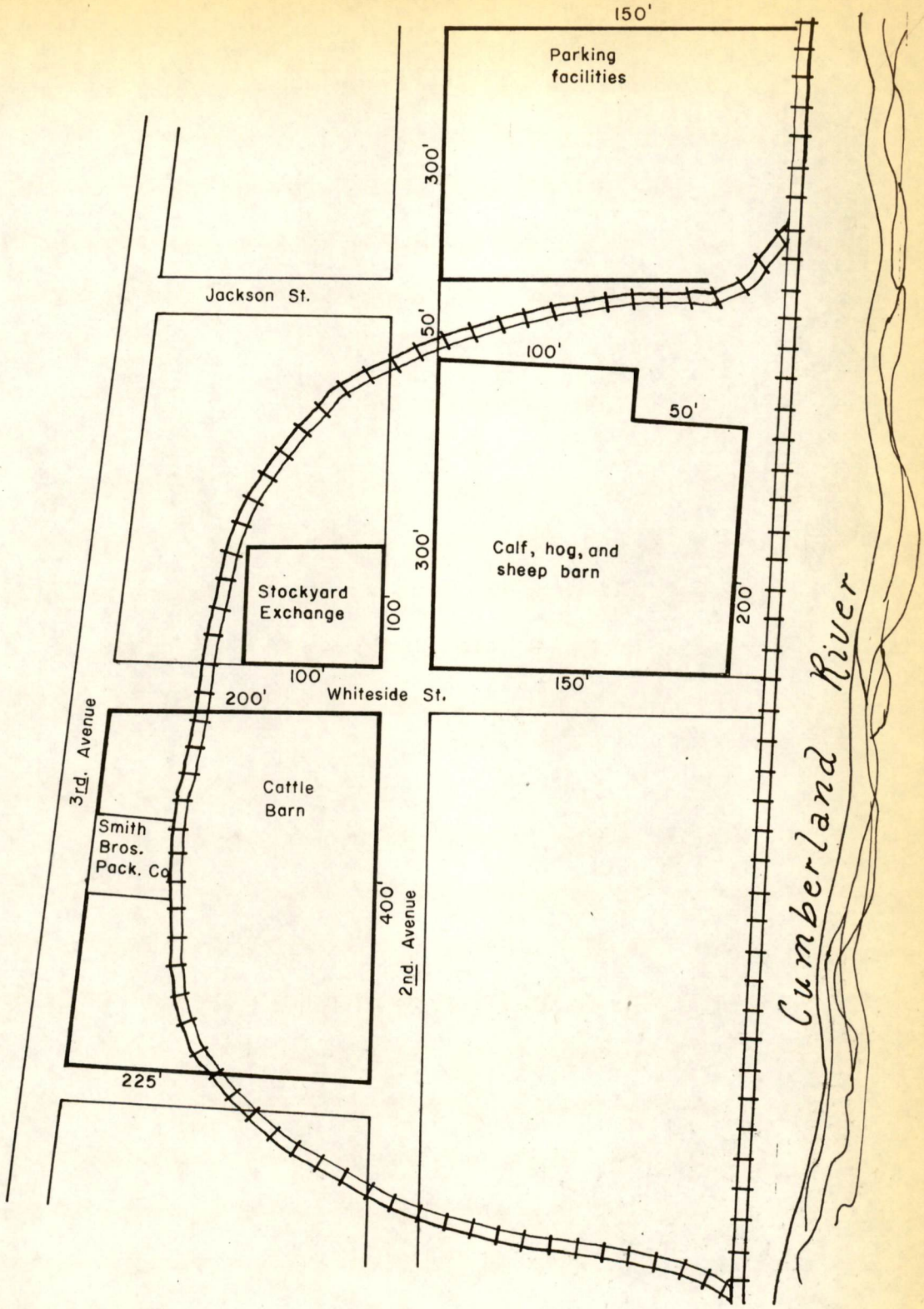

Figure 9. Layout of the Nashville Union Stockyards, Nashville, Tennessee, 1960.

Parking Arrangements

The terminal market has only one parking lot to handle the trucks of the livestock haulers. This lot is located approximately one block from the unloading docks and is about 300 feet long and 150 feet wide. The trucks have no place to wait in line before unloading and in many instances they block the city streets causing congestion.

II. MARKET SERVICES

Services offered at the terminal market are primarily those which are offered by the commission firms. The stockyards company employ the men that prepare the sales tickets and the scale operators.

Marketing services may be divided into 3 cycles: (1) receiving livestock; (2) selling livestock; and (3) loading out livestock.

Receiving Livestock

The receiving procedure at the Nashville terminal market consists of two operations: unloading and consignment of livestock to commission men. When the livestock arrive on the market they are unloaded and consigned to a commission agency who carried out the sale process.

From observations made at the terminal market of unloading procedure, the average time to unload a pick-up truck was 5 minutes while it was 10 minutes for a ton and half truck. These trucks, in addition to the time required to unload, had to wait in line from 45 minutes to one hour before reaching the unloading docks.[2]

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[2]These observations were made at 10 o'clock Monday, August 29, 1960.

Selling Livestock

When the livestock reaches the pens the commission salesman offers them to the buyers as they come to his pens seeking to buy livestock. The length of time required to sell livestock depends upon: (1) the number of animals required in each grade of livestock; (2) the number of animals available in each grade; (3) the price the commission man places on the animals; and (4) the price the buyer is willing to pay.

The terminal market does not have a sale order. Each commission firm employs a number of salesmen, usually one or more for each species who sell livestock continuously as they arrive on the market. Buyers also have men who buy the species as they arrive at the commission pens.

The number of buyers on the terminal market is determined by: (1) sale day (some packers do not slaughter on certain days of the week and it is necessary for them to buy their animals on other days, and some packers have special slaughter days for each species); (2) volume of livestock; (3) how long it takes to fill his order; and (4) the grade of livestock offered for sale. A terminal market is usually located in an area where there are a large number of packing plants to insure a sufficient number of buyers on any given market day.

Payment for livestock is made by the individual commission firm. After the livestock are sold and weighed, the producer may go to the commission salesman and pick up his weigh ticket. Once he has the ticket, he goes to the commission firm office and payment is received. If the producer does not desire to wait for his payment, it is usually mailed the following day.

Marketing Costs

There are a number of charges that go into the total charge for marketing livestock at a terminal market. The normal charges include: (1) yardage, which covers the use of pens, scales, water and the privilege of doing business in the market; (2) commission for selling; and (3) feed, if the animals remain on the yard over night. Yardage fees are a fixed price per head, while commission rates for selling are usually on a per head basis but will also vary with the number sold. Feed cost is charged at a fixed price per pound above the cost of the feed. To these charges may be added a vaccination fee and the check off for National Livestock and Meat Board charge, which is voluntary at 2 cents for cattle, .67 cents for hogs, and .4 cents for sheep.

The marketing charges at the Nashville terminal market for yardage of livestock per head are: (1) cattle, $1.20; (2) calves, $.50; (3) hogs, $.35; (4) sheep, $.30; (5) bulls over 600 pounds, $1.60; and (6) milk cows, $1.60.

Feed cost for the livestock varies with the number fed and the length of time the animals remain on feed. Feeding of livestock on most markets is done by the commission firms at the expense of the owner.

Marketing charges received by the commission firms at the terminal market vary with the number of species of livestock marketed (Table XII).

Volume of Livestock

The terminal market cannot determine the supply of livestock marketed on any given day. The market does not solicit livestock; but,

TABLE XII

COMMISSION CHARGES ON THE NASHVILLE TERMINAL MARKET, AUGUST 1, 1960

No. of head	Commission for selling by species of livestock			
	Cattle	Calves	Hogs	Sheep
1	$ 1.30	$ .75	$ .60	$ .55
2	2.60	1.50	1.20	1.10
3	3.90	2.20	1.80	1.65
4	5.20	3.00	2.40	2.20
5	6.35	3.65	2.85	2.65
6	7.50	4.30	3.30	3.10
7	8.95	4.95	3.75	3.55
8	9.80	5.60	4.20	4.00
9	10.95	6.25	4.65	4.45
10	12.10	6.90	5.10	4.90
15	17.75	10.05	7.30	7.00
20	23.00	12.80	9.30	8.50
25	28.25	15.55	11.30	10.00
30	33.50	18.30	13.30	11.50

it does perform the services of furnishing the facilities for housing, feeding, and the exchange of ownership of the animals. The marketing of livestock offered for market on a given day or month. The Nashville terminal market had a decline in volume of livestock from 1958 to 1959 of 10,943 head (Table XIII).

TABLE XIII

VOLUME OF LIVESTOCK BY SPECIES, THE NASHVILLE TERMINAL MARKET, 1958, 1959[a]

Species	1958	1959	Difference
Cattle	137,387	118,238	-19,149
Calves	36,504	30,879	- 5,625
Sheep	65,229	54,135	-11,094
Hogs	159,017	183,942	24,925
Total	398,137	387,194	-10,943

CHAPTER V

FACTORS AFFECTING LIVESTOCK PRODUCERS' SELECTION OF MARKET OUTLETS

In choosing a market outlet, livestock producers in many sections of the state have two factors to consider: (1) what type of market to use, and (2) which individual market to select. This decision must be made every time he had an animal or load of animals ready to go to market because the market that may be most advantageous for him one time is not necessarily the right one a year, a month or even a week later since so many variable conditions are involved. A wrong decision as to choice of market can be quite costly and choice of market outlet certainly merits strong consideration, as much as the producer's choice of management programs. Many factors may be involved in reaching a decision, but in general, where the producer sells at any given time, depends upon factors, such as relative price, custom, convenience, distance to market, and the producer's personal likes and beliefs.

If the producer's choice of a place to sell is to be based on expected net returns, he needs to give consideration to four factors as applicable to the alternative markets. First, he needs to consider the price his animals will most likely bring per hundredweight on the various markets. This should be balanced against the other three factors--the cost of transportation, the estimated shrinkage, and death loss up to the time of sale, and the handling and selling expense at the various markets. Some markets may pay slightly higher prices, but in many cases

the increased transportation and marketing cost may more than offset the price advantage. Only after a careful analysis of price data for comparable grades and a comparison of marketing and transportation cost is the producer able to choose the market at which livestock will probably bring the highest net returns.

However, factors other than net returns sometimes may influence the livestock seller. As previously mentioned these include custom, convenience and prejudice in favor of one type of market and against another. In addition, some producers favor being assured a certain price before the animals leave the farm instead of taking the risk of possible changes.

As a part of this study, a survey was made of 200 Middle Tennessee livestock producers concerning reasons for selling through a particular outlet were revealed in the survey of 200 farmers in Middle Tennessee. A study made in 1953 reported that the most important reasons for choosing any outlet were convenience of the market and the feeling that a better price would be obtained.[1]

Many farmers gave the same reasons for selling livestock at one type of market that other producers gave for selling at a different type of market. Actually, choice of the right market is an individual problem of each producer since his set of conditions may dictate the use of one particular market over all others.

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[1]M. B. Badenhop, Selling and Buying Livestock by Tennessee Farmers, University of Tennessee Agricultural Experiment Station, Knoxville, Tennessee, Bulletin No. 233, January 1953, p. 15.

While the examination of Table XIV reveals that "cost of transportation" was the most important reason for selling livestock through a particular outlet, the "trade area"[2] and "closest market" also played an important role in determining where to market. Most farmers knew that they received a different price at the terminal market but the cost of transportation to the market caused them to market a portion of their livestock at the local auctions. Over 63 percent of the owners selling livestock through the terminal market felt that they were receiving a higher price for their livestock that paid by the local auctions. About one-third of the owners who disposed of their livestock through the auction market gave the same reasons for marketing there. The reasons of "most convenient" or "closest market," and "small groups" were of more relative importance to livestock auction than for the other outlets.

Sixty-three percent of the farmers interviewed realized there was a difference in the price paid at the terminal market and in the price at the auction markets. Thirty-seven percent of the producers did not know the auction markets paid a lower price for livestock than did the terminal market.

The difference in price paid by the auction markets and the price paid at the terminal market appears to be directly proportional to the distance from the auction to the terminal market. The difference is 10 cents to 30 cents per hundredweight less for cattle and 25 cents to 50 cents per hundredweight less for cattle and 25 cents to 50 cents per

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[2]Trade area refers to the area or city that the producer goes to do his trading.

TABLE XIV

REASONS GIVEN BY 200 MIDDLE TENNESSEE LIVESTOCK PRODUCERS FOR SELLING CATTLE THROUGH VARIOUS OUTLETS,[a] 1960

Item	Terminal		Auction		Packer		Direct		Total
	Patron[b]	Non-Patron	Patron	Non-Patron	Patron	Non-Patron	Patron	Non-Patron	
Closest market	11	10	7	40	0	2	1	1	72
Trade area	25	19	4	26	0	2	0	1	77
Best price, best market	13	9	0	3	0	0	0	0	25
Cost of transportation	57	39	5	19	0	6	7	2	135
Other	7	8	8	6	1	0	4	1	35

[a]Multiple responses allowed.

[b]Patron in this table refers to a member of the Tennessee Producers Livestock Marketing Association.

hundredweight less for hogs. With these differences in price the farmer must consider when it will be profitable for him to sell on the terminal market.

The differences reported by respondents surveyed as to the price paid on the auction market and the terminal market for cattle can be seen (Figure 10). There is not an auction market located within 30 miles of the terminal market. The auction markets that are located 30 miles from the terminal market pay $.25 to $.30 cents per hundred pounds less for livestock than received for the same livestock on the terminal market. There is, however, a smaller price difference at 40 to 50 miles between the terminal and auction market. This smaller difference may be explained by: (1) this area is where a large number of fat cattle are raised. There is not a demand for this grade of livestock on auction markets: hence, the livestock producer has a tendency to patronize the terminal market with all his livestock. This causes the auction market to offer a higher price for lower grade animals to entice the producer to bring part of his livestock to the auction; (2) there are a number of large auction markets in this area that try to compare with the terminal market in price; and (3) with the terminal market only 30 miles away, the auctions must be competitive. The auctions must absorb part of the transportation cost to entice the livestock producer to patronize them.

The difference reported by respondents as to price paid for hogs between the different types of market, as shown in Figure 11, is very different from that displayed for cattle. Hogs sold on auction markets in a 30 mile radius of Nashville bring about $.25 cents less than the

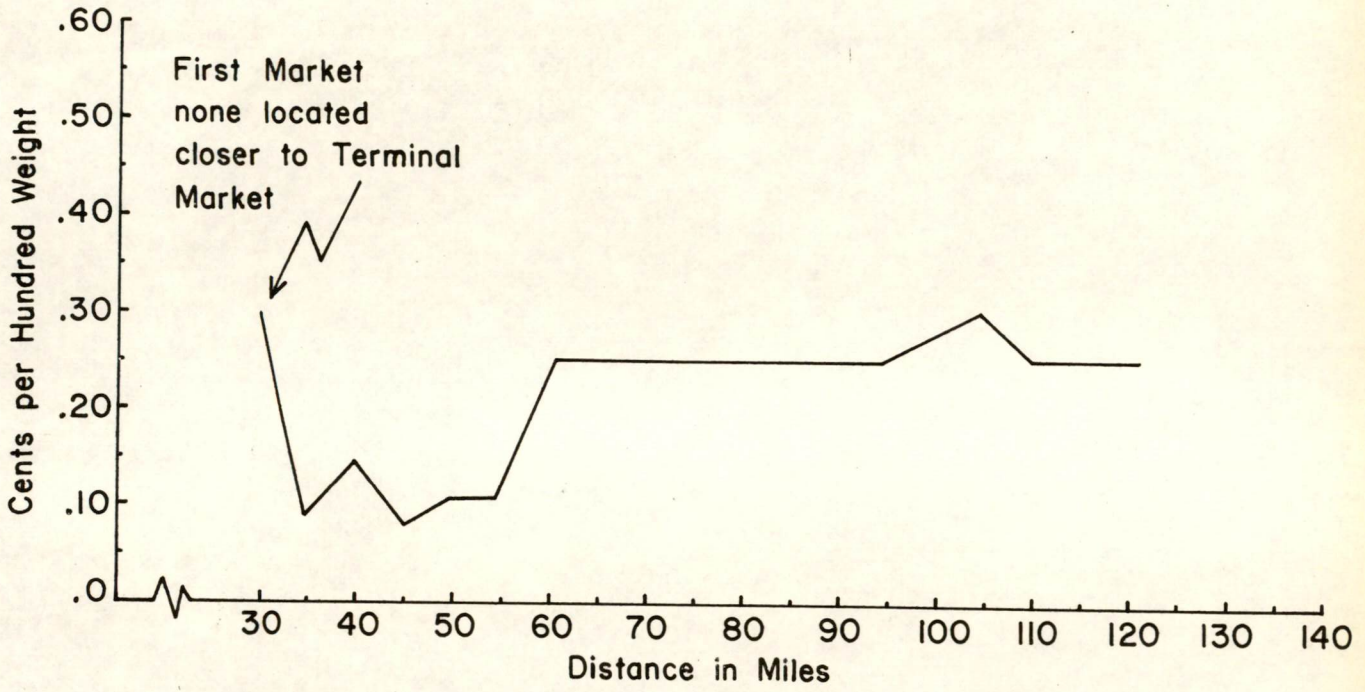

Figure 10. Average difference between price paid for cattle at the Nashville terminal market than on auction markets,[a] 1960

[a]Source: Price difference indicated by 200 Middle Tennessee livestock producers.

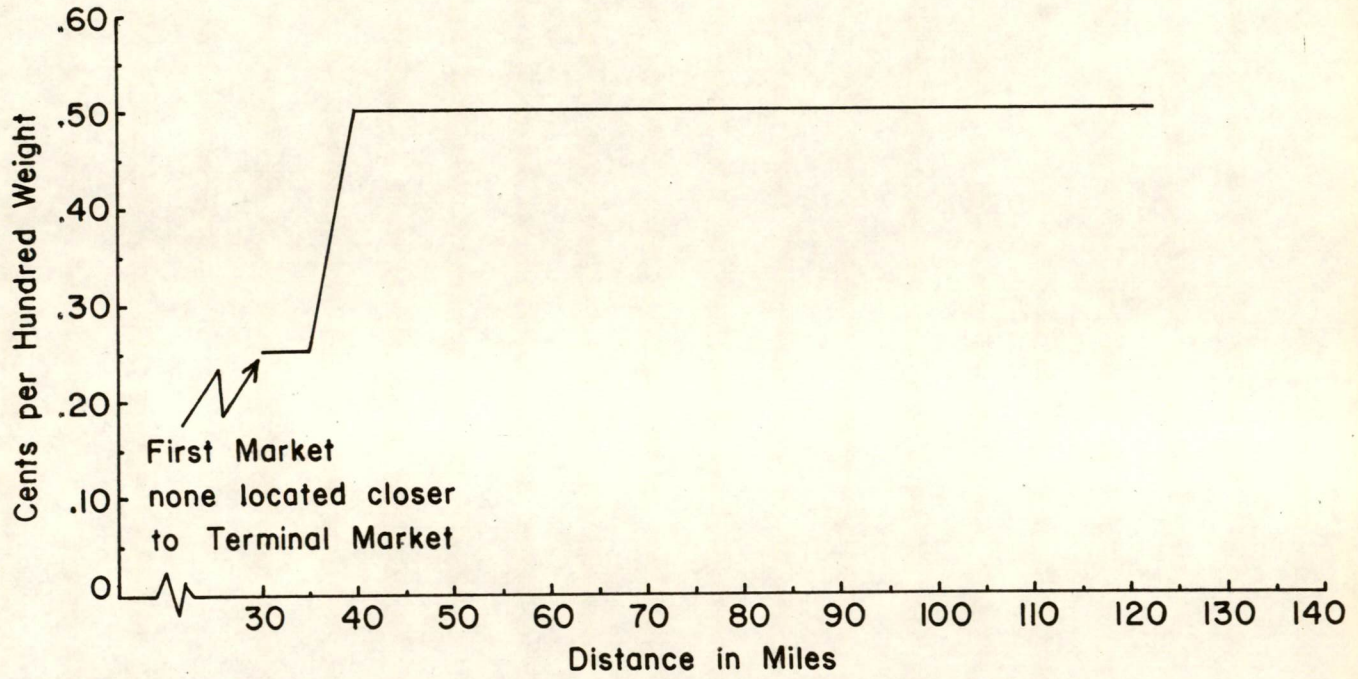

Figure 11. Average difference in price paid for hogs at the terminal market than on auction markets,[a] 1960.

[a]Source: Price difference indicated by 200 Middle Tennessee livestock producers.

same grade on the terminal markets. This is usually considered by the farmer as cost of transportation and shrinkage that would occur if they were hauled to Nashville. At a distance of 45 miles, however, there is a decrease in price of $.50 cents per hundred pounds. This price difference cannot be explained altogether by shrinkage and cost of transportation. The initial shrinkage of a hog occurs in the first 10 miles so there is no great loss in weight in hauling the hog a greater distance. The difference in price may be explained, however, by: (1) hogs on the Nashville terminal market and packer market are graded closer than at auctions. The packer market employs highly trained men to grade hogs. The commission firms that sells hogs on the Nashville terminal market employ salesmen who are trained in grading hogs to sell these animals for their patrons. The auction market, however, does not usually employ men trained in hog grading; (2) at this distance from the terminal market there is a lack of competition and the buyer at the auction plays on this, thus offering a lower price for the hogs. Other factors that may play an important part in the price received by the livestock producers are: (1) knowledge of the cost to the terminal market; (2) knowledge of the shrinkage of hogs; and (3) knowledge of the price differential between the two markets.

The livestock producers survey indicated that his choice of market was due to the cost of transportation, in many instances. Figure 12 describes an array of the cost of transportation, reported by 144 surveyed patrons in Middle Tennessee that ship livestock to the Nashville market. There is a steady increase in the cost of transportation from

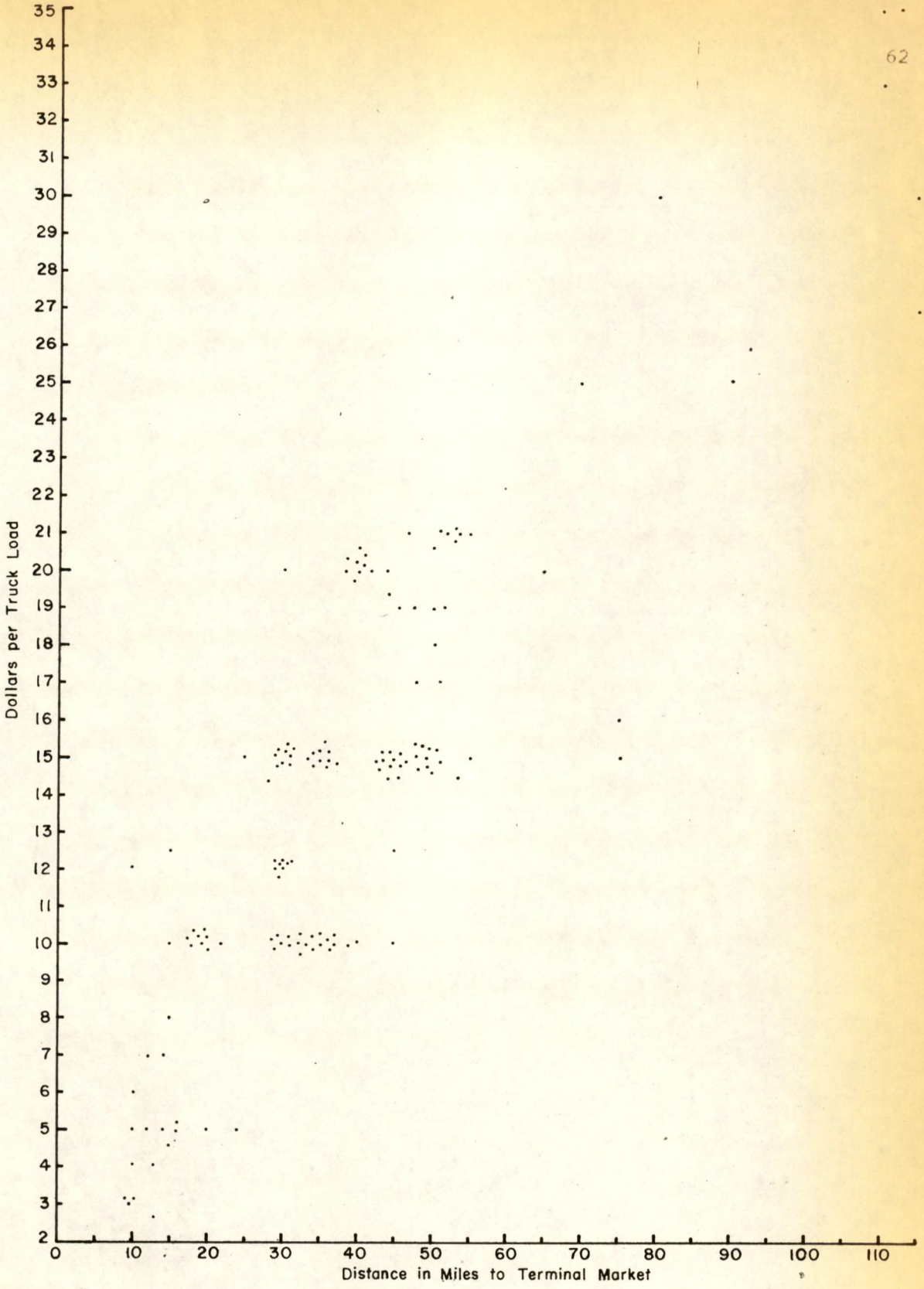

Figure 12. Cost of hauling a truckload of livestock to the Nashville terminal market, as indicated by 144 Middle Tennessee livestock producers, 1960.

the farm to the terminal market, thus in many instances it was not profitable for the producer to haul his livestock to the terminal market.

Marketing charges, as shown in Chapter II, vary among auction markets but the auction markets in the same county do not lower their selling charges to undersell each other. All the charges at the market are similar, consisting of yardage and commission fees for handling and selling livestock.

The average of the charges made at auction markets are higher than those charged by the terminal market and the commission agencies on the market (Tables XV, XVI, and XVII). The difference in market charges being: (1) at the local auction markets the charges are not according to the number of animals sold, the same fee per head is charged for 10 animals as for one, and (2) on the terminal market there is a decrease in marketing charges per head up to 20 head. This would tend to decrease the cost of marketing for the livestock producer who has a large number of animals to market; (3) on some auction markets the cost of selling an individual animal is cheaper than the terminal market, but when more than one animal is sold the terminal market charges are lower (Tables XVI and XVII); (4) selling charges for hogs are lower on some auctions than the terminal market (Tables XVI and XVII).

TABLE XV

MARKET COSTS AT TERMINAL MARKET
AND AT AUCTION MARKETS

Number and species	Auction Market[a]			Terminal Market[b]		
	Yardage	Commission	Total	Yardage	Commission	Total
1 hog[c]	$ .32	$ 1.00	$ 1.32	$ .35	$ .60	$ 1.05
5 hogs	1.60	5.00	7.60	1.75	2.80	4.55
10 hogs	3.20	10.00	13.20	3.50	5.10	8.60
15 hogs	4.80	15.00	19.80	5.25	7.30	12.55
1 calf[d]	.60	1.75	2.35	.50	.75	1.25
5 calves	3.00	8.75	11.75	2.50	3.65	6.15
10 calves	6.00	17.50	23.50	5.00	6.90	11.90
15 calves	9.00	26.25	35.25	10.00	10.05	20.05
1 cow[e]	1.62	2.00	3.62	1.20	1.30	2.50
5 cows	3.10	10.00	18.10	6.00	6.35	12.35
10 cows	16.20	20.00	36.20	12.00	12.10	24.10
15 cows	24.30	30.00	54.30	17.00	17.75	34.75
1 sheep[f]	.20	.50	.70	.30	.55	.85
5 sheep	1.00	2.50	3.50	1.50	2.65	4.15
10 sheep	2.00	5.00	7.00	3.00	4.90	7.90
15 sheep	3.00	7.50	10.50	4.50	7.00	11.50

[a]The marketing charges used in the auction market is based on weight and dollar value, Table VII.

[b]The marketing charges used in the terminal market are those of the Nashville Union Stockyards.

[c]The hogs weigh 200 pounds and bring $16 per hundredweight.

[d]The calves weigh 250 pounds and bring $24 per hundredweight.

[e]The cows weigh 600 pounds and bring $27 per hundredweight.

[f]The sheep weigh 90 pounds and bring $.23 per pound.

TABLE XVI

MARKET COSTS AT TERMINAL MARKET
AND AT AUCTION MARKETS

Number and species	Auction Market[a]			Terminal Market[b]		
	Yardage	Commission	Total	Yardage	Commission	Total
1 hog[c]	$ .25	$ .32	$ .57	$ .35	$ .60	$ 1.05
5 hogs	1.25	1.60	2.75	1.75	2.80	4.55
10 hogs	2.25	3.20	5.45	3.50	5.10	8.60
15 hogs	3.50	4.80	8.30	5.25	7.30	12.55
1 calf[d]	.75	.60	1.25	.50	.75	1.25
5 calves	3.75	3.00	6.75	2.50	3.65	6.15
10 calves	7.50	6.00	13.50	5.00	6.90	11.90
15 calves	11.25	9.00	20.25	10.00	10.05	20.05
1 cow[e]	1.25	1.62	2.87	1.20	1.30	2.50
5 cows	6.25	8.10	14.35	6.00	6.35	12.35
10 cows	13.50	16.20	29.70	12.00	12.10	24.10
15 cows	19.75	24.30	44.05	17.00	17.75	34.75
1 sheep[f]	.25	.20	.45	.30	.55	.85
5 sheep	1.20	1.00	2.20	1.50	2.65	4.15
10 sheep	2.40	2.00	4.40	3.00	4.90	7.90
15 sheep	3.60	3.00	6.60	4.50	7.00	11.50

[a]The marketing charges used in the auction market is based on weight of the animals, Table VI.

[b]The marketing charges used in the terminal market are those on the Nashville Union Stockyards.

[c]The hogs weigh 200 pounds and bring $16 per hundredweight.

[d]The calves weigh 250 pounds and bring $24 per hundredweight.

[e]The cows weigh 600 pounds and bring $27 per hundredweight.

[f]The sheep weigh 90 pounds and bring $.23 per pound.

TABLE XVII

MARKET COSTS AT TERMINAL MARKET
AND AT AUCTION MARKETS

Number and species	Insurance	Auction Market[a]		Terminal Market[b]		
		Commission	Total	Yardage	Commission	Total
1 hog[c]	$ .16	$ .60	$ .76	$ .35	$ .60	$ 1.05
5 hogs	.80	3.00	3.80	1.75	2.80	4.55
10 hogs	1.60	6.00	7.60	3.50	5.10	8.60
15 hogs	2.30	9.00	11.30	5.22	7.30	12.55
1 calf[d]	.30	1.75	2.05	.50	.75	1.25
5 calves	1.50	8.75	10.25	2.50	3.65	6.15
10 calves	3.00	17.50	20.50	5.00	6.90	11.90
15 calves	4.50	26.25	30.75	10.00	10.05	20.05
1 cow[e]	.81	2.00	2.81	1.20	1.30	2.50
5 cows	4.05	10.00	14.05	6.00	6.35	12.35
10 cows	8.10	20.00	28.10	12.00	12.10	24.10
15 cows	12.15	30.00	42.15	17.00	17.75	34.75
1 sheep[f]	.10	1.00	1.10	.30	.55	.85
5 sheep	.50	5.00	5.50	1.50	2.65	4.15
10 sheep	1.00	10.00	11.00	3.00	4.90	7.90
15 sheep	1.50	15.00	16.50	4.50	7.00	11.50

[a]The marketing charges used in the auction market is based on dollar value of the animals, Table VII.

[b]The marketing charges used in the terminal market are those of the Nashville Union Stockyards.

[c]The hogs weigh 200 pounds and bring $16 per hundredweight.

[d]The calves weigh 250 pounds and bring $24 per hundredweight.

[e]The cows weigh 600 pounds and bring $27 per hundredweight.

[f]The sheep weigh 90 pounds and bring $.23 per pound.

CHAPTER VI

ATTITUDES TOWARD COMMISSION FIRMS

Functions of Commission Firms

A livestock commission firm is one that receives and sells livestock for which service a commission is charged. This commission varies at different times and at different markets, but on most markets it is a certain price per head.

Each commission firm on the terminal market has offices in the exchange building owned by the stockyard company for which a regular fixed rent is paid; also yard space is assigned to it by the same company. The commission firm employs salesmen for cattle, calves, hogs, and sheep. The number of employees depend on the number of animals sold by the firm.[1]

Before the establishment of commission firms, the livestock producer was not certain what price he would receive for his livestock when they were marketed. He only received the price dealers desired to pay on the day of sale. In many instances the producer did not know the full value of his livestock. With the establishment of commission firms, the livestock producer had a bargaining agent located on the terminal market that knew the value of the producers livestock on the sale day.

In 1959, these firms received a volume of 118,238 head of cattle, 30,829 head of calves, 183,942 head of hogs, and 54,135 head of sheep,

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[1]Arthur C. Davenport, The American Livestock Market, How It Functions, Droners Journal Print, Chicago, 1922, p. 39.

a total of 378,194 head of livestock. This was a decline of 10,943 head from the total number of livestock marketed on the Nashville terminal market in 1958.

One of the commission firms, Tennessee Producers Livestock Marketing Association, the only cooperative commission firm, received 19.5 percent of the total volume handled on the Nashville terminal market (Figure 13). A distribution of the volume in different species of livestock indicates that they received 17.8 percent of the cattle, 11.7 percent calves, 21.1 percent hogs, and 22.2 percent of the sheep (Figure 14), offered for sale on the Nashville market in 1959.

How Livestock Producers Select Individual Commission Firms

On arrival at the terminal yard the livestock producer or hauler selects the commission firm he desires to handle his livestock. If the hauler or producer does not have a particular commission firm in mind, he may select one at random from a posted list of all the commission firms. When the livestock producers interviewed were asked why they selected a particular commission firm for consignment of their livestock, the following reasons were given: recommended by a friend, picked at random chance at the market, representative of firm came to the farm or livestock hauler selected the firm (Table XVIII).

Of the 200 livestock producers interviewed, 41.5 percent indicated they selected a commission firm on the recommendation of a friend; 46 percent of the members of Tennessee Producers Livestock Marketing Association gave this reason for selecting this particular firm; while only 37

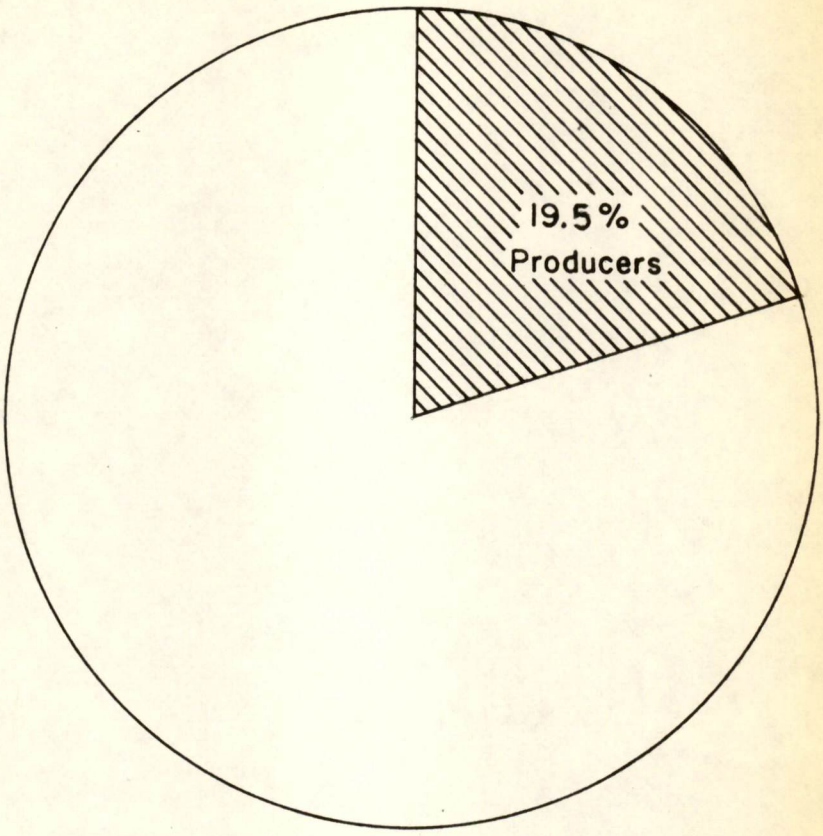

Figure 13. Percent of total livestock on the Nashville terminal market sold by Tennessee Producers Livestock Marketing Association, 1959.

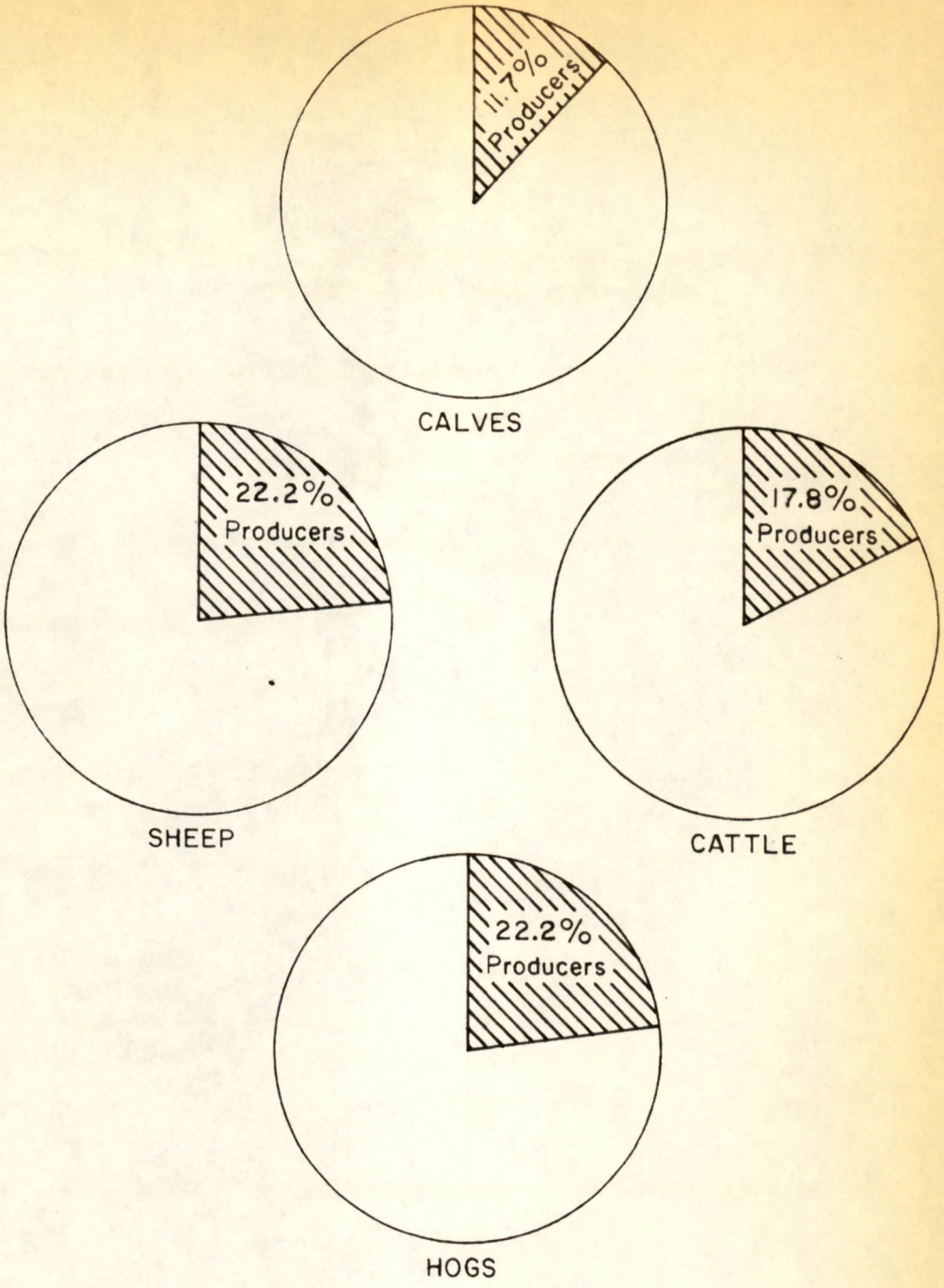

Figure 14. Percent by species of livestock on the Nashville terminal market sold through Tennessee Producers Livestock Marketing Association, 1959.

TABLE XVIII

REASONS GIVEN BY 200 MIDDLE TENNESSEE LIVESTOCK PRODUCERS FOR SELECTING COMMISSION FIRMS

Item	Livestock producers: Members of Tennessee Producers Livestock Marketing Association	Livestock producers: Non-members of Tennessee Producers Livestock Marketing Association	Total
	Percent	Percent	Percent
Recommended by friend	46	37	41.5
Picked at random chance at market	4	6	5.0
Representative of commission firm came to farm	3	4	3.5
Livestock hauler selected the firm	24	46	35.0
Other: Knew owner, Father used, Farm bureau Recommended	23	7	15.0
Total	100	100	100

percent of the non-members gave the same reasons for selecting the firm to handle their livestock. Twenty-four percent of the members of Producers' left the selection of the commission firm to the livestock hauler in comparison to 46 percent for the non-members. Three percent of the members of Producers' indicated that an agent representing the firm had visited their farm soliciting consignment of livestock; 4 percent of the non-members indicated that a representative had contacted them seeking patronage.

Service of Commission Firms

The commission firms act as a bargaining agent for the livestock producer. They accept the livestock for sale and negotiate with the buyers to obtain the highest possible price for a patron's livestock. The commission firm also feeds, waters, and cares for, at the expense of the owners, livestock not sold.

Members of the Tennessee Producers Livestock Marketing Association and non-members surveyed in Middle Tennessee indicated that commission firms were performing the services of obtaining the best price and visiting livestock producers' farms (Table XIX). Ninety-three percent of the livestock producers indicated that they thought they were receiving the services they should from the commission firms on the Nashville market; only 7 percent did not know what type of services would be expected from a commission firm.

A cooperative performs all the services the private firms do. However, they should give other benefits which the patrons say they do not. That is, it should pay patronage refunds to its members. The patrons deem

TABLE XIX

REASONS INDICATED BY 200 MIDDLE TENNESSEE LIVESTOCK PRODUCERS FOR SELECTING A NEW COMMISSION FIRM, 1960

	Members	Non-members	Total
	Percent	Percent	Percent
New owner	3	1	4
Representative came to farm	2	14	16
New hauler	4	5	9
Not fulfilling duties	7	18	25
Total	13	38	25.5

this an important service which should be rendered by the cooperative. When this question was asked all of the members of Tennessee Producers Livestock Marketing Association indicated that they never received a patronage refund. Many of the patrons wanted to know whey they had not received this payment as they had from other cooperatives of which they were members.

One farmer said, "I shipped my cattle to Louisville producers last year and received $243.00 as a patronage refund. This more than paid the cost of transportation. I think I will patronize them from now on." He is a charter member in the Nashville Producers Livestock Marketing Association and had patronized Tennessee Producers Marketing Association up until this shipment last year.

Reliability of Firms

When livestock producers, who are members of Tennessee Producers Livestock Marketing Association, were asked if they knew the manager, 76 percent said they did; 24 percent did not. In comparison to this, 54 percent of the non-members knew the manager and 46 percent did not. All the members and non-members indicated that commission firm managers were reliable and capable.

Reasons for Changing Commission Firms

Most of the patrons of commission firms continue to patronize one firm after they once make a selection. Of the 200 Middle Tennessee producers of livestock interviewed, 75 percent said they had not changed firms. Eighty-seven percent of the members of Tennessee Producers Livestock

Association have never changed and 62 percent of the patrons of other commission firms never change firms. Twenty-five percent of the livestock producers gave the following reasons for changing from one commission firm to another: (1) new owner or salesmen of a commission firm; (2) different livestock haulers; (3) a representative from the commission firm came to the farm soliciting livestock; and (4) commission firms not fulfilling their duties (Table XIX).

CHAPTER VII

SUMMARY AND CONCLUSIONS

I. SUMMARY

The data and information used in this study can be divided into 4 groups: (1) auction market facilities and services; (2) terminal market facilities and services; (3) factors affecting selection of outlet markets; and (4) attitudes toward commission firms.

The data used in the thesis were collected from 100 members of the Tennessee Producers Livestock Marketing Association and a like number of non-members of this association, from 24 auction markets in Middle Tennessee and the Nashville Union Stockyards terminal market.

The purposes of the study were to determine the role of existing livestock markets in the trade area of Tennessee Producers Livestock Marketing Association in this marketing structure.

Auction Market

Auction markets in Middle Tennessee play a vital role in the livestock marketing program. Before the growth of auction markets, the farmers had to haul their livestock to the terminal market or sell it to a local trader.

Auction markets, though perhaps not always satisfactory, cause competition to be greater, therefore, resulting in farmers receiving higher prices for his livestock.

The auction markets in Middle Tennessee follow many patterns of operations: (1) receiving; (2) selling; and (3) loading out livestock. These operations may vary between markets in the same city or in the market area according to the volume of livestock offered for sale.

The volume and species of livestock expected to be sold determines the size of the buildings, parking area, number of pens, scales, unloading and loading chutes, docks, number of buyers, time required to unload, length of sale time, and the number of employees at the market.

Terminal Market

The terminal market acts as a "hotel" for livestock. It rents the commission agencies office and pen space for selling livestock. These facilities are owned by a stockyards company. The commission firms in turn charge a "rental" fee to their patrons.

The facilities of the Nashville Terminal Market consist of: (1) the stockyards exchange; and (2) the facilities necessary for carrying out definite marketing procedure. These facilities being: (1) 329 pens; (2) 19 unloading and loading chutes; (3) approximately 45,000 square feet of parking area; and (4) 4 sets of scales.

The terminal markets open at 7:30 each day, Monday through Friday, to receive livestock for sale. Upon arrival at the terminal market, the livestock are consigned to a commission firm. The agents of these firms in turn sell the livestock to the buyer offering the highest price. The selling procedure may be long or short depending on the grade of livestock offered for sale and the grade the buyers are willing to purchase.

The number of buyers on the terminal market is determined by: (1) sale day; (2) volume of livestock; (3) how long it takes to fill his order; and (4) grade of livestock offered for sale.

There are a number of charges that go into the total charge for marketing livestock on the Nashville Terminal Market. The normal charges include: (1) yardage; (2) commission for selling; and (3) feed for livestock. The charges on the Nashville Terminal Market are lower than those of auction markets in the trade area. The commission charges on the terminal market are distributed by the number of animals marketed. Commission charges on an auction market are the same irrespective of the number marketed. The per head charge for yardage remains the same on both markets regardless of the number sold.

Factors Affecting Livestock Producers Marketing Decisions

Livestock producers in Middle Tennessee have various outlets to choose for a market for livestock. The producer may select any one of these when his livestock is ready for market. A wrong decision as to the choice of market could be quite costly in terms of net returns to the producer.

The cost of transportation plays an important role in determining where to market livestock, whereas, reasons of "most convenient," "closest market," and the "small lots" of animals market were relatively important in selecting the auction market.

Sixty-three percent of the livestock producers indicated that they knew they received a higher price for their livestock at the terminal market than the auction market.

Cattle sold through the terminal market averaged $.25 to $.30 per hundredweight higher than those sold on the auction market. Hogs averaged $.25 to $.50 cents per hundredweight higher on the terminal market than at the auction market.

Attitudes Toward Commission Firms

Commission firms on the terminal market are selling agents for the livestock producer. They try to obtain the highest possible price of the patron's livestock.

The Tennessee Producers Livestock Marketing Association in 1959 handled 19.8 percent of the total receipts of the Nashville Terminal Market.

Producers patronizing the terminal market selected the individual commission firms primarily on the recommendation of a friend and/or the judgement of the livestock hauler. Only 3.5 percent of the patrons indicated that some representative of the commission firm had visited their farm asking them to patronize an individual commission firm.

The members of Producers Livestock Marketing Association without exception did not think they were receiving the full benefit they should from the cooperative, that of patronage refunds.

All the livestock producers surveyed indicated that they felt the commission firms and managers are reliable and that they received highest price possible for their livestock.

II. CONCLUSIONS

Most of the livestock auctions, terminal markets, and managers of the commission firm are on the job each day seeking ways to make their markets more efficient and to do a better job of marketing their patrons livestock.

Undoubtedly many of the agencies have considered some of the following ideas. However, from this study one may see other possibilities in these ideas for improved efficiency in marketing.

(1) Securing a greater volume of livestock.

All market managers recognize the importance of volume. Larger volume usually attracts more consignors, a larger number of buyers, increasing competition resulting in higher prices.

(2) Efficient use of labor.

In this study there was found to be considerable differences in labor utilized in the market operation. More office workers were employed per head of livestock sold in small auction markets.

The market or commission firm should employ a man to receive livestock who is capable in public relations work with customers and the general public.

(3) Improve membership.

The marketing cooperative cannot be completely efficient until every producer who could profit from being a member

joins and is proud of the association. To be this type of member he must first realize it is to his advantage to belong to the association. He knows he is getting a service from the cooperative that he cannot receive elsewhere.

(4) Improve public relations.

An association's public relations program is closely associated to its membership relations program. An enthusiastic member is the best public relations that an association may have. Other membership relation programs may be courtesy to patrons at market time, communication with the people by radio, television, youth programs, membership publication and other meetings.

(5) Size of selling facilities.

The sale barns, in many instances, are too small to furnish the facilities needed to market livestock. Some of the auction barns were built for other purposes and the layout is not suited for the movement of livestock through the market.

Many markets, particularly those that have been established for several years, are on sites of inadequate size and as a result, traffic is congested; delays occur in unloading and loading and insufficient parking space is available.

In addition to these conclusions the author observed on various Middle Tennessee markets the following problems, that if solved will make marketing of livestock more efficient.

(1) Careful handling of livestock.

The handling of livestock is very important. Bruises cause excessive loss which is paid for by the farmer in the form of lower prices. Every effort should be made to have the market facilities layout so that livestock will flow smoothly from one market operation to another.

(2) Selling livestock.

Some cattle, as well as hogs and sheep, should be graded and grouped uniformly and sold in groups rather than individually. This is especially true for feeder and stocker cattle but also for large consignments of fat cattle.

All markets should establish an uniform method of selling livestock by in-weights or out-weights.

(3) Grading livestock.

Each market should have some one that is trained in grading livestock. This entices the buyers to buy on grade basis rather than on the individual group of livestock placed in one pen.

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APPENDIX A

MARKETING RESEARCH PROJECT

Department of Agricultural Economics
College of Agriculture
University of Tennessee

AUCTION SURVEY CONFIDENTIAL

1. Name of interviewee _____

2. Name of market _____, Location _____

3. What year was the market started? _____

4. How large are the marketing facilities?

   (a) Land area _____ acres.

   (b) Size of building, under roof _____.

   (c) Size of pens, not under roof _____.

   (d) Number of pens, _____ cattle, _____ calves, _____ hogs, _____ sheep.

   (e) Number of chutes _____ loading, _____ unloading.

   (f) Number of scales _____.

   (g) Size of parking area _____ paved, _____ unpaved. (square feet) or acres

   (h) Overflow space _____, type _____

5. Number of animals marketed per day in:

	peak season	average
(a) Cattle	_____	_____
(b) Calves	_____	_____
(c) Hogs	_____	_____
(d) Sheep	_____	_____

6. What time does the market open to receive livestock _____ hour.

7. What time does the sale begin? _____, end _____.

8. How much time does it require to unload livestock?

   At chute _____ minutes In waiting line _____ minutes.

9. What are the marketing costs to the farmer? (yardage fees)

   (a) Cattle _____ per head.

   (b) Calves _____ per head.

(c) Hogs_____per head. (e) Bulls_____per head.

(d) Sheep_____per head. (f) Milk cows_____per head.

10. How and when are payments made to the producer?

	(time lag)	(when)
(a) Cash_____.		
(b) Check when sold_____.		
(c) Check sent by mail_____.		
(d) Other_____.		

11. Number of employees in:

peak season		average season	
yard help		yard help	
office help		office help	

12. How are animals sold? (per cent)

(a) _____per head_____percent.

(b) _____in-weight_____percent.

(c) _____out-weight_____percent.

13. Distance market area serves? _____miles radius.

14. Number of buyers at market? (percent purchased)

	total	percent purchased
(a) Packer		
(b) Order		
(c) Other		

15. Order of sale:

1. _____

2. _____

3. _____

4. _____

5. _____

16. Is the market posted by the Packers and Stockyards Division of the United States Department of Agriculture?

Yes_____, No_____.

17. What complaints have you had recently from farmers?

18. How do you handle these complaints from farmers?

APPENDIX B

MARKET RESEARCH PROJECT

Department of Agricultural Economics
College of Agriculture
University of Tennessee

FARMER SURVEY CONFIDENTIAL

1. Name _____.

2. Address _____. County _____.

3. Size of farm? _____ acres. (land use)

   (a) Crop land _____ acres.

   (b) Forest _____ acres.

   (c) Pasture land _____ acres.

   (d) Other _____ acres.

4. Type of farm? _____ rent, _____ own, _____ share basis (percent)

5. What type, number, and grade of livestock do you raise or purchase as feeders?

	(number on farm)	(purebred)	(grade)	(raised)	(purchased as feeders)
(a) Beef Cattle					
(b) Dairy Cattle					
(c) Hogs					
(d) Sheep					

6. How far is your farm from Nashville? _____ miles.

7. How far is your farm from the nearest livestock market? _____ miles.

(name type and location)

	Name	Location
(a) Auction		
(b) Terminal		
(c) Order buyer		
(d) Packer buyer		
(e) Direct buying		
(f) Pick up station		

	Name	Location
(g) Local buyer		
(h) Other		

8. Where do you market your livestock? (percent)

	Cattle	Calves	Hogs	Sheep
(a) Terminal				
(b) Auction				
(c) Packer buyer				
(d) Order buyer				
(e) Direct				
(f) Pick up stations				
(g) Local buyer				
(h) Other				

9. Why do you use this method for marketing your livestock?

_____(a) Cost of transporting livestock to market the cheapest.

_____(b) Closest market.

_____(c) I do all my trading in this area.

_____(d) I receive as good price at this market as I would any other.

_____(e) Other comments.

10. Is there a difference in prices received at the terminal market and those at the auction market? _____Yes, _____No, _____Don't Know.

(How much)

(a) Cattle_____per head.

(b) Calves_____per head.

(c) Hogs_____per head.

(d) Sheep_____per head.

(e) All same_____per head.

11. Is there a difference in marketing charges on the terminal market and the auction market? _____Yes, _____No, _____don't know, _____how much.

12. Are the marketing charges on the terminal market too high? _____yes, _____no, _____don't know. (which charges)

_____(a) Commission charges

_____(b) Yard charges

_____(c) Other

13. Are the marketing charges on the auction market too high? _____yes, _____no, _____don't know.

(what charges)

14. What commission firm do you use when you market livestock on the terminal market?

_____(a) Nashville (Nash)

_____(b) King and Moore

_____(c) Producers

_____(d) Farmers

_____(e) Watkins

15. Why do you use this commission firm?

_____(a) Recommended by friend.

_____(b) Picked by random chance at market.

_____(c) Representative of firm came to farm.

_____(d) Livestock hauler chose the firm.

_____(e) Other comments.

16. Do you know the manager of the commission firm you patronize?

_____yes, _____no.

(opinion of)

(a) Is he reliable: _____yes, _____no, _____don't know.

(b) Is he capable: _____yes, _____no, _____don't know.

(c) Other comments.

17. Are the commission firms providing enough services? _____yes, _____no, _____don't know. (How)

_____(a) Obtaining the best price for livestock.

_____(b) Visiting farms to solicit livestock.

_____(c) Other comments.

18. Have you changed commission firms in the past: _____year, _____2 years, _____3 years? _____yes, _____no.

(Reasons for changing)

_____(a) Change in commission firm manager.

_____(b) Commission firm was not fulfilling their duties.

_____(c) Commission firm representative was not present when you unloaded livestock.

_____(d) Commission firm did not sell livestock at value you set.

_____(e) Other comments.

19. How do you haul your livestock to market?

_____(a) Use own truck.

_____(b) Hire truck.

20. What does it cost to haul your livestock to the terminal market?

	(Amount)	(Is there a difference in species)
(a) Flat rate	$_____	
(b) Per head	$_____	

(c) Per weight $_____

(d) Other $_____

21. What does it cost to haul your livestock to the auction market?

(a) Flat rate $_____

(b) Per head $_____

(c) Per weight $_____

(d) Other $_____

PRODUCERS PATRONS SURVEY

1. Why did you choose the Producers commission firm?

_____(a) Recommended by friend.

_____(b) Know the manager of the firm.

_____(c) Representative of the firm come to firm.

_____(d) Other comments.

2. What year did you first market with Producers commission firm?

_____year.

3. Have you ever received a dividend return from Producers livestock commission firm? _____yes, _____no, _____what year?

4. Do you think you are receiving the services you should from Producers commission firm? _____yes, _____no.

(Comments)

5. Are Producers performing better marketing services than private commission firms? _____yes, _____no.

(Comments)

_____(1) By making farm visits.

_____(2) Refund of savings.

_____(3) Notifying members of important sale dates.

_____(4) Helping members with market and production problems.

_____(5) Informing members about changes in demand for types of animals.

6. Would you be willing for the Producers commission firm to move from the Nashville terminal market and establish a new market? _____yes, _____no.

7. If the commission firm moved from the terminal market, what type market should be formed?

_____(a) Buying station.

_____(b) Pick-up station.

_____(c) Auction market.

_____(d) Other.

8. Would you be willing to help sponsor this move? _____yes, _____no.

(What ways)

_____(a) Through purchase of stock in the cooperative.

_____(b) By membership fee.

_____(c) By permitting the cooperative to retain earnings enough to cover cost of expansion.

_____(d) Other comments.

APPENDIX C

CRANES CREST

MARKET RESEARCH PROJECT

Department of Agricultural Economics
College of Agriculture
University of Tennessee

FARMER SURVEY CONFIDENTIAL

1. Name _____.

2. Address _____. County _____.

3. Size of farm? _____ acres. (land use)

   (a) Crop land _____ acres.

   (b) Forest _____ acres.

   (c) Pasture land _____ acres.

   (d) Other _____ acres.

4. Type of farm? _____ rent, _____ own, _____ share basis (per cent)

5. What type, number, and grade of livestock do you raise or purchase as feeders?

	(number on farm)	(purebred)	(grade)	(raised)	(purchased as feeders)
(a) Beef Cattle					
(b) Dairy Cattle					
(c) Hogs					
(d) Sheep					

6. How far is your farm from Nashville? _____ miles.

7. How far is your farm from the nearest livestock market? _____ miles.

(name type and location)

	Name	Location
(a) Auction		
(b) Terminal		
(c) Order buyer		
(d) Packer buyer		
(e) Direct buying		
(f) Pick up station		

	Name	Location
(g) Local buyer		
(h) Other		

8. Where do you market your livestock? (percent)

	Cattle	Calves	Hogs	Sheep
(a) Terminal				
(b) Auction				
(c) Packer buyer				
(d) Order buyer				
(e) Direct				
(f) Pick up stations				
(g) Local buyer				
(h) Others				

9. Why do you use this method for marketing your livestock?

_____(a) Cost of transporting livestock to market the cheapest.

_____(b) Closest market.

_____(c) I do all my trading in this area.

_____(d) I receive as good price at this market as I would any other.

_____(e) Other comments.

10. Is there a difference in prices received at the terminal market and those at the auction market? _____Yes, _____No, _____Don't Know.

(How much)

(a) Cattle_____per head.

(b) Calves_____per head.

(c) Hogs_____per head.

(d) Sheep_____per head.

(e) All same_____per head.

11. Is there a difference in marketing charges on the terminal market and the auction market? _____yes, _____no, _____don't know, _____how much.

12. Are the marketing charges on the terminal market too high? _____yes, _____no, _____don't know. (which charges)

_____(a) Commission charges

_____(b) Yard charges

_____(c) Other

13. Are the marketing charges on the auction market too high? _____yes, _____no, _____don't know.

(what charges)

14. What commission firm do you use when you market livestock on the terminal market?

_____(a) Nashville (Nash)

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_____(c) Producers

_____(d) Farmers

_____(e) Watkins

15. Why do you use this commission firm?

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_____(b) Picked by random chance at market.

_____(c) Representative of firm came to farm.

_____(d) Livestock hauler chose the firm.

_____(e) Other comments.

16. Do you know the manager of the commission firm you patronize?

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(opinion of)

(a) Is he reliable: _____yes, _____no, _____don't know.

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(c) Other comments.

17. Are the commission firms providing enough services? _____yes, _____no, _____don't know. (How)

_____(a) Obtaining the best price for livestock.

_____(b) Visiting farms to solicit livestock.

_____(c) Other comments.

18. Have you changed commission firms in the past: _____year, _____2 years, _____3 years? _____yes, _____no.

(Reasons for changing)

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_____(b) Commission firm was not fulfilling their duties.

_____(c) Commission firm representative was not present when you unloaded livestock.

_____(d) Commission firm did not sell livestock at value you set.

_____(e) Other comments.

19. How do you haul your livestock to market?

_____(a) Use own truck.

_____(b) Hire truck.

20. What does it cost to haul your livestock to the terminal market?

	(Amount)	(Is there a difference in species)
(a) Flat rate	$_____	
(b) Per head	$_____	

(c) Per weight $_____

(d) Other $_____

21. What does it cost to haul your livestock to the auction market?

(a) Flat rate $_____

(b) Per head $_____

(c) Per weight $_____

(d) Other $_____