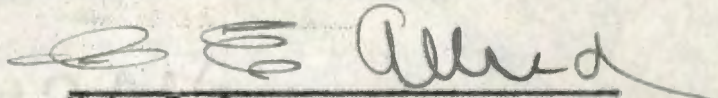


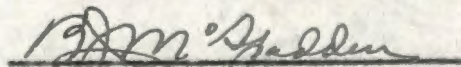
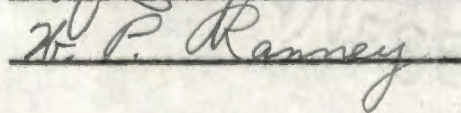
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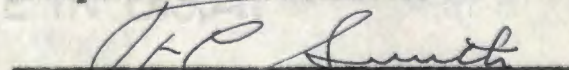
I am submitting to you a thesis written by Margaret May Guilford entitled "Poultry and Egg Marketing in the Knoxville Trade Area, 1942-1943." I recommend that it be accepted for eighteen quarter hours credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Economics.


Major Professor

We have read this thesis
and recommend its acceptance:

Accepted for the Committee


Dean of the Graduate School

**POULTRY AND EGG MARKETING IN THE
KNOXVILLE TRADE AREA,
1942-1943**

A THESIS

**Submitted to
The Committee on Graduate Study
of
The University of Tennessee
in
Partial Fulfillment of the Requirements
for the degree of
Master of Science**

by

Margaret May Guilford

August 1943

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CHAPTER I

INTRODUCTION

The marketing of poultry and eggs is an interlocking chain of assembling and distributing operations. These operations are carried on in Knoxville in both simple and complex form. Many historical stages in the development of marketing procedure are still observable. "Country eggs" may, quite possibly, either start to market by mule or horseback, or in a station wagon. Eggs are sold in "pokes" and in fancy cartons. Chickens may be purchased from the farmer either alive or dressed or at the grocery store where they may be sold in attractive cellophane packages. There seems to be no clear-cut delegation of marketing functions to any of the existing marketing agencies. Scattered and piece-meal information about the existing agencies and their functions has been gathered in the past but this is the first attempt to bring this information together and develop it into a unified picture.

Statement of the problem and purposes of the study. This investigation is a study of the marketing practices and agencies by and through which poultry and eggs are marketed in this area. An analysis of the findings will be attempted and conclusions stated.

The purposes are to determine the sources of supply; to delimit

the trade area; to determine the importance of Knoxville as a market for Tennessee poultry and eggs; to determine possibilities for enlarging local and distant outlets; to determine the relations between practices followed by producers and those followed by marketing agencies; to determine the effectiveness of such practices and agencies. It is not the purpose of this investigation to condemn or to defend any one system, practice, or marketing agency but to investigate and to attempt to analyze the situation as it exists in Knoxville.

Importance of the problem. Research of this type should precede any program of market or price improvement. For example: prices paid farmers, for eggs, have compared unfavorably with those paid in other states.¹ Knoxville wholesale produce dealers for some reason or another have not participated in the recent program of the Food Distribution Administration to support prices through purchase of surplus eggs in large lots (ten cases or more).² If there is a legitimate need for the adoption of such a program in Knoxville, why have local marketing agencies not participated? Investigation should reveal what conditions are responsible for non-participation.

1. Allred, C. E., Atkins, S. W., and Smith, Craig M., Prices Paid Producers of Farm Products, Tennessee, 1866-1935. Department of Agricultural Economics and Rural Sociology: Agricultural Experiment Station, University of Tennessee, August 1936, pp. 249, 252.

2. Knoxville News Sentinel, "Plans Egg Buying Program for Area". Monday, January 11, 1942.

Marketing Activities, "New Southern Egg Marketing Program Announced for 1943", Food Distribution Administration, United States Department of Agriculture, December 1942, Vol. 5, No. 12, p. 6.

Analysis of the problem. The problem naturally falls into certain broad divisions: first, production characteristics and practices of the area supplying Knoxville with poultry and eggs; second, trade channels, through which poultry and eggs move in the area; third, marketing agencies which facilitate movement; fourth, marketing functions, such as collection, grading, and storing; fifth, the important markets from which Knoxville receipts originate and important markets to which shipments are forwarded. Other problems related to the marketing of poultry and eggs, such as consumption demands and possibilities, prices paid in Knoxville as compared to Tennessee and other states, grading regulations, and possibilities of cooperative marketing of poultry and eggs in the area are given separate consideration.

Methods of procedure and source of data. Several separate surveys were made of the marketing agencies moving poultry and eggs from farmer to consumer in the Knoxville area.³ Supplementary and additional data were obtained from local newspapers and earlier related marketing studies which had been made in Knoxville and in states where similar conditions existed.

Most of the data were obtained by personal interview and observation. Data on country collection were obtained by a study of country stores and dealers in a nearby county. Rolling stores, important agencies of collection, were given special attention. A trip with a rolling

3. See Appendix A for survey schedules.

store and several trips to outlying towns were made.

Direct selling from farmers to consumers in Knoxville was studied by a survey of farm women selling poultry and eggs in the Knoxville Market House. Data on receipts and prices at the Market House were obtained from the women there three days a week over a six month period beginning in October 1942 and ending in March 1943.

A survey of all Knoxville wholesale produce dealers was made covering important phases of poultry and egg marketing.

As a further check on market channels, buying practices and consumer preferences a survey was made of a sample number of retail grocery stores in Knoxville.

Price data were obtained from the Knoxville Journal and from the Produce Packer as well as from the farm women selling poultry and eggs in the Knoxville Market House.

Data on handling of live poultry from East Tennessee shipping points to New York were obtained by personal interview and observation. Trips were made to Morristown, Tennessee, and New York City for this purpose. Opportunity was had to observe first hand the actual procedures involved in marketing a carload of live poultry from producers in Tennessee to consumers in New York City.

Other data and material presented were drawn from the census of Agriculture and other statistical sources as well as from unpublished reports available in the Agricultural Library at the University of

Tennessee.

Definitions of terms used. There is considerable divergency in the use of words descriptive of marketing practices or agencies. Therefore, it is necessary to decide upon certain uniform terminology at the outset of any marketing study. The following definitions are considered consistent with local use of the terms.

Huckster: One who buys poultry products at the farm or country store and who resells them to other country stores, wholesale produce dealers, or shippers. Persons selling poultry products are not here considered as hucksters but as peddlers, although the terms huckster and peddler are used interchangeably elsewhere.⁴ Henry E. Erdman, in "American Produce Markets" defined a huckster as:

A small scale operator who drives through the country, usually over a regular route. He may cover, regularly, as many as six routes during the summer months; that is, a different route each day of the week. Ordinarily he buys for cash. He may at times carry a small line of staple groceries or even meats, in which case he may take eggs in trade.⁵

Country store: A store selling groceries or merchandise and located in a rural area.

Rolling store: A truck carrying groceries and other merchandise for the purpose of selling them to farm people. This store may sell for cash or take poultry and other farm products in trade or, it

4. Erdman, Henry E. American Produce Markets. New York: D. C. Heath and Company, 1928, pp. 47, 222.

Hart, V. B., Bond, M. C., and Cunningham, L. C. Farm Management and Marketing. New York: John Wiley and Sons, Inc., 1942, pp. 399, 420.

5. Erdman, Henry E., op. cit., p. 47.

may also buy poultry products for cash. One person may be the sole owner of the store or it may be operated in connection with a country store.

Wholesale produce dealer: One who buys poultry products from buyers of first incidence or from the farmer direct, and who sells to retailers, dressing plants, shippers, etc. In a city the size of Knoxville the wholesale dealers sell to shippers at certain seasons and buy from them for distributive purposes in other seasons.

Dressing plant: Any place where poultry is dressed in large quantities for distribution to retailers, shipment to other markets, and or for direct sale to consumers.

Country car-lot shipper: Car-lot refers to the quantity and not to the method of shipment. H. E. Erdman in "American Produce Markets" defined country car-lot shippers as:

Independent dealers in poultry and eggs or operators of branch houses of large dealers car-lot shippers receive eggs [and poultry] from hucksters and country storekeepers, by express, by local freight, or by truck. At times they operate trucks of their own much as do the hucksters driving through the country and assembling eggs, cream and poultry. ⁶

J. B. Roberts made the following statement in "Marketing and Pricing Chickens in Kentucky".

Car-lot shippers maintain contact with all major poultry markets, buy unlimited quantities of all kinds of poultry from

6. Ibid., p. 49.

other dealers and ship direct to consuming centers.⁷

In Knoxville the car-lot shipper also buys direct from the farmer and may sell direct to the consumer.

Commission merchant: One who receives poultry from farmers, producers, shippers, and other to be sold on their behalf shall be deemed a commission merchant regardless of the amount of compensation or return he receives, or the method by which it is calculated, or of the fact that he may have guaranteed a certain price or return to the farmers, producers, or shippers.⁸

Cracks, or crax: Eggs having an actual crack or pencil line crack in the shell.

Dirties: Eggs which have foreign matter on the shell.

Rots or rotten eggs: Eggs which have undergone natural decomposition until they have become addled.

Other related studies. Three surveys pertinent to this study have been made in Knoxville. Two were concerned with consumer preference and the other with egg marketing practices of retail grocery stores. Information obtained in these surveys has been used as the foundation for and source of supplementary material for certain phases of this study. However, this survey is concerned more with the marketing of poultry and eggs than with consumption or retailing of eggs.

7. Roberts, J. B., Marketing and Pricing Chickens in Kentucky. Lexington, Kentucky: University of Kentucky, Agricultural Experiment Station, Bulletin 433, June 1942, p. 19.

8. Wooley, Daniel P., Rules and Regulations Pertaining to the Live Poultry Law. City of New York: Department of Markets, Reg. 2 "Licenses" Sec. 5., 1942, p. 1.

T. L. Mayes made the first consumer survey in 1933.⁹ He interviewed 100 housewives among the "well to do class" of people in West Knoxville. The purpose was to determine the preference of those people for different qualities of eggs, and how and when eggs were used by them.

A similar, although more inclusive study, was made in 1938 by Samuel L. Hansard.¹⁰ He also was concerned with consumer preference, use, and source of eggs and also meat. He interviewed 400 housewives in different income groups in order to determine the difference in preference and quantities purchased by different income groups. Income groups were represented by 100 housewives in each of four environmental areas, West Knoxville, Sequoyah Hills section, Park City section, and in the Textile Mill area.

Walter Carter, a senior student in animal husbandry, made a survey of the retail stores in Knoxville handling eggs in 1939.¹¹ One hundred grocery stores were interviewed and an attempt was made to interview stores in East, West, South, and North Knoxville. The findings

9. Mayes, T. L., Egg Consumption in West Knoxville, 1933. Report on file, Poultry Husbandry Department, University of Tennessee, Knoxville, Tennessee.

10. Hansard, Samuel L., A Study of Consumer's Preferences and Practices in Buying and Using Eggs and Meat in Knoxville, Tennessee, 1938. Unpublished thesis, University of Tennessee, pp. 117.

11. Carter, Walter, Survey Report of Knoxville Stores. Senior thesis, Poultry Husbandry Department, University of Tennessee, 1939.

were admittedly biased because of the inclusion of a large number of stores located on main highways leading into town.

A more complete survey of retail stores is to be included in this study, and the findings will be compared with Walter Carter's survey findings.

The most pertinent study of the production and marketing of eggs in the rural areas of Tennessee was made by J. C. Powell in 1928.¹² Schedules were mailed to 3500 farmers in all parts of the state and the returns were tabulated. One of the purposes of the study was to determine what percent of the eggs produced were sold by the farmer and what percent were consumed by the farm family. Similar data were obtained on the farm consumption of poultry.

In a study entitled Prices Paid Producers of Farm Products in Tennessee, some historical price data were uncovered which are pertinent to this study.¹³ The data were determined on a statewide basis. It was claimed throughout this study that Tennessee was a surplus producing state, and that, therefore, the farm price was an export price, based on central market price minus freight and other costs of movement to market. A study of the prices paid in Knoxville is to be made and the findings will be compared with those in this publication.

12. Powell, J. C., Milk and Egg Study, pp. 10 (attached to Meat Production and Consumption in Different Areas of Tennessee), typed reports, University of Tennessee Agricultural Library, December 1928, pp. 34.

13. Allred, Atkins, and Smith, op. cit., pp. 426.

Three Kentucky Agricultural Experiment Station bulletins based on studies similar to this have been published. Two were published in 1928, Marketing Kentucky Poultry and Marketing Kentucky Eggs, both by Dana G. Card.¹⁴ The data presented on the marketing of eggs was the result of a survey of 29 Kentucky stores and 42 produce dealers and will be compared to the findings of this study in later chapters. Market channels, through which eggs most often passed, consisted of local dealers, dealers who acted as concentration agents in making up car-lot shipments, wholesale receivers, jobbers, and retailers in large market centers. Auction sales organizations and cold storage companies also entered into the marketing processes.

In general, it was reported that poultry was a side line to other activities on most Kentucky farms, and that eggs were sold when they were produced in excess of needs for home consumption, and poultry was sold when housing space became crowded or when prices seemed especially favorable. The income from these sources was not then considered to be great.

A more recent Kentucky Agricultural Experiment Station bulletin based on a similar survey was published in June 1942.¹⁵ The general

14. Card, Dana G., Marketing Kentucky Poultry. Lexington, Kentucky: Agricultural Experiment Station, Bulletin No. 285, pp. 158.

Card, Dana G., Marketing Kentucky Eggs. Lexington, Kentucky: Agricultural Experiment Station, Bulletin No. 283, 1928, pp. 42.

15. Roberts, J. B., Marketing and Pricing Chickens in Kentucky. Lexington, Kentucky: Kentucky Agricultural Experiment Station, Bulletin No. 433, June 1942, pp. 47.

situation described was one of small flocks, limited interest, and high income from chickens sold. The data were taken from records kept by poultry dealers from 1936 to 1940. The findings will be included in a later chapter.

A study of Poultry and Egg Marketing in South Dakota, conducted in 1941 included reports from 82 merchants.¹⁶ The purpose of the study was to discover the relative importance of the various channels through which farmers marketed eggs, turkeys, and other poultry; the practices of the producer and of each type of agency in buying and selling the product throughout the marketing process.

Practically all Agricultural Experiment Stations have published bulletins about poultry and egg marketing as applied to their section of the country. Numerous United States Department of Agriculture bulletins on various phases of poultry and egg marketing have also been published. Many of such publications were the result of investigation into marketing procedure, but only those which seemed related to this study have been cited here. The findings of these surveys are not presented here as they are incorporated in later chapters as bases for comparison.

16. Cotton, W. P., and Wilson, W. O., Poultry and Egg Marketing in South Dakota. South Dakota State College, Brookings, South Dakota, Agricultural Experiment Station Bulletin No. 364, November 1942, pp. 24.

CHAPTER II
POULTRY AND EGG PRODUCTION IN THE
KNOXVILLE TRADE AREA

The importance of a product in a community determines in part the production and marketing practices for that product, and vice versa. The production of poultry and eggs and the income from the sale of those products is of greater importance to the farms in the twenty counties of the Knoxville area than to the farms of the state as a whole.¹

Poultry on Farms

Of the 51,381 farms in the twenty counties of the Knoxville area 90.4 percent reported having poultry on hand April 1, 1940. Only 88.6 percent of the farms in Tennessee reported having poultry on hand. Of those farms in the Knoxville area reporting having poultry, 80.9 percent reported selling poultry or poultry products in 1939. Seventy-four and four tenths of the farms in the state as a whole which reported having poultry sold poultry or poultry products in 1939.

1. The Knoxville area is here considered as including the following twenty counties: Anderson, Blount, Campbell, Claiborne, Cooke, Grainger, Greene, Hamblen, Hancock, Hawkins, Jefferson, Knox, Loudon, McMinn, Meigs, Monroe, Rhea, Roane, Sevier, and Union counties as outlined on state maps in this chapter.

Contribution of Poultry and Poultry

Products to Income

The sale or trade of poultry and poultry products in 1939 by farms in the Knoxville area contributed 6.5 percent of the value of all farm products sold, traded, or used by all farms in that area. The sale or trade of poultry and poultry products accounted for only 4.8 percent of

TABLE 1. INCOME FROM POULTRY AND POULTRY PRODUCTS IN THE KNOXVILLE AREA COMPARED WITH THE STATE AS A WHOLE, 1939 *

Income	Knoxville Area 20 Counties	Tennessee	Knoxville Area Percent of Total
Total value of all farm products sold, traded or used	\$30,381,979	\$156,491,597	19.4
Total value of all farm products sold, or traded	\$18,939,211	\$107,340,421	17.6
Total value of poultry and poultry products sold or traded	\$ 1,980,786	\$ 7,562,655	26.2
Sale or trade of poultry and poultry products as a percent of total value of farm products	6.5%	4.8%	
Sale or trade of poultry and poultry products as a percent of total value of farm products sold	10.5%	7.0%	
Number of all farms	51,381	247,617	20.8
Farms having poultry	46,495	219,509	21.2
Percent having poultry	90.4	88.6	
Percent of farms having poultry selling poultry and poultry products	80.9	74.4	
Farms reporting sales of poultry and poultry products	37,613	163,218	23.0
Percent of all farms reporting selling poultry and poultry products	73.2	65.9	
Value of poultry and poultry products sold or traded per farm reporting	\$52.68	\$46.33	

* Source: U. S. Census of Agriculture, 1940.

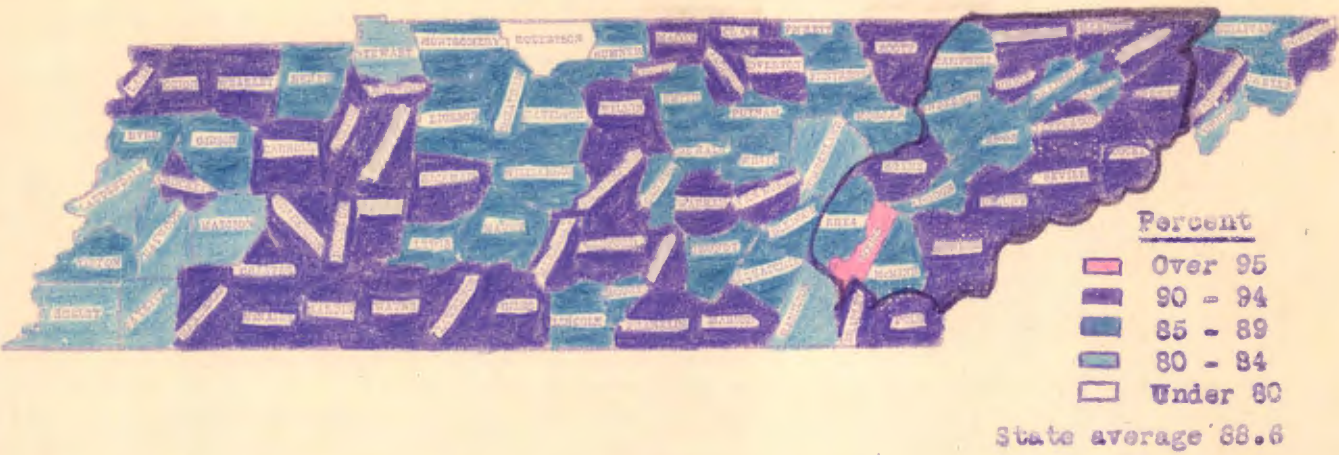


Figure 1. Percent of farms having poultry, Tennessee, 1939

Source: Computations derived from the U. S. Census of Agriculture, 1940.



Figure 2. Percent of farms having poultry reporting sales of poultry and poultry products, Tennessee, 1939

Source: Computations derived from U. S. Census of Agriculture, 1940.

of the value of all farm products sold, traded, or used by all farms in Tennessee in 1939. In the Knoxville area \$1,980,786 or 10.5 percent of the value of all farm products sold or traded was from the sale or trade of poultry and poultry products. For the state as a whole in 1939, only 7.0 percent of the value of all farm products sold or traded was from the sale or trade of poultry and poultry products. The average farm in the Knoxville area which sold or traded poultry and poultry products received \$52.66 from their sale or trade. The average farm in Tennessee reporting such sales received only \$46.33. In fact, farms in the Knoxville area received \$1,980,786 or 26.2 percent of the value of all poultry and poultry products sold or traded in the state of Tennessee in 1939.

Poultry Farms

The Knoxville area reported only 25.8 percent of the 1,766 poultry farms in Tennessee in 1939 while in 1929 it had reported 31.4 percent of

TABLE II. NUMBER OF POULTRY FARMS, 20 COUNTIES IN THE KNOXVILLE AREA AND TENNESSEE, 1929 AND 1939 *

Year	Number of Poultry Farms, 20 Counties, Knoxville Area	Tennessee	Knoxville Area Percent of Total
1929 1	549	1,743	31.4
1939 2	455	1,766	25.8
1929-1939	- 94	23	

* Source: U. S. Census of Agriculture, 1940 and 1930.

1. 1929, "For each of the major types, the sales of the major product (or group of products) had to represent 40 percent or more of the total value of all products of the farm before the farm was classified under that particular type."

2. 1939, "The basis for classification was the largest value of products entry. If the entries for two or more of the value of products questions were exactly the same the farm was classified according to the item predominating as the major source in that locality".

Census of Agriculture 1940, Tennessee, Third Series, p. 6.

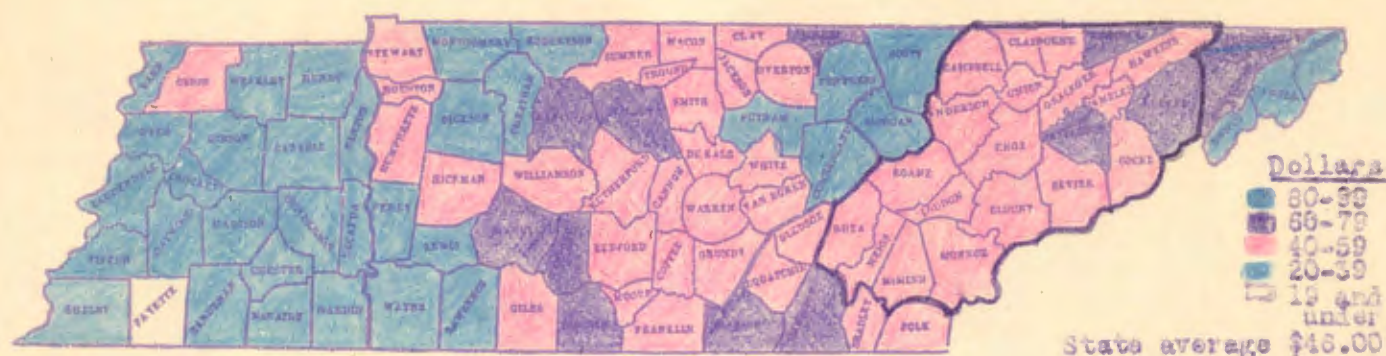


Figure 3. Average value of poultry and poultry products sold or traded per farm reporting, Tennessee, by counties, 1939 (to the nearest dollar)

Source: Computations derived from U. S. Census of Agriculture, 1940.

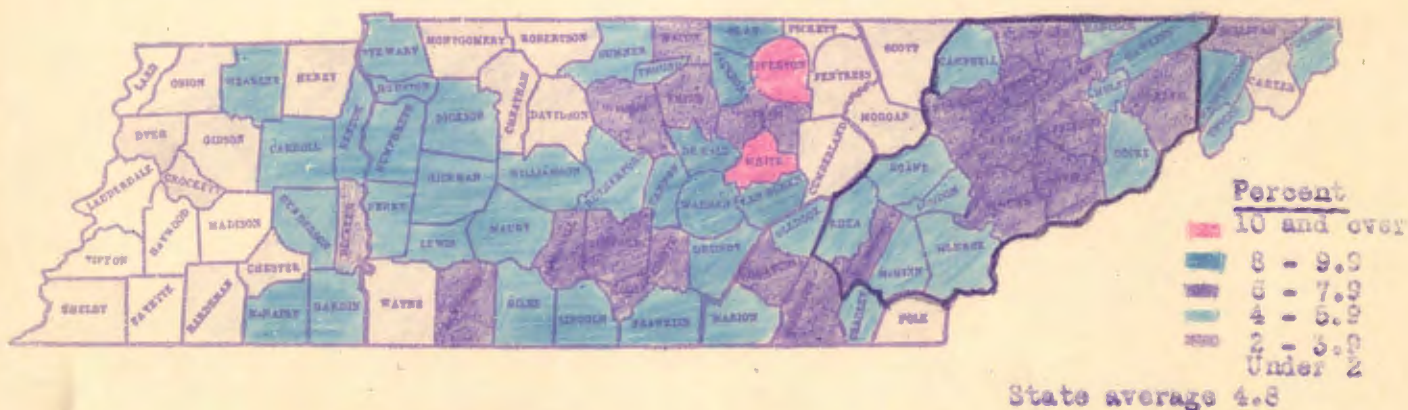


Figure 4. Percent of total value of all farm products sold, traded, or used represented by sales or trade of poultry and poultry products, Tennessee, by counties, 1939

Source: Computations derived from U. S. Census of Agriculture, 1940.



Figure 5. Percentage distribution of all poultry farms, 1929

Source: Computations derived from U. S. Census of Agriculture, 1940



Figure 6. Percentage distribution of all poultry farms, 1939

Source: Computations derived from U. S. Census of Agriculture, 1940.

the state's 1,743 poultry farms. Although there were 23 more poultry farms in Tennessee in 1939 than in 1929 there were 94 less poultry farms in the Knoxville area.

Chickens

Chickens accounted for 97.8 percent of the 2,944,282 poultry of any kind reported in the Knoxville area in 1939 and 98.7 percent of all poultry in the state as a whole. The 20 counties in the Knoxville area raised 365,172 fewer chickens in 1939 than in 1929 which decrease accounted for approximately 34 percent of the decrease in number of chickens raised for the state as a whole.

TABLE III. COMPARISON OF NUMBERS OF ANY KIND OF POULTRY RAISED, TENNESSEE AND 20 COUNTIES IN KNOXVILLE AREA, 1939 *

Type of Bird	Tennessee		Knoxville Area, 20 Counties	
	Number Raised	Percent of Total	Number Raised	Percent of Total
Chickens	14,868,909	98.7	2,880,255	97.8
Turkeys	135,969	0.9	52,023	1.8
Ducks	30,183	0.2	8,657	0.2
Geese	5,902	0.04	456	0.02
Guineas	28,044	0.2	4,888	0.2
Total	15,069,007	100.0**	2,944,282	100.0**

* Source: U. S. Census of Agriculture, 1940.

** Due to the inclusion of the figures on geese the percentages actually total more than 100 percent.

Farms reporting chickens on hand April 1, 1940, in the Knoxville area accounted for 21.3 percent of the farms reporting in the state as a

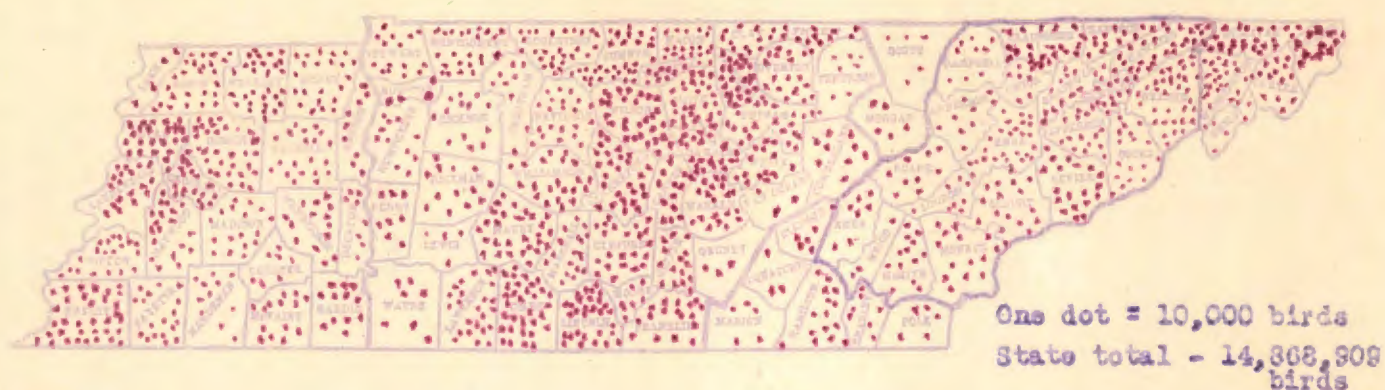


Figure 7. Number of chickens raised on Tennessee farms, by counties, 1939

Source: U. S. Census of Agriculture, 1940



Figure 8. Increase in number of chickens raised, by counties, 1929-1939

Source: U. S. Census of Agriculture, 1929 and 1939

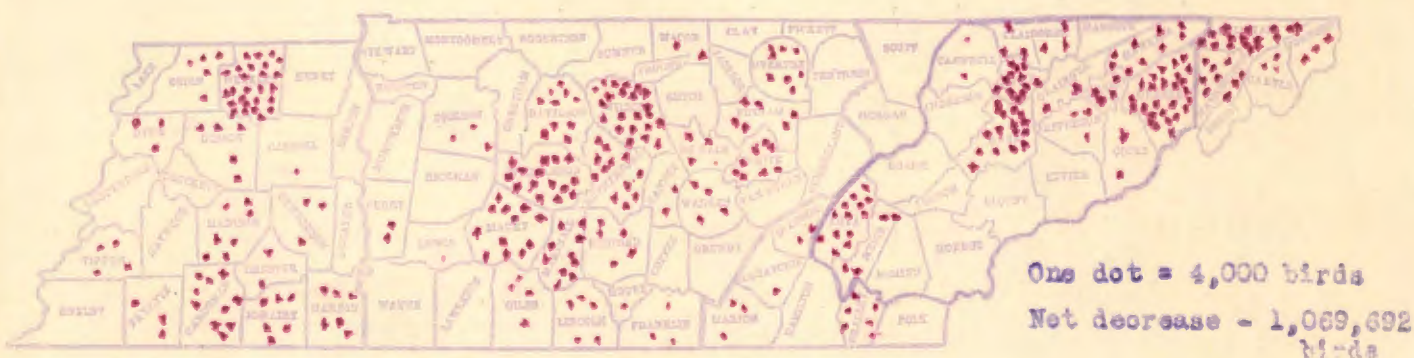


Figure 9. Decrease in number of chickens raised by counties, 1929-1939

Source: U. S. Census of Agriculture, 1929 and 1939

whole and reported 23.8 percent of the chickens reported.

Chickens raised were not as important in the Knoxville area as chickens on hand as only 21.1 percent of the farms raising chickens in 1939 were in the Knoxville area. These farms in the Knoxville area raised only 19.4 percent of the chickens raised in 1939, but reported 23.8 percent of the chickens on hand and were credited with 20.2 percent of the value of chickens raised.

TABLE IV. CHICKEN PRODUCTION IN THE KNOXVILLE AREA COMPARED WITH THE STATE AS A WHOLE, 1939 AND 1940*

Item	20 Counties of the Knoxville Area	Tennessee	Knoxville Area Percent of Total
Number of chickens on hand 4 months old or older on April 1, 1940	1,903,519	8,013,460	23.8
Farms reporting chickens on hand, April 1, 1940	46,643	219,278	21.3
Number of chickens raised, 1939	2,880,255	14,868,909	19.4
Number of farms reporting chickens raised, 1939	43,831	207,864	21.1
Value of chickens raised, 1939	\$1,318,126	\$6,519,838	20.2
Value per farm reporting	\$30.07	\$31.37	
Number of chickens sold alive or dressed, 1939	1,173,950	5,324,989	22.0
Number of farms reporting chickens sold alive or dressed, 1939	31,496	135,764	23.2
Value of chickens sold alive or dressed, 1939	\$543,450	\$2,335,956	23.3
Value per farm reporting chickens sold alive or dressed, 1939	\$17.25	\$17.21	

* Source: U. S. Census of Agriculture, 1940.

The farms reporting in the Knoxville area sold 22.0 percent of the chickens sold alive or dressed in the state as a whole and 23.5 percent, \$543,450, of the value of all chickens sold.

Important Counties of the Knoxville Area

Greene, Jefferson, Meigs, Hawkins, Hancock, and Loudon counties each reported more than 41 chickens on hand April 1, 1940, per farm

TABLE V. PRODUCTION OF POULTRY AND POULTRY PRODUCTS IN 20 COUNTIES OF THE KNOXVILLE AREA AND TENNESSEE, 1939 AND 1940 *

Counties	Percent of All Farms Having Poultry	Number of Chickens on Hand April 1, 1940		Number of Chickens Raised, 1939		Chicken Eggs Produced, Doz., 1939	
		Total	Per Farm Reporting 1	Total	Per Farm Rptg. 1	Total	Per Farm Rptg. 1
Anderson	88.8	60,083	34	35,996	53	344,439	203
Blount	90.9	98,047	36	155,829	61	597,680	231
Campbell	85.2	52,215	30	94,163	61	319,444	192
Claiborne	91.5	112,593	40	207,957	76	640,430	235
Cocke	91.7	117,122	41	172,118	63	657,819	236
Grainger	89.1	85,287	39	137,506	66	531,820	256
Greene	91.9	274,653	53	340,090	69	1,836,890	366
Hamblen	89.5	68,735	41	105,346	69	416,626	271
Hancock	91.1 ^b	70,746	44	132,195	66	447,523	284
Hawkins	90.9	159,390	45	245,509	72	920,875	265
Jefferson	92.7	101,308	51	153,247	81	658,846	354
Knox	85.9	139,856	32	254,185	64	765,698	188
Loudon	89.1	55,999	44	75,457	66	310,816	263
McMinn	89.7	99,000	37	133,287	62	611,722	233
Meigs	97.2	36,905	48	29,392	42	235,030	321
Monroe	93.1	93,151	37	135,190	61	565,076	250
Rhea	89.7	43,453	39	65,207	63	279,353	269
Roane	92.0	61,004	41	90,055	65	400,143	274
Sevier	92.5	124,027	39	192,646	63	789,158	258
Union	93.1	49,940	38	74,880	59	299,032	231
20 Counties	90.4	1,903,518	41	2,880,255	66	11,628,425	260
Tennessee	88.6	8,013,460	37	14,868,909	72	46,805,754	222

* Source: U. S. Census of Agriculture, 1940.

1. Figures to the nearest whole number.

reporting compared with 41 for the area as a whole. (The average farm in the Knoxville area reported 41 chickens on hand.)

Greene, Knox, and Hawkins counties led in total number of chickens raised during 1939. However, Hancock, Jefferson, and Claiborne counties reported the more chickens raised per farm.

Greene, Hawkins, Sevier, and Knox counties reported the largest numbers of dozens of eggs produced per county in 1939. Greene, Jefferson, and Meigs counties each reported over 300 dozen produced per farm compared with 260 dozen for the area as a whole.

Size of Flock

The average farm in the Knoxville area which reported chickens on hand April 1, 1940, had 41.0 chickens four months old or older. The

TABLE VI. SIZE OF FLOCK, FARMS REPORTING CHICKENS ON HAND APRIL 1, 1940, TENNESSEE AND 20 COUNTIES OF KNOXVILLE AREA *

Size of Flock	Tennessee		20 Counties of Knoxville Area		20 Counties of Knoxville Area, Percent of Total
	Actual	Percent	Actual	Percent	
Total	219,278	100.0	46,443	100.0	21.2
Under 25	91,217	41.6	15,546	33.5	17.0
25 to 49	74,633	34.0	16,998	36.6	22.8
50 to 99	40,955	18.7	10,544	22.7	25.7
100 to 199	10,972	5.0	2,936	6.3	26.8
200 to 399	1,280	0.6	382 ¹	0.8	29.8
400 to 699	141	0.1	22	**	15.6
700 to 999	20	**	7	**	35.0
1000 to 2499	18	**	-	-	-
2500 and over	2	**	-	-	-
Average size of flock	(36.5)		(41.0)		

* Source: Special Poultry Report, U. S. Census of Agriculture, 1940, p.548.

1. 8 undetermined.

** Less than 0.1 percent.

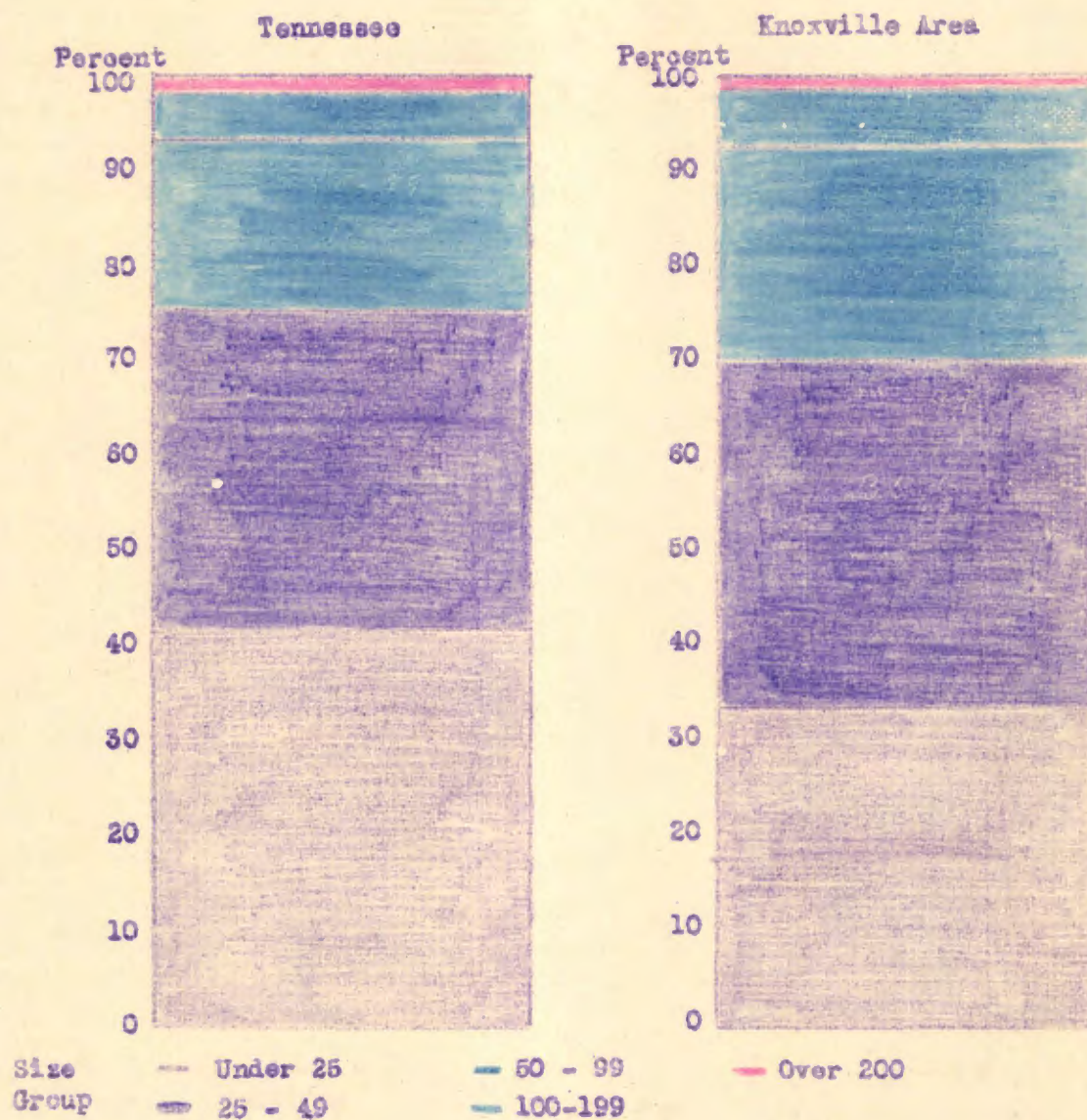


Figure 10. Percent of flocks in each size group, Knoxville area and Tennessee, April 1, 1940

Source: Table VI.

average farm in the state of Tennessee which reported chickens on hand had 36.5 chickens. As the size of the flock increased the larger was the percentage of such flocks which were reported in the Knoxville area. Of the farms reporting in the Knoxville area 70.1 percent had less than 50 chickens on hand. For the state as a whole 75.6 percent had less than 50 chickens on hand. Of the farms reporting flocks of from 100 to 399 chickens 56.6 percent were located in the Knoxville area.

Flock Additions

Of the number of chickens reported as raised in the Knoxville area in 1939, 66.1 percent were reported as on hand April 1, 1940. For the state as a whole 53.9 percent of the chickens raised in 1939 were on hand April 1, 1940. More pullets were evidently kept for layers in the Knoxville area.

TABLE VII. AVERAGE NUMBER OF CHICKENS RAISED AND PERCENT KEPT IN 20 COUNTIES OF THE KNOXVILLE AREA AND TENNESSEE, 1939 AND 1940 *

Items	20 Counties Knoxville Area	Tennessee
Number of chickens raised in 1939	2,880,255	14,868,909
Number of chickens on hand, April 1, 1940, 4 months old or older	1,903,518	8,013,460
Average number raised 1939	66.7	71.6
Percent of number raised 1939, on hand April 1, 1940	66.1	53.9

* Source: United States Census of Agriculture, 1940

Egg Production

Egg production per layer in Tennessee was 99 eggs in 1941, which was 11 eggs below the United States average. Georgia and Louisiana egg production per layer was less than that reported in Tennessee. Tennessee egg production per layer increased from 73 eggs per layer in 1934 to 99 in 1941. United States average production per layer increased from 89.3 in 1934 to 110.0 in 1941, an increase of approximately 36 percent for both Tennessee and the United States.

TABLE VIII. FARM EGG PRODUCTION PER LAYER BY SPECIFIED STATES,
1934 - 1941 INCLUSIVE¹

State	1934	1935	1936	1937	1938	1939	1940	1941
Rhode Island	122	132	132	140	141	149	148	163
Washington	137	132	142	149	135	137	136	143
Michigan	100	110	104	111	114	109	110	115
Missouri	81	89	85	93	103	98	97	106
Iowa	78	79	77	87	96	94	91	99
Kentucky	75	80	77	81	89	86	88	95
Tennessee	73	78	76	78	83	82	72	99
Georgia	69	73	77	78	80	72	75	78
Louisiana	64	68	70	70	79	78	65	72
United States	89.3	95.0	94.0	100.0	105.6	103.1	101.0	110.0

* Source: Bureau of Agricultural Economics data on file, Poultry Husbandry Department, University of Tennessee.

1. Number of eggs produced during the year, divided by the number of all hens and pullets on hand January 1.

Of the 46,605,759 dozen eggs produced in Tennessee in 1939, 24.9 percent were produced in the 20 counties of the Knoxville area. The

Number of eggs per layer

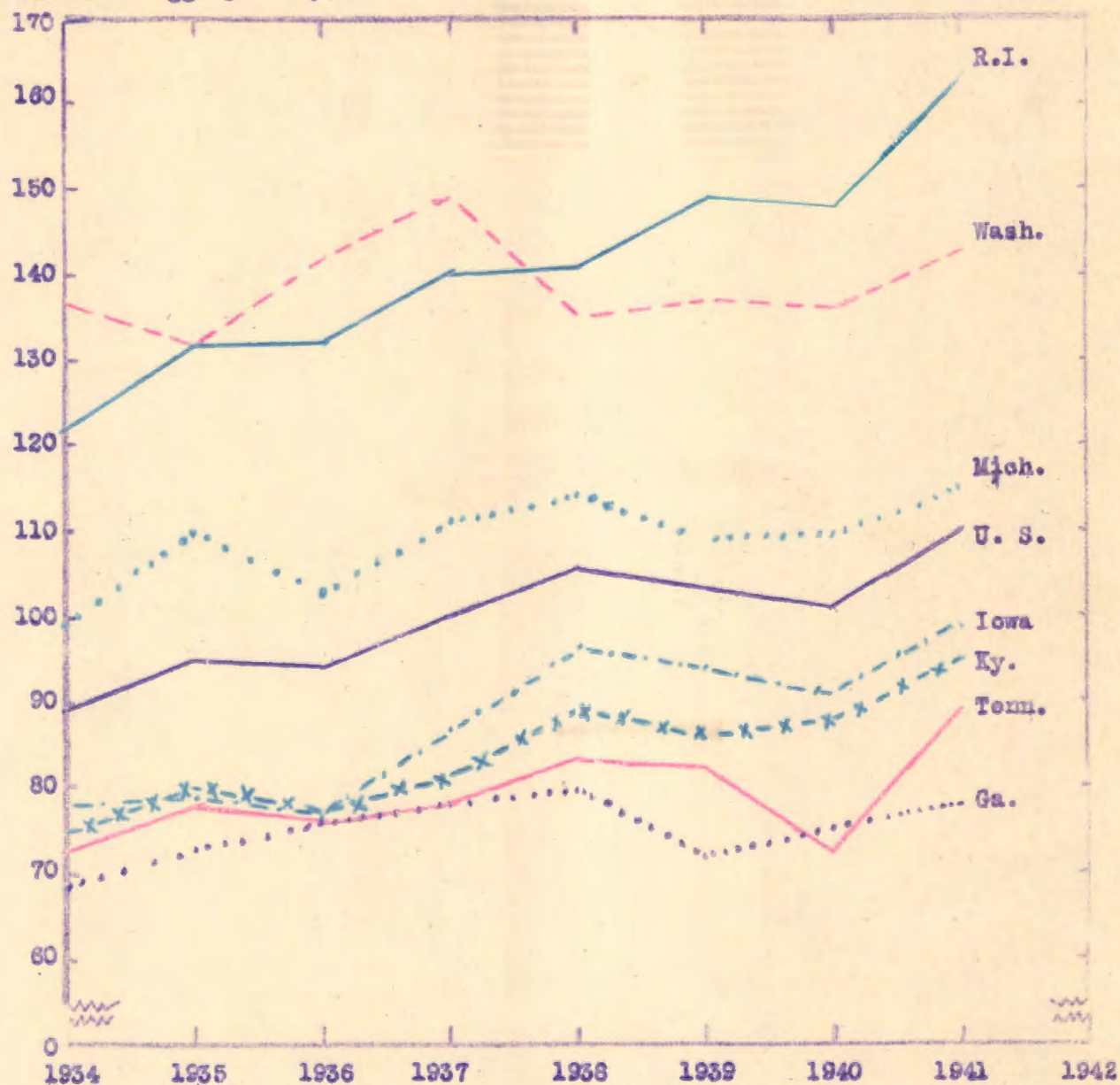


Figure 11. Egg production per farm in Tennessee and selected states, 1934-1942

Source: Table VII, p. 24.

Knoxville area includes most of farming area 14 and part of area 15.¹

In 1939 the egg production per 1000 acres of land in farms in area 14 was 3,735 dozen and 1,987 in area 15.

The average farm reporting in the Knoxville area produced 260.0

TABLE IX. COMPARISON OF PRODUCTION OF CHICKEN EGGS IN 20 COUNTIES OF THE KNOXVILLE AREA AND TENNESSEE, 1929-1939 *

Items	Tennessee	20 East Tennessee Counties	20 Counties, Percent of Total Tennessee
Farms reporting			
1939	210,398	44,730	21.3
1934	231,926	51,521	22.2
Decrease 1934-1939	21,528	6,791	31.5
Number of dozen eggs produced			
1939	46,605,754	11,628,425	24.9
1934	41,171,415	10,551,147	33.9
1929	57,519,801	13,969,556	24.4
Increase or decrease in number produced 1929-1939	- 10,714,047	-2,341,131	21.9
1934-1939	5,434,339	1,077,278	-
Value of number of dozen produced			
1939	\$7,492,185	\$1,924,663	25.7
1929	15,908,779	4,051,172	39.3
Decrease in value of number of dozen produced 1929-1939	\$8,416,594	\$2,126,509	25.3
Value per farm reporting, 1939	\$35.61	\$43.02	
Number of dozen produced per farm			
1939	221.5	260.0	
1934	177.5	204.8	
Increase in number of dozen produced per farm 1934-1939	44.0	55.2	

* Source: U. S. Census of Agriculture, 1940 and 1930.

1. See Figure 11.

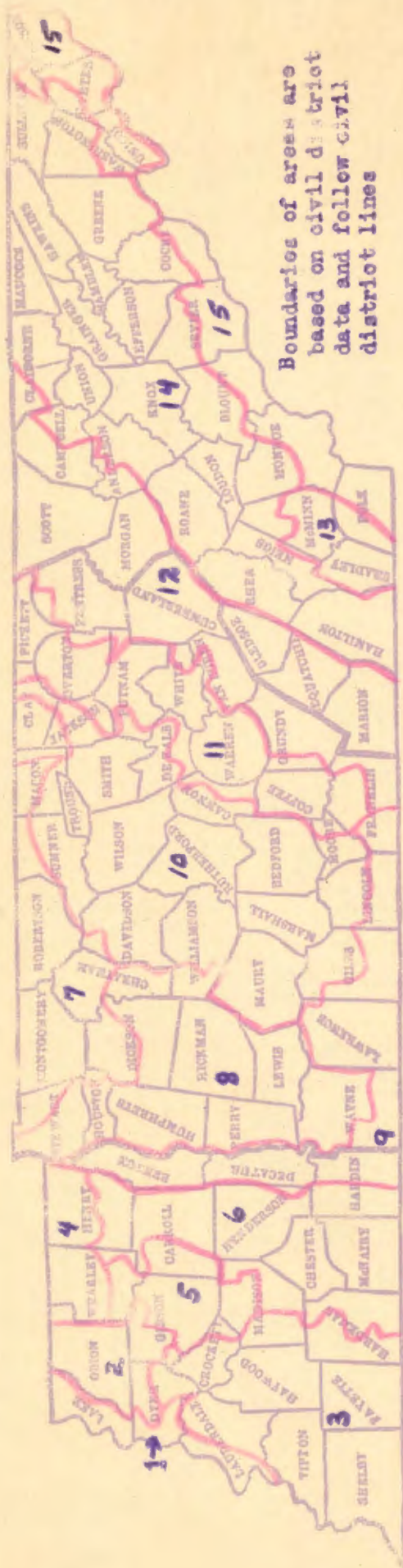


Figure 12. Type of farming area and production per 1,000 acres of land in farms, 1939

Key to type of farming areas and production per 1,000 acres

Area	Egg Production, 1939, Dozens	Area	Egg Production, 1939, Dozens
1. Cotton and cash-grain	1,048	10. General livestock farming	3,153
2. Cotton and livestock	1,888	11. Small general farming	2,630
3. Cotton	1,820	12. Very small general and part-time farming (Plateau)	2,048
4. Dark tobacco, sweet potato, and general farming	1,778	13. General farming, cotton, dairy	2,253
5. Cotton, truck, and general farming	2,197	14. General farming	3,735
6. Cotton, and general farming	1,726	15. Small general farming (mountainous)	1,987
7. Dark tobacco	1,686		
8. Small general farming, corn and hogs	1,591	State -	2,520
9. Cotton, small general farming, some livestock	2,068		

Source: University of Tennessee, Agricultural Experiment Station Bulletin 189, and Table X.

dozen eggs per farm. The average farm reporting in the state of Tennessee as a whole produced 221.5 dozen eggs per farm. Farms reporting in the Knoxville area had increased production 55.2 dozen per farm over production in 1934. Farms reporting in the state as a whole had increased production 44.0 dozen per farm.

Eggs produced in Tennessee were valued at \$7,492,185, 25.7 percent of which was credited to farmers in the Knoxville area. The average farm producing eggs in the Knoxville area produced eggs valued at \$43.02

TABLE X. PRODUCTION OF CHICKEN EGGS IN DOZENS, PER 1,000 ACRES OF LAND IN FARMS, 15 TYPES OF FARMING AREAS IN TENNESSEE, 1919-1939*

Area Number ¹	1939	1934	1929	1924	1919	Increase or Decrease, or 1919-1939
1	1,049	958	2,044	897	1,477	-428
2	1,888	1,494	2,111	1,353	2,026	-138
3	1,820	1,629	2,351	1,554	2,141	-321
4	1,778	1,601	2,406	1,561	1,814	- 36
5	2,197	1,945	3,006	1,978	2,497	-300
6	1,726	1,571	2,054	1,236	1,647	77
7	1,686	1,501	1,939	1,308	1,761	- 75
8	1,591	1,031	1,805	1,020	1,319	272
9	2,068	1,447	2,564	1,832	2,116	- 48
10	3,153	2,790	4,319	3,345	3,519	-366
11	2,630	2,067	3,183	1,821	2,290	340
12	2,048	1,546	2,218	1,266	1,525	723
13	2,253	1,718	2,567	1,840	1,922	351
14	3,735	2,782	4,687	3,903	3,449	286
15	1,987	2,314	2,407	1,412	1,815	172
State	2,520	2,157	3,184	2,293	2,496	24

* Production per thousand acres was determined by adding the production of the representative counties in each area and dividing that total by the total number of 1,000 acres in farms in the same representative counties. The state figure was obtained by dividing total production by the number of thousands of acres of land in farms.

1. For types of farming areas see Luebke, B. H., Atkins, S. W., Allred, C. E., and Roth, W. J., Types of Farming in Tennessee, April 1939, University of Tennessee Agricultural Experiment Station, Bulletin No. 169, pp. 94.

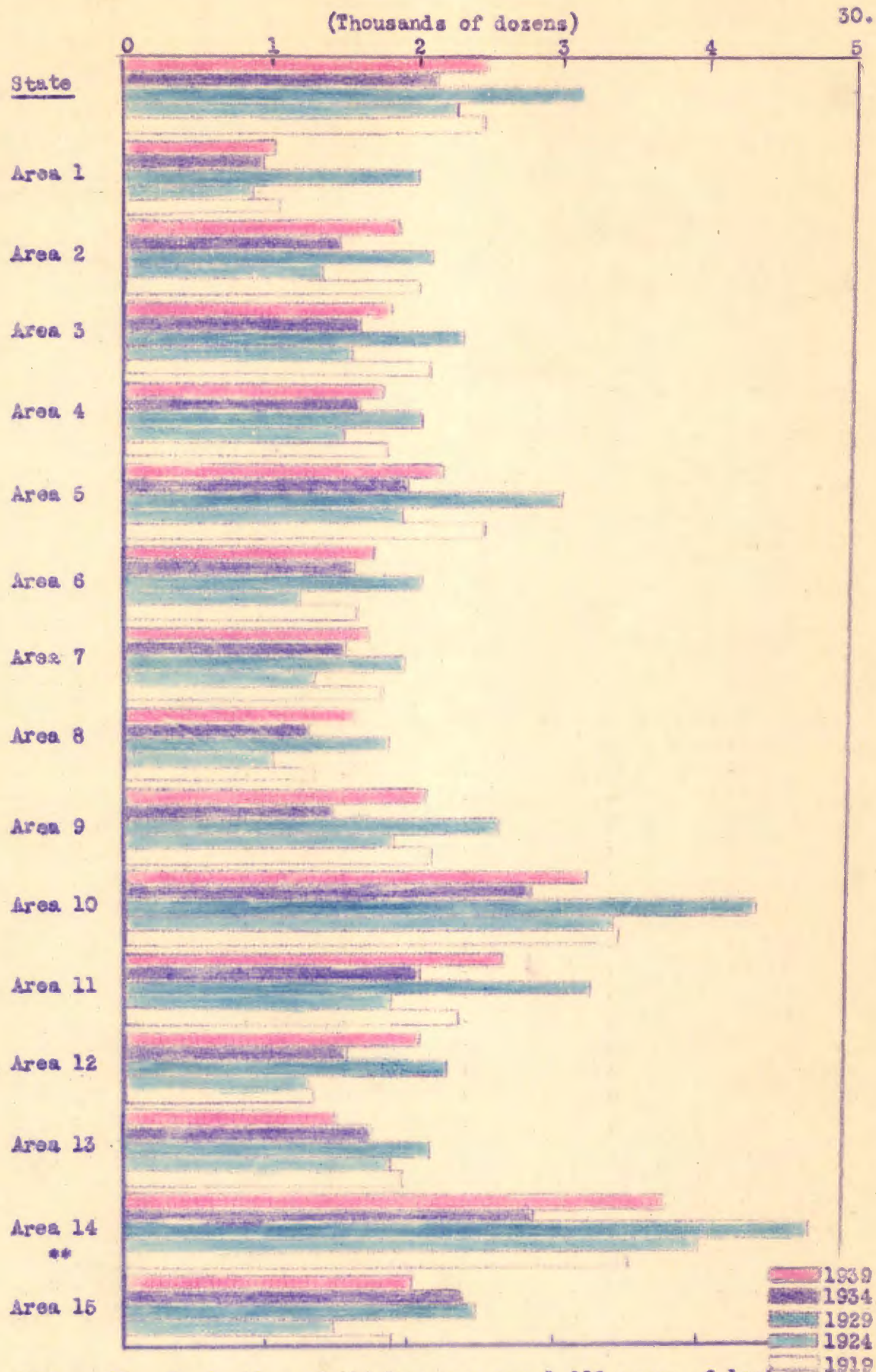


Figure 13. Production of chicken eggs per 1,000 acres of land in farms by type of farming area, Tennessee, 1939, 1934, 1929, 1924, and 1919 *

Source: Table VIII.

** Includes Knoxville area.

per farm while the average farm for the state as a whole produced eggs worth \$35.61 per farm.

Turkeys

Approximately half as many farms in the Knoxville area reported raising turkeys in 1939 as reported raising turkeys in 1929. In 1939, 32.8 percent of the farms raising turkeys were located in the Knoxville area and raised 38.3 of the turkeys raised in the state. In 1929, 41.1 percent of the farms raising turkeys were in the Knoxville area and they raised 46.2 percent of the turkeys raised in 1929 in Tennessee.

TABLE XI. COMPARISON OF TURKEY PRODUCTION IN KNOXVILLE AREA AND TENNESSEE, 1929-1939

Item	Tennessee	20 East Tennessee Counties	20 East Tennessee Counties As Percentage of the Total
Farms reporting 1939	6,541	2,143	32.8
1929	13,028	5,361	41.1
Dec. 1929-1939	6,487	3,218	49.6
Number of turkeys raised 1939	135,969	52,026	38.3
1929	156,470	72,215	46.2
Dec. 1929-1939	20,501	20,189	98.5
Value of turkeys raised 1939	\$295,836	\$117,672	39.8
1929	432,218	200,182	46.3
Dec. 1929-1939	136,362	82,490	60.5
Value of turkeys raised per farm reporting 1939	\$45.23	\$54.90	
1929	33.17	37.33	
Inc. 1929-1939	12.06	17.57	
Number of turkeys raised per farm reporting 1939	20.8	24.3	
1929	12.0	13.5	
Inc. 1929-1939	8.8	10.8	

Figure 13. Decrease in turkeys raised, 1929-1939

Source: U. S. Census of Agriculture, 1940 and 1930



Figure 14. Turkeys raised on Tennessee farms, 1939

Source: U. S. Census of Agriculture, 1940



Figure 15. Increase in turkeys raised, 1929 - 1939

Source: U. S. Census of Agriculture, 1940 and 1930

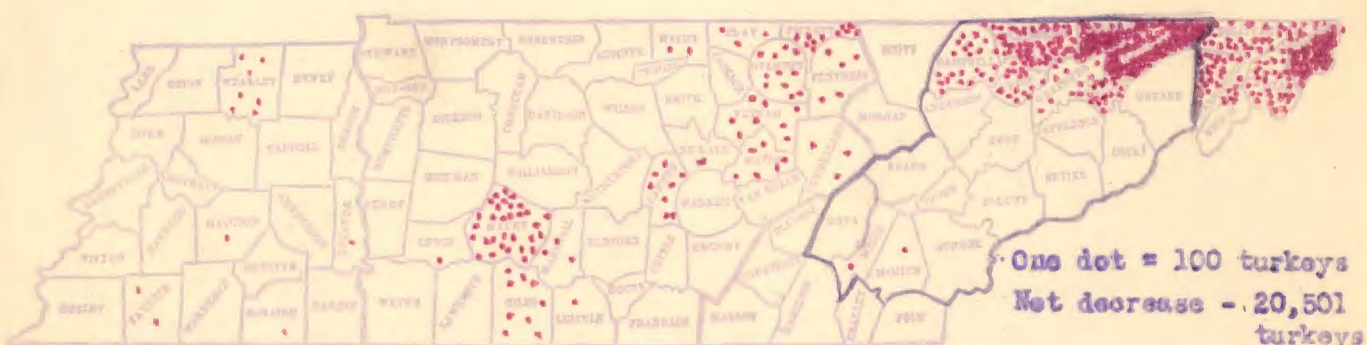


Figure 16. Decrease in turkeys raised, 1929 - 1939

Source: U. S. Census of Agriculture, 1940 and 1930

Turkey production had evidently become more specialized in the state as a whole and especially in the Knoxville area. The average farm reporting in the Knoxville area had raised 24.3 turkeys in 1939 while in 1929 the average farm had raised only 13.5 turkeys. The average farm in the state as a whole in 1939 raised 20.8 turkeys while in 1929 the average farm was reported to have raised only 12.0 turkeys.

In 1939, 39.8 percent, or \$117,672, of the value of all turkeys raised in Tennessee was reported by the 20 counties in the Knoxville area. The average farm reporting in the Knoxville area raised turkeys valued at \$54.90. The average farm reporting in the state as a whole raised turkeys valued at \$45.23.

Ducks

In 1939 ducks were relatively unimportant in the Knoxville area as only 922 farms reported raising them. The number of ducks raised in Tennessee in 1939 was 53,133 less than the number raised in 1929. Thirty-three and one tenth of the decrease was due to the decrease in the number raised in the Knoxville area. The average farm in the Knoxville area reporting ducks raised in 1939 reported only 7.2 ducks. Ducks raised in the Knoxville area in 1939 were valued at only \$2,430 or 19.2 percent of the value of all ducks raised in Tennessee in 1939.



Figure 17. Number of ducks raised in Tennessee, by counties, 1939

Source: U. S. Census of Agriculture, 1940

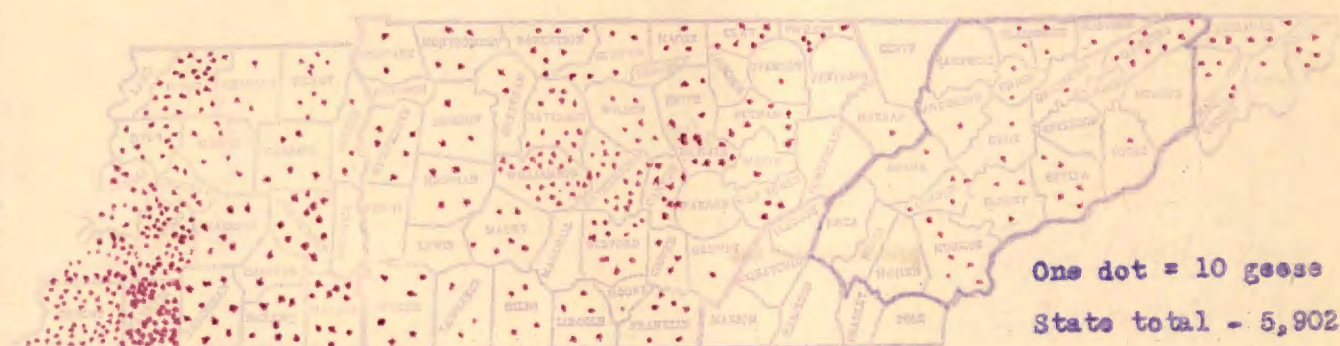


Figure 18. Number of geese raised, Tennessee, by counties, 1939

Source: U. S. Census of Agriculture, 1940

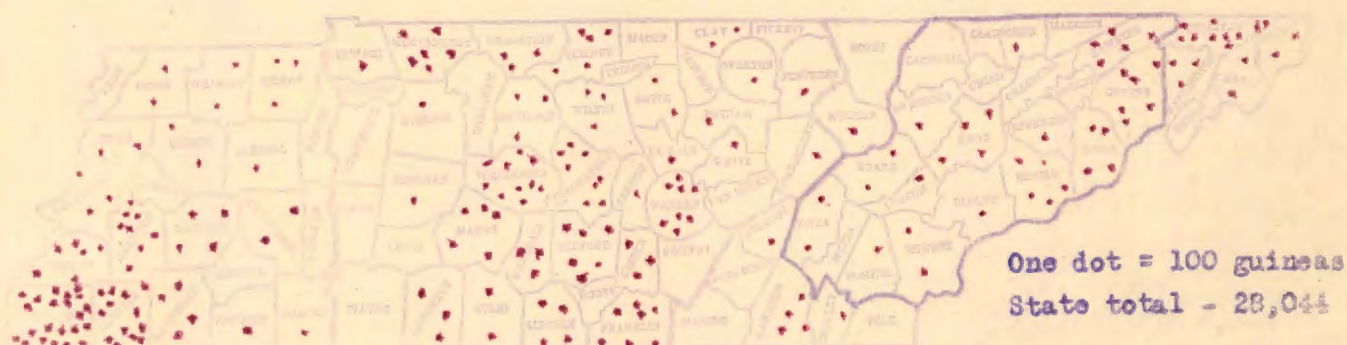


Figure 19. Number of guineas raised, Tennessee, by counties, 1939

Source: U. S. Census of Agriculture, 1940

TABLE XII. COMPARISON OF DUCK PRODUCTION IN KNOXVILLE AREA
AND TENNESSEE, 1929-1939 *

Items	Tennessee	20 East Tennessee Counties	20 East Tennessee Counties As Per- centage of Total
Number of farms reporting			
1939	3,816	922	24.2
1929	11,856	3,327	28.1
Decrease 1929- 1939	8,040	2,405	29.9
Number of ducks raised			
1939	30,183	6,657	22.1
1929	83,316	24,218	29.1
Decrease 1929- 1939	53,133	17,561	33.1
Value of ducks raised			
1939	\$12,678	\$2,430	19.2
1929	57,994	16,026	27.6
Decrease 1929- 1939	45,136	14,466	32.1
Number of ducks raised per farm reporting			
1939	7.9	7.2	
1929	7.0	7.3	
Increase 1929- 1939	0.9	-0.1	
Value of ducks per farm reporting			
1939	\$3.32	\$2.64	
1929	4.89	4.82	
Decrease 1929- 1939	1.57	2.18	

* Source: U. S. Census of Agriculture, 1940.

Geese

Geese were reported as raised in the Knoxville area on only 95 farms, or 9.0 percent of the farms reporting for the state as a whole. Only 7.7 percent of the geese reported were raised in the Knoxville area in 1939. The average farm reporting in the Knoxville area reported raising only 4.9 geese in 1939. The average farm reporting in the state as a

whole reported raising 5.7 geese in 1939.

TABLE XIII. COMPARISON OF GEESE PRODUCTION IN KNOXVILLE AREA
AND TENNESSEE, 1929-1939 *

Item	Tennessee	20 Counties Knoxville Area	20 Counties Percentage of Total Tennessee
Farms reporting 1939	1,033	93	9.0
1929	10,378	1,250	12.0
Decrease 1929-1939	9,345	1,157	12.4
Number raised 1939	5,902	456	7.7
1929	62,634	6,837	11.0
Decrease 1929-1939	56,732	6,431	11.3
Value of geese raised 1939	\$4,866	-	-
1929	63,680	\$7,233	11.3
Decrease 1929-1939	58,814	-	-
Number of geese per farm reporting 1939	5.7	4.9	
1929	6.0	5.5	
Increase or decrease 1929-1939	-0.3	-0.6	
Value of geese per farm reporting 1939	\$4.71	-	
1929	6.14	\$5.79	
Increase or decrease 1929-1939	-1.43	-	

* Source: U. S. Census of Agriculture, 1940.

Guineas

Twenty and three tenths percent of the 3,128 farms in Tennessee reporting guineas raised in 1939 were located in the Knoxville area.

These farms reported raising 17.4 percent of the 28,044 guineas raised

in the state as a whole. The average farm reporting in the Knoxville area raised 7.7 guineas and the average farm reporting in Tennessee raised 9.0 guineas.

TABLE XIV. COMPARISON OF GUINEA PRODUCTION IN KNOXVILLE AREA AND TENNESSEE, 1939 *

Item	Tennessee	20 Counties Knoxville Area	20 Counties Percentage of Total Tennessee
Farms reporting, 1939	3,128	635	20.3
Number raised, 1939	28,044	4,888	17.4
Value of number raised, 1939	\$7,734	-	-
Number raised per farm reporting, 1939	9.0	7.7	
Value per farm reporting, 1939	\$2.47	-	-

* Source: U. S. Census of Agriculture, 1940.

CHAPTER III
PRODUCTION AND MARKETING PRACTICES REPORTED BY VENDORS
OF POULTRY AND EGGS IN THE KNOXVILLE MARKET HOUSE,
OCTOBER 1942 - MARCH 1943¹

A statement made by the authors of "Farm Management and Marketing", brings out the importance of farm production practices in the marketing of eggs. This same statement would be applicable to poultry.

The first step in marketing occurs on the farm as the product is made ready for sale. For example, if a poultryman is to get a satisfactory price he must keep the eggs as clean as possible, gather the eggs promptly and see that they are stored in a cool place. A dirty and poor quality egg from the farm cannot be put in perfect condition at any later step in the marketing process.²

In order to determine what the management practices were in the area supplying Knoxville with poultry and eggs, a survey was made of the number of farm women selling poultry and eggs in The Knoxville Market House. The results are not to be construed as representative of the situation in all immediate areas supplying Knoxville with poultry and eggs through other agencies than the Market House. The following data were obtained by interviewing some 225 farm women selling poultry

1. Vendors are farm women selling dressed poultry and eggs in the Knoxville Market House. Farm men do not usually sell produce in the Market House, therefore "farm women" has been used to denote those selling in the Market House.

2. Hart, V. B., Bond, M. C., and Cunningham, L. C., Farm Management and Marketing. New York: John Wiley and Sons, Inc., 1942, p. 392.

and eggs in the Knoxville Market House on successive Wednesdays, Fridays, and Saturdays from October 2, 1942, through March 27, 1943. The farm women came from farms representing a wide range of farming conditions prevailing in Knox and surrounding counties although some were engaged in a somewhat specialized type of poultry business. A report on their practices reveals characteristics and problems of production and marketing common to the area.

Approximately the same number of farm women were interviewed concerning each question. The same question was asked for each of three days, thereby including all the types of vendors who sold poultry and eggs in the Market House. Those selling on Tuesday, Monday, and Thursday were often the same vendors who sold other days and the number selling on those days was so small as to add little information of significance to the sample. The number of vendors questioned each time is shown in the respective tables.

Location of farms represented in the survey. Inasmuch as nearly the same people sold on the market every week, they were questioned about where they lived only during one full week.

The 94 farm women from Knox County represented 46.1 percent of the farm women selling in the Market House. Thirty-six of these women lived in civil district 14 and 25 in civil district 17. The other farm women from Knox County lived on farms scattered throughout the county.



Figure 20. Location of farms of farm women selling poultry and eggs in the Knoxville Market House, February 22-27, 1943

Sources: Table XV, p. 41

TABLE XV. LOCATION BY COUNTY AND BY CIVIL DISTRICT OF 204 VENDORS' FARMS, FEBRUARY 22-27, 1943 *

County	Percentage Distribution of Vendors Reporting
Knox	46.1
Sevier	37.3
Blount	15.2
Anderson	1.4
County and Civil District	Actual Number Reporting
Knox County	94
Civil District (2)	2
** (3)	4
(4)	2
(6)	2
(7)	1
(8)	3
(9)	3
(10)	3
(11)	4
(13)	2
(14)	36
(15)	5
(16)	1
(17)	25
(18)	1
Sevier County	76
Civil District (3)	1
(5)	2
(9)	21
(10)	28
(14)	22
(16)	2
Blount County	31
Civil District (7)	1
(8)	1
(9)	1
(11)	5
(12)	4
(13)	15
(17)	1
(18)	1
(19)	2
Anderson County	3
Civil District (4)	3

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

** Only those civil districts which the women reported are listed.

Seventy-one of the 76 farm women from Sevier County were located on farms in civil districts 9, 10, and 14. The majority of the Sevier County farm women came to market on Friday and Saturday.

Fifteen of the farm women from Blount County came from civil district 15 and the others were from scattered districts throughout the county.

Only three farm women selling poultry and eggs in the Knoxville Market House were located on farms in Anderson County, all of which were in the fourth civil district.

Over 70 percent of the farm women lived on farms in six adjoining civil districts all within 25 miles of Knoxville. No farm was more than 35 miles from Knoxville.

Size of farm. Farms on which poultry and eggs were produced for sale in the Knoxville Market House averaged 56 acres in size. They ranged from one-fourth acre to 300 acres. The farm women were not able to give definite information on crop acreage but gave the impression that considerable farm land was in timber. Of the 142 farm women interviewed five lived on farms of less than one acre; 46 lived on farms of from one to 25 acres; 13 lived on farms of from 26 to 50 acres; 44 lived on farms of from 51 acres to 75 acres; 23 lived on farms of from 76 to 100 acres; 15 lived on farms of 101 to 200 acres; one farm woman lived on a 300 acre farm.

TABLE XVI. SIZE OF FARM AS REPORTED BY 142 VENDORS
 SELLING POULTRY AND EGGS IN THE KNOXVILLE MAR-
 KET HOUSE, MARCH 24, 26, AND 27,
 1942 *

Acres	Number of Vendors Reporting
1/4 to 300 acres	142
Less than 1 acre	5
1 - 25 acres	46
1 - 5	13
6 - 10	5
11 - 15	9
16 - 20	10
21 - 25	9
26 - 50 acres	13
26 - 30	7
31 - 35	4
36 - 40	6
41 - 45	9
46 - 50	5
51 - 75 acres	44
51 - 60	7
61 - 70	8
71 - 75	3
76 - 100 acres	23
76 - 80	5
81 - 90	4
91 - 100	14
101 - 200 acres	15
201 - 300 acres	1 **
Average - 56 acres	
Average size of farm in the 6 most important civil districts represented - 58 acres.	

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

** 300 acres.

Comparison of farms producing poultry and eggs for sale in the Knoxville Market House and farms in the same civil districts. The census data for farms in six civil districts in which the greatest number of farms represented in the survey are here compared with the survey data. In each of the civil districts nearly 10 percent or more of the farms were farms on which some poultry and eggs were produced for sale in the Knoxville Market House, from October 1942 through March 1943. Approximately 10 percent of the number of farms in those districts reporting poultry on hand April 1, 1940, were represented by farms included in the survey. Twelve and one tenth percent of the farms reporting chickens on hand were represented in the 14th civil district of Knox County; 16.5 percent in the 17th; 9.6 percent in the 9th of Sevier County; 8.1 percent in the 10th; 10.8 percent in the 14th; 6.9 percent in the 13th in Blount County.

The average size of farm in these civil districts was within a few acres of the average size of farm, 56 acres, represented in the survey. The average size of farm for all farms in the six civil districts combined was 58 acres, compared with 56 as reported in the survey.

Second in importance to size of farm is the use of the land. The average number of crop acres harvested for all farms in the six civil districts was 19 acres which indicated that the farming operations were small scale.

The average farm in the six civil districts had 21 acres in woodland. The farm women were unable to state the exact acreage in woodland but claimed that part of their farms were in woodland.

Corn is evidently an important chicken feed in these six civil districts. The inclusion of the 13th civil district in Blount County and the 10th in Sevier County tends to make the average higher than would be warranted by production in the other four civil districts. The production per average farm was 171 bushels but it was only 95, and 140 in the 14th and 17th civil districts of Knox County, respectively.

The average number of chickens on hand per farm reporting to the census on April 1, 1940, was 38 for all six civil districts combined. This figure is much less than the 85 hens reported by the farm women selling in the Knoxville Market House, whose production was naturally more commercial in nature.

The average number of chickens raised on all farms in these six districts in 1939 was 66 and the average number sold was 38. These figures are low compared to what would be indicated by the number marketed each week. The difference is probably due to the inclusion of more commercial flocks in the survey and the practice of selling farm produce for one's neighbor.

TABLE XVII. LAND USE AND CHICKEN PRODUCTION IN PRINCIPAL
CIVIL DISTRICTS REPRESENTED AT KNOXVILLE MARKET
HOUSE *

Item	Knox County		Sevier County			Blount County	Total
	C.D. 14	C.D. 17	C.D. 9	C.D. 10	C.D. 14	C.D. 13	6 Civil Districts
Number of vendors' farms (1943) ¹	36	25	21	28	22	15	147
Number of all farms (1940)	378	190	229	350	217	220	1584
Number of farms reporting chickens on hand, April 1, 1940	296	151	217	320	203	217	1404
Number of acres per farm (all farms)	45	58	57	55	62	80	53
Average number of crop acres harvested (all farms)	12	19	21	14	28	28	19
Average number of acres in woodland (all farms)	14	14	12	14	9	18	21
Average number of bushels of corn harvested for grain ² (all farms)	96	140	145	141	296	283	171
Number of chickens 4 months or over April 1, 1940, per farm re- porting ³	29	41	31	44	44	43	38
Number of chickens raised per farm report- ing ³	61	60	62	59	77	79	66
Number of chickens sold per farm reporting ³	59	42	35	29	33	44	39

* Source: 1940 Federal Farm Census, Tennessee, Counties and Civil Districts, Table III.

1. All figures carried to the nearest whole number.

2. All farms did not report harvesting grain. However this figure shows the amount available per farm, if all were distributed evenly.

3. Farms reporting means farms reporting that item.

Number of hens per flock. Farm women in the Market House reported an average of 65 hens per flock, although some had as many as 200 hens and others as few as ten. Less than 50 hens were kept by 43.8 percent of the vendors, while 88.8 percent of the vendors had less than 120 hens. Small flocks of hens evidently were more common than large flocks. None the less, the number of hens was greater on the whole than that of the average farm reporting in either Knox or Sevier counties.

TABLE XVIII. USUAL NUMBER OF HENS KEPT PER FLOCK AS REPORTED BY 156 VENDORS SELLING IN THE KNOXVILLE MARKET HOUSE, FEBRUARY 1943 *

Usual Number of Hens per Flock	Vendors Reporting	
	Percent	Number
0 - 9	0.0	0
10 - 29	15.2	24
30 - 49	28.6	45
50 - 69	19.4	30
70 - 89	11.7	18
90 - 119	13.6	21
120 - 149	1.9	3
150 - 169	7.7	12
170 and over	1.9	3
Average number of hens per flock		65
Average number of chickens per flock reported, Sevier County		39.2**
Average number of chickens per flock reported, Knox County		32.4**

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

** Source: 1940 Census - Average number of chickens reported on hand, 4 months old or older, April 1, 1940.

All chickens hatched in the spring are not kept on the farm. The cockerels and some pullets are sold or consumed as friers. In fact, for

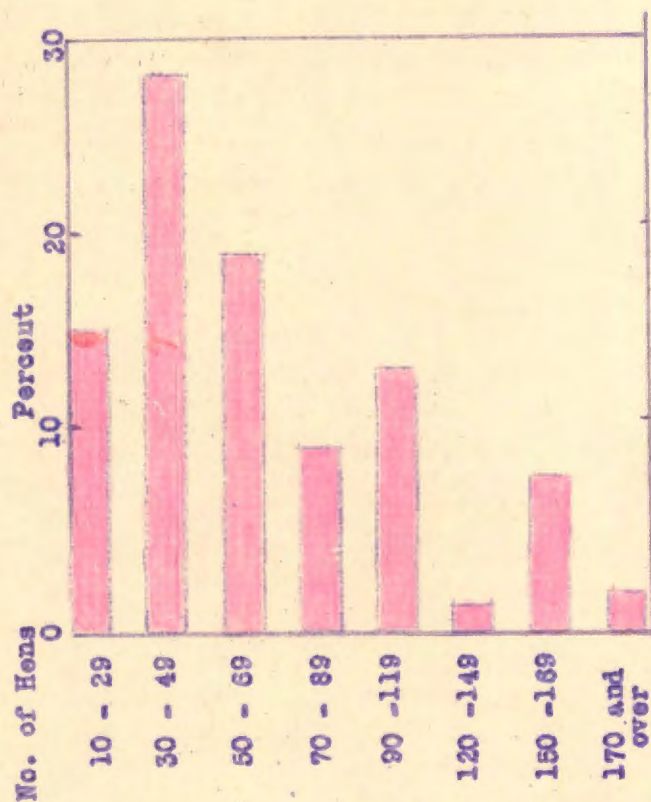


Figure 21. Percentage distribution of farmers by size of flock reported, February 1943

Source: Table XVIII, p. 47

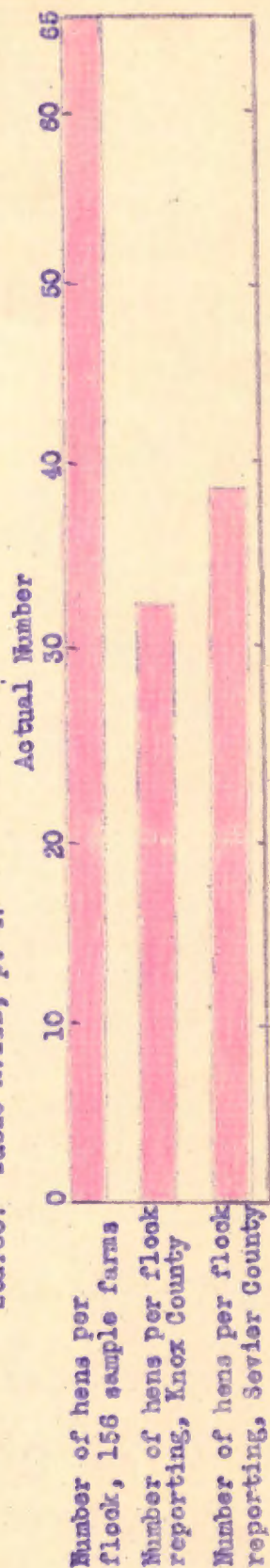


Figure 22. Number of hens per flock on vendors' farms, February 1943

Source: Table XVIII, p. 47.

this market some of the women raise as many as 200 chickens each spring to sell as friers. However, they considered that operation as separate from their regular farm flocks. Most of the farm women said that they hatched from 100 to 200 chicks each spring. Inasmuch as they were not purchased as sexed chicks, they expected to have about half cockerels and on the average they saved about 45 pullets to add to their laying flocks each year. When the pullets were added to the flocks they were usually expected to be replacements for older birds. A turn-over of about 69 percent, pullet replacement of 45 birds in the average flock of 65 birds, would be a high percentage if egg production were the major aim of those farm women selling in the Market House. The sale of chickens, though, was of equal if not greater importance to them. It was not profitable for them to hold a hen for more than one season if they expected to sell her as a young hen on the market. Some of the women reported a complete turn-over in their flocks each year. These women were,

TABLE XIX. USUAL NUMBER OF PULLETS ADDED TO FLOCKS BY 143 VENDORS SELLING CHICKENS AND EGGS IN THE KNOXVILLE MARKET HOUSE, MARCH 1943 *

Usual Number of Pullets Added Each Year	Vendors Reporting	
	Percent	Number
0 - 9	2.1	3
10 - 29	28.6	41
30 - 49	20.3	29
50 - 69	22.4	32
70 - 89	9.1	13
90 and over	17.5	25
Average number of pullets added each year		45

* Source: Knoxville Poultry and Egg Survey, 1942-1943.

usually, also the most enterprising and sold the greatest bulk of the poultry sold on the market.

Number of breeds kept. Two or more breeds and "mongrels" were kept by 66.9 percent of the women and only 33.1 percent kept just one breed. The general situation seemed to be to keep farm flocks of more than one breed of chickens. "Mongrels", i.e., chickens which had been mixed for generations and included all sorts of combinations of breeds, comprised 35.0 percent of the flocks.

TABLE XI. NUMBER OF BREEDS REPORTED AS KEPT BY 160 VENDORS
SELLING CHICKENS AND EGGS IN THE KNOXVILLE MARKET
HOUSE, NOVEMBER 1942 *

Number of Breeds Kept	Vendors Reporting	
	Percent	Number
Mongrels **	35.0	56 .
One breed	33.1	53
Two breeds	23.8	38
Three breeds	8.1	13

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

** Mongrels refer to chickens with actual mixed strains.

In many cases the farm woman did not know the breed, or else the chickens had been mixed for generations and were by then only distinguishable as mongrels or hybrids. Flocks containing more than three breeds were tabulated as mongrels. Many of the farm women reported keeping more than one breed not only because they hatched chickens from their own flocks, but because "mixed chickens" (more than one breed) were purchased from the hatchery since they were cheap.

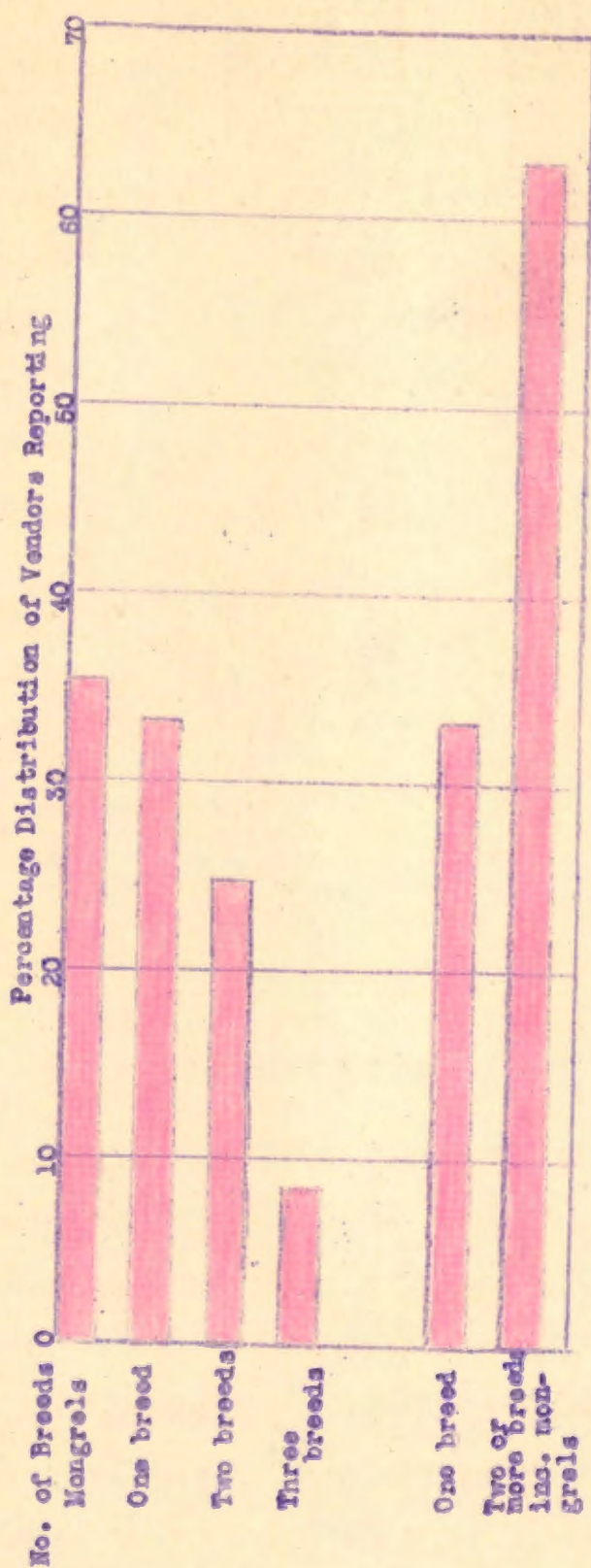


Figure 23. Number of breeds reported as raised by vendors selling in the Knoxville Market House, November 1942

Source: Table XX.

Breeds of chickens kept. Regardless of whether the farm women kept one or more breeds of chickens, there was a decided preference for the dual-purpose and heavy breeds. This was probably because the farm women were as interested in the market for poultry meat as for eggs. It was also possible that historically these were the breeds more predominant in this area. The Plymouth Rock, New Hampshire, and Rhode Island Red were the predominant dual-purpose birds while the Leghorn and Minorca were the egg producing breeds. The Wyandotte, Orpington, and White and Black Giant were the predominant meat breeds.

The Barred Plymouth Rock was the predominant variety of Plymouth Rock and the White Plymouth Rock was second most important variety of Plymouth Rock.

TABLE XXI. BREEDS REPORTED AS PART OF ANY FLOCK, 160 VENDORS SELLING IN THE KNOXVILLE MARKET HOUSE, NOVEMBER 1942 *

Breed	Percent	Number
1. Plymouth Rock	54.5	87
2. New Hampshire	28.0	42
3. Rhode Island Red	14.4	23
4. Leghorn	13.7	22
5. Wyandotte	5.6	9
6. Orpington	4.4	7
7. Minorca	2.0	3
8. White and Black Giant	2.0	3

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

Source: Table XXI.

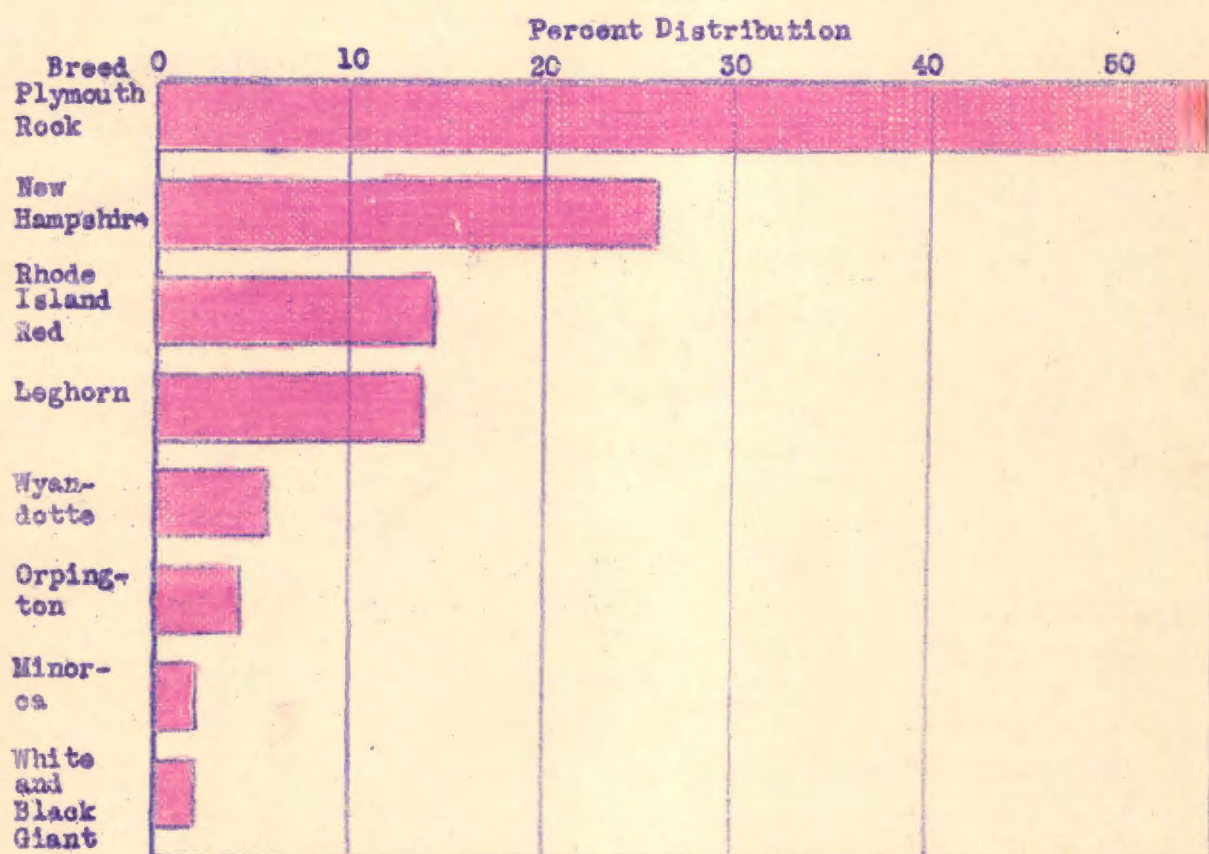


Figure 24. Breeds reported as part of any flock reported by 160 vendors selling in the Knoxville Market House, November 1942

Source: Table XXI.

TABLE XXII. BREEDS AND VARIETIES REPORTED AS COMPRISING
FLOCKS OF 160 VENDORS SELLING IN THE KNOXVILLE
MARKET HOUSE, NOVEMBER
1942 *

Breeds and Varieties Reported As Part of Any Flock (160)	Percent	Number
1. Barred Plymouth Rock	34.4	55
2. New Hampshire	26.0	42
3. White Plymouth Rock	16.3	26
4. Rhode Island Red	14.4	23
5. White Leghorn	13.7	22
6. White and Columbia Wyandotte	5.6	9
7. Buff Orpington	4.4	7
8. Undesignated Plymouth Rock	3.8	6
9. Black Minorca	2.0	3
10. White Giant	0.7	1
11. Speckled Giant	0.7	1
12. Black Giant	0.7	1
Breeds and Varieties Reported by Those Reporting Only One Breed (53)		
1. Barred Plymouth Rock	35.8	19
2. New Hampshire	35.8	19
3. White Plymouth Rock	9.4	5
4. Rhode Island Red	7.5	4
5. White Leghorn	5.6	3
6. Buff Orpington	2.0	1
7. Columbia Wyandotte	2.0	1
8. White Wyandotte	1.9	1
Breeds and Varieties Reported by Those Reporting Only Two Breeds (38)		
1. Barred Plymouth Rock	39.5	15
2. New Hampshire	36.9	14
3. White Plymouth Rock	31.6	12
4. Rhode Island Red	24.0	9
5. White Leghorn	21.0	8
6. Buff Orpington	10.5	4
7. White Wyandotte	8.0	3
8. Black Minorca	8.0	3
9. Buff Plymouth Rock	5.2	2
10. Undesignated Plymouth Rock	5.2	2

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

Breed preference. Twenty-nine of 160 women interviewed could think of no reason why they kept the breed of chickens they did. This was probably due to the fact that they had always had them. There were 38 reasons given for keeping mixed chickens or more than one breed together. The main reason, given 20 times, was that they thought they would obtain egg production the year-round by having more than one breed, as different breeds begin and end laying at different periods of the year. Twelve women stated that they hatched eggs from their mixed flocks, or swapped eggs with their neighbors and otherwise experienced uncontrolled additions to their flocks. When these practices are followed it is difficult to maintain a purebred flock. Four women kept mixed chickens, actually mixed strains, because they thought they were prettier than purebred chickens; one thought that when chickens were mixed they were healthier; one had more than one breed because it was cheaper to buy the mixed breeds of chicks from the hatcheries.

TABLE XXIII. REASONS FOR BREED PREFERENCE AS GIVEN BY 160 VENDORS SELLING CHICKENS IN THE KNOXVILLE MARKET HOUSE, NOVEMBER 1942 *

Total number of reasons	209 ¹
Number reporting no reason	29
Number of reasons given for keeping mixed chickens or more than one breed together	38
Number of reasons given for keeping a specific breed	142

* Source: Knoxville Poultry and Egg Survey, 1942-1943.

1. Some women gave more than one reason, or gave a reason for each breed kept.

Reasons for keeping a specific breed of chicken. Egg production was mentioned 54 times as the reason why the farm women kept a certain breed. The Barred Plymouth Rock, New Hampshire, and White Leghorn were mentioned most often as egg producers.

Buff or White Rocks and Buff Orpingtons were mentioned most often by the 23 women who preferred chickens that were easy to dress and had a nice dressed appearance, i.e., did not have dark pin feathers. Barred Plymouth Rocks and New Hampshires were favorites for the same reason although the Barred Plymouth Rocks had dark pin feathers.

TABLE XXIV. REASONS GIVEN BY VENDORS IN KNOXVILLE MARKET HOUSE FOR KEEPING SPECIFIC BREEDS, NOVEMBER 1942 *

Reason	Number Reasons for Each Breed							
	Total	Barred Ply- mouth Rock	New Hamp- shire	White Leg- horn	Rhode Is- land Red	Buff or White Rock, Buff Orping- ton	Wyan- dotte	Black Minor- ca
Egg production	54	15	13	10	6	6	3	1
Easy to dress and dressed appearance	23	6	4	-	1	9	3	-
Dual-purpose	20	8	10	1	-	3	-	-
Salability:	21	7	8	2	4	-	-	-
Color of skin and quality of meat	17	5	7	2	3	-	-	-
Fat	2	2	-	-	-	-	-	-
Eggs	2	-	1	-	1	-	-	-
Size of bird	9	6	3	-	-	-	-	-
Home consumption	3	2	1	-	-	-	-	-
Livability and free- dom from disease	6	-	6	-	-	-	-	-
Early development for meat	3	1	-	-	1	1	-	-
Early layers	3	-	3	-	-	-	-	-
Total	142	43	48	13	12	19	6	1

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

Twenty women preferred dual purpose chickens. The New Hampshire and the Barred Plymouth Rock were the favorite dual purpose birds.

Salability of both meat and eggs were considered important reasons for keeping a certain breed of chickens. New Hampshire and Barred Plymouth Rock were the favorite breeds as far as salability of meat was concerned and New Hampshire eggs and Rhode Island Red eggs were each mentioned as eggs which sold well.

Nine women kept Barred Plymouth Rocks and New Hampshires because they were large birds. These two breeds were also favorites for home consumption.

The New Hampshire breed was mentioned by six women as having the best livability and being the freest from disease. The reason for that may have been that they obtained their New Hampshire chicks from the hatcheries. New Hampshires were also kept because they began to lay early in the year.

Management practices. At least 75.9 percent of the farm women had hen houses of some description although most of them stated that they were far from adequate. All houses had some sort of nests, or were not listed as chicken houses. The remaining farm women stated that their chickens "roosted in the barns". The same women seemed wholly unaware of the need for a chicken house or nests for the hens.

Only 34.5 percent of the farm women kept their chickens confined (limited range), while the other 65.5 percent allowed them free or barn-yard range.

20. Feeding practices as reported by women selling poultry and eggs in the Knoxville Market House, December 1942 - March 1943.

Table 17, p. 51

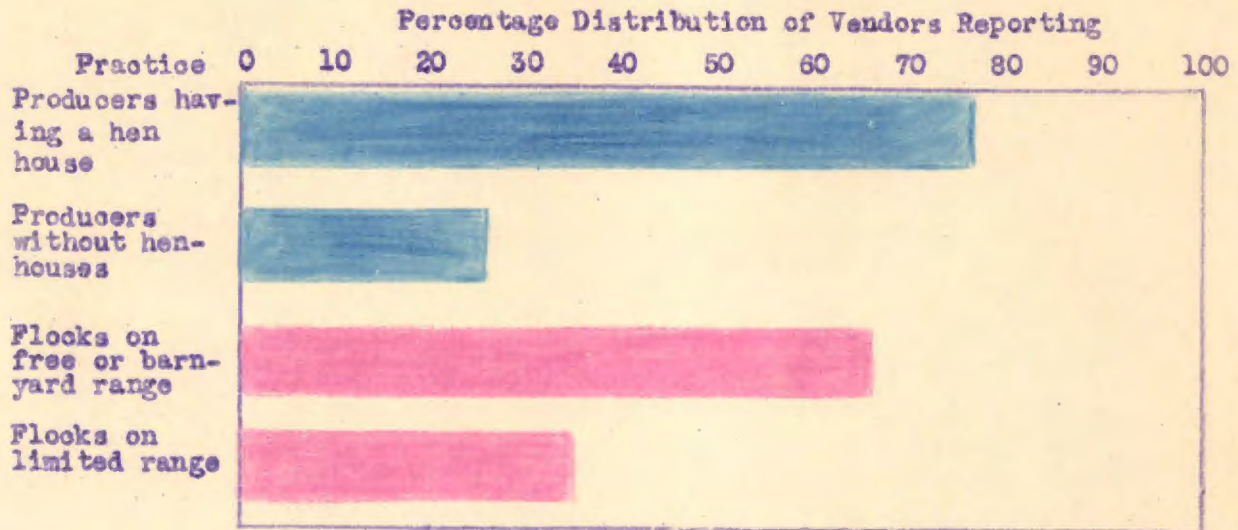


Figure 25. Housing and range practices reported by vendors selling poultry and eggs in the Knoxville Market House, December 1942 - March 1943

Source: Table XXV, p. 59

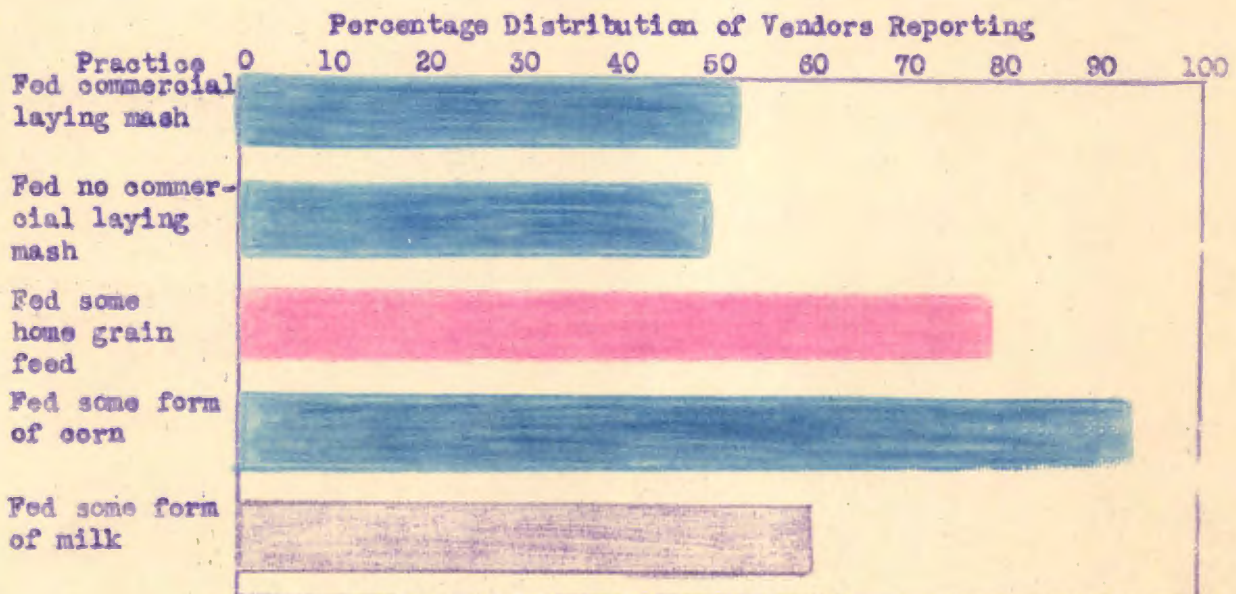


Figure 26. Feeding practices as reported by vendors selling poultry and eggs in the Knoxville Market House, December 1942 - March 1943.

Source: Table XXV, p. 59

TABLE XXV. POULTRY MANAGEMENT PRACTICES REPORTED BY
VENDORS SELLING POULTRY AND EGGS IN THE KNOX-
VILLE MARKET HOUSE, DECEMBER 1942 -
MARCH 1943 *

Management Practices	Number Vendors Interviewed	Vendors Reporting the Practice	
		Percent	Number
<u>Housing and range</u>			
Producers having a henhouse of any description	135	75.9	102
Used limited range (confined chick- ens)	157	34.5	54
Allowed free barnyard range	157	65.5	103
<u>Feeding practices</u>			
Fed any commercial laying mash	136	51.9	70
Constant feeding		(34.1)	(46)
Once each day		(14.8)	(20)
More than once each day		(3.0)	(4)
Fed no commercial laying mash	136	48.1	65
Fed some home grown feed	164	78.0	128
Fed some form of corn **	164	92.6	152
Fed some form of milk (usually skim or buttermilk)	163	59.2	96
<u>Care of eggs</u>			
Produce all infertile eggs ***	143	13.2	19
Kept broody hens off the nests	111	88.3	98
Gathered eggs at least once each day	111	67.5	75
Gathered eggs more than once each day	111	32.5	36

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

** Many of the vendors reported feeding a combination of stale corn-
bread and buttermilk.

*** Those producing infertile eggs usually purchased only sexed chicks
from the hatchery.

Commercial laying mash was fed by 51.9 percent of the farm women. However, only 34.1 percent of them reported feeding it all the time, all day. Forty-eight and one-tenth percent fed no commercial laying mash at all. Some kind of home grown feed was fed by 78.0 percent of the women. Corn was evidently considered a very important feed as 92.6 percent of the vendors fed some form of corn. Some form of milk was fed by only 59.2 percent of the farm women. Usually they fed skim milk or buttermilk. Many of the farm women reported that when they could not sell cottage cheese on the market they took it home and fed it to the chickens.

Only 13.2 percent of the farm women attempted to produce infertile eggs. These were usually the same vendors who purchased sexed chicks from the hatchery or who purchased all the chicks from the hatchery and sold off all the cockerels.

Broody hens were kept off the nest by 88.3 percent of the farm women, but only when they did not want to hatch eggs. More often they preferred to set the hen.

Only 32.5 percent gathered the eggs more than once each day. The other 67.5 percent who gathered the eggs only once each day usually did so late in the afternoon.

Egg marketing practices. Some sort of grading was practiced by 45.6 percent of the farm women who reported they had separated the large from the small eggs. A few sold eggs at different prices after sorting them and usually the "least", smallest eggs, were kept at home.

Cleaning eggs, especially by some methods, is detrimental to their quality. "The best way to prevent black rot in eggs is to produce clean eggs. The source of infection in most black rot eggs is dirt on the shell or in the water used in cleaning eggs".³ Although production of clean eggs is more desirable than washing of dirty ones, 65.9 percent of the women reported cleaning eggs. A damp cloth, plus vinegar or soda, was used by 50.7 percent of the vendors while 15.2 percent cleaned them in water.

Ninety-one and seven tenths percent of the farm women sold eggs only once each week through any market outlet, and only 7.1 percent sold eggs twice each week. This meant that eggs were usually kept on the farm from one to six days before they were sold.

TABLE XXVI. EGG MARKETING PRACTICES REPORTED BY VENDORS SELLING EGGS IN THE KNOXVILLE MARKET HOUSE, DECEMBER 1942 - JANUARY 1943 *

Marketing Practices	Vendors Reporting	
	Percent	Number
Sort eggs before bringing them to market (153)	45.6	70
Clean eggs by any method (150)	65.9	99
with damp cloth plus vinegar or soda	50.7	76
emersion in water	15.2	23
Sold eggs (157)		
Once each week	91.7	144
Twice each week	7.1	11
Three or more times each week	0.6	1
Every other week	0.6	1

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

3. Winter, A. R., U. S. Egg and Poultry Magazine, "Black Rot in Fresh Shell Eggs", v. 48, September 1942, p. 509.

Even if eggs were gathered more than once each day the quality would not be maintained unless they were kept in a cool, well-ventilated place. In the summer it was reported by 22.4 percent of the women that eggs were kept in the dining room while 37.4 percent reported keeping eggs there in the winter. In the summer the refrigerator, ice box, bedroom and basement were next in importance. In winter, the dining room, kitchen and bedroom were the most common places where eggs were kept. The object was to keep them from freezing in winter and from rotting in the summer.

TABLE XXVII. PLACE WHERE EGGS WERE KEPT WHILE AWAITING MOVEMENT TO MARKET AS REPORTED BY 147 VENDORS SELLING EGGS IN THE KNOXVILLE MARKET HOUSE, DECEMBER 1942 - MARCH 1943 *

Place Kept	Time	
	Winter	Summer
1. Dining room	37.4	22.4
2. Kitchen	12.2	3.0
3. Bedroom	11.5	16.4
4. Back porch	6.1	9.0
5. Extra room	4.0	-
6. Closet	4.7	1.5
7. Pantry	4.7	2.2
8. Living room	3.4	1.5
9. Sun porch	3.4	-
10. Spring house	2.7	2.2
11. Basement	2.7	11.9
12. Refrigerator or ice box	2.7	19.3
13. Unused ice chest	1.5	-
14. Smoke house	1.3	0.8
15. Hall	0.7	1.5
16. Buffet	0.7	-
17. Milk house	-	0.8
18. Dairy	-	5.2
19. Well house	-	2.2

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

Chicken marketing practices. The axe and the butcher knife were the most common instruments used for killing chickens. The axe was used by 58.9 percent of the women, while 36.3 percent suspended the bird by its feet from a wire, usually a clothes line, and severed the head from the body with a butcher knife.

In the winter months, especially, nearly all the chickens were killed and dressed after three o'clock or in the afternoon after milking time, the day before they were to be sold. However, in the summer they were usually killed early the same morning they were sold. Usually, the farm women tried to keep the dressed chickens in a spring house or icebox. All chickens sold on the market were placed on ice as a general rule, while being sold.

TABLE XXVIII. METHOD AND TIME OF KILLING CHICKENS REPORTED BY THE VENDORS SELLING CHICKENS IN THE KNOXVILLE MARKET HOUSE, OCTOBER 1942 *

Chickens	Vendors Reporting	
	Percent	Number
Methods of killing practiced (168)		
axe	58.9	99
butcher knife, bird suspended from wire	36.3	61
alternate, butcher knife or axe	3.0	5
wrung the neck of the bird	0.6	1
shot off the heads of the birds	0.6	1
had the birds killed and dressed at the local produce house	0.6	1
When killed (150)		
after three o'clock the afternoon preceding sale on the market	96.6	145
early the same morning sold **	3.4	5

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

** The percentage of vendors killing their chickens the morning of the day of sale would undoubtedly be higher in the summer when the weather is more favorable.

Transportation to market. Over half of the farm women came to market with their produce in their own cars, or with friends and neighbors, and returned home the same way. About 25 percent came in to town on the bus. However, a few more returned home by bus than came by bus. Inasmuch as this question was asked in the early period of gasoline rationing, there has probably been more doubling up on rides and greater use of the bus in more recent months.

TABLE XXIX. TRANSPORTATION TO AND FROM THE MARKET HOUSE USED BY 160 VENDORS SELLING POULTRY AND EGGS IN THE KNOXVILLE MARKET HOUSE, OCTOBER 1942 *

Transportation to the Market House **	Vendors	
	Percent	Numbers
Family car	59.4	63
Car owned and driven by friends or relatives	35.0	56
By bus	23.1	37
Alternates of the above	2.5	4
Transportation from the Market House		
Family car	38.1	61
Car owned and driven by friends or relatives	34.3	55
By bus	23.8	38
Alternates of the above	3.8	6

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

** A few took turns bringing one another's produce. Some of the vendors from Sevier County came together in one large truck.

Other outlets. Chickens and eggs are not usually sold elsewhere by the farm women selling in the Knoxville Market House. In fact, 64.9 percent stated that they never sold eggs elsewhere. The most important other outlet was the farm women's own neighbors.

TABLE XXI. OTHER MARKET OUTLETS USED BY 142 VENDORS SELLING
POULTRY AND EGGS IN THE KNOXVILLE MARKET HOUSE,
OCTOBER 1942 - JANUARY 1943 *

Eggs and Chickens	Vendors Reporting	
	Percent **	Number
None	64.9	92
Sold some produce to their neighbors	19.3	27
Rolling store	8.8	12
Country store	2.0	3
Local produce wholesalers	2.0	3
Peddling route in town	2.6	4
Hatchery	0.9	1
Western Avenue Market	0.9	1
People who drove out to the farm	5.8	8

* Source: Knoxville Poultry and Egg Market Survey, 1942-1943.

** The percentages do not equal 100 because the same vendors may have sold to more than one other outlet.

Desirability of production and marketing practices reported. In order to determine if the production and marketing practices followed by the farm women are desirable it is necessary to compare their practices to a standard of essential practices. Eight essential steps in quality egg production and marketing have been set forth in a recent Missouri Agricultural Extension Service circular. They were:

1. Frequent gathering and prompt and rapid removal of body heat.
2. Cooling and storage in a humid place with preferable temperatures of between 50 and 55° F.
3. The feeding of a good, complete ration.
4. Production of strictly clean eggs.
5. Preferable production of infertile eggs.
6. Careful packing and handling on the farm and in transit to market.
7. Marketing at least twice each week.
8. Breeding for large egg size. ⁴

4. Rhodes, C. E., Quality Egg Production and Marketing, University of Missouri, May 1941, Agricultural Extension Service Circular 428, Columbia, Missouri, p. 2.

C. E. Rhodes, author of the circular, stressed step number one because he claimed that

..... deterioration can be prevented by frequent gathering, while on the other hand eggs left in the nest all day are at least three days old when gathered, based upon standards for interior quality.⁵

Only 32.5 percent of the farm women interviewed gathered eggs more than once each day and none of them did anything toward the removal of body heat from the eggs.

The second step was the cooling and storing of eggs. The farm women were questioned concerning whether they cooled the eggs upon removal from the nests and they replied that they put them in a cool place. None of the farm women reported having any type of cooler like those described in the Missouri circular. The farm women attempted to keep the eggs in the coolest place they had available in the summer, and to keep them from freezing in the winter. The large percentage of women keeping eggs in the basement and the refrigerator in the summer indicated an attempt to care for them properly. It is doubtful if places such as closets and pantries are suitable places for keeping eggs. Eggs kept on porches may or may not have been properly cared for depending upon whether or not the porches were cement and whether they were in the shade.

Feeding a good, complete ration was the third essential step. Very few farm women interviewed seemed particularly interested in the problem of feeding a balanced ration. The 70 farm women who reported feeding commercial laying mash were interested in improving production. The investigator's impression, gained through conversations with them, was that they began feeding laying mash when they noticed a decrease in egg production and not in anticipation of production. Ninety-six women

5. Ibid., p. 2.

fed some form of milk, usually skimmed or buttermilk to their chickens if there was any left after feeding the pigs. Corn was reported as fed by 92.6 percent of the farm women. Corn is an excellent feed when it is fed as part of a balanced ration but when fed exclusively it tends to produce birds with more fat in the abdominal region while milk fed poultry has evenly distributed fat.

The fourth step, "production of strictly clean eggs," is relatively impossible of accomplishment unless provisions are made for hen houses with sufficient number of nests. Only 102 or 75.9 percent of the farm women reported having a hen house of any description. Many stated that their hen houses were far from what they should be. Providing a hen house does not in itself insure clean eggs especially when the chickens are allowed free or barnyard range as was reported by 103 or 85.5 percent of the farm women. When hens are not kept confined to certain areas they lay eggs out in the grass and track dirt into the nests.

The production of infertile eggs is impossible unless the cockerels are removed from the flocks. Only 19 women or 13.2 percent of the farm women reported keeping flocks producing infertile eggs. Production of infertile eggs is especially desirable in the warm summer months. It has been reported to the investigator that rotten eggs have been purchased from the farm women in the market house.

The careful packing and handling of eggs on the farm and in transit

to market was the sixth essential step listed. The majority of the women kept eggs in baskets or boxes on the farm and brought them to market in the same containers. Only a very few women brought eggs to market packed in cases equipped with fillers and flats.

Marketing eggs twice each week was considered as the seventh essential step. Only seven and one tenth percent or 11 women marketed eggs twice each week and only one woman reported marketing eggs three times each week. It is assumed that other producers market eggs even less often than do these women.

The eighth essential step was breeding for large eggs. This is not so important in Knoxville as the preferred breeds, the Barred Rock and the New Hampshires, lay relatively large eggs. The farm women selling in the market house were quite conscious of the price advantage to be gained by separating large from small eggs and using the small ones for home consumption. In view of the reports from grocery store operators and produce dealers in Knoxville it would be safe to assume that many other producers are bringing small eggs to market.

Desirability of general poultry practices depended upon the demands of the local market. In general, those breeds were kept which sold well on the market. However, some of the women had capitalized upon the advantage to be gained from producing large quantities of uniform quality and size chickens.

In general, the production and marketing practices followed by

the women, though far from desirable, are probably better than the average for all farmers. There is, therefore, considerable room for improvement in practices of most producers in the area.

CHAPTER IV

DIRECT SALE OF POULTRY AND EGGS IN KNOXVILLE

A few vegetable gardeners still peddle vegetables from house to house and some poultrymen sell eggs directly to consumers. The direct marketing of farm produce by farmers, however, has become increasingly difficult as the population has been centered in large cities. Farmers who have a location near cities and towns may be successful in marketing produce directly to consumers at a roadside stand on the farm. Direct marketing offers opportunities for a few farmers in nearly all communities, but the bulk of the farm produce must be moved to the larger terminal markets. ¹

The above statement by Hart and Bond can be considered characteristic of the general trend in the United States; however, it is doubtful if exactly the same trend in importance of direct sales has been so evident in Knoxville. Although Knoxville is a large industrial center, it is not far removed from important poultry and egg producing areas. In fact, it lies in the heart of farming area 14 which has produced more dozens of eggs per thousand acres of land in farms for the last twenty years than all other farming areas in Tennessee except area 10 which has exceeded it for some years (Figure 12).

The composition of the population in Knoxville and its historical

1. Hart, V. B., Bond, M. C., and Cunningham, L. G., Farm Management and Marketing. New York: John Wiley and Sons, Inc., 1942, p. 406.

preference for "country produce" has tended to keep direct sales by farmers more important in Knoxville than elsewhere. Most of the people originally came from a farm or a rural community. Many of them have produce buying arrangements with relatives still on the farm. Even if all contact with the farm has been lost, there seems to be a decided preference for "country produce". A farm product which has passed through many dealers' hands evidently loses its distinction as "country produce" and its salability locally declines. This had been observed to be especially true of eggs.

House to House Sales

In the last ten years two different surveys have been made which have discussed direct sales by farmers. One, Egg Consumption in West Knoxville, was made by T. L. Mayes in 1933.² One hundred families were questioned in West Knoxville, 51 of whom reported eggs delivered to them directly from the farm to their doors and 7 reported buying from the market wagons.³ Approximately 58 percent purchased eggs through direct sales from the farmer.

In 1938 Samuel L. Hansard made a Study of Consumer's Preferences and Practices in Buying and Using Eggs and Meat in Knoxville, Tennessee.⁴ He also surveyed 100 West Knoxville families and found that 40 percent purchased eggs delivered to their doors by the farmer direct, eight per-

2. Mayes, T. L., Egg Consumption in West Knoxville, 1933, Poultry Husbandry Department, Knoxville, University of Tennessee.

3. Market wagons are here interpreted as sales at Market Square including sales on Market Square and within the market house.

4. Hansard, Samuel L., A Study of Consumer's Preferences and Practices in Buying and Using Eggs and Meat in Knoxville, Tennessee. Unpublished Thesis, University of Tennessee, Knoxville, Tennessee, June 1938, pp. 117.

cent purchased eggs from the market wagons and 16 percent purchased eggs from more than one source which may have included some of the above.⁵ If Mayes' survey results and Hansard's results were comparable, 10 percent fewer housewives in West Knoxville purchased direct from the farmer and one percent more purchased eggs from the market wagons than previously. It is difficult to determine whether that change indicated an absolute change or was attributable to the inclusion of 16 percent of the women interviewed by Hansard in a miscellaneous class which reported purchasing eggs from more than one source. Mayes did not include such a classification in his survey.

In 1938 Hansard found that of 100 families interviewed in the Sequoyah Hills section, 46 percent of the families purchased eggs direct from the farmer, 10 percent from the market wagons, and 12 percent patronized more than one source.⁶ In the Park City section he found that 60 percent of 100 families purchased eggs direct from the farmer, but only three percent purchased them from the market wagons and only seven percent patronized more than one source.⁷

The textile mill area surveyed by Hansard in part corresponds to that district termed Lonsdale and Mechanicsville in this study. Hansard found that of 100 families in that district only eight percent purchased eggs direct from the farmer, only two percent from the market wagons and ten percent from more than one source.⁸

5. Ibid., p. 27.

6. Ibid., p. 36.

7. Ibid., p. 48.

8. Ibid., p. 61.

In a summary of the four districts surveyed, Hansard determined that 38.5 percent of the 400 families interviewed purchased eggs from farms by farm delivery and 5.75 percent purchased eggs from the market wagons, and 11.25 percent purchased eggs from more than one source.⁹

TABLE XXI. SOURCE OF KNOXVILLE'S EGG SUPPLY, BY SECTIONS, 1938*

Sections	Town Delivery	Independent Grocery	Chain Store	Market Wagons	More Than One Source
West Knoxville	40	22	14	8	16
Sequoyah Hills	46	26	6	10	12
Park City	60	23	7	3	7
Mill Section	8	57	23	2	10
Averages	38.5	32.0	12.6	5.57	11.25

* Source: Hansard, p. 85, Table XII.

Hansard made the following conclusions:

With the exception of Park City this study as a whole compared favorably with the study made in Pennsylvania and Rhode Island where the percent of the families buying from farmers were higher among the wealthier class and decreasing as the income rating decreased. As a whole, this was true for Knoxville also.¹⁰

Since incomes have increased for the low income class, it is therefore likely that their purchases from farmers have increased. Purchases from farmers, by the middle and higher income classes, have probably remained the same although these classes have suffered a cut in real

9. Ibid., p. 83.

10. Ibid., pp. 85, 86.

income. Those people in the middle and higher income class who have always purchased produce from the farmer, especially at Market Square, come under the classification of a "regular customer". In the past such "regular customers" have paid the same price for butter or for eggs the year round regardless of seasonal variations in price. Farm women selling in the market house have reported that they did not intend to break that practice even in the face of inflation prices, and they have not done so. For that reason the investigator believes that purchases from farmers, except as controlled by rationing, have not declined for the middle and higher income classes.

Although Hansard's survey included a question on the number buying meat from the farmers, meat was definitely specified and no mention was made of purchases of poultry from the farmer.¹¹ House to house sales of poultry do occur, and the sale of poultry in the market house and on Market Square is an important phase of the marketing of poultry and eggs in Knoxville.

Sale of Poultry and Eggs in the Knoxville

Market House

About ten years ago the city officials felt sorry for some old women who were trying to sell a few chickens and pounds of butter on the curb market on cold, rainy, wintry weather. These old women were given the privilege of using the space in the middle of the market house on Saturday. Soon they were selling in the

11. Ibid., p. 6.

market house on other rainy days, and finally they were permitted to sell in the market house at all times. ¹²

As far as can be ascertained farm women started selling farm products in the Knoxville Market House on rainy days during 1918. Although there was much objection to the free use of the market by the women, the practice became fixed.

Although the amount and value of sales of poultry and eggs by stall owners was probably appreciable, they were considered as grocery stores. Therefore, all figures on value of products sold, et cetera, refer to those products sold by the farm women selling in the free space.

A study of the selling practices as well as the amounts marketed and prices charged by the farm women selling poultry and eggs in the Knoxville Market House is important, not so much because of the quantity handled, but because that method of marketing is historically characteristic of local marketing in Knoxville. Knoxville residents have shown a decided preference for "country produce" or such a market would not have survived. It has been pointed out to the investigator by the farm women selling in the market House that the sale of poultry and eggs through that market house has been more important in the past than at present. ¹³

12. For a discussion of the history and operation of the market house and illustrative photographs see Avery, Paul Carson, Municipal Markets in Tennessee (a research study). University of Tennessee, Agricultural Experiment Station, 1928, pp. 234.

13. Data obtained at the same time as data presented in Chapter III were obtained. Also see method of estimating amount marketed, Appendix B.

Some of the women selling in the Knoxville Market House had other market outlets as shown in Chapter III, Table XXX. Some had had peddling routes through town, but found it more convenient to meet their customers in the market house.

Position of Sellers. The same farm women sat at the same table in the free space each market day they appeared. Even on days when there were few farm women in the market house, they still occupied their same place because their customers had become accustomed to finding them there. Little difficulty occurred over priority or seniority of position except on Saturdays when more women were present than there were tables provided for them. This situation meant that several women had to use the same table. In some instances, this arrangement was an advantage as one woman could attend to the selling while the others were shopping or at the moving picture show. Much disapproval was observed when women who did not market produce regularly arrived early and occupied choice positions. These were usually made to feel so uncomfortable that the next time they chose a less desirable and less crowded place in the upper end of the market house.

Display and sale technique. All the eggs to be marketed by each farm woman were not put on the table at the beginning of the market day. A few dozen were placed in a bowl, a basket, or in a piece of newspaper crimped around the edges so as to form a ridge. It was not considered wise sales psychology to place all the eggs on the tables as they would then appear so plentiful that it would be difficult to maintain the price.

Extra eggs were kept in baskets or cases under the tables.

Only a few chickens were displayed at a time and the remainder were kept in a large molasses or lard can under the table. Some women kept ice in the cans with the chickens. The chickens that were displayed were placed on large pieces of ice in dish pans. A damp cloth covered the chickens when they were not being shown to a customer. The chickens were kept continually moistened by sponging water over them with the cloth used to cover them.

The chickens were displayed breast up with the liver, gizzard and abdominal fat laid across the breast.

Characteristics of demand. The farm women felt that there was as great a demand for brown eggs as for white eggs. Some separated the two colors and attempted to market either all white or all brown eggs. The customer was usually allowed to make her selection. The customer desired to be assured that the eggs were "country fresh".

The farm women selling in the market house from week to week were in relatively the same position as the grocer who is expected to stand behind his product. If a customer complained that some of the eggs purchased were bad the farm woman usually replaced them.

Different sizes of chickens were marketed because families vary in size and circumstances. All poultry were sold as full-dressed poultry as the housewives had become accustomed to buying full-dressed poultry and the price of the dressing operation was included in the premium price received by the farm woman.

When buying a frier the tenderness of the breast meat was considered most important. However, if the skin tore easily the chicken was also considered young.

When buying a hen, young or old, the amount of fat on the bird was the most important consideration. The farm women claimed that unless the chicken was fat that it did not sell well. The general attitude was reflected in a remark made by a vendor in the market house: "It's just a 'poor' chicken if it doesn't have a lot of fat. A rabbit is a 'poor' animal because it doesn't have any fat".

There was a limited demand for cut-up chickens. Single persons and persons with invalids in the family knew that they would be able to pick up a few pieces of chicken to be used in broth and in stew. Cut-up chickens were an excellent way of disposing of old chickens at a profit. There were a few women who sold chicken feet, et cetera, usually to the colored trade.

Many of the chickens were sold to the colored people who patronized the market. Colored women were observed to be discriminating buyers.

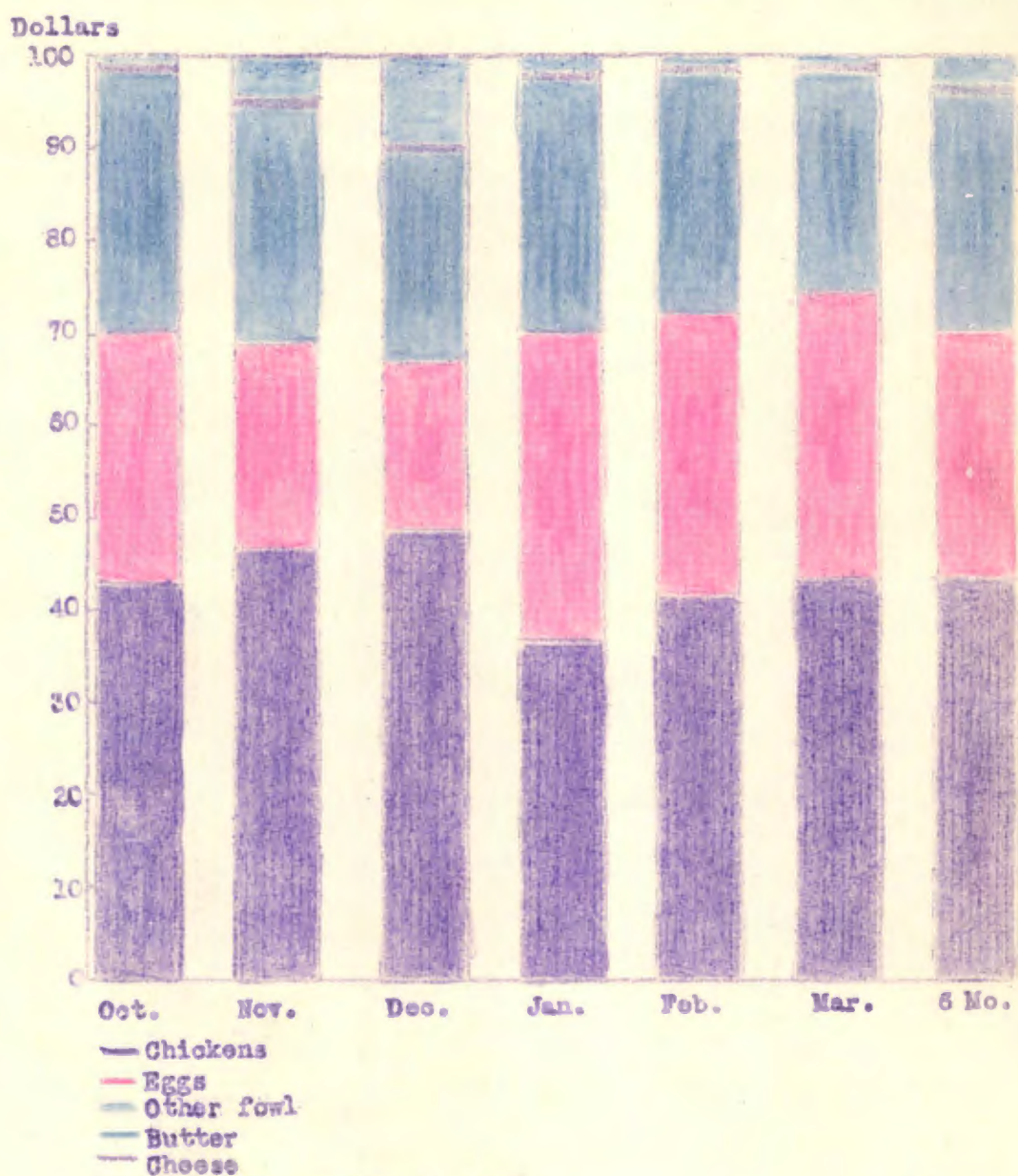
A few customers asked the farm women to cut up the chickens for them after purchase, but such practices were not encouraged.

Value of Farm Products Sold in Market House

During the six months for which estimates were made of the amount and value of products marketed, it was estimated that the gross income from the five kinds of farm products checked amounted to \$51,802.40. Of course, the value of the products marketed varied with the changes in price as well as the changes in supply.

Inasmuch as the same women marketed butter and cottage cheese as ¹⁴

14. Hereafter cottage cheese will be referred to as cheese.



Source: Table XXXII, p. 108.

Figure 27. Comparative value of five kinds of farm products marketed in the Knoxville Market House, October 1942 - March 1943 *

marketed chickens and eggs, they were interested in total income as well as income from poultry products alone. Income from other farm products sold was important but extremely seasonal in nature. Only five kinds of farm products were considered in this study - eggs, chickens, other fowl, butter and cheese. During the month of October, approximately 43 percent of the value of the five kinds of farm products marketed was received from the sale of chickens; approximately 27 percent from eggs, 29 percent from butter, two percent from cheese and the rest from other fowl (duck and guineas).

In November, the value of the five kinds of farm products sold was estimated to be only \$7,962.85, but chickens accounted for approximately 46 percent, eggs 22 percent, butter 25 percent, cheese one percent and the remaining percentage was accounted for by sale of other fowl, i.e., turkeys, ducks, guineas and geese.

During December chickens accounted for 48.8 percent of the total value of products sold, eggs 18.1 percent, butter 22.9 percent, cheese one percent, other fowl 9.1 percent. December was the one month when the value of sales of other fowls was important. Turkeys were estimated to have brought approximately \$598.60 or 6.1 percent of the total value of the five kinds of products marketed.

During January there were no turkeys or geese marketed. Chickens accounted for only 36.7 percent of the total value of products marketed because few were marketed in view of anticipated decreased demand. Sales

TABLE XXXII. ESTIMATED MONTHLY VALUE OF FARM PRODUCTS SOLD IN
THE KNOXVILLE MARKET HOUSE AND COMPARATIVE IMPORTANCE
BY PERCENT OF VALUE, OCTOBER 1942-
MARCH 1943 *

Farm Product	October		November		December		January	
	Value	Pct.	Value	Pct.	Value	Pct.	Value	Pct.
Chickens	\$3,922.92	42.7	\$3,688.11	46.3	\$4,721.04	48.8	\$5,115.79	36.7
Eggs	2,545.26	27.2	1,782.42	22.4	1,753.65	18.1	2,862.19	33.7
Turkeys	-	0.0	176.30	2.2	588.60	6.1	-	0.0
Ducks	12.21	0.1	119.54	1.5	211.90	2.2	38.70	0.5
Geese	-	0.0	40.95	0.5	47.94	0.5	-	0.0
Guineas	2.34	.03	37.13	0.5	32.78	0.3	35.20	0.4
Butter	2,671.36	28.5	2,021.68	25.4	2,217.20	22.9	2,351.95	27.7
Cheese	138.22	1.5	96.74	1.2	94.74	1.0	89.86	1.1
Total	\$9,362.81	100.0	\$7,962.85	100.0	\$9,667.83	100.0	\$8,493.69	100.0

Farm Product	February		March		6 Months Total	
	Value	Pct.	Value	Pct.	Value	Pct.
Chickens	\$3,185.18	41.0	\$3,692.80	43.2	\$22,395.81	43.2
Eggs	2,352.20	30.3	2,637.78	30.9	13,933.50	26.9
Turkeys	-	0.0	-	0.0	764.90	1.5
Ducks	27.60	0.4	17.78	0.2	427.73	0.8
Geese	-	0.0	-	0.0	88.89	0.2
Guineas	10.56	0.1	8.16	0.1	126.15	0.2
Butter	2,067.05	26.6	2,071.55	24.2	13,401.27	25.9
Cheese	124.72	1.6	119.87	1.4	664.15	1.3
Total	\$7,767.28	100.0	\$8,547.94	100.0	\$51,802.40	100.0

*Source: Appendix B, Table II.

of eggs accounted for 33.7 percent of the total value; butter 27.7 percent; cheese one percent; ducks and guineas nine-tenths percent.

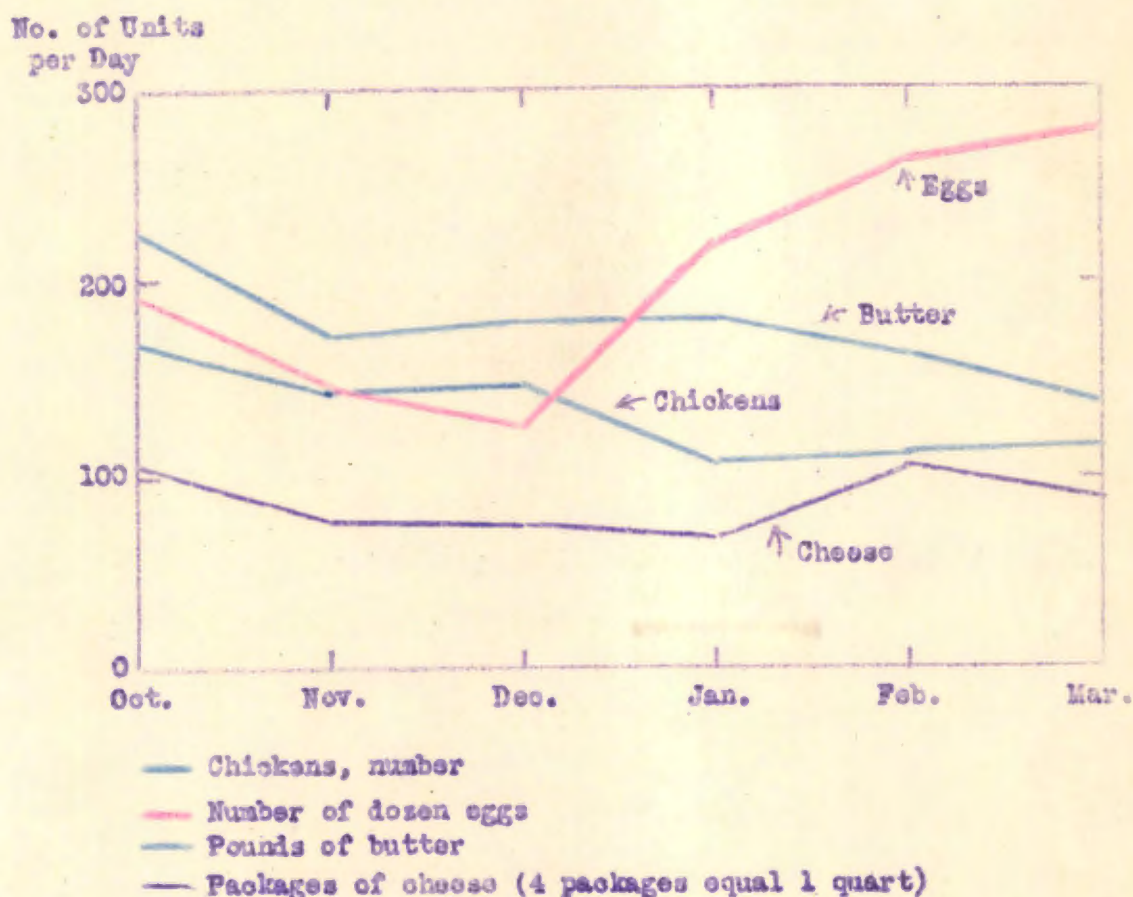
During February 41.0 percent of the total value of five kinds of products sold was from the sale of chickens; 30.3 percent from eggs; 26.6 percent from butter; 0.5 percent from other fowl.

During March chickens accounted for a greater percentage of the total value of sales because of the rise in prices of all kinds of chickens due to the scarcity of meat. Sales of chickens, therefore, made up 43.2 percent of the value of sales of the five kinds of farm products; eggs 30.9 percent; butter 24.2 percent; cheese 1.4 percent and other fowl 0.3 percent.

When total value of the six months sales of these five kinds of farm products were considered together chickens, eggs and butter were the most important items sold. Chickens provided 43.2 percent of the value of total sales, eggs 26.9 percent; butter 25.9 percent; other fowl 2.7 percent; cheese 1.3 percent.

Amount of Farm Products Sold in the Market House

Average number of units of five farm products marketed per market day. The average number of dozen eggs, number of chickens, pounds of butter, and packages of cheese marketed per day each month followed different patterns for the six months observed as shown in Figure 28. The average number of dozens of eggs marketed per day declined from 192.4 in October to 129.9 in December. The decrease in marketing of eggs in November and December was probably due to increased home use of eggs



* Source: Table IV, Appendix B.

Figure 28. Estimated average amount of farm products marketed
per market day, October 1942 -
March 1943 *

by the farm family as well as to the natural seasonal decrease in production. In January, the number of dozens of eggs marketed per day had increased to 264.9 and further increased to 279.1 in March.

The number of chickens sold per market day each month showed less variation than eggs. The number declined from 168.1 chickens per market day in October to 140.9 in November, but increased to 149.1 in December, due to holiday demand. January marketings dropped to 107.4 chickens per market day, but February and March marketings were up to 111.4 and 112.8 respectively.

Butter marketings dropped from 224.9 pounds in October to 172.1 pounds in November. The decline may have been due to increased use for baking, et cetera, on the farm as well as decreased production.

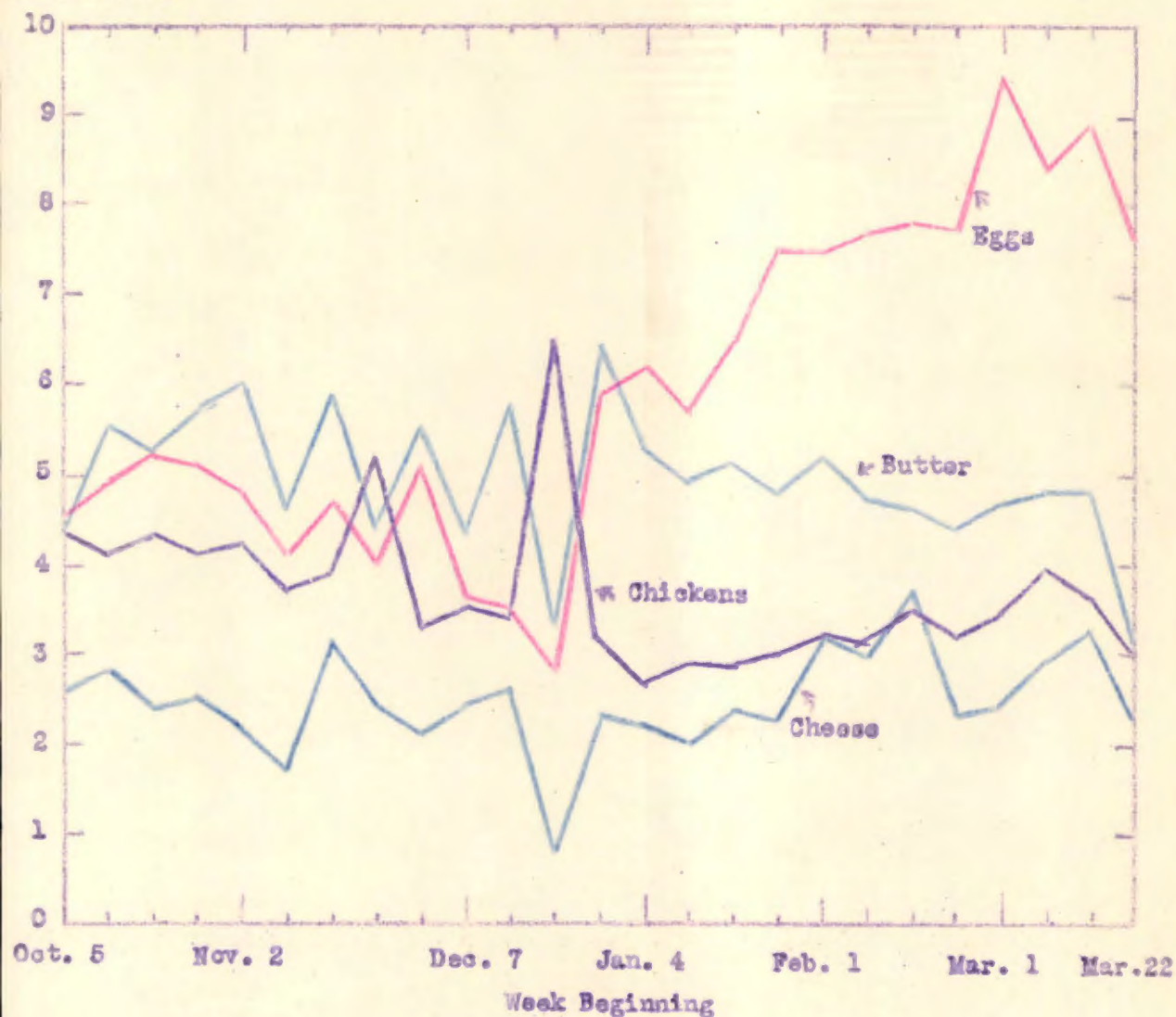
TABLE XXXIII. ESTIMATED DAILY AMOUNT OF FARM PRODUCTS MARKETED
IN THE KNOXVILLE MARKET HOUSE, OCTOBER 1942 -
MARCH 1943 *

Item	Average Daily Number of Units					
	October	November	December	January	February	March
Eggs (dozen)	192.4	145.5	129.9	224.7	264.9	279.1
Chickens (no.)	168.1	140.9	149.7	107.4	111.4	112.8
Butter (lbs.)	224.9	172.1	177.4	180.9	162.5	137.0
Cheese (pkgs.)	102.3	77.4	75.8	69.1	103.9	88.8

* Source: See Appendix Table IV.

Average number of units marketed per day by the average women. In order to remove discrepancies in the figures due to the difference in number

No. of Units



Source: Appendix Table III.

Figure 29. Average daily amount of products marketed per woman, by weeks, Knoxville Market House, October 1942 to March 1943

of market days during each month and to the difference in number of women selling poultry and poultry products in the Market House, the average of units per average woman has been calculated.

The average number of units of chickens and eggs marketed per woman per average day increased and decreased through the weeks beginning October 5, 1942, and December 14, 1942. The marketings of chickens per woman increased during the week of the Christmas holidays while the number of eggs decreased. The decrease in eggs marketed was due to the increased use of eggs on the farm, the slump in production due to cold weather, and the fact that the women were too busy with the marketing of chickens and other poultry to remember to bring the eggs to market. The number of dozens of eggs marketed per average day by the average woman the following week more than doubled. Such an increase could not have been due to increased production during such a short period. Egg marketings continued to increase during the week of January 4, but slumped slightly the week beginning January 11. Marketing of eggs per woman increased slightly each week until they reached a peak during the week beginning March 1. Eggs marketed per woman on the average day of the week beginning March 8 decreased slightly, but increased again during the week of March 15. The decline during the week of March 22, was probably due to the decrease in attendance at the market as well as to a natural decrease in production.

Marketings of butter and cheese increased and decreased together during the twenty-five weeks for which observations were made. Marketings

of both butter and cheese declined greatly during the week of Christmas, but this decrease was to be expected as the farm woman did not have time to make butter and cheese in addition to her extra holiday duties and the preparation of chickens and turkeys for sale to the holiday trade. From the week beginning December 28, 1942, to the week beginning March 22, 1943, the amount of butter marketed declined from week to week and the amount of cheese marketed increased.

Butter marketings dropped the week of March 22 due to misinterpretation of government orders governing the marketing of "country" butter direct to the customer.

Estimated number of chickens sold by months. The estimated total number of chickens sold in the market house was 4,537.6 chickens in October, 1942, and 3,044.3 in March of 1943; a decrease of 493.3 chickens per month during the six months period. However, the number marketed in March was greater than the number marketed in January and February. The decrease was evidently seasonal in nature and offset in part by the marketings of other fowl, especially during the holiday season.

Number of hens marketed. The estimated number of hens marketed showed strong seasonal influences during the six months period. From an estimated monthly total of 962.0 hens in October, marketings increased to a peak of 2,103.8 hens in December. The December peak was due in part to 1,222.7 hens estimated as sold during the Christmas week. The estimated total marketings of hens only dropped to 1,468.5 birds in

January and increased to 1,528.2 during March. Heavy hens were observed on the market, especially during the cold winter months of December through February.

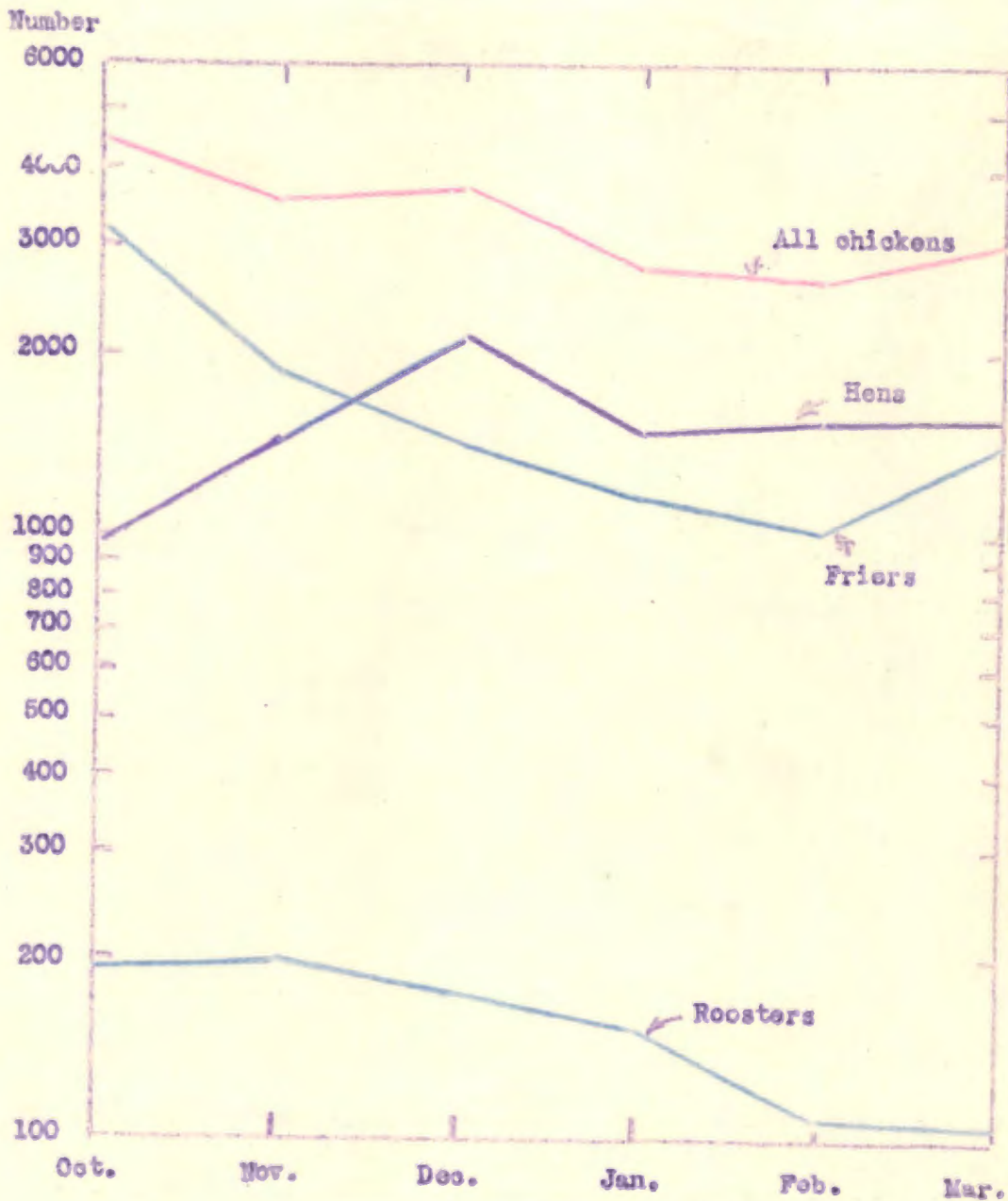
Number of friers marketed. More friers were estimated as marketed in October than in any of the other five months. The smallest number 1,045.0 friers were estimated as marketed in February. During March small friers raised in the preceding months began to appear on the market. Heavier friers were marketed in October. It is assumed that if the survey had been continued, the number of friers marketed each month during the summer months would have been greater than for any month recorded.

Number of roosters marketed. Never more than 193.8 roosters, the number estimated as sold during November, were sold in the market house during any of the six months for which data were obtained. The estimated number marketed per month decreased from 190.6 in October to 106.6 in March. Obviously old roosters were more salable during the cold weather and young cockerels and roosters were more salable, especially as friers, in the spring and summer months.

TABLE XXXIV. ESTIMATED MONTHLY MARKETINGS OF CHICKENS IN
THE KNOXVILLE MARKET HOUSE, BY TOTAL AND
BY KIND *
October 1942 - March 1943
Number

Kind	October	November	December	January	February	March	6 Months' Total
Hens	962.0	1,444.3	2,103.8	1,468.5	1,518.0	1,528.2	9,024.3
Friers	3,385.0	1,884.6	1,463.6	1,169.8	1,045.0	1,409.5	10,357.5
Roosters	190.6	193.8	175.9	153.6	109.6	106.6	930.1
All chickens	4,537.6	3,522.7	3,743.3	2,791.9	2,672.6	3,044.3	20,312.4

* Source: Appendix Table II.



Source: Table XXXIV.

Figure 30. Ratio chart showing estimated monthly marketing of chickens in the Knoxville Market House, by total and by kind, October 1942-March 1943

Number of dozen eggs marketed. February and March were estimated to be the peak months for egg sales. An estimated 6,357.3 dozen were sold in the market house during February and 7,536.5 dozen in March. November and December were the months low in sales with the amount marketed estimated at 3,637.6 dozen in November and 3,247.5 dozen in December.

TABLE XXXV. ESTIMATED NUMBER OF DOZENS OF EGGS SOLD PER MONTH IN THE KNOXVILLE MARKET HOUSE, OCTOBER 1942-MARCH 1943 *

	Number of Dozen						6 Months Total
	October	November	December	January	February	March	
Eggs	5,194.4	3,637.6	3,247.5	5,841.2	6,357.3	7,536.5	31,814.5

* Source: Appendix Table II.

Prices of Farm Products Sold in the Knoxville Market House

Price making practices. It was found that there were several factors which determined the price asked for a dozen eggs or for a particular chicken. Chickens and eggs will be discussed separately here because of the different factors involved.

In general, it was thought that the price of eggs in the market house followed the price of eggs quoted in the Knoxville Journal. Although there was considerable spread, as the Knoxville Journal quotation was for the price of eggs to be paid by country buyers, some relationship did exist as shown by Table XXXVI. (Knoxville produce dealers claimed to

marketed chickens and eggs, they were interested in total income as well as income from poultry products alone. Income from other farm products sold was important but extremely seasonal in nature. Only five kinds of farm products were considered in this study - eggs, chickens, other fowl, butter and cheese. During the month of October, approximately 43 percent of the value of the five kinds of farm products marketed was received from the sale of chickens; approximately 27 percent from eggs, 29 percent from butter, two percent from cheese and the rest from other fowl (duck and guineas).

In November, the value of the five kinds of farm products sold was estimated to be only \$7,962.85, but chickens accounted for approximately 46 percent, eggs 22 percent, butter 25 percent, cheese one percent and the remaining percentage was accounted for by sale of other fowl, i.e., turkeys, ducks, guineas and geese.

During December chickens accounted for 48.8 percent of the total value of products sold, eggs 18.1 percent, butter 22.9 percent, cheese one percent, other fowl 9.1 percent. December was the one month when the value of sales of other fowls was important. Turkeys were estimated to have brought approximately \$588.00 or 8.1 percent of the total value of the five kinds of products marketed.

During January there were no turkeys or geese marketed. Chickens accounted for only 36.7 percent of the total value of products marketed because few were marketed in view of anticipated decreased demand. Sales

TABLE XXXII. ESTIMATED MONTHLY VALUE OF FARM PRODUCTS SOLD IN
THE KNOXVILLE MARKET HOUSE AND COMPARATIVE IMPORTANCE
BY PERCENT OF VALUE, OCTOBER 1942-
MARCH 1943 *

Farm Product	October		November		December		January	
	Value	Pct.	Value	Pct.	Value	Pct.	Value	Pct.
Chickens	\$3,922.92	42.7	\$3,688.11	46.3	\$4,721.04	48.8	\$5,115.79	36.7
Eggs	2,545.26	27.2	1,782.42	22.4	1,753.65	18.1	2,862.19	33.7
Turkeys	-	0.0	178.30	2.2	588.60	6.1	-	0.0
Ducks	12.21	0.1	119.54	1.5	211.90	2.2	38.70	0.5
Geese	-	0.0	40.95	0.5	47.94	0.5	-	0.0
Guineas	2.34	.03	37.13	0.5	32.78	0.3	35.20	0.4
Butter	2,671.86	28.5	2,021.66	25.4	2,217.20	22.9	2,351.95	27.7
Cheese	138.22	1.5	96.74	1.2	94.74	1.0	89.86	1.1
Total	\$9,362.81	100.0	\$7,962.85	100.0	\$9,667.83	100.0	\$8,493.69	100.0

Farm Product	February		March		6 Months Total	
	Value	Pct.	Value	Pct.	Value	Pct.
Chickens	\$3,185.18	41.0	\$5,692.80	43.2	\$22,395.81	43.2
Eggs	2,352.20	30.3	2,637.78	30.9	13,933.50	26.9
Turkeys	-	0.0	-	0.0	784.90	1.5
Ducks	27.60	0.4	17.78	0.2	427.73	0.8
Geese	-	0.0	-	0.0	88.89	0.2
Guineas	10.56	0.1	8.16	0.1	126.15	0.2
Butter	2,067.05	26.6	2,071.58	24.2	13,401.27	25.9
Cheese	124.72	1.6	119.87	1.4	664.15	1.3
Total	\$7,767.28	100.0	\$8,547.94	100.0	\$51,802.40	100.0

*Source: Appendix B, Table II.

of eggs accounted for 33.7 percent of the total value; butter 27.7 percent; cheese one percent; ducks and guineas nine-tenths percent.

have consistently paid a price above the Knoxville Journal quotation when they bought eggs delivered to them in Knoxville.)

TABLE XXXVI. COMPARISON OF AVERAGE MONTHLY PRICES QUOTED FOR EGGS IN THE KNOXVILLE JOURNAL AND PRICES CHARGED IN THE KNOXVILLE MARKET HOUSE, 1942 •

	Average Price per Dozen		
	October	November	December
Knoxville Journal monthly average price	\$0.34	\$0.36	\$0.38
Weighted average price charged in the Knoxville Market House	.49	.49	.54
Difference	.15	.13	.16

* Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

A true difference did not exist between the Knoxville Journal quotation and the price in the market house. The farm women selling in the market house found that they were able to take good eggs to the produce house and receive more per dozen than the price quoted in the Knoxville Journal. Prices charged in the market house did not respond to slight changes in the quotation as the farm women did not change the price of eggs unless it was to increase or decrease it by five cents. When the price was weak they would sell two or three dozen at the cut price, but the price they charged per single dozen did not change except by a full five cents. The price charged for eggs in Gas Walker's Texas Market on Market Square was also considered an indicator of price change. The price in the market house seldom fell below that charged in the Texas Market except during the

late hours of the day when eggs might be sold at a sacrifice price. The Knoxville Journal quotations and the Texas Market quotations were only general determining factors. The farm women, for the most part, set the price among themselves. Many of the farm women brought eggs to the market house only once during the week. These women usually thought in terms of the price they had received the same day of the preceding week. If the price had strengthened the farm women who sold on the market every day would inform them of the change in price. The "asking price" was the most important method of setting the price of eggs and chickens. (The first women to arrive in the market house determined what prices they would ask for chickens or eggs that day.)

There were actually three price groups selling in the market house. One group was composed of those women selling in the half of the market house opening on Union Street; those in the second part between the middle division and the steps to the upper level made up another group; those in the upper level opposite the fish stalls composed the third group. The prices were always highest in the first section, average in the middle and lowest on the upper level. Prices were lower in the upper division because consumers did not like to trade where the odor of fish was so offensive and because the quality of produce sold in that section was generally inferior. There were also four tables in that section where four colored women sold their produce each Saturday. Their prices were usually lower than the average and they sold mostly to

colored people.

It must be remembered in any discussion of the price set-up in the market house that a two-price system existed for eggs and for butter. The farm woman had a set price which she charged her "regular customers" the year round and another price which she quoted the public in general. Both buyers and sellers seemed pleased with that arrangement.

There was little bickering about prices. The farm woman stated her "asking price". If the buyer thought it too high she moved on to the next table or returned later in the day.

Prices to be charged for chickens were determined in a manner somewhat different than that for eggs. Pricing was more a matter of individual opinion and local quotations were not comparable as the poultry sold in the market house was all dressed poultry. The price of chickens in the market house seemed to have little relationship to the price charged in grocery stores. Prices for chickens were so much per bird as chickens were seldom weighed to determine their actual weight. The farm women consulted one another in determining how much they could charge. The younger women depended on the older women for advice on prices. The price of chickens as well as the price of eggs depended in part on the time of year and on the day of the week. Large roosters and large fat hens moved swiftly at high prices during the holiday season, whereas they moved slowly during other periods of the year, especially during the middle of the week. Prices for chickens and for

eggs were usually higher on Fridays and Saturdays than on other days in the week. The amount of fat, on a hen especially, determined in part the price asked. The "asking price" on chickens was not lowered until late in the afternoon because of the number of working people, especially on Saturdays, who shop late in the afternoon.

Price maintenance. The farm women have found that if they cannot market all the produce they have brought to market at the prices they expected to receive, it was better to sell the produce elsewhere rather than lower the price in the market house. If the price drops, it is likely to continue at the new level the following week regardless of the supply or the demand on that particular market. If eggs or butter did not move fast enough and some were left at the end of the day, they were sold at wholesale rather than at a sacrifice retail price. Sometimes chickens are sold to butchers at wholesale prices either because they offered a good price or because the farm woman did not want to lower the retail price in the market house. Chickens have also been taken home for consumption by the farm family rather than sell them at a price lower than what the farm women thought was fair.

There is another method by which the farm women attempted to maintain a uniform price at the level they desired. They had a tacit understanding that they would all try the same price until about noon. Although, if eggs were not moving at the quoted price, it was not uncommon for an individual seller to lower her price before noon. Sometimes the farm women broke the price when it was necessary for them to leave the

market house early.

Courtesy among sellers. The farm women were courteous at all times and did not attempt to attract the buyer's attention if she was looking at another farm woman's produce. The farm women called to the buyer "something for you, lady?" but never pointed out that their products were superior to their neighbors. If one farm woman had to be absent from the market house for any period of time it was customary for the other women, not only to protect her produce, but to sell it for her.

Price of eggs in relation to quantity marketed. The price of eggs in the Knoxville Market House was found to be inversely related to the quantity marketed. For example, an estimated 1,038.6 dozen eggs marketed during the week beginning October 5, 1942, brought an average of 47 cents per dozen, while the estimated 728.8 dozen marketed during the week beginning December 21 averaged 58 cents per dozen. However, during the following weeks which were free from the influence of holiday prices, the price seemed to be more related to the quantity marketed. From the week beginning January 18, 1943, to the week beginning March 22, 1943, as the quantity marketed increased the price decreased.

Price of hens in relation to number marketed. The relationship between the number of hens marketed and the price charged for hens was almost direct. The price and quantity marketed moved up and down together. The farm women selling in the Knoxville Market House had learned, through experience, just when to market certain kinds of chickens in



Source: Appendix Table V.

Figure 31. Total number of dozen eggs marketed per week in the Knoxville Market House and price per dozen, 25 weeks, October 5, 1942 - March 27, 1943



Figure 32. Estimated total number of roosters marketed in the Knoxville Market House per week and average price per bird

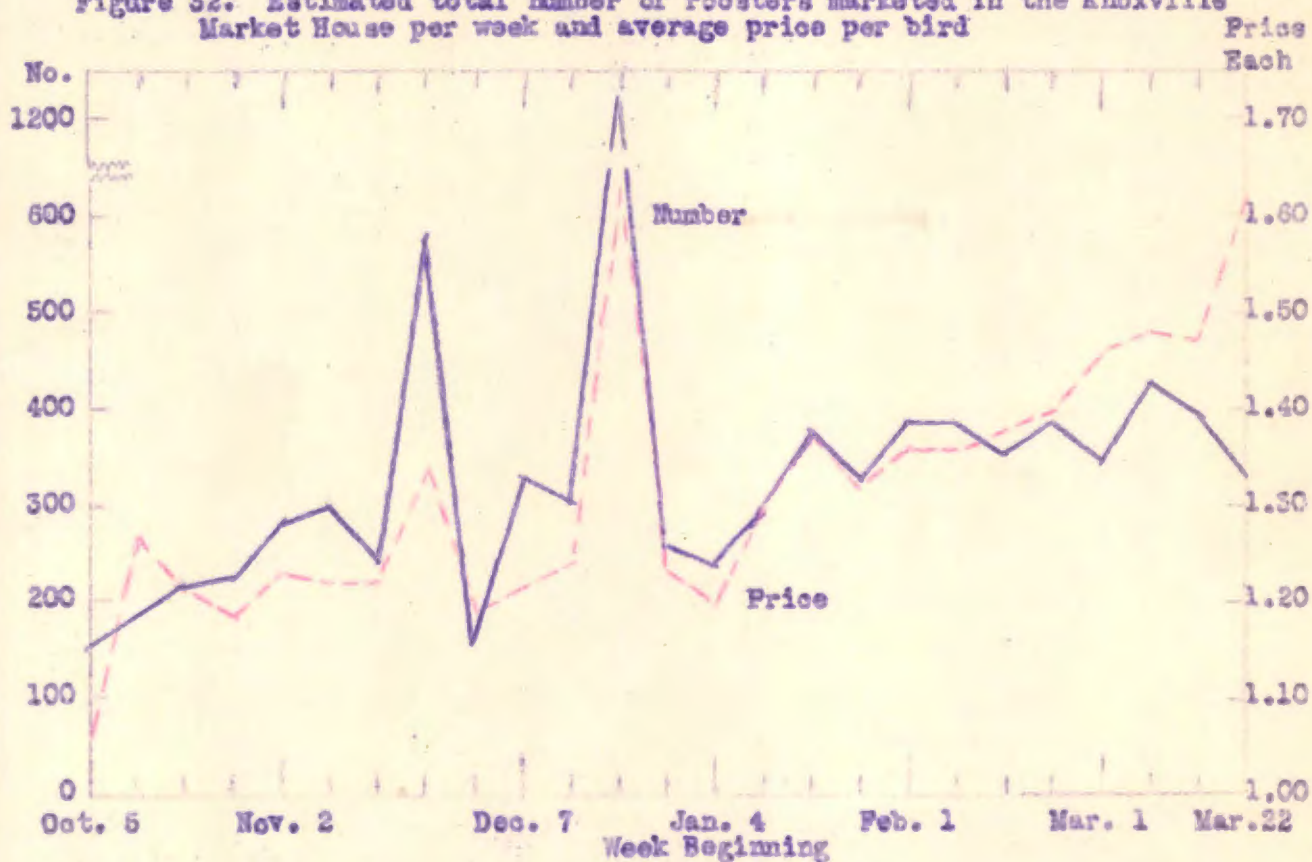


Figure 33. Estimated total number of hens marketed in the Knoxville Market House per week, and average price

Source: Appendix Table V.

anticipation of consumer demand. The practice of asking "for all they could get", tended to keep the price above the price that would have prevailed had only the factors of demand and supply controlled the price. As previously explained, it was easier to maintain chicken prices than egg prices because chickens could be consumed in the farm home.

The price of hens averaged \$1.11 each when an estimated 152.3 hens were marketed during the week beginning October 5, 1942. During Thanksgiving week, 579.5 hens were marketed at an average of \$1.34 each and during Christmas week 1,222.7 hens were marketed at an average price of \$1.63 each. During the week beginning February 22, 1943, the price of hens began to rise from its after holiday slump, probably due in part to the scarcity of meat and the rise in prices in general.

Certain variations in price were the result of the difference in size of birds marketed. For example, heavier birds were marketed during the Christmas season when the prices were best per bird. Prices were not available on a per pound basis.

Price of roosters in relation to number marketed. The price of roosters varied less radically than did quantity marketed. There were relatively few roosters marketed. Prices showed a general tendency to increase as numbers marketed decreased. For example, while the price per rooster increased from \$1.09 during the week beginning October 5, 1942, to \$1.32 during the week beginning March 22, 1943, the number

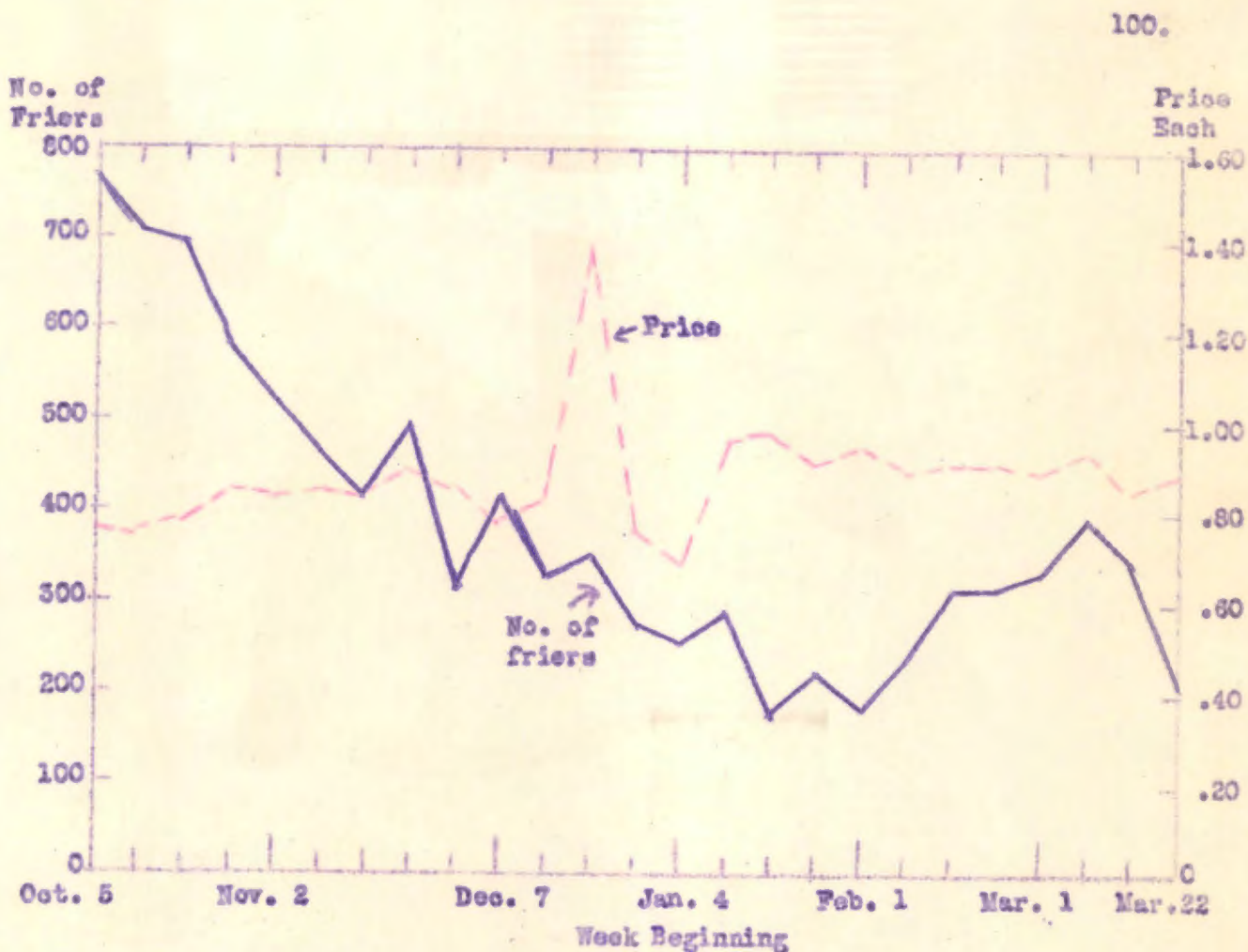
marketed decreased from 62.5 roosters to 20.5 roosters.

Price of friers in relation to number marketed.¹⁵ With the exception of the holiday weeks, the price of friers did not vary greatly although it showed an increase of 12 cents per bird from 77 cents the week beginning October 5, 1942, to an average of 89 cents per bird during the week beginning March 22, 1943. The general size of friers marketed was decreasing during that time. The highest estimated average price was \$1.63 per frier during Christmas week. The number marketed dropped from an estimated 767.0 in the week beginning October 5, 1942, to 317.4 in the week beginning March 22, 1943.

Price of guineas in relation to number marketed. Few price data were available on guineas because so few were sold in the market house. In general, the price varied in direct relationship to a change in quantity. During Thanksgiving week an estimated 28 guineas were sold at an average of 82 cents each. During Christmas week, the price was high and 16 guineas sold at \$1.53 each. However, 12 guineas were marketed the following week and only brought 91 cents each without the support of holiday prices. Prices of guineas increased from 85 cents each the week beginning October 19, 1942, to \$1.00 each during the week beginning March 15, 1943. This increase in prices was due in part to the general increase in prices.

Price of ducks in relation to number marketed. There were so few ducks marketed that the difference in size of ducks marketed greatly

15. Friers included all sizes of friers and broilers as opinion differed on the market as to when a chicken should be called a broiler and when it should be called a frier.



Source: Appendix Table V.

Figure 34. Total number of friers marketed and average weekly price per bird per week in the Knoxville Market House, 25 weeks, October 5, 1942 - March 27, 1943

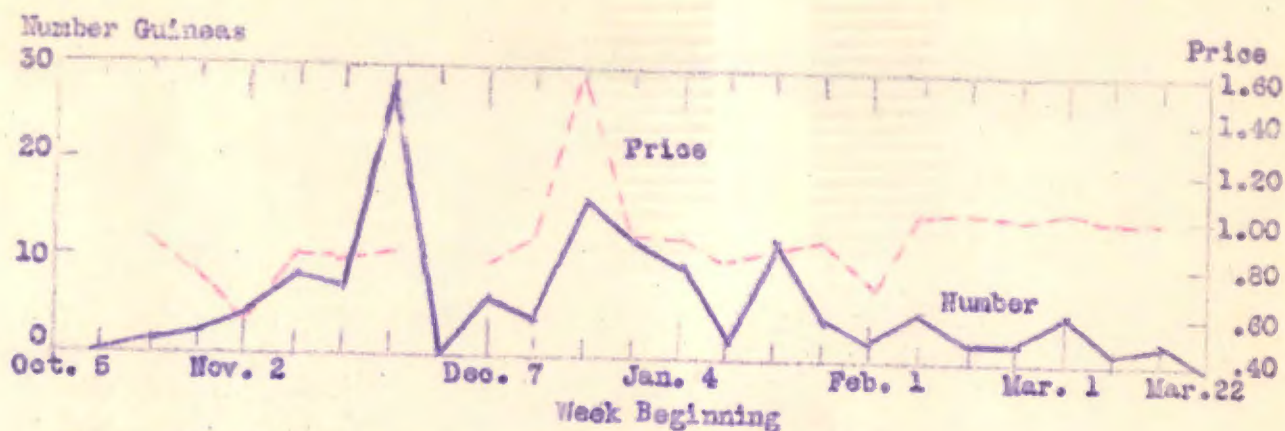


Figure 35. Estimated total number of guineas marketed per week and average price per bird, Knoxville Market House, October 1942-March 1943

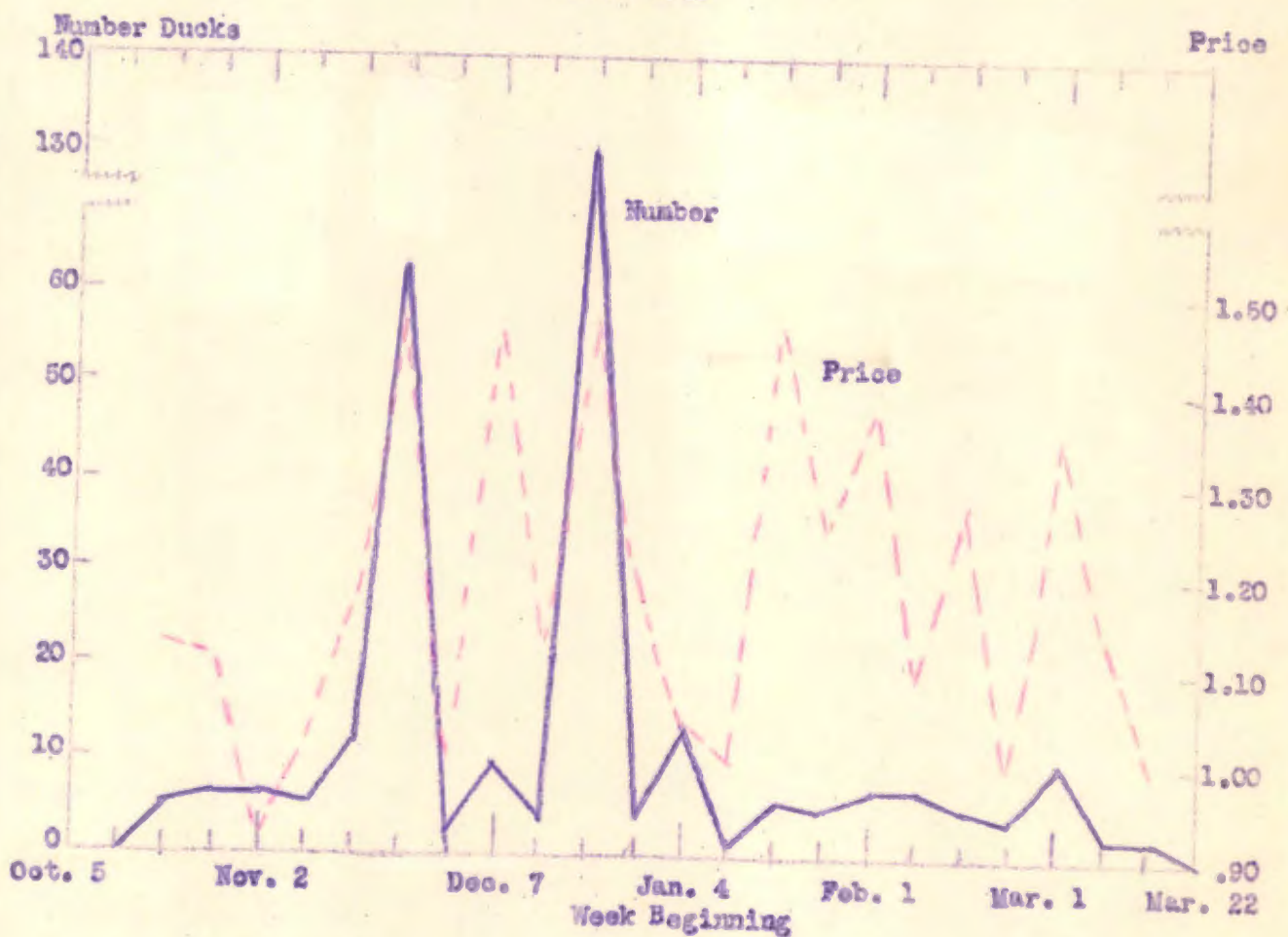


Figure 36. Estimated total number of ducks marketed per week and average price per bird, Knoxville Market House, October 1942 - March 1943

Source: Appendix Table V.

affected the price charged. In general prices charged per duck and the number of ducks marketed both experienced extreme variations. In some weeks as few as two ducks were sold but during the holiday weeks of Thanksgiving and December 63 and 130 ducks were sold respectively. Prices ranged from 92 cents each, when only 5 ducks were sold, to \$1.49 each when 63 ducks were sold during Thanksgiving week.

Prices of capons. Capons were recorded as sold only during three different weeks. Four were sold during the week of November 16 to 21 at \$1.65 each; 11 were sold during Christmas week averaging \$2.07 each; one was sold during the week beginning February 1 at \$2.50.

Prices of turkeys. Forty-one turkeys were counted as sold in the market house during Thanksgiving week at an average price of \$4.30 each.¹⁶ During Christmas week, 109 turkeys were counted as sold in the market house at an average price of \$5.40 each. (Prices per pound averaged 54 cents for toms and hens combined.)

Price of butter in relation to quantity marketed. The price of butter was steady to strong during the six months for which data were available. Price was little affected by quantity marketed as there was a ready demand for all butter brought to the market house. Butter was usually sold to regular customers which was also another reason for the steady price situation. The estimated number of pounds of butter marketed dropped from 1,371.9 pounds during the week of October 5 to 10, 1942, to 1,001.0 during the week of March 15 to 20, 1943. The price

16. It is believed that more turkeys were marketed than were counted by the investigator.

Packages

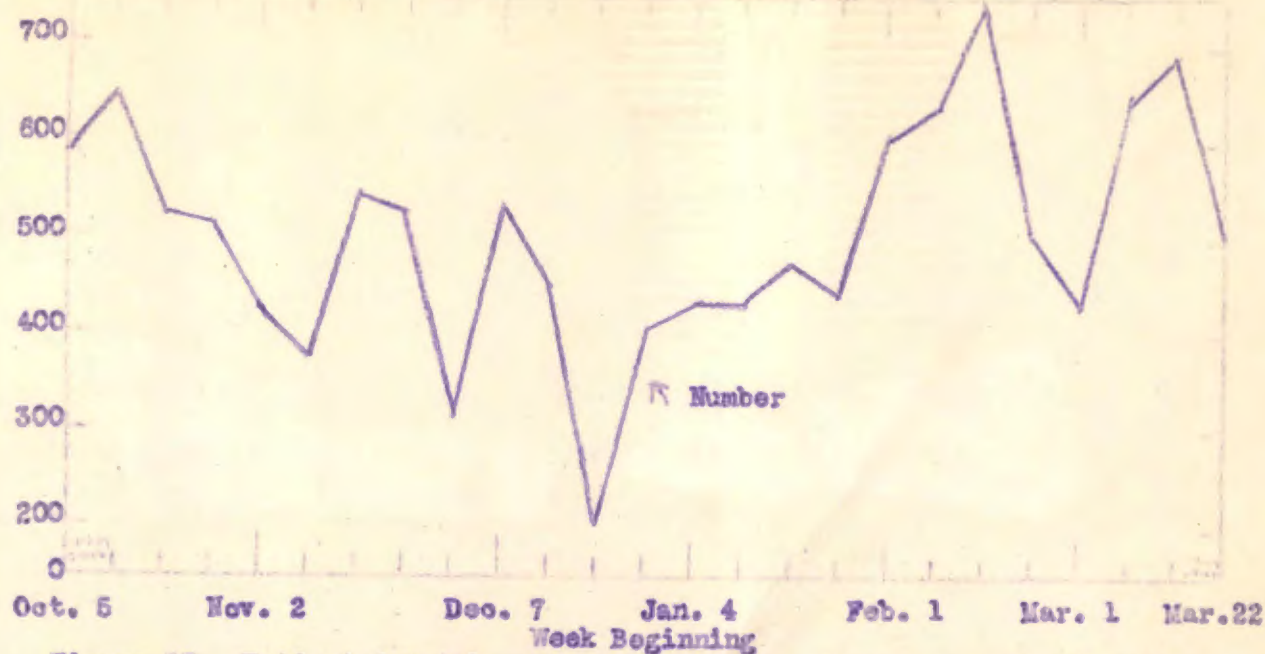


Figure 37. Estimated total number of packages of cheese marketed weekly, Knoxville Market House, October 1942 - March 1943

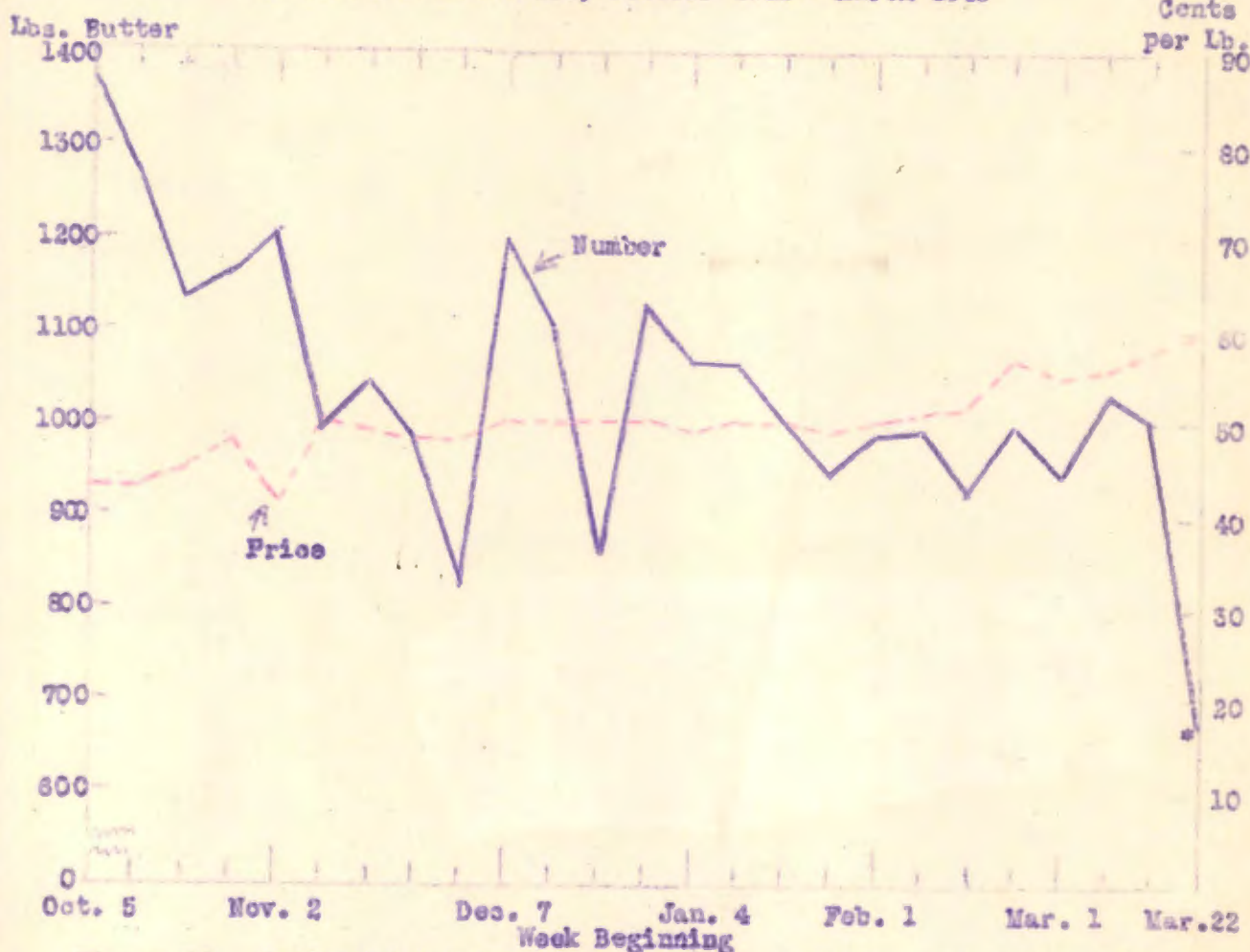


Figure 38. Estimated total number of pounds of butter marketed weekly and price averaged, Knoxville Market House, October 1942 - March 1943

Source: Appendix Table VII.

increased from 43 cents per pound to 58 cents per pound during the same period.

The changes in the number of pounds marketed during November and December was due to the holiday season and to the fact that butter need not be marketed during the same week in which it was made. During the holiday season the farm women were too busy preparing chickens and other fowl for market to take time to make butter, and they did not have room to bring it to market. Some butter was marketed the week following.

Price of cheese. The price of cheese was always five cents per package (2 packages equal a pint) or 3 packages for a dime during the six months that the investigator collected data in the market house. The size of the package of cheese was admittedly changed but not the price.

General appraisal. It would seem that although the market house has been available for use by any farmer, or his wife, that only a limited number of farm women marketed their surplus farm products there regularly. These farm women received a premium price for the farm products sold in the market house, partly because the price set-up in the market house has been relatively unresponsive to the general price situation in Knoxville. The quality of farm products sold in the market house has been considered good in the past. For consumers of the city as

a whole the market house has played the part of a leader in price and quality of "country produce" sold in Knoxville. Many downtown shoppers whether buying at the market house or not, acquaint themselves with market house quotations as a guide in buying farm produce from other direct sellers.

Poultry and eggs sold in the market house have entered kitchens of homes all over Knoxville. The conditions under which such poultry especially have been held in the market house have been far from commendable. Sanitary conditions in the market house and more strict regulations as to how chickens are to be cared for while waiting sale not only would be desirable from a public health standpoint but would probably increase the sale of chickens on that market. If chickens and eggs were then marketed under proper sanitary conditions the farm women would be more justified in charging a premium price for sweet-clean "country produce", and Knoxville consumers would have a market where they could satisfy their desires for "country produce".

CHAPTER V
COUNTRY STORE AS A POULTRY AND EGG MARKETING
AGENCY

Historical importance. Country merchants, usually operating grocery stores, have been for years the farmer's ready outlet for farm produce. Produce was salable at the country store at any time. Produce was usually given in exchange for necessary supplies. With the development of the automobile and better roads the farmer has been less dependent on the country store. However, due to war restrictions on travel, etc., the country store again has regained some of its former importance.

In 1929 it was reported in the Census of Distribution for the state as a whole that \$10,398,528 represented the value of farm products assembled by retailers who were also country assemblers. Approximately 22.2 percent or \$2,418,504 of this was in the 20 counties of the Knoxville area.¹ A larger percentage, 8.8, of the value of all farm products was accounted for by sales or trades to retailers in the Knoxville area than in the state as a whole where only 6.7 percent of sales or trades were made with retailers. The importance of such sales or

1. Comparable data for 1939 were not made available by the Census.



Figure 39. Value of farm products assembled by retailers who were also country buyers, 1929

Source: U. S. Census of Distribution, Retail Distribution,
State Series, Tennessee, 1930.

trades in all counties by distribution of value is shown in Figure 59.

TABLE XXXVII. VALUE OF FARM PRODUCTS ASSEMBLED BY COUNTRY RETAILERS AS A PERCENT OF VALUE OF ALL SALES AND TRADES, 20 COUNTIES OF THE KNOXVILLE AREA, TENNESSEE, 1929 *

	Tennessee	20 Counties of the Knoxville Area	Knoxville Area as a Percent of the Total
Value of all farm products sold or traded, 1929	\$162,583,230	\$27,369,380	16.9
Value of farm products assembled by country retailers, 1929	10,898,523	2,413,504	22.2
Value of farm products assembled by country retailers as percent of all farm products sold or traded	6.7	8.8	

* Source: U. S. Census of Agriculture, Tennessee, Third Series, 1930.
U. S. Census of Distribution, Retail Distribution, State Series, Tennessee, 1930.

It was reported by Knoxville produce houses and by Knoxville grocery stores that country stores and rolling stores were an important source of eggs and a source of live poultry. Knoxville produce houses purchased 29.7 percent of their total volume of eggs from country stores and rolling stores. One egg dealer picked up 33.4 percent of the eggs he purchased from country stores and produce dealers direct and part of the remaining percent, which was delivered to him, came from the country store direct or was brought to him by a huckster buying from the country store. In

another state, South Dakota, it was reported that 75 percent of the volume of eggs handled by produce dealers was purchased from merchants. Knoxville grocery stores purchased approximately 5 percent of their total volume of eggs direct from country stores.

Knoxville produce houses purchased approximately 59.3 percent of their live poultry from country merchants, or grocery stores, while Knoxville grocery stores purchased from country stores a relatively insignificant percent of the poultry they handled.

Importance of the produce purchases to the country store. It was reported by a grocery store in a small town near Knoxville that 19.3 percent of the value of the year's total sales were made possible by the purchase of poultry and eggs from the farm people, whether through direct purchase or acceptance of the produce in trade. The relationship between average daily sales and produce purchases by weeks for the same store is shown in Figure 40. The acceptance of eggs in trade seems important enough to even small town grocery stores that they are willing to pay a trade price for eggs above the market price. In a small town near Knoxville the three main grocery stores in town constantly bid up the price paid for eggs in an effort to capture the trade coming in to that town. At times they have paid three or more cents above the market in Knoxville in order to obtain the trade of the rural people, and only incidentally the eggs coming into that town. The amount of trade coming into that town during the first few months of 1943 has been greater than ever before because of the discontinuation of the

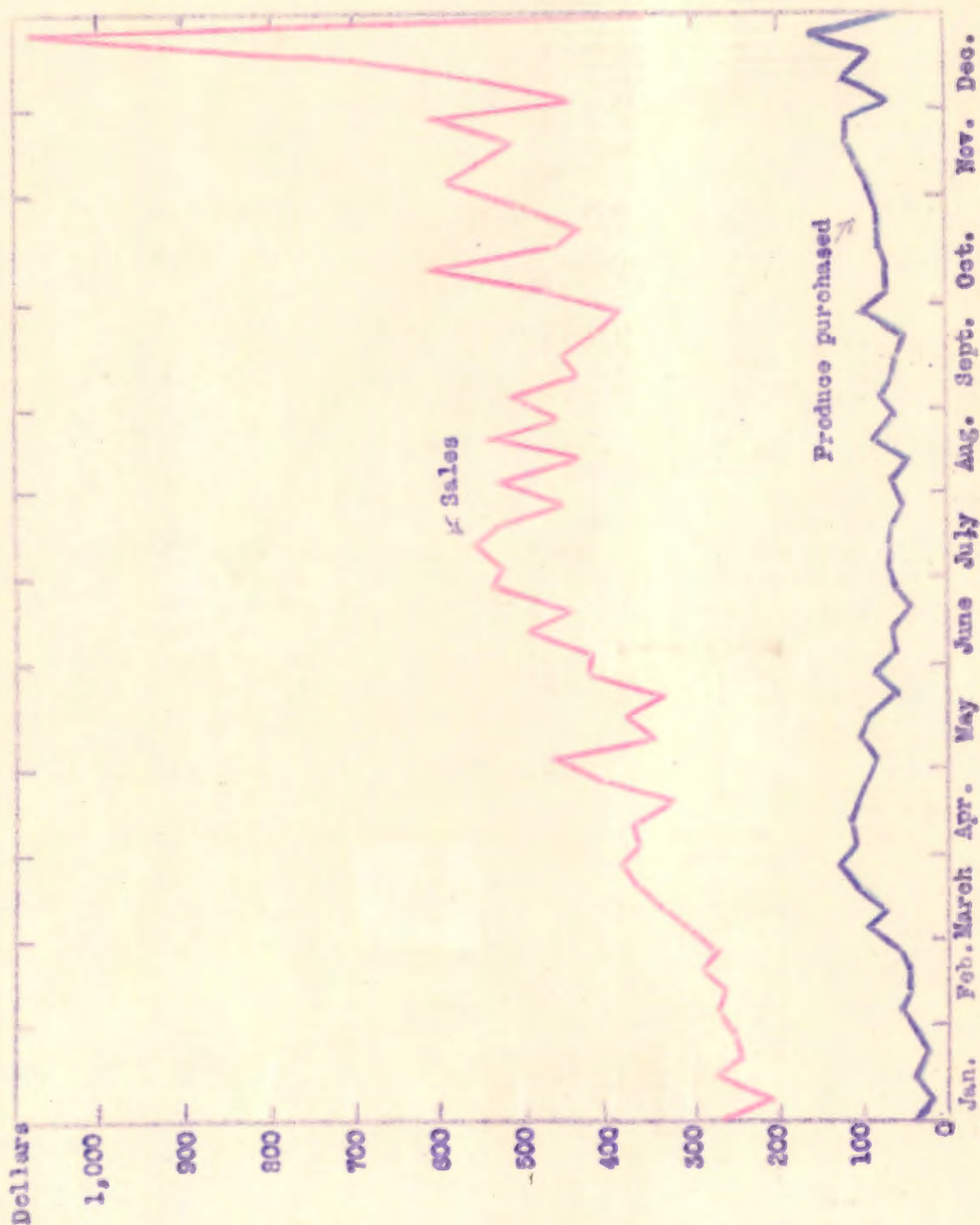


Figure 40. Average daily sales, weekly basis, and produce purchases of X, small town store, 1942

Source: Data on file in Department of Agr. Economics, University of Tennessee

rolling stores in that area and the inability of the farmer to travel long distances to market with a small amount of produce during war time. One could assume from this situation that the more isolated the area the more dependant the people would be upon the country store and the more dependant they would be on produce as a medium of exchange.

Some data have been made available on produce purchases of country stores in the Douglas Dam area.² Of the 26 stores interviewed 21 stores or 80.7 percent purchased eggs from farmers and 16 or 61.5 percent purchased poultry from farmers. In 1942 the 21 stores handled approximately 23,347 cases of eggs averaging 1,111.3 cases per store. There was, however, great variation in the number of cases handled per store because of the inclusion of a large store in a small town. The median number of cases purchased per year was 520, and the range was from 52 to 12,000 cases. The 16 stores purchasing poultry handled 358,200 lbs. of poultry averaging 22,387.5 pounds a year for each store.

Handling methods. Inasmuch as country stores are such important agencies for marketing poultry and eggs the methods they employ in handling these products are important. After all the quality of the egg cannot be improved upon after it is laid but the quality can be maintained with proper care. From the investigator's limited observations of stores in the Knoxville area it would seem country stores are not too particular about the quality of egg or chicken that they purchase and are even less particular about the conditions under which they hold

2. Report in progress, Department of Agricultural Economics, University of Tennessee.

them while awaiting sale to the next agency in the marketing channel. Country stores in Tennessee are required by law, as are other agencies, to candle eggs between May 15 and December 31. The law only specified that eggs that are unfit for human consumption are to be eliminated by candling. An egg passes through many stages of deterioration before it becomes totally unfit for human consumption. Through candling egg deterioration in the early stages may be detected, but the law does not require candling for this purpose. Country stores admittedly do not always candle eggs even when they are supposed to. They feel that inasmuch as they buy them as current receipts they would rather re-sell them as current receipts than to go to the trouble of candling, as after all they are in the grocery business, not the produce business. According to the law grocery stores are not supposed to purchase inedible eggs from the farmer but that section is difficult to enforce. In the first place so many eggs are received at one time in the larger grocery stores that it is virtually impossible to candle them all while the farmer is present. Secondly, if the grocery store's competitors do not also candle their competition would soon force him out of business. Buying on a "loss off" basis has not been common because of the strong competitive situations.

Even assuming that the country merchant purchased only high quality eggs from the farmer the eggs would soon deteriorate if not held under

most favorable conditions. Some country merchants held eggs in cases and others have been reported as holding eggs in bushel baskets. Eggs should be held at a comparatively cool temperature and should not be placed near other merchandise from which they may absorb odors. Most country merchants stack egg cases or bushel baskets in corners in the store where they will not be in the way. The eggs remain there for two or more days or most often a week. The country store that sells to the Knoxville produce house usually only brings in eggs once each week or the produce house does not pick them up more than once each week. Complete deterioration can take place in this time.

More detailed and definite information is available from other actual surveys of this marketing agency in other areas. For example a survey was made of 29 stores handling eggs in Kentucky in 1928.³ It was found that 44 percent of the eggs were paid for in groceries and 56 percent of those purchased by the country store were paid for in cash.⁴ Farmers delivered eggs to the stores in various containers not suitable for the purpose. Eggs were usually received about once a week but there was a tendency for deliveries to slow up in the fall when prices were normally rising. Although some of the merchants reported

3. Card, Dana G., Marketing Kentucky Eggs, Kentucky Agricultural Experiment Station Bulletin No. 283, Lexington, Kentucky, 1929, p. 42.

4. Ibid., p. 18.

that from one to twelve percent of the eggs received in the summer months were unfit for human food, no other grading except the rejection of those unfit for human consumption was attempted because of the feat of losing or offending their customers.⁵ Country stores were an important agency there as here as it was reported that 62.5 percent of the eggs purchased by produce houses were purchased from merchants.⁶

A recent study made in South Dakota attempted to discover the importance of the various channels through which farmers marketed eggs and poultry and the practices of the producer and each agency involved in the marketing process.⁷ Eight-two merchants were interviewed and the following data were obtained. Half of the merchants stated that they bought eggs on a "loss off" basis and the other half bought on a "case count" basis. Seventy-two percent of the eggs were paid for in trade. (This is similar to what was determined concerning the rolling stores.) Farmers delivered the eggs to the store twice or more times each week. Eggs were refrigerated by only 7.5 percent of the merchants while being held for market.⁸ Merchants sold their eggs to produce houses located in large towns and the majority did not grade before sale. (This would also seem to be typical of the country store in the Knoxville area.)

5. Ibid., p. 18.

6. Ibid., p. 19.

7. Cotton, W. P., and Wilson, W. O., Poultry and Egg Marketing in South Dakota, South Dakota State College, Brookings, South Dakota, Agricultural Experiment Station Bulletin No. 364, November 1942, pp. 24

8. Ibid., p. 15.

Merchants had established regular set outlets to which they sold. The volume of poultry handled by merchants was comparatively small but the methods were important. Merchants bought poultry on a margin of one to two cents per pound and when poultry was taken in trade they stated that they bought at the same price at which they later sold. The majority sold through regular channels and mostly to produce plants.

Conditions are assumed to be little different in the Knoxville area than those reported as existing in Kentucky and in South Dakota. Knoxville produce dealers have expressed to the investigator exceeding displeasure concerning the quality of produce, eggs especially, that they obtain from country stores. They have emphatically stated that if the country stores would candle eggs preferably in the farmer's presence that the quality on the Knoxville market would not only be improved but that they would be more than willing to pay the country store a better price. (It would be the country store's advantage to pass back the better price.). Knoxville produce dealers also thought that if the country stores would reject crax and dirties, and sort eggs before marketing them that they would be able to pay more for eggs. As it is the produce dealer now pays a current receipts price that is low enough to cover his risk in buying eggs of unknown quality and size. These same produce dealers, however, realized that the country store could not afford to sell on a graded basis unless it had purchased eggs on a graded basis. They thought that all country stores would have to have the same grading regulations in order to meet competition.

There is much that country stores can do individually about the holding conditions of eggs that might bring them higher returns in prices paid for eggs. Assuming that they purchased only fresh eggs, if they held them in cases in a cool room and sold them to the same buyer every other day the person they sold to would be willing to pay a premium for those eggs. Produce dealers know from what sections they obtain poor quality eggs and they know under what conditions they are held. If the country stores would make a practice of marketing eggs more than once each week the improvement in quality on the Knoxville market would be appreciable.

There is little that country stores can do toward improving the quality of poultry that they purchase except through price discrimination against low quality.

Any regimentation of the country store marketing and handling practices through legislation or otherwise must take into full consideration the fact that poultry and eggs are a medium of exchange and that the store's patrons must not be robbed of purchasing power.

CHAPTER VI

HUCKSTER AND ROLLING STORE AS A POULTRY AND EGG

MARKETING AGENCY IN THE KNOXVILLE TRADE

AREA

The huckster and rolling store perform the same functions in the marketing of poultry and eggs though they are engaged in slightly different type of operation. Both the huckster and the rolling store travel throughout the country and buy produce, poultry, and eggs in this case, from the farmer direct. By previous definition in this report¹ the rolling store sells groceries, meats, and merchandise to the farmer whereas the huckster only purchases produce from the farmer. Hucksters also purchase produce from country stores and rolling stores do not.

Huckster

The huckster was not considered by Knoxville produce dealers as important a source of poultry and eggs as was the rolling store. It was estimated that there were only two operating in Knox County in 1942.²

1. See page 5 .

2. Interview with Jack Dance, County Court Clerk, Knox County, June 16, 1945. He reported that hucksters paid a privilege tax but were not separable from other persons paying a privilege tax.

One wholesale produce dealer operating out of Talbot, Tennessee, was referred to as a huckster by a local buyer of eggs.³ This produce dealer purchased eggs and poultry direct from farmers and from the country stores. Part of the eggs so collected were sold to the Knoxville dealer direct from the truck. His trucks covered a territory bounded by Sparta in the west, Chattanooga in the south, and Bristol, Tennessee, in the north. One local egg buyer, a dealer, purchased 50 percent of his eggs from this produce dealer and yet the total quantity this dealer handled was relatively unimportant when considered in relation to all eggs handled in Knoxville.

Rolling Store

The rolling store described. A rolling store was found to be a grocery store on wheels. Like most country grocery stores, the merchandise handled was not limited to groceries, but included everything from washtubs and work shirts to tooth paste. The variety and amount of goods carried depended upon the type and size of the rolling store. Trucks used for rolling stores were of any size. One of the trucks, when made into a rolling store was large and well arranged. Another was small and equally well arranged. The entrance in both cases was from the rear (Figures 41 and 42). A passageway through the middle of the truck was flanked by slanting shelves on which the merchandise was arranged. A board which served as a counter could be let down across the passageway.

3. W. E. Dyer and Company, Talbot, Tennessee, as reported by J. B. Garty, Knoxville egg broker.



Figure 41. A small rolling store of the type not operated in connection with a grocery store, September 1942



Figure 42. Large rolling store of the type operated in connection with a grocery store. Note egg cases, coops for chickens, and kerosene pump. September 1942

Standard equipment included cases for collection of eggs, scales for weighing poultry, a common can for butter collected, a box for "fat back" collected and sold, a tank of kerosene, and on some stores an icebox for carrying cheese, meats and soft drinks.

Types of rolling stores. Two types of rolling stores were found.

One was the sole business of some one person who owned and operated a truck, fitted out like a store, and who drove about the country trading groceries for poultry and other produce. This type of operator had no connection with a grocery store, but bought his supplies and sold the produce which he had taken in trade to a local wholesale grocer or traded with both wholesale grocers and produce dealers in Knoxville.

The other type of rolling store was owned and operated in connection with a small town grocery store. Its operations were on a larger scale than those of the type first mentioned. One function was to build up good will among country people for the main store in town, which purchased and handled all supplies.

It is understood that another type exists in other Southern States but not in Tennessee. This type consists of a number of rolling stores working out of a large common warehouse and covering a much greater territory than the rolling stores previously observed. This type of store returns to the common warehouse only once every two or

three days or even less often.

History of the "rolling" store. The history of the rolling store is nearly as old as that of the people of Tennessee. Old time country peddlers and hucksters followed every new trail and road into the back country to trade with the people. Patent medicine vendors and trinket salesmen have taken farm produce in trade for their wares ever since they started trading with farm peoples. The modern rolling store of today is a large truck carrying a variety of products while no doubt the first rolling store after the pack peddler was a small open cart pulled by a horse. One of the men with a rolling store, in September 1942, stated that he had been traveling the same routes for the last 20 years. He well remembered the days when he traveled the road alone with a horse and wagon. In September he was in charge of a truck driven by a younger man. The more arduous duties such as pumping kerosene and handling heavy sacks of feed had been delegated to the younger man while he busied himself with assembling the groceries listed on the piece of scratch paper handed him by the farm woman.

The rolling store served many farms as first agency in assembly of chickens and eggs for larger markets; while at the same time it brought groceries and merchandise to those same farms for sale or trade. The unit of value in exchange was found to be the price of a unit of farm produce, such as a dozen of eggs.

The rolling store by bringing to the farm a variety of attractive

foods and goods has probably stimulated poultry production. By frequent coverage of isolated parts of the country it has tapped sources of farm produce not otherwise reached. All poultry and eggs so purchased were sold to wholesale and retail produce dealers in Knoxville, who sometimes went to the rolling store's headquarters to pick up the produce, or to truck buyers who took the produce through Knoxville to Morristown, Greeneville and other northeastern Tennessee towns. From these towns it was shipped by truck or freight to New York and other distant Eastern markets. Some of the produce going through the hands of Knoxville wholesale produce dealers was also eventually destined for Eastern markets.

Importance. Knoxville wholesale produce dealers were not able to differentiate between the amounts of produce they purchased from the rolling stores and that purchased from country stores. Rolling stores were reported to have sold the produce they had collected to country stores and to country produce dealers who, in turn, sold the produce to Knoxville wholesale and retail produce dealers. The identity of the first buyer was thus lost. However, Knoxville produce dealers stated that they considered both the country store and the rolling store very important agencies for moving produce to Knoxville.

Inasmuch as census data on the number of rolling stores was not available a letter was sent to the County Court Clerks in 17 counties in East Tennessee.⁵ They reported 62 rolling stores were in operation

5. See form letter, Appendix C.

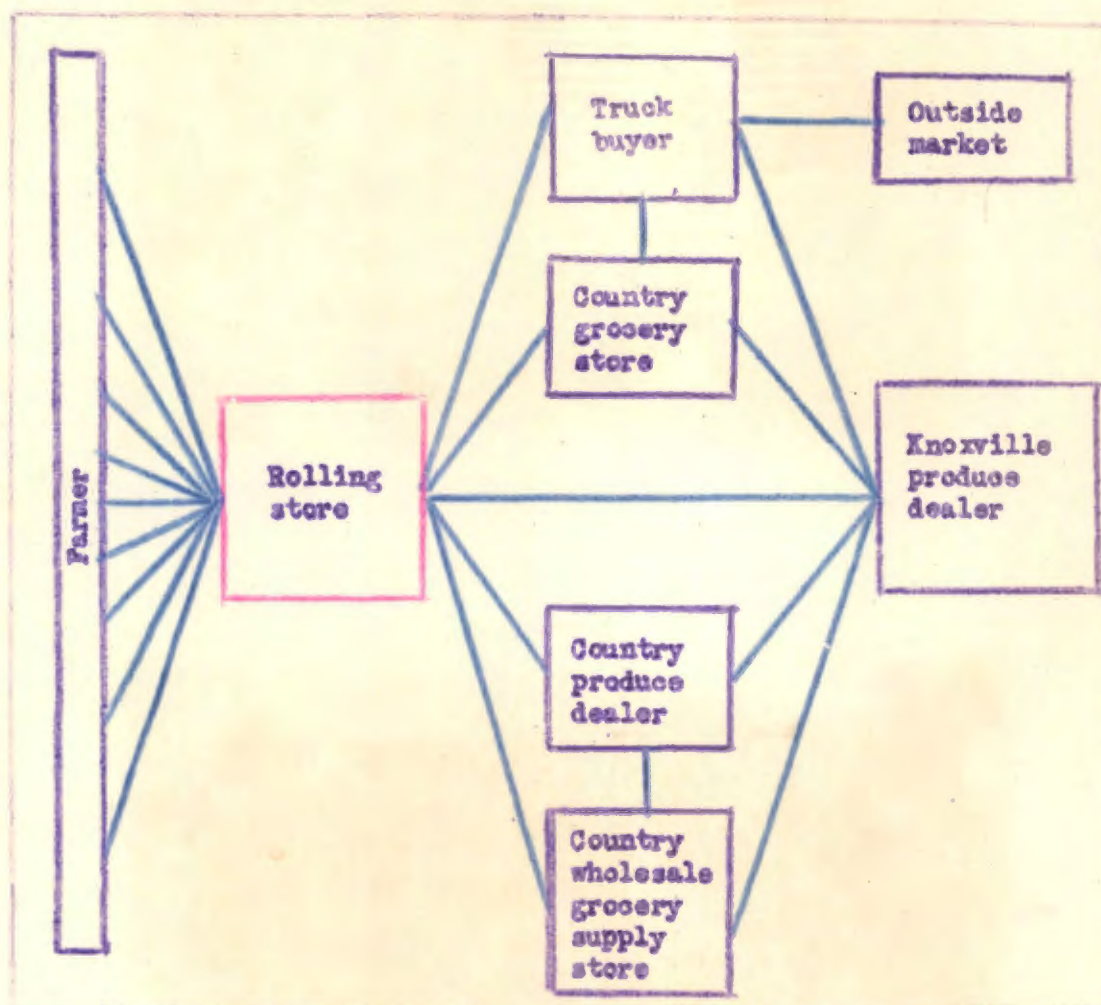


Figure 43. The place of the rolling store in poultry and egg market channels

Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

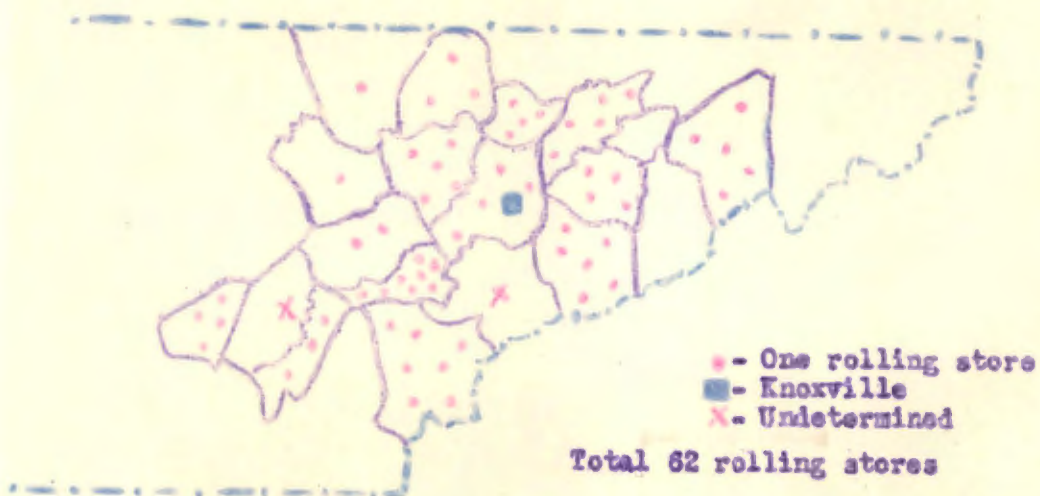


Figure 44. Location of rolling stores in the Knoxville area,
1942

Source: Table XXXVIII, p. 125.

in these counties in 1942. If it is estimated that on the average each store were to do a daily business of say only \$25 in trade an annual business of this marketing agency alone would pass the quarter million mark.

TABLE XXXVIII. VEHICLES OPERATING IN 17 EAST TENNESSEE COUNTIES AS ROLLING STORES DURING 1942 *

County	County Seat	No. of Stores in 1942
Anderson	Clinton	5
Bledsoe	Pikeville	4
Campbell	Jacksboro	3
Cooke	Newport	0
Grainger	Rutledge	5
Greene	Greensville	5
Hamblen	Morristown	0
Jefferson	Dandridge	4
Knox	Knoxville	4
Loudon	Loudon	8
Meigs	Decatur	3
Monroe	Madisonville	7
Morgan	Wartburg	1
Roane	Kingston	2
Sevier	Sevierville	6
Scott	Huntsville	1
Union	Maynardville	4
17 counties	Total	62

* Data obtained by correspondence with County Court Clerks in each county - see Appendix C, page 519.

Importance in sample county. In order to determine more accurately the importance of the rolling store, the situation in a county (Sevier)

bordering Knox County was given special study. In this county the rolling store was found to be an important agency engaged in the business of collecting poultry and eggs and in some cases moving them on to market.

Prior to November 1942 there were six rolling stores in this county operating out of one major town. In the first ten months of 1942, two of the six rolling stores did \$99,679.52 worth of business.⁶ This figure, when compared with the total sales of all 74 retail stores in this county listed by the Census of Business in 1939, as "Grocery Combination Stores" and "General Stores with Food" showed that two rolling stores in ten months of 1942 did an amount of business equal to 11.6 percent of the business done by all food stores in this county in 1939. The sales of the same two stores also represented 4.4 percent of the total sales made by all retail stores in this county in 1939.⁷ Seventy two and six hundredths percent of the sales of the two rolling stores referred to were made possible through accepting farm product in

6. Data on file in the Department of Agricultural Economics, University of Tennessee.

7. These comparisons were made for illustrative purposes and are not considered valid comparisons by the investigator due to the obvious differences in years covered by the respective data and changes in price level between 1939 and 1942. The calculations necessary to estimate correctly the sales of the stores in the remaining two months of 1942 and the changes in price level are beyond the scope of this survey and would only yield an estimate.

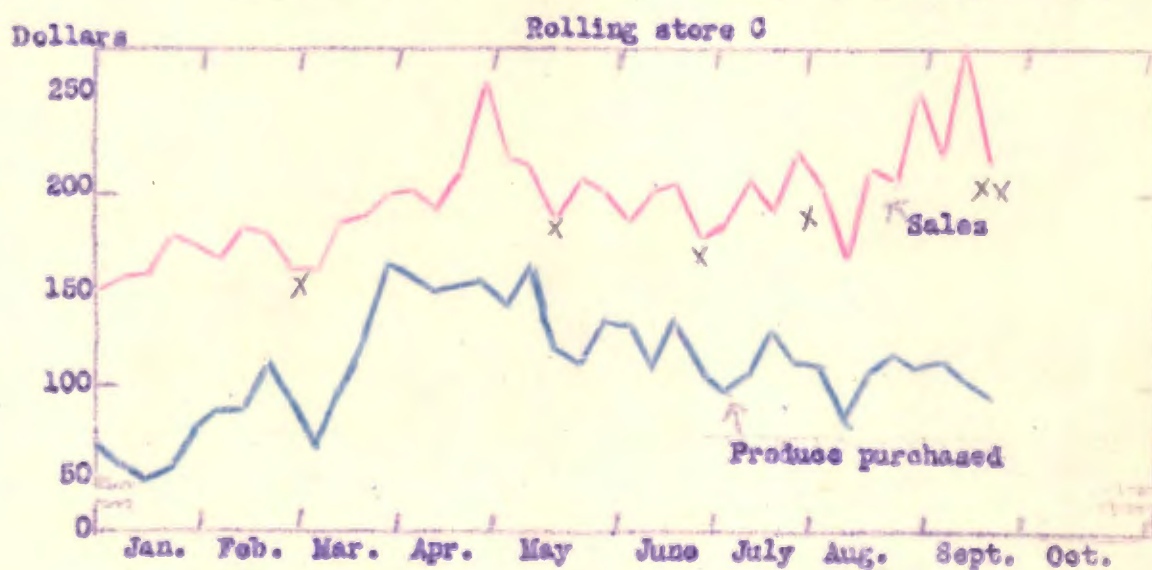
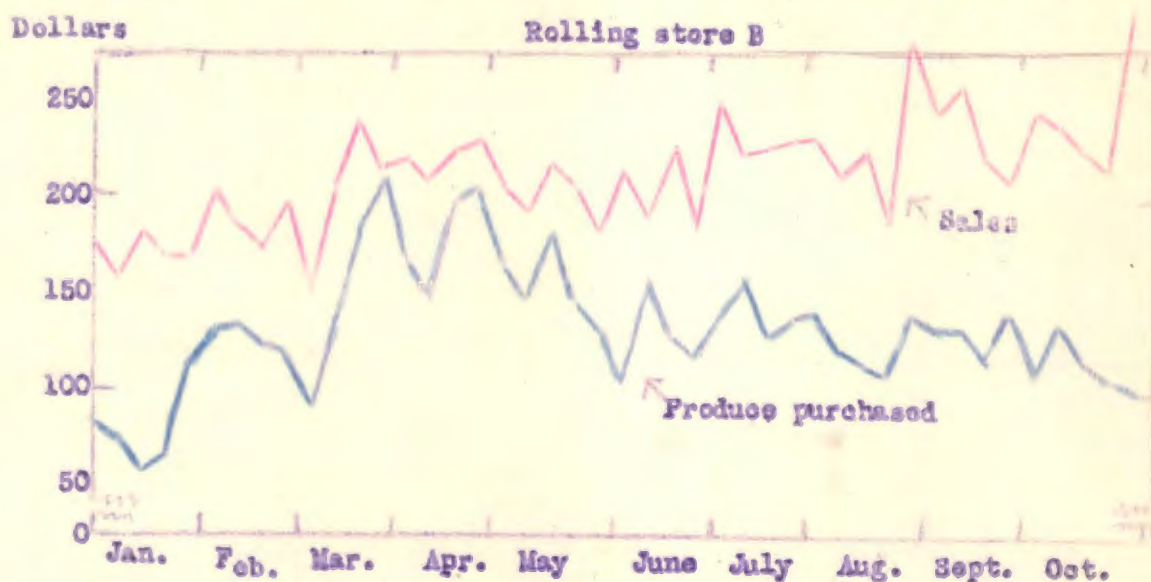
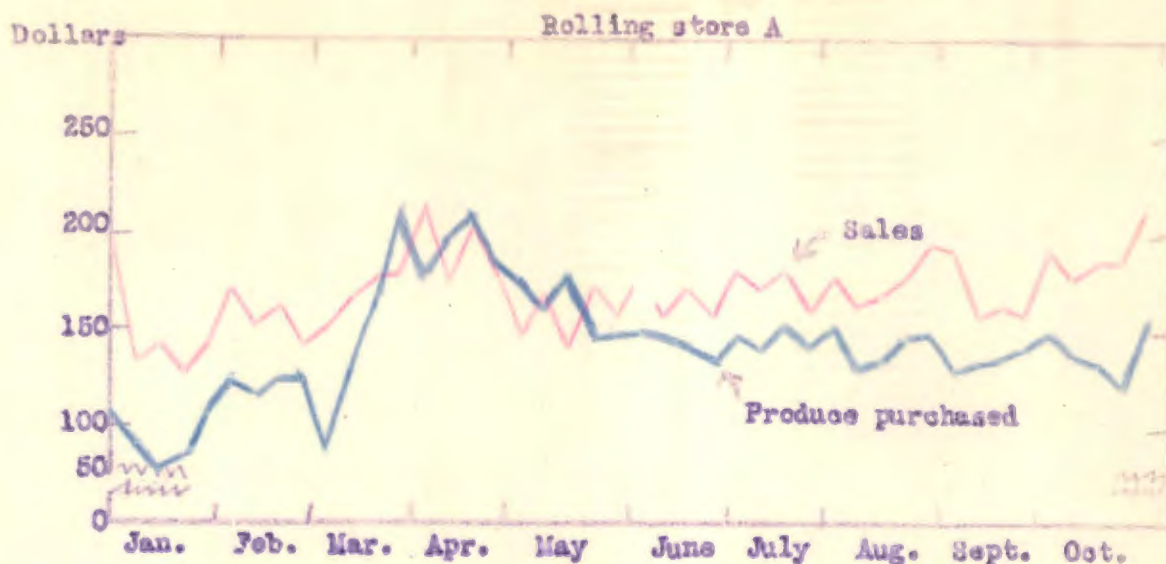
Bureau of Census, Retail Distribution, 1939, Retail Trade in Tennessee, Vol. I, part 3, p. 446.

trade. Two rolling store owners estimated that 75 percent of their sales were made possible by trading groceries for farm produce.⁸ On September 19, 1942, when the investigator made a trip with a rolling store, it was found that 77.6 percent of the total business was in produce traded, 96.1 percent of which produce was eggs and chickens. These percentages, the operator stated, were about average. The relative importance of chickens and eggs naturally shifted with the season of the year. Turkeys held the spotlight in November and December whereas eggs were more important in March, April, and May. In slack seasons of egg production each rolling store was estimated to have brought in about 10 cases of eggs daily compared with 30 to 45 cases when eggs were plentiful. Three of the rolling stores have purchased as much as \$4,000.00 worth of eggs in one week at the height of the season, which was also usually the low price period.⁸

Average daily sales as related to produce purchased by the rolling store. Although the figures just given show the importance of trading in relation to the total business for the whole year, they do not make clear the day to day relationship between volume of trading and volume of sales. Data for three rolling stores were collected and were put on an average daily basis in order to bring out that relationship which was thought to exist by owners of the rolling stores.⁹

8. Interview with Mr. J. Emert and Mr. Fred C. Atchley, September 1942.

9. See Figure 45 for comparison of average daily produce purchases, eggs and chickens, and total average daily sales made by three rolling stores in Sevier County during 10 months of 1942.



x Partial breakdown

xx Complete breakdown

Source: Data on file in Dept. of Agr. Economics, Univ. of Penn.

Figure 45. Average daily sales and produce purchases, by weeks, for three rolling stores operating in the Knoxville trade area, January-October, 1942

Figure 45 shows the direct relationship between the purchases of poultry and eggs and the sales made inasmuch as purchases of farm produce other than eggs or poultry were recorded as merchandise rather than as produce.

The rolling store designated as A showed a close relationship between the daily amount of trading done and daily total sales. Although the sales made by A were not as great as those made by B and C, the amount of produce exchanged accounted for a greater part of the total sales throughout the year. In fact, produce purchases even exceeded sales in parts of March, April, and May, which was the period of high egg production. Such close relationship between sales and produce purchased as shown by A was probably due to the fact that that store covered more isolated mountainous areas.

Produce purchases of rolling store B seemed fairly well related to total sales but produce purchases did not make up as great a percentage of total sales. Produce purchases also appeared higher in March, April, and May, which probably was due to the seasonal peaks in egg production at that time.

Sales of rolling store C also seemed to vary in relationship to produce purchased but many interruptions in schedule of trips appear, due to condition of truck, which made comparison on an average daily basis less valid.

Produce purchases began to rise in January and February for all

three stores and then took a slump in the first week in March, possibly due to a cold snap. Produce purchases then rose again but began to decline in April and continued generally downward until the latter part of October. Although data were not available for November and December, it was claimed that produce purchases increased during those months as large quantities of fowl and turkeys were purchased. Produce purchases of country store X did increase during the months of November and December (Figure 40).

A comparison of rolling stores with country stores shows that produce purchases made up a greater percent of the total business of the rolling stores.

Method of operation. The following data obtained by the investigator on a day's journey with a rolling store on September 19, 1942, will give some idea of the method of operation. The rolling store left the home grocery store at about six thirty in the morning and traveled through the country continuously until its return about seven thirty the same night. It made 67 stops and 126 sales, only 28 of which were outright cash sales. Of the total business 77.6 percent was made possible by trading chickens and eggs for groceries, and general merchandise. Eighty and seven tenths percent of all the business was in trade for some type of farm products, and 96.1 percent of the trade was in terms of chickens and eggs. Nineteen and three tenths percent of all the business was in cash, and 22.2 percent of the total number of sales were cash

sales which indicated that the amount spent by the cash buyer was relatively unimportant. This indicated proof for the observation that farm women usually did not buy more than the amount equal to or less than the value of the farm products which they traded. Individual transactions were small, averaging \$1.76. The average number of eggs traded on an egg exchange sale was 3.6 dozen. The average number of chickens traded on a chicken exchange sale was 3.1 chickens.

TABLE XXXIX. SIZE OF SALES, ROLLING STORE TRIP, SEPTEMBER 19, 1942 *

No. of Dozen Eggs	Number of Persons Trading or Selling Each Amount of Eggs
Less than 1 dozen	9
1-1:11	16
2-2:11	14
3-3:11	13
4-4:11	14
5-5:11	8
6-6:11	6
7-7:11	3
8-8:11	3
9-9:11	3
10 and over	1
	90
No. of Chickens	Number of Persons Trading or Selling Each Number of Chickens
1	8
2	5
3	5
4	4
5	1
6	2
7	1
8	0
9	0
10	0
11	0
12	1
	27

* Source: Appendix C, Table VIII.

Sixty-six of the 90 persons trading eggs traded less than five dozen each.

Twenty-two of the 27 persons trading chickens traded less than five chickens each.

Coverage in Sevier County. The owners of the seven rolling stores operating out of Sevierville felt that they adequately contacted every area within the county that was accessible by road. Some of their trading routes had been disturbed by Tennessee Valley Authority projects making it necessary to retrace the same routes whereas before the routes were usually loop shaped. Actual trading routes were not available but it was learned that there was considerable overlapping by the competitive rolling stores on different days of the week. Overlapping trade areas were to be expected under normal competitive conditions. Each rolling store usually covered six routes a week. Some stores had two or three different routes which meant that some routes were traveled on more than one day a week.

Services rendered by the rolling store. It was learned that the arrival of the rolling store was anticipated by the farm women several days ahead of time. They looked forward to seeing their neighbors at the crossroads or perhaps to visiting them while waiting for the store to arrive. The rolling store afforded contact not only with neighbors but with the outside world. The store man was usually a good friend of the rural people and willingly carried messages about the country. The economic value of the store was of course more important than the social.



Figure 45. Route covered by rolling store on trip observed, September 19, 1942

The farmer or his wife wrote in to the main grocery store for supplies which would be brought out on the next trip or even the next. The rolling store operator acted not only as a messenger but sometimes actually carried the farmer's money to town or to another community to pay a debt for him. Household necessities such as kerosene, wash boards, brooms, lamp chimneys and the like could be ordered through the rolling store. Some of these items were carried regularly by the rolling store and a profit was realized from their sale as from any other merchandise or groceries sold. Items not carried by the store were purchased from other merchants and taken to the farmer as a courtesy.

Prices and trading practices. Prices to be paid for eggs and chickens or other farm produce were determined before the rolling store started on its daily journey. The price of eggs was set at the price of the last sale to the wholesale produce dealer. If the price had changed after the last sale to the wholesale produce dealer, the store was notified by telephone to prevent loss. This close contact between buyer and seller reduced price risk to a minimum and made it possible to operate on a narrower margin. Some rolling stores did not maintain such close contact, but traded on the basis of the price quoted them the last time they sold their produce to buyers. They were given a certain number of days for which that price was guaranteed. If there was a change in price, the wholesale produce dealer stood the loss or gain. In such a case the price quoted the rolling store owner was likely to be a little lower in order to take care of the additional risk.

On September 19, 1942, when the investigator accompanied a rolling store on its route, the drivers were quoted the following prices to be paid for produce; eggs 34 cents per dozen, all chickens except Leghorns and roosters 15 cents, Leghorns 13 cents per pound, and roosters 6 to 7 cents per pound. The prices quoted in the Knoxville Journal the same day were: eggs 32 cents per dozen, chickens except Leghorns and roosters 18 cents per pound, Leghorns 14 cents per pound, and roosters 10 cents per pound. The price for packing stick butter was 12 cents per pound which left a margin of 4 cents per pound. Eggs were purchased at a price higher than what they could be sold for wholesale on the Knoxville market because their value was set on a trade price and not on the price of eggs. The rolling store owners claimed to break even on eggs the year round.

Frequently, the farm woman had an odd number of eggs to sell. She gained by selling them in odd numbers as she was given three cents each for the odd ones, although they were not worth that much when figured at 34 cents per dozen. On the day that the investigator accompanied the rolling store, 109 odd eggs were purchased indicating a loss of only 18 cents to the store operator for the day. This loss was more than compensated for by good will generated and the profit made on the penny candy which was usually purchased with the extra cent received from selling an odd number of eggs. If eggs were selling at 34 cents per dozen the farm woman's inclination was not to buy any article whose unit price was more

than 34¢ regardless of its comparative value in eggs. Therefore the "trade price" was a psychological price designed to stimulate purchases. Her wants were determined and curbed by the eggs and chickens she had to sell. The farm woman purchased mostly staples, such as coffee, flour, meal, soda, salt, baking powder, bread and snuff. The rolling store did not carry a great variety of expensive foods as the farm woman did not wish to buy any food whose unit value was more than the price of a dozen eggs, unless of course, she had money left over after the purchase of staples. Usually what few pennies were left over were invariably spent for penny sticks of candy on which there was quite a bit of profit. Customers seemed anxious to get as much as possible in trade for their produce, and did not seem interested in the price of produce in relation to cost of production. Only one trader, an elderly man, was noticed to have kept track of the total amount that he realized from the sale of his eggs. It was possible that some of the people may have figured out their accounts when they returned home.

Quality and grading. Rolling store owners have noticed differences in the quality of eggs which they buy in different sections of the same county. For example, in Sevier County it has been observed, through candling, that eggs purchased the latter part of the week from those peoples farming in the more isolated hill regions were less desirable than eggs from more populated lower regions. It was thought that the difference was due to poor handling methods practiced in the

hills, and the fact that the rolling store only called once a week instead of twice as in some of the other areas. The rolling store owner has been forced to handle these eggs at a loss, especially during the summer, because it was not practicable to quote different prices for different sections of the same county.

Eggs were the medium of exchange and it was to the farmer's advantage to trade all eggs regardless of quality. The identity of the eggs was lost before they were candled in the store at night and it was therefore impossible to trace the origin of bad eggs. One operator had attempted to cut down this loss by candling at the time of purchase. He was also attempting to make the farmers grade conscious so as to stimulate the sale of commercial feed.¹⁰ (Fifteen hundred pounds of chicken feed were sold on the rolling store the day the investigator was present.) By candling at the time of purchase rotten eggs could be rejected and returned to the farm woman as specified by law. This plan would have brought home to the people the importance of caring for the eggs and of gathering them frequently. It was found impracticable to candle eggs on the truck due to the small space available for that purpose and because it necessitated hiring an additional man just to candle eggs. Although competition was not mentioned, it was undoubtedly a factor.

10. A widespread popular notion exists that high quality eggs are assured through feeding of commercial feeds.

Some of the rolling store operators did not even grade eggs before resale to Knoxville wholesale produce dealers, as they figured there was greater loss through candling than by selling as current receipts just as they had purchased them.

Method of Handling Poultry and Eggs

Selling chickens to the rolling store. Depending upon the season and the need for supplementary supplies, chickens were sold to the rolling stores. Chickens were sold when the farm woman needed groceries, when the hens quit laying, when the flock was being culled, and when the chickens could be caught. Very few were noted, by rolling store operators, to have planned to sell intentionally when prices were high. Rolling stores were ready to purchase outright, at their prevailing price, all chickens as well as eggs brought to the rolling store. The farm woman usually planned a day or so ahead how many chickens she was going to sell and she, or the children, caught the chickens before the rolling store arrived. It was sometimes difficult to catch chickens on open land and so the purchase of extra groceries sometimes had to be postponed until the following week. Some of the farm women inquired about the buying price before catching the chickens. This caused some delay to the rolling store unless the woman decided to wait until evening and sell when the rolling store returned.

The chickens were brought to the rolling store with their feet

tied together to facilitate handling and weighing. This was also a way of making sure that the chicken did not get away before the rolling store arrived.

The chickens were handed up to the truck driver who weighed them by placing the hook of the scales through the loops of twine about the chickens' feet (Figure 48). The twine was then cut and the chickens were thrust into coops and kept there until unloaded at the grocery store (Figure 50).

After weighing the chickens, the driver reported the weight and type of bird to the groceryman who calculated how much they were worth on the basis of whether they were chickens, Leghorn chickens, or

roosters.¹¹ Sometimes deductions were made from the quoted price if the birds were known to be too old for the market. For example, people often attempted to sell whole flocks when moving and it was obvious that such flocks contained some birds that were two or more years old. As to the weight of the birds, it has been estimated by one operator who kept records for one week that, on the average all chickens weighed about four pounds and that hens, on the average, weighed about five pounds.

The coops in which the chickens were transported were not cross ventilated, but were ventilated from the outside only and thus the coops tended to be very warm in summer. (Figures 49 and 50). Some rolling stores kept chickens in regular spindle coops tied to the outside of the truck which takes care of the ventilation problem. On the stores

11. A flat price was quoted for all chickens except Leghorns, which were less. Roosters were quoted at less.



Figure 47. Farm woman bringing chickens to rolling store, September, 1942.



Figure 48. Truck driver weighing chickens. Note eggs in cases at right, September, 1942.



Figure 49. Coops in which chickens were placed, September, 1942.

Figure 50. Close up of chickens in coops shown above. Note crowding, September, 1942.



observed there were five layers or coops. Each when filled contained from 15 to 20 chickens. No water or feed was provided. There was no attempt to separate chickens of different kinds, such as friers or hens. An attempt was made to fill the lower coops last as they were considered the hottest, dustiest, and hardest riding. The chickens did sometimes smother to death in warm weather, especially those in the lower coop. (On the day the investigator traveled with the truck, one woman killed a chicken by overheating it in chasing it down. Of course it was not purchased when it was discovered to be dead.)

When the truck arrived at the main store at night the chickens were removed from the coops and placed in coops in a ventilated back room. There was no separation on any basis. The birds were kept there and fed and watered until sold. Those that were purchased on Friday, Saturday, and Monday were sold on Tuesday either to a truck shipper or to a produce house in Knoxville. Those that were purchased on Tuesday, Wednesday and Thursday were sold on Friday. Shrinkage or gain occurred in the intervening time depending upon the amount of feed consumed. Undoubtedly some shrinkage occurred on the trip in the rolling store to the main store and it was doubtful if any later gain more than compensated for this loss.

Eggs from the farm to Knoxville via the rolling store. It seems customary for hens to make their nests in hidden places when they are not confined and provided with adequate nests. It was observed to be the chore of the children and women to ferret out these hiding places and rob the nests of their eggs. Sometime such nests were not found

until a dozen or so eggs had accumulated, despite efforts to gather eggs daily. On some of the farms visited by the rolling store, eggs were gathered every day and kept in a cool place until the rolling store arrived. Sometimes the eggs were gathered the day before or even the hour before the arrival of the rolling store. Many times little children came running to the rolling store tightly clutching eggs that had been found at the last minute and could be traded for previous sweets.

After the eggs had been gathered they were usually kept in the same basket or lard bucket in which they were later carried to the rolling store. "Split" baskets,¹² pails, lard buckets, paper sacks and any describable type of pan were used for carrying eggs to the rolling store. Some of the containers were lined with paper sacks to protect the eggs. One or two people had the eggs protected from the sun by sacks or paper but most of the eggs were exposed to the direct rays of the sun while enroute to the rolling store.

Farm women and other farm people who wanted to trade, gathered at the edge of the road at some point where they knew the rolling store usually stopped. However, some people waited to hear the toot from the horn of the approaching rolling store before going to the roadside.

The first woman to trade handed her basket of eggs up to the truck driver who was standing beside the egg cases ready to count out the eggs. She then climbed into the truck and started her trading with the grocery-

12. Home made baskets made of wood strips.



Figure 51. Truck driver ready to count the eggs purchased in trade from farmers. Note candling device not then in use, September, 1942.

Figure 52. Truck driver counting eggs, September, 1942.



man or stayed outside and called her order in to the groceryman, if she did not want to look over the merchandise. Meanwhile the truck driver was counting out the eggs by threes (Figures 51 and 52). As the eggs were counted they were placed in the cases with little attempt to sort or grade the eggs or to place them big end up. There was hardly enough space in the truck to permit any elaborate methods of handling. (It has been observed by other marketing students, in poultry marketing classes at the University of Tennessee that there was more space devoted to eggs and chickens on the trucks here pictured than was usually the case on other rolling stores in Tennessee.)

After the eggs were counted the basket was placed on the counter by the truck driver who had told the groceryman how many dozen eggs and pounds of poultry were to be counted in exchange for merchandise desired. The truck driver then turned to count another basket of eggs; the groceryman figured how much the woman had coming in trade and cash, and placed her groceries in the egg basket.

The customers' kerosene can which had been sitting on top of the egg cases received attention next. The driver filled the kerosene can by turning the kerosene covered spigot control handle mounted on the wall above the egg cases. The pump spout was on the outside of the truck (Figure 51). Sometimes the truck driver wiped his hands on an old rag before turning to count eggs again, but usually if there were many customers he would fill many kerosene cans and then count all the eggs or vice versa.

13. Often times the eggs were not counted, especially if the customer was an old reliable one, and her word for the count had proven accurate in the past. Usually the women verified the count.

After the case had been filled with eggs, it was lifted to one side, an empty case was pulled out and the already filled case was slid into its place. This same process was repeated, keeping the full cases on the bottom of the pile until all the cases were filled. When the truck driver ran out of fillers and flats, he continued to fill the cases. When he ran out of cases he used empty pasteboard cartons and placed the eggs in these containers with little or no protection.

There was but one rope provided to keep the cases from shifting around. Those eggs which were purchased during the early morning had a rough journey due to the condition of the roads and topography of the country.

When the trucks returned to the main store the cases were unloaded and stacked preparatory to candling and later hauling to Knoxville. The eggs were candled by the main grocery store before resale to the Knoxville produce dealer.

The eggs that were purchased from farmers on Friday and Saturday were trucked to Knoxville on Monday while those purchased on Monday and Tuesday were trucked to Knoxville on Wednesday. Wednesday and Thursday eggs were trucked to Knoxville on Friday.

Economic adjustments due to the war. The six stores here referred to as having worked out of Sevierville have all ceased operations due to the exigencies of the war. Necessary tires, repair parts, and gasoline were not available and/or it was not considered profitable to reinvest in the stores at that time.

Without rolling stores farmers in the more isolated areas are left more or less to their own resources in getting their produce to market. Small country stores have come into greater prominence. Since they sell to large stores in town which previously operated the rolling stores, an additional middleman and an additional margin is required. This has resulted in forcing down the price paid to the farmer by a cent or two per dozen.

The owners of some of the rolling stores said that they intended to purchase new stores and resume operations after the war. (One owner was attempting to obtain a priority for the purchase of some rolling stores immediately.) One operator intends to have smaller rolling stores, more efficiently arranged and to cover the same route at least twice each week. Such plans would lead one to assume that the stores will be more important as agencies for the transportation of poultry and eggs to market in the future.

CHAPTER VII

KNOXVILLE PRODUCE DEALERS

Introduction

There are two general types of Knoxville produce dealers; one, those buying and selling both eggs and poultry, and two, those buying and selling eggs only. There are nine produce dealers dealing in both poultry and eggs. These dealers all have a definite place of business and will be referred to as produce houses in all cases hereinafter. Two Knoxville produce dealers buy and sell eggs only and have no place of business other than their homes. These two produce dealers will be referred to as egg dealers.¹

Classification of Knoxville produce houses. A broad general classification of Knoxville produce houses may be made on the basis of names usually applied to such firms. Two of the firms could be classed as wholesale receivers or carlot shippers of eggs and live poultry.² However, one of these firms could also be classed as a jobber as it does dress and sell

1. All data presented in this chapter obtained from interviews with Knoxville produce dealers. For schedules see Appendix A.

2. Wholesale receivers, carlot shippers, carlot wholesalers, and receivers are all considered the same by Henry E. Erdman who had the following to say about the wholesale receiver.

"He occupies a position between the distributor or country shipper and the jobber. He may purchase of producers either directly or through brokers, but more often he purchases through country shippers."

Erdman, Henry E., American Produce Markets, D. C. Heath and Company, New York, 1928, p. 55.

poultry locally. Seven of the nine Knoxville produce houses could be classed as jobbers because they sell eggs and dressed poultry in small quantities to retailers;³ however all seven could also be classed as dressing plants as they all purchased poultry live and dressed it for sale to retailers. All nine Knoxville produce houses might at any time be engaged in operations not covered by or contrary to these classifications. In fact, all the produce houses, except one, a wholesale receiver, sell eggs and dressed poultry direct to consumers. Two of the produce houses sell nearly as much and sometimes more dressed poultry direct to consumers as they do to retailers. One of the produce houses, here classed as a jobber, is essentially engaged in assembling live poultry and eggs for one of the large wholesale receivers. At the time this survey was initiated the two

TABLE XL. CLASSIFICATION OF NINE KNOXVILLE PRODUCE HOUSES BY TYPE OF PRODUCE HOUSE *

Number of Produce Houses	Type
1	Wholesale receiving house (eggs and live poultry)
1	Wholesale receiving house (eggs and live poultry) and jobbing house (eggs and dressed poultry)
7	Jobbing houses (eggs and dressed poultry)

* Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

3. Henry E. Erdman defined a jobber as that middleman who "sells mainly to the retailers, regardless of whether he receives carlots or buys of other receivers. He usually handles a greater variety of products and operates on a smaller scale than does the wholesaler."

Erdman, op. cit., p. 56.

produce houses here classed as wholesale receivers were also definitely carlot shippers as they were mainly interested in the shipment of live poultry and some eggs to large eastern terminal markets. Due to abnormal economic circumstances brought about by the war they have changed their operations somewhat. One of the two firms has practically ceased shipping live poultry and eggs and is at present contemplating operation of a large eviscerating plant. The other wholesale receiving firm has changed hands and is now acting as a branch wholesale receiver for a large produce house located in Rogersville, Tennessee. Up until a few weeks ago this firm had been handling many times the number of pounds of poultry and dozens of eggs handled by the firm referred to in this chapter. At the time of writing, this firm had begun dressing poultry for shipment to eastern markets. This firm intends to dress larger and larger quantities of poultry for shipment to eastern markets. This poultry will not necessarily all be purchased at the Knoxville branch as the other branches of the firm were already supplying it with large quantities of live poultry in continuous volume.

Location of Knoxville produce dealers. Six of the nine Knoxville produce houses are located within a few blocks of each other. Four of these are on Jackson Avenue, one on East Vine and one on North Central, as shown in Figure 53. Two other produce houses are within a half block of each other, one being located on Walnut Street and the other on Western. Only one produce house is far distant from the others and it is located several blocks out on Western Avenue, as shown in Figure 53.

One egg dealer is located on North Third Avenue and the other on Atlantic Avenue.

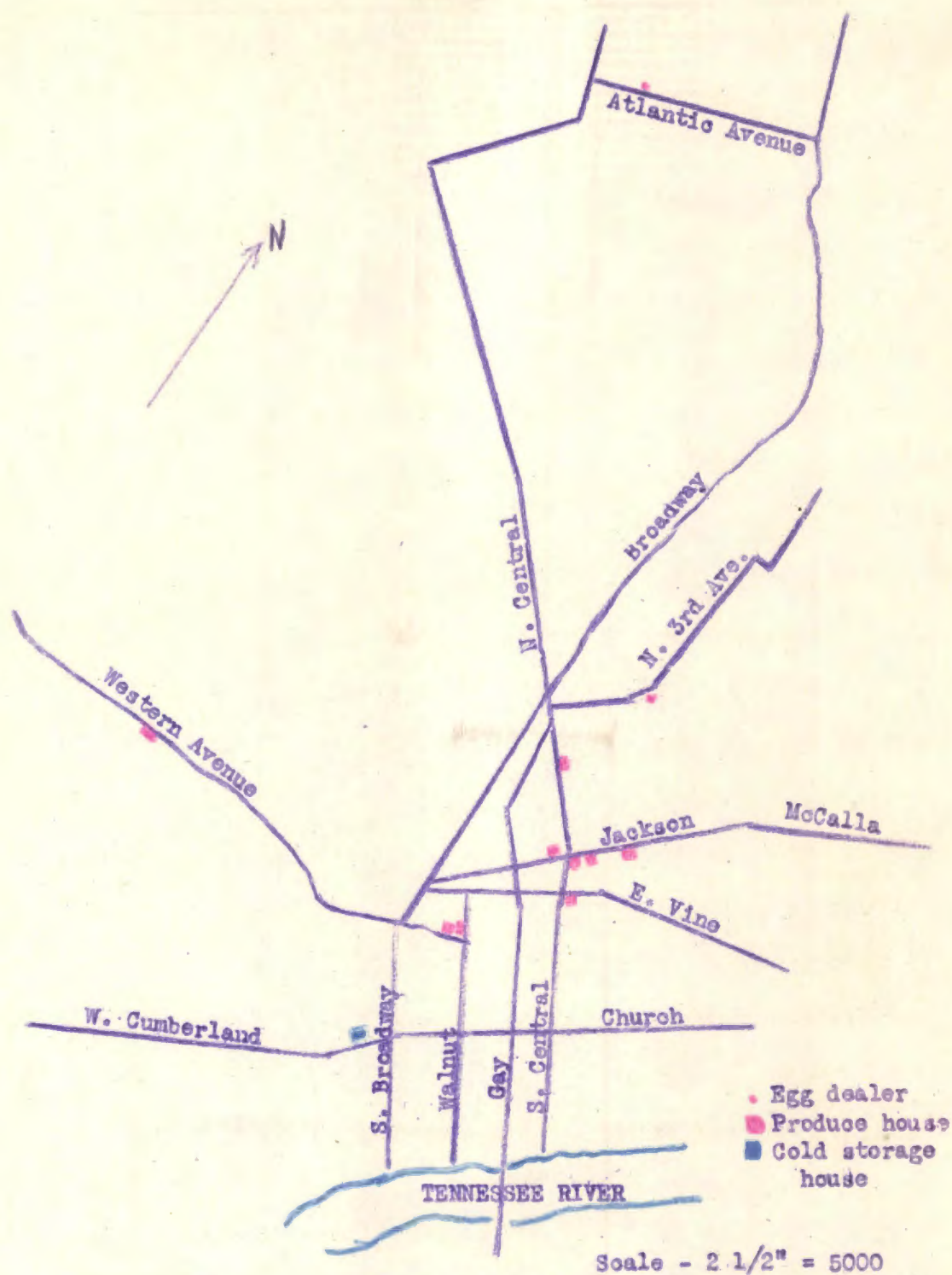


Figure 53. Location of Knoxville produce dealers

Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

The cold storage house where eggs are stored in Knoxville is located on West Church, as shown in Figure 53.

Classification of Knoxville produce houses by functions performed.

Knoxville produce houses perform definite marketing functions. They assemble eggs and poultry. They pick up some eggs and poultry in the country but their main assembling function is the provision of a place of business to which farmers and country stores can bring poultry and eggs when they come to town to sell them. It is not possible for all sellers to have direct connections with buyers. The Knoxville produce house provides the place of assemblage.

Eggs are candled in Knoxville produce houses according to Tennessee law. Some eggs are resold as current receipts and in those cases the produce house only assembles, cases and distributes eggs. Eggs are assembled for shipment to other markets by two Knoxville produce houses. Knoxville produce houses also store eggs during periods of peak production and also import eggs from other areas and states when local demand exceeds supply. One Knoxville produce house not only grades, but cartons eggs for a chain of grocery stores having several stores in Knoxville.

Chickens are assembled as are eggs. More chickens than eggs are assembled from farmers as the farmer does not have as much opportunity to sell his chickens direct as he does to sell eggs. Two Knoxville produce houses regularly ship live poultry to other markets. Other Knoxville produce houses have shipped live poultry to other markets at different times. A few shipments of dressed poultry in ice had been made previous to 1943.

One produce house has, since this survey was begun, completely changed its functions from that of a shipper of live poultry to a shipper of dressed poultry in barrels.

TABLE XLI. CLASSIFICATION OF NINE KNOXVILLE PRODUCE HOUSES BY FUNCTIONS PERFORMED, 1942 *

Number of Produce Houses	Classification
	Eggs:
9	Assembling
9	Grading
1	Packaging
6	Storing
2	Importing
9	Distributing
2	Shipping
	Poultry:
9	Assembling
2	Shipping
8	Dressing
8	Distributing

* Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

Number of years in Knoxville. Three of the produce houses had only been operating a short time; one for only a few months; one for one and one-half years; and one for two years. One retail produce house had been selling live and dressed poultry in the same location for eight years while three produce houses has been in that business for ten years. One firm had been in business for about fifty years, but it changed ownership during the period of the survey and is now a branch of a much larger firm.

Comparison of Importance of Poultry and Eggs

Handled by Nine Knoxville Produce Houses

Eggs purchased by nine Knoxville produce houses were more important than live poultry purchased, when compared by value. Of the estimated \$5,482,960.67 paid for produce, 91.5 percent was paid for eggs and only 8.5 percent for live poultry.

TABLE XLII. COMPARATIVE IMPORTANCE OF POULTRY AND EGGS PURCHASED BY NINE KNOXVILLE PRODUCE HOUSES *

Items Purchased	Units Purchased	Average Price quoted in the Knoxville Journal, 1942	Value	Percent of Total
Eggs (cases)	59,540.6	\$8.43	\$5,019,272.53	91.5
Live poultry (lbs.)	3,065,755.1		463,688.09	8.5
Chickens (lbs.)	2,901,762.5	.15 ¹	435,264.38	(7.9)
Turkeys (lbs.)	149,900.0	.18	26,982.00	(0.49)
Ducks (lbs.)	10,234.6	.10	1,023.46	(0.02)
Geese, (lbs.)	2,560.0	.10	256.00	(0.005)
Guineas (lbs.)	1,298.0 ²	.25	162.25	(0.003)
		each		
Total			\$5,482,960.67	100.0

1. Colored hens 17.0 cents, springs 17.0 cents, roosters 9.0 cents, stags 10.3 cents; 15 cents was used as the estimate.

2. One guinea equals two pounds live.

* Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

This does not necessarily mean that more profit was realized from eggs than from live poultry. The margin on eggs was narrow, whereas the

margin on poultry was wide, because the poultry was purchased alive and sold dressed by the produce house.

Payments to farmers for eggs amounted to 37.8 percent of the value of all purchases or approximately \$1,897,284.94 while payments to farmers for live poultry amounted to 9.2 percent or \$42,769.85. A total of an estimated \$1,940,054.79 was paid direct to farmers for poultry and eggs and the rest paid to middlemen who had purchased the poultry and eggs from farmers or from other middlemen.

Eggs

Eggs will be considered before live poultry not only because they are more important in terms of value but because the type of data to be shown differs for the two farm products.

Place of the Knoxville produce house in the egg market channels.

Knoxville produce houses assemble eggs from many different sources, candle them and distribute them to local buyers on demand. Periods of greatest supply and demand do not necessarily coincide, so some Knoxville produce houses store eggs and ship in eggs to meet the demand during slack periods. They buy, when eggs appear, and sell when the demand calls for eggs. When the supply is greater than the demand and the New York price is favorable for shipping, the surplus eggs are shipped to New York, thus protecting the local farmers from disastrously low prices during months of peak production. The Knoxville produce house is a place where eggs are assembled and made ready for distribution.

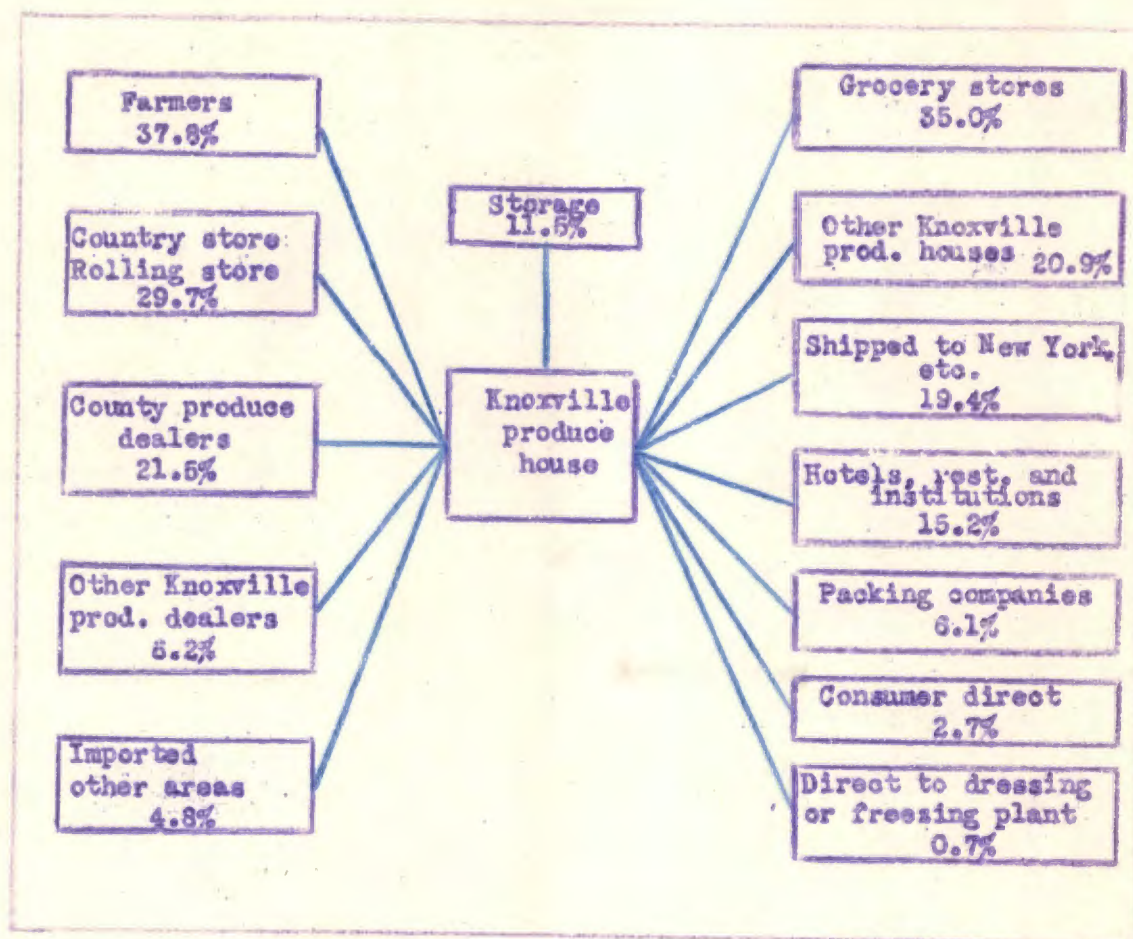


Figure 54. Place of the Knoxville produce house in the egg marketing channels

Source: Tables XLIII and XLIV.

Origin of eggs by type of seller. Knoxville produce houses purchase more eggs direct from farmers than from any other source. The produce houses purchased 37.8 percent from farmers; 29.7 percent from country stores and rolling stores; 21.5 percent from country produce dealers; 6.2 percent from other Knoxville produce dealers; 4.8 percent were imported from other states.

Origin by areas. The egg and poultry buying areas for the nine Knoxville produce houses are shown in Figure 55. Four of the produce houses draw eggs and poultry from the same general territory. The cities bounding that territory are LaFollette, Rockwood, Sweetwater, Madisonville, Maryville, Sevierville, and Jefferson City. These four produce houses bought from farmers in this area and had constant telephone connections with the country stores and country produce dealers in the territory. Two other produce houses reported trade areas differing not in size but in the areas covered. One had a trade territory as far west as Crossville and McMinnville; as far north as LaFollette and as far south as Athens, but did not purchase from an area any farther east than Sevierville. Another produce house purchased from as far west as Sparta and Crossville; as far south as Cleveland; as far east as Morristown; and from LaFollette in the north. One produce house went only as far west as Lenoir City; north to La Follette; south to Maryville; but as far east as Greenville and Rogersville. The two largest produce houses, also car-load shippers, had the largest trade territories. One went farther east and the other farther west, but the territories were similar in size. The

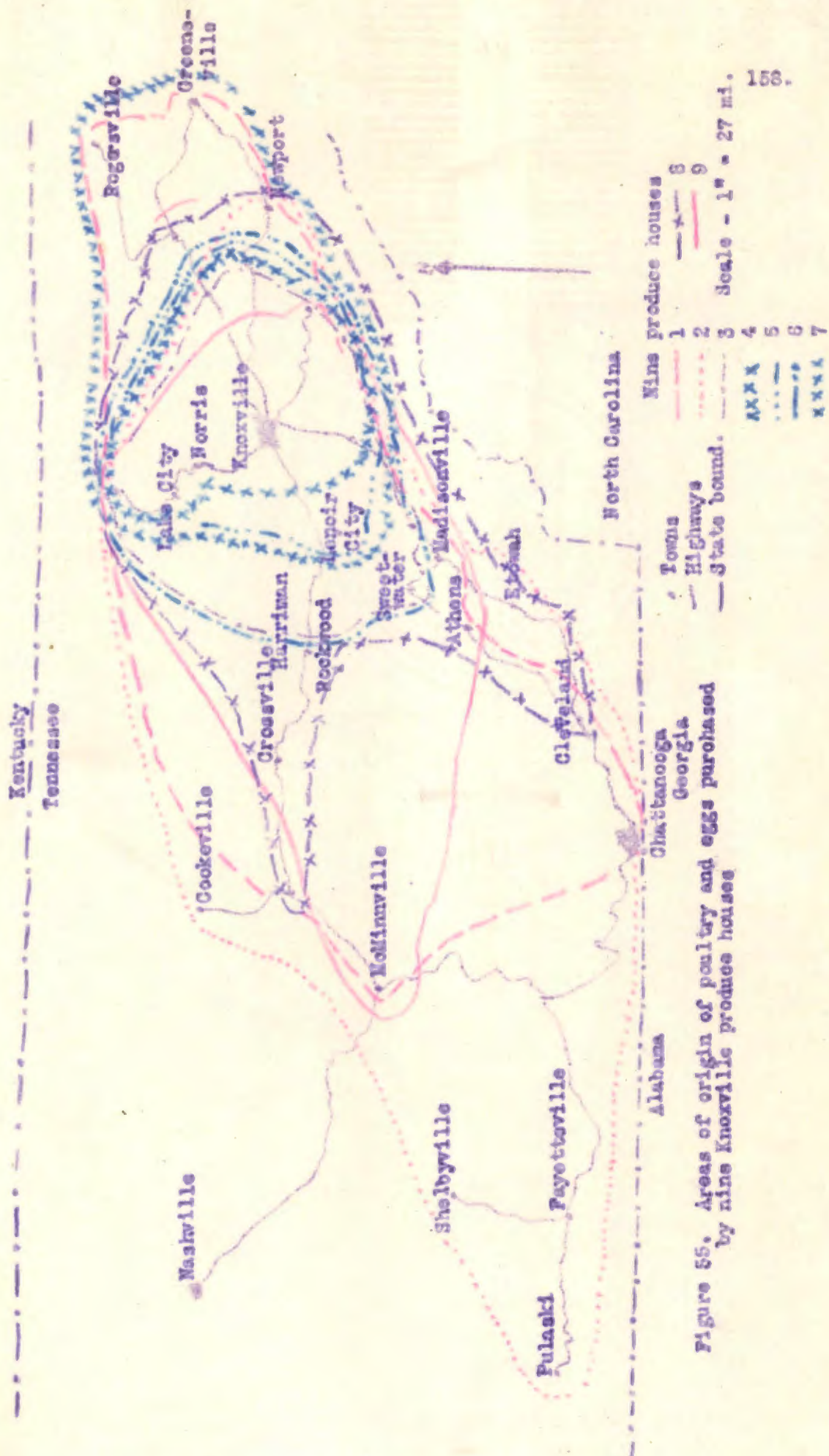


Figure 55. Areas of origin of poultry and eggs purchased by nine Knoxville produce houses

bounding cities of one were Pulaski, Shelbyville, Sparta, and Cookeville in the west, LaFollette in the north, Jefferson City in the east, and Chattanooga, Cleveland, and Etowah in the south. The other large buying area was bounded by Sparta and McMinnville in the west, Chattanooga and Etowah in the south, LaFollette in the north, and Rogersville and Greenville in the east.

TABLE XLIII. ORIGIN OF EGGS HANDLED BY NINE KNOXVILLE
PRODUCE HOUSES, 1942 *

Total Number of Cases Purchased	59,540.64
Percent purchased from farmers	37.8
Percent purchased from country stores and rolling stores	29.7
Percent purchased from country produce dealers	21.5
Percent purchased from Knoxville produce dealers	6.2 *
Imported from other states	4.8

* Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

** This percentage should really be much higher, but Knoxville produce houses were inclined to underestimate the amount of produce purchased from one another as such purchases only take place during certain periods or emergencies and were not a common occurrence.

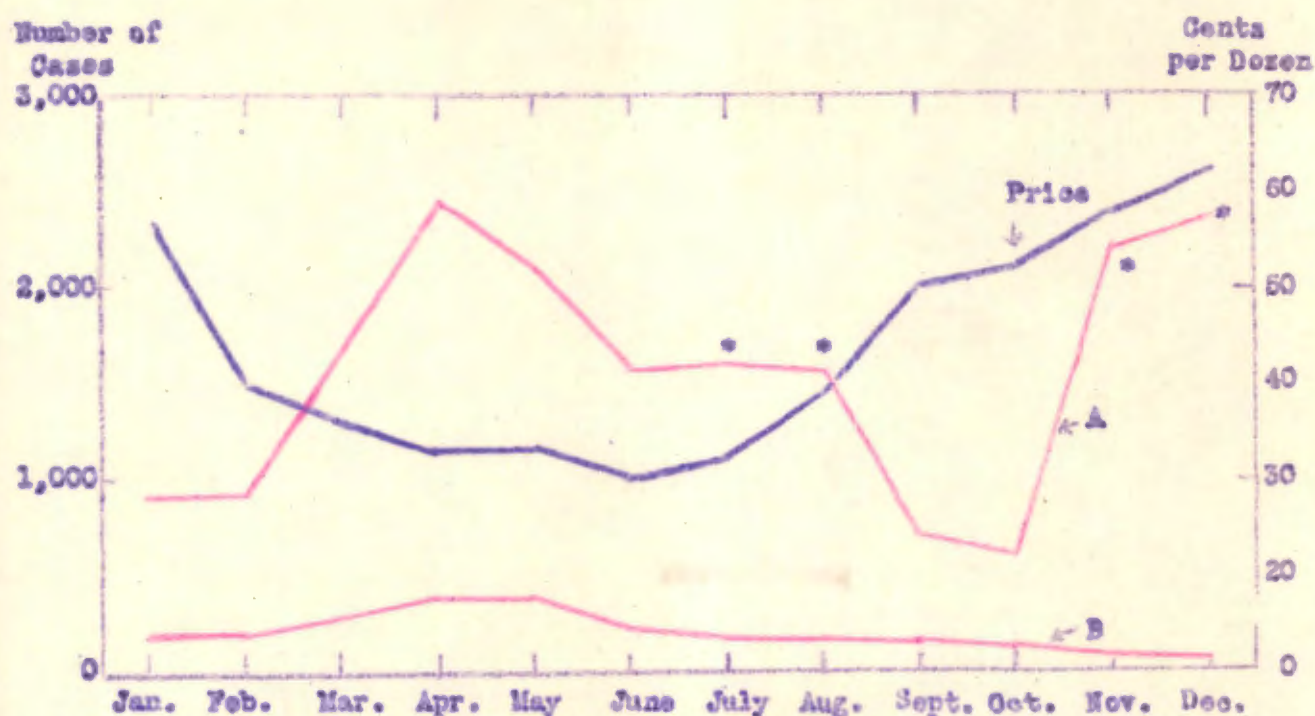
Source of eggs imported by Knoxville houses. One Knoxville produce house was found to have imported many eggs from out of state. Practically all the eggs so received were from Chicago. A few eggs have been received from New York, but that was an unusual occurrence. One other produce house is known to have imported eggs from St. Louis in recent years.

Peak purchase periods. All of the nine Knoxville produce houses, except one, purchased more eggs in the spring months than at any other time. They began purchasing large quantities of eggs in February and March, depending upon earliness of the season. They continued purchasing large quantities of eggs through April and May, depending upon the advent of hot weather. One produce house purchased its largest quantity of eggs in July, August and September. This produce house was mainly in the retail business and did no storing, therefore it was not to its advantage to enter the egg market in the spring of the year when the margin of profit was so low and when local eggs were so plentiful.

The produce houses buying eggs in the spring of the year did so because: (1) they thought the best eggs are produced during that period; (2) that was when the farmers brought the eggs to market and they just bought all that appeared; (3) they stored eggs at that period.

In Figure 56 is shown the number of dozens of eggs purchased by Knoxville produce houses A and B. During July, August, November, and December A imported eggs from other states. Otherwise purchases represented local marketings. The distribution of purchases shown in Figure 56 are similar to that shown on a percentage of total years purchases for the period of 1936-1940 by Kentucky dealers.⁴ Inasmuch as the peak sales of hens and eggs occurred in the same periods in the Knoxville area and Tennessee the following statement is applicable to both areas.⁴

4. Roberts, J. B., Marketing and Pricing Chickens in Kentucky, University of Kentucky, Kentucky Agricultural Experiment Station Bulletin No. 433, June 1942, p. 7.



* Includes receipts from other states.

Figure 56. Total monthly egg purchases, Knoxville produce houses A and B, average price per dozen, local quotations, Knoxville Journal, 1942

Source: Appendix D, Table IX.

The practice of selling hens during the spring greatly cuts down the production of eggs during the summer and fall. The immature pullets from the late-hatched chicks ... do not produce fall eggs; rather they add to the already mounting surplus in February and March. Selling hens during the first six months and hatching chicks after the coming of warm weather are two forces which cause extreme variations in the marketing of eggs. During the spring months there is a surplus of eggs; during the remainder of the year the supply does not meet the local demand in some parts of the state.

Changes in buying periods in the last two years. Of the nine local produce houses, three stated that there had been no changes in peaks or production in the last two years. One firm had not been in business for two years. Three others stated that although the peak periods of production had been about the same, they had been able to obtain fewer eggs because of diversion to egg drying plants and eggs were not being moved into normal channels. Two of the houses reported that production seemed to have increased the year round and that they were buying more eggs than previously the year round.

Contracts unusual. Only one produce house reported a preference to contract for eggs. It desired to do so in order to have a steady supply as it was really a branch house of a larger produce house. One produce house liked to have verbal purchasing agreements at least a week in advance of purchases. All produce houses were connected by telephone with at least the larger country stores and produce houses supplying them with poultry and eggs. However, these telephone conversations hardly constituted verbal contracts as the seller often changed from one produce

dealer to another within a few weeks. Seven of the produce houses preferred to buy when the eggs were brought to their place of business or offered to them over the telephone, i.e., as the eggs appeared on the market.

Day eggs purchased. Five produce houses mentioned Friday as one of their most important days for purchasing eggs. They seemed to believe that farmers brought eggs to market when they came to purchase groceries. Thursday was also mentioned for the same reason, although not considered as important. Country stores brought in many eggs on Thursday as they come to Knoxville to purchase supplies for the week end. Wednesday was also a day of heavy purchase by those houses near the livestock auction as many farmers attending the auction brought a few eggs to town with them.

Quantities purchased. Local produce houses purchased eggs by dozens, cases, and one bought eggs by the car. Four produce houses never purchased eggs in less than case lots.

Buying basis. "Current receipts" was the term most applicable to the way in which eggs were purchased by local produce houses. Only one produce house bought eggs on a "loss off"⁵ basis but then only from May to December. One other produce house bought ten percent storage eggs and of course they were graded eggs. All the rest of the eggs were purchased as current receipts regardless of whether they were purchased from farmers or from persons who were supposed to have candled the eggs.

5. "Current receipts": all eggs just as they come from the farm, eggs not graded as to size or color and not candled to remove rots.

"Loss off": the producer is paid a stated price for the eggs less the value of the eggs that are found to be rotten when candled by the buyer. Buyers either candle eggs before the producer or candle and settle later.

Crax and dirties. Five of the nine produce houses made no difference in price when farmers or others brought in cases of eggs which obviously contained crax or dirties. One of these produce houses bought on a "less off" basis. Four produce houses paid less, usually two to five cents per dozen, for cases which obviously contained crax or dirties.

Equipment for and methods of handling eggs. Although eggs have a protective shell that does not mean that they should be handled roughly or that the shell will protect the quality indefinitely. Eggs undergo natural decomposition which may be hastened by improper handling or holding conditions.

Rough handling is detrimental to egg quality, because such treatment disorganizes the contents of the eggs. Tremulous and movable air cells are caused by the jarring or rough handling of eggs Cracked eggs and checked shells are caused by improper handling of eggs. Containers should be used for handling eggs which minimize the jarring and shaking of eggs".⁶

Knoxville produce houses transport and hold eggs in cases equipped with fillers and flats. During the time this survey was conducted produce dealers were more concerned with obtaining any kind of case than with being particular about choosing any certain type.

Although eggs do not usually remain in the produce house for more

⁶ Winter, A. R., and Funk, E. M., Poultry Science and Practice, Lippincott's Agricultural Science Series, J. B. Lippincott Company, p. 463, 1941.

than a week and seldom for more than two to three days, the conditions under which they were held are important. All nine produce houses held eggs in cases in their main sales room, except one. It kept eggs in a sideroom. However, conditions there were no different than in the sales rooms. In all produce houses the cases were stacked one upon another and no provisions were made for ventilation or temperature control. The temperature in such closed sales rooms at night, especially during the summer, would hardly be conducive to maintenance of quality.

Candling facilities common. Although all nine produce houses had candling facilities only three houses candled eggs the year round and even one of those sold a current receipt egg, unless candled eggs were called for. All six other houses only candled eggs between May 15th and December 31st as required by law. Houses other than the three candling the year round were admittedly not so strict about grading (although they all thought they adhered fairly closely to whatever standards they had set, i.e., they thought they candled out all rots.) Candling equipment consisted in general of a box, wooden or metal, containing a light globe and having a round opening at one end in front of which the eggs were held. Knoxville produce dealers were not particularly careful about candling in a dark room. The investigator has observed them candling eggs in broad daylight on more than one occasion. (There are different degrees of candling. Eggs may be candled and only the rots removed or candled and many imperfect eggs removed. Imperfect means blood spots, large air cells, et cetera.)

Grading basis. No two produce houses had exactly the same grading classifications.⁷ One house designated its grades as candled Number 1's, packers, Bantams, ducks, and crax. Two produce houses had just two grades, one called them candled number 1's and number 2's, and the other just number 1's and number 2's. Another produce house also used the number 1 and number 2 classification, but had an additional grade which included crax and smalls. One house designated its grades as first, second, and crax. Two produce houses graded according to weight, one of which divided eggs into those weighing over 24 ounces as number 1's and those under 24 ounces as number 2's. The other house grading according to weight called its grades 24 ounce eggs, 22 ounce eggs, 18 ounce eggs and number 2 dirties. One produce house designated eggs as colored firsts, white firsts, firsts mixed and number 2's. In this case number 2's meant that the rots had been removed. A ninth produce house called its best grade standard and designated its second grade as smalls and dirties. Other eggs that had not been candled were designated as current receipts.

Tolerance. Most produce houses reported that eggs were graded fairly closely within limits set by their own grading standards. Usually they graded out 100 percent of the rots but missed about three to nine eggs a case when grading for size.

7. Recent government regulations may have changed this since the survey was made.

Loss due to poor quality. All produce houses except one reported suffering losses because of bad eggs and exceptionally small eggs. The one produce house which reported no loss from rots bought only on a "loss off" basis. Two produce houses expected a one percent loss the year round. Three produce houses anticipated losses of three percent in the summer months and one expected a five percent loss. Two produce houses had experienced losses as high as 16 percent or five dozen per case in the summer months.

Percentage of sales by grade. The percentage of eggs that were sold as a certain grade was determined by the season and by the quality of the eggs purchased. Cold storage eggs were sold only in the winter, usually during November and December. The number 2 eggs of one firm were disposed of at 25 cents a dozen and all the rest of the eggs were sold as candled number 1's. Another produce house sold all eggs as current receipts except those that graded so low that they could only be sold to the colored trade at a loss. One produce house reported that of the eggs handled, 95 percent were number 1's, two percent number 2's, one percent each as crax and dirties, and one percent cold storage eggs. Another found that 90 percent of the eggs sold weighed 24 to 22 ounces and that the other ten percent was made up of 18 ounce eggs and number 2's. One produce house estimated that 80 percent of the eggs sold went out as number 1's, about two percent crax and two percent dirties and the rest number 2's. During the winter eggs were sold as current receipts, which was about eight percent of its total business. One produce house estimated

that 74 percent of the eggs graded number 1's, 25 percent number 2's, and one percent crax and dirties. The one produce house which imported eggs from other areas sold eggs as firsts and standards during the winter. During the summer it sold eggs as selects, number 2's, crax, dirties, and smalls. One other produce house estimated that eggs candled graded 10 percent standards, 70 percent current receipts and 20 percent smalls or dirties. Due to the lack of comparability of hi-grades, a general statement is not possible as to percentage distribution of eggs after grading. However, in general all eggs did not fall in the top grades. Many were graded as tops by one firm that would be graded as seconds by other produce houses.

Best grade of eggs handled. There was little conformity of grading terminology as used by Knoxville produce houses. Two houses reported that their best quality egg was a candled egg. They guaranteed only one thing, that the rots had been removed. One produce house sold all eggs as current receipts regardless of candling. One house termed its best grade just graded or guaranteed eggs. One produce house graded eggs according to weight with 24 ounce naturally ranking tops. One produce house claimed that number 1 whites were their top grade. Another specified its top grade as first or extras. Another specified firsts mixed color and firsts whites as its top grade of eggs. One produce house specified its best grade of egg as standards.

Destination of eggs handled by Knoxville produce houses, 1942.

Grocery stores were the most important recipients of eggs from Knoxville

produce houses. Especially, when you consider that part of the eggs sold to other produce houses were eventually also sold to grocery stores and part shipped. About 20 percent of the eggs sold were shipped to New York.⁸ Hotels, restaurants, institutions, and bakeries, et cetera, received 15.2 percent of the eggs handled by Knoxville produce houses. This percentage will change materially from year to year because much of that buying is on a bid basis. Packing companies took or are taking about six percent of the eggs sold by Knoxville produce houses. This shows a much larger amount than was ever sold to them in the past because of the inclusion of figures of one produce house on a yearly basis although it had only been in business for three months when interviewed. That particular produce house was selling 70 percent of its volume to local packing companies.

Purchases of eggs by consumers direct from the Knoxville produce house were relatively unimportant. They represented, in reality, sales made of crax, dirties and otherwise low quality eggs, mostly to colored people because of the location of the Knoxville produce houses.

Egg drying and freezing plants were shown to take only a small percentage of the eggs sold by Knoxville produce houses. This was perhaps lower than usual because local demand had been so heavy in 1942 and there was little surplus over that sold to grocers. Many of the eggs sold to

8. This estimate would probably be larger if 1943 were considered because the main shipping firm is now shipping more than before and buying more eggs than before.

bakeries were frozen locally.

TABLE XLIV. DESTINATION OF EGGS HANDLED BY NINE KNOXVILLE
PRODUCE HOUSES, 1942 *

Total number of cases handled	59,540.64
<u>Destination **</u>	
Percent sold to grocery stores	35.0
Percent sold to other local produce houses	20.9
Percent shipped	19.4
Percent sold to hotels, restaurants, institutions and bakeries	15.2
Percent sold to packing companies	6.1
Percent sold to consumer direct	2.7
Percent sold to drying and freezing plants	0.7 ***

* Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

** In general, this was the usual percentage distribution. It was subject to change without notice, depending on the local demand, season, New York market and price, and presence of buyers.

*** This percent varies. It has been much higher when the local consumer demand was not as great as at present. Much of the eggs that are sold to bakeries are frozen or dried for them.

Destination of eggs shipped. Practically all eggs shipped were sent to New York. Some have been shipped to Baltimore.

Trade area. Only one produce house sold eggs, other than those shipped, outside of Knoxville and immediate vicinity. That house sold eggs to the Douglas Dam area and a few to hotels and restaurants between Knoxville and Chattanooga.

What determines to whom Knoxville produce houses sell. Although all nine houses were known as produce houses and grouped together here for

ease of analysis, their operations did differ in degree and in kind. Usually they sold to whomever appeared or called first. However, the type of person who appeared was determined in part by the location of the produce house, and by whether it usually sold retail or wholesale. Three houses reported selling to whomever would pay the highest price. One retail house sold to whoever appeared, i.e., consumer, grocer, hotel buyer, restaurant buyer or whoever called on the telephone first. Two houses sold mostly retail to colored people because of the location of the produce houses. Three of the houses reported having built up a good local trade with grocery stores especially and that that trade usually took nearly all their volume. Surplus eggs were sold to the wholesalers. Two produce houses which shipped eggs to New York (or other cities) gauged shipments by relative prices and truck rates.

Outlets preferred. Of the nine local produce houses reporting, two had no preference concerning to whom they sold eggs (although one of these stated that he would rather not sell to restaurants). Two produce houses preferred to sell to packing companies because they purchased all they could provide and it was less trouble to make one big sale. One produce house preferred to sell to another produce house which shipped because that house had guaranteed a fair price and had assured him of a steady outlet for all eggs. One house, which was strictly a retail house and located in the colored section of town, preferred to sell to its regular retail trade. Another produce house, handling only small quantities, also preferred to sell direct to the consumer. One produce house preferred

to sell only to its grocery trade. One of the largest produce houses, also a carlot shipper, preferred to ship and so to handle eggs in large quantities, especially as it did not like to bother with small quantity sales.

Percent sold at door. Approximately 31.8 percent of the poultry and eggs were sold at the door of the produce house to all kinds of buyers. The percentage is high, because of the amount sold to other produce dealers who picked up the purchases at the door, and because some dealers sold to New York commission merchants at so much per pound in Knoxville.

Days of greatest sale. One produce house reported that there were no special days on which they sold more eggs than on others as the majority of eggs were sold every day to another produce house. One produce house sold most of its eggs to grocery stores and so sold most of them on Friday. Another sold more eggs on Thursday, Friday and Saturday as it also sold to grocery stores. Another produce house cited sales to grocery stores and restaurants as the reason why it sold more eggs on Mondays and Fridays. The two produce houses selling more eggs retail claimed that Friday and Saturday were their big selling days as their trade was comprised of colored people who were paid on those days. The one produce house which shipped eggs claimed Wednesday and Saturday to be its big sale days as those were the days on which the trucks came through and picked up the eggs. One house which purchased the greater part of its eggs from country stores on Thursday in turn sold most of them to grocery stores in

Knoxville on Friday and Saturday. One produce house reported it had no special selling day that was any more important than any other. In general, the greater part of the eggs were brought in on Thursdays and Fridays and sold on Friday and Saturday.

Cases usually smallest quantities sold. One of the functions of the wholesale produce house is to assemble small numbers of eggs to provide buyers with large lots of fairly uniform quality. Other than low grade eggs and rejects which were disposed of by sales at a loss to colored and poor people, produce houses did not usually sell less than a case of eggs. The two houses that were really retailing of course sold many eggs by the dozen. The other seven houses seldom sold less than a case at a time. Three hundred cases was the largest number of cases usually sold by any one dealer.

Time required to sell eggs. One produce house usually held eggs only one day. It held eggs for such a short period because it sold most of the eggs to another wholesaler. Another produce house never held eggs more than two days, but it too sold to a larger produce dealer if it had to hold the eggs for more than 2 days. Three produce houses reported usually holding eggs for two to three days. One of these houses shipped eggs at the end of 3 days to Rogersville, Tennessee, and thence to New York. The other two produce houses reported that their grocery customers usually took all their supply within two to three days. One produce house held eggs as much as a week, and yet grocery store operators were enthusiastic about their quality of eggs. This house's strict handling may have offset

the effect of the longer holding period. Another produce house held eggs from four to five days and sometimes shipped them after that.

Egg storage by Knoxville produce houses. Three produce houses stored no eggs at any time. Two produce houses stored eggs from March through August; the other four houses storing usually did so in March, April and May. Eggs put in cold storage during June, July, and August were only what were called short term, fifteen or thirty day holdings.

TABLE XLV. USUAL NUMBER OF CASES OF EGGS STORED BY SIX KNOXVILLE PRODUCE HOUSES *

	March	April	May	June	July	August	Total
Total number of cases, 9 produce houses	-	-	-	-	-	-	59,540.64
Number of cases stored, 6 produce houses	1,900	5,157	1,465	29	-	557	6,886
	Percent of total						11.5

* Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

The 29 cases stored in June and the 557 in August were short term holdings stored by one house which happened to experience surpluses during these months.

Approximately 11.5 percent of the eggs handled by nine Knoxville produce houses were stored, during some period of the spring or summer, by six Knoxville produce houses.

Hedging. None of the Knoxville produce houses claimed to engage in

hedging operations. Hedging would apply to eggs only. The reason being that only two firms really sold on large enough markets to warrant such operations and most eggs were handled on a day to day basis, very few being stored for sale on a later market.

Improvements that could be made by farmers in producing and handling eggs. Knoxville produce dealers thought many improvements could be made by farmers which would help insure better quality eggs. The following are suggestions made by produce houses:

- (1) farmers should gather eggs more often,
- (2) farmers should market eggs more often, especially in the summer,
- (3) raise a better stock of chickens; better breed,
- (4) feed the chickens so they can produce better eggs, preferably some commercial feed,
- (5) sort eggs as to size, leave duck eggs and small guinea and Bantam eggs at home,
- (6) grade eggs as to quality by candling,
- (7) clean eggs; market clean eggs,
- (8) pen up chickens in summer,
- (9) keep eggs cool in summer,
- (10) produce infertile eggs.

Improvements in handling by country stores. Two produce dealers thought that country stores handled eggs satisfactorily. One dealer said that if farmers would candle eggs before they left the farm that the country store would not have to make any improvements in handling methods.

Improvements suggested were:

- (1) candle eggs purchased from farmers (preferably in front of the farmer),
- (2) grade eggs (candle and sort for size),
- (3) reject crax and dirties,
- (4) buy on a grade basis so they can resell on a grade basis.

Egg Dealers

Two Knoxville produce dealers dealt only in eggs and designated themselves as egg brokers.⁹ They conducted their business over the telephone and had no place of business other than their own homes. One of these dealers received, candled and sold eggs in his basement while the other candled eggs in his kitchen. Both dealers delivered to the people whom they sold eggs to.

Place of the egg dealer in the market channels. One of the dealers bought eggs directly from farmers and sold them directly to grocery stores as shown in Figure 57. The other egg dealer purchased eggs from country stores, farmers and from a party who may be designated as a huckster. This huckster was really a produce buyer operating over a wide territory. The second egg dealer, shown in Figure 58, not only sold to grocery stores, but had shipped some eggs to New York during certain seasons. This dealer also purchased and sold eggs to Knoxville produce houses.

9. None of the regular food brokers handled eggs.

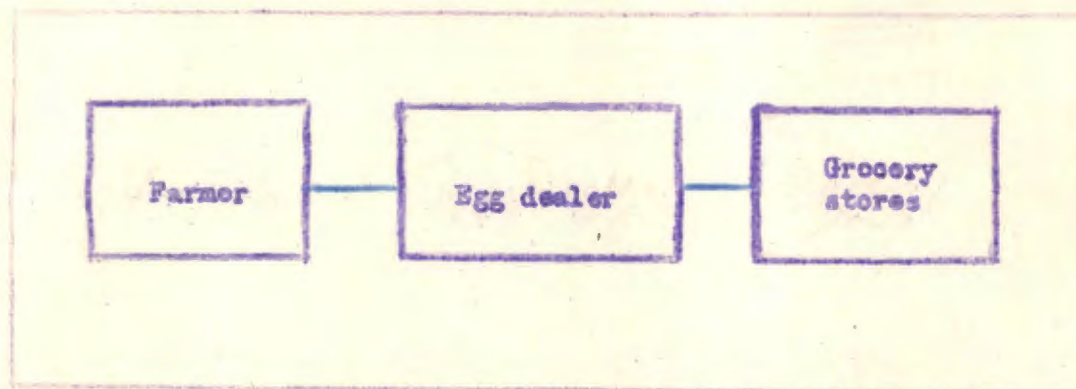


Figure 57. Place of egg dealer A in Knoxville egg marketing channels

Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

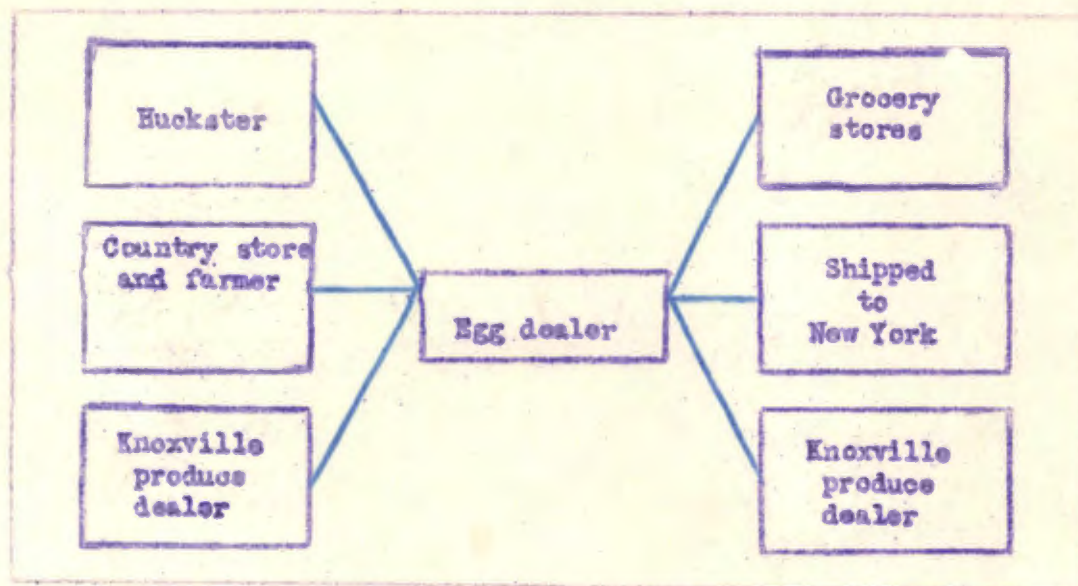


Figure 58. Place of egg dealer B in Knoxville egg marketing channels

Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

TABLE XLVI. EGGS AS HANDLED BY DEALER NUMBER ONE *

Total estimated number of cases	10,000
Percent purchased at home	66.6
Percent purchased at country stores and from farmers	33.4
Percent delivered to grocers	100.0
Percent sold to local wholesalers cancelled out with percent purchased from them	
Percent shipped to New York formerly less than 2.0%; none in 1942	

* Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

TABLE XLVII. EGGS AS HANDLED BY DEALER NUMBER TWO *

Total estimated number of cases	1,404
Percent purchased from farmers in town	100.0
Percent delivered to grocery stores	100.0

* Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

Seasonal movement of eggs into Knoxville as noted by two egg dealers.

One egg dealer had observed that there was hardly an egg to be found in the territory from August 15th to October first. From October on through the winter eggs became more plentiful reaching a production peak in March and April and declining to a few low quality eggs in June and July. He said that when eggs were plentiful in April and May, farmers were prone to bring them to town rather than market them in the country.

Peak purchase periods. One egg dealer purchased more eggs in the spring as he purchased all from farmers and they brought in more during the spring. The other egg dealer purchased more eggs in the months of June and July as he felt that farmers brought in eggs and cut the price in the spring, so he stepped out of the market picture at that time. He stepped into the market in June and July and attempted to supply grocery stores with eggs during these slack periods as the margin was greater then.

Changes. One egg dealer claimed that farmers made little or no attempt to control production and that they kept an inferior stock of chicken. The other dealer claimed that during the past 49 years farmers had gradually attempted (especially lately) to increase production in general and production during slack seasons. However, he felt that there had been a drop in production during the last year, because of the high cost of commercial laying mash and the difficulty in obtaining it.

Place of purchase. A candling and storage room in the basement of one egg dealer's house was the receiving depot for about 86.6 percent of the eggs handled. These eggs were brought in by country stores and the huckster. The other 33.4 percent were obtained by sending the egg dealer's truck to country stores to pick up eggs three times each week, or at least two times each week, in order to obtain fresh quality eggs.

The other egg dealer purchased eggs from farmers up town, usually on Market Square and at other prearranged meeting places.

Buying basis. One hundred percent of the eggs handled by the two dealers were purchased as current receipts and had had no previous grading. However, the more important egg dealer did not pay as much for eggs from one section as for eggs from another as he had been in the business long enough to know just what quality of egg to expect from certain sections. He had found that the best eggs come from Sparta in White County and that the worst eggs come from some parts of Union County. He also had found that eggs from around Sweetwater in Monroe County were of inferior quality. This same egg dealer purchased number 1's and current receipts on the Chicago and St. Louis markets when he had brought in eggs in past years.

Grading basis. One egg dealer sold a number 1 and number 2 grade of eggs. Both grades had been candled and the rots removed. The number 1's averaged 55 pounds to the case while the number 2's were the smalls and dirties. The grading basis was pretty wide as 27 out of 30 dozen usually graded number 1. This egg dealer had attempted to grade eggs by separating white and brown eggs but had decided that after the whites had been graded out that he was left with a less desirable lot of eggs to sell to other grocers who could not buy the graded number 1's. The other egg dealer also candled out all rots and graded on a two grade basis, large and small.

Candling. Both egg dealers candled eggs, but only to eliminate "rots". Fine distinction as to removal of eggs having blood spots, etc., were not considered necessary.

Losses due to poor quality. One egg dealer stated that rots and extremely small eggs accounted for three dozen out of every case during the summer but the percentage was less during other seasons, because of the decrease in number of rots.

Holding conditions. Eggs were picked up in the country by one egg dealer during the day and brought to Knoxville the same night. They were candled after four o'clock the following morning and delivered to grocery stores the same day. For that short period, not more than a day, the eggs were kept in a cool cement basement. Such holding conditions were probably better than those provided by any local produce house. Many eggs were also brought in by country store men during the day and were delivered to grocery stores, et cetera, within four and a half hours after they were received.

The other egg dealer's operations were so negligible, four to five cases each day, that he was able to buy, candle and resell eggs all in the same day and never held them more than one day. When held for that long, they were kept in the kitchen or on the back porch.

Storage. One egg dealer had stored eggs but has not done so for the past few years. When eggs were stored they were stored in April and May, but not after that as June eggs were considered of a poor storage quality. (The other egg dealer did not store eggs.)

Quantities of purchase and of sale. One egg dealer usually purchased eggs from country stores in 50 to 150 case lots and seldom in less than ten case lots. He in turn usually sold to grocery stores one or more cases at a time. Sometimes he sold a half of a case but never less

than a half case. The other egg dealer purchased and sold eggs in case quantities.

Days of purchase and sale. The largest egg dealer purchased the largest quantities of eggs on Wednesday, Thursday, Friday, and Saturday as produce dealers from Knoxville and other areas cleaned out country stores the first days in the week. (This way he avoided purchasing eggs which had been held over the week end.) He sold more eggs on the latter days of the week as that was when the grocery stores wanted them and when he picked up the largest quantities from country stores. The other egg dealer purchased all eggs from farmers who brought them to town and he had noticed no difference in days of purchase or sale.

Factors determining to whom sold. One egg dealer sold on the local market until the supply exceeded the demand, then he shipped to the New York market; that occurred only during April. The other egg dealer telephoned or called on grocery stores until the eggs he had purchased that day were sold.

To whom prefer to sell. One egg dealer preferred to sell in Knoxville as he figured he made more and that eggs required less handling. He had no preference as between grocery stores and other buyers. The other egg dealer preferred to sell in Knoxville and to grocery stores.

Improvements to be made by farmers. The two egg dealers listed the following improvements to be made by farmers:

(1) Improve the stocks of chickens; mongrel chickens neither produce good eggs nor provide good meat when sold for eating.

(2) Feed commercial laying mash and feeds. Feed less corn.

(3) Gather eggs three times each day instead of once every three days.

(4) Only market desirable eggs and leave home nest and small eggs.

Improvements to be made by country stores. The one egg dealer dealing with the country stores listed the following improvements:

(1) Provide better holding conditions; few if any of the stores provide special conditions or places to hold eggs. Most of them put eggs in any kind of container and stack them all together in a corner where they will be out of the way.

(2) Market them more often. Most country stores were observed by this egg dealer to not move eggs more than once a week. He attempted to pick up their supply at least two or three times a week in order to insure himself against avoidable losses. Country stores should provide cool places for eggs to be kept at night.

Live and Dressed Poultry

Knoxville produce houses purchased live poultry and turned it into a product ready for cooking. Knoxville produce houses have acted as concentration points and accumulated live poultry for a shipment to New York and other terminal markets. The live poultry business in Knoxville has never been static although some houses have found it more profitable or preferred to concentrate on dressing operations while others have dealt in live poultry exclusively. Originally the larger produce houses vacillated between dressing for local sale or shipping live, depending upon the New York price for live poultry, the state of local demand, the quantity of live poultry on the local market, and the shipping costs involved in selling in New York.

Although each individual firm's operations were well established at the outset of this survey, the picture has changed materially due to

the war. The main firm shipping live poultry to New York has begun dressing poultry and shipping to Baltimore and other markets as well as New York. An attempt will be made here to present the marketing picture as it was in 1942.

Origin of all live poultry by type of seller. Although all poultry originated on the farm it was not all sold directly to the Knoxville produce house by the farmer. Chickens, turkeys, ducks, geese and guineas all followed the same market channels; however all channels were not equally as important in the marketing of all kinds of live poultry. For example, chickens were most often marketed through country stores and rolling stores while farmers usually brought turkeys, ducks, geese, and guineas direct to the produce house. Country stores and rolling stores furnished 59.3 percent of all live poultry purchased by Knoxville produce houses. Country produce dealers were second in importance and furnished 21.2 percent of the total volume purchased. Other sources were farmers, 8.9 percent; other Knoxville produce houses, 8.1 percent; 2.5 percent imported from other states.

Origin of all live poultry by area. Live poultry was purchased from country stores, country buyers, and farmers in the same areas as for eggs, as shown in Figure 55.

TABLE XLVIII. SUMMARY OF ORIGIN OF LIVE POULTRY PURCHASED
BY NINE KNOXVILLE PRODUCE HOUSES,
1942 *

Source	All Live Poultry	Chickens	Turkeys	Ducks	Geese	Guineas
Total number of live poultry purchased, lbs.	5,065,755.1	2,901,762.5	149,900	10,234.6	2,560	1,298
Percent farmers	8.9	6.5	50.9	47.9	64.9	53.9
Percent country store and rolling store	59.3	60.3	44.2	27.0	18.9	25.0
Percent country produce dealer	21.2	22.2	2.6	16.7	10.9	18.4
Percent other Knoxville produce houses	8.1	8.4	2.3	8.4	5.3	2.6
Percent shipped in	2.6	** 2.6	-	-	-	-

* Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

** All poultry handled by Knoxville produce houses was purchased live. Those friers shipped in from North Carolina and Georgia to Knoxville produce houses were also live.

Origin of chickens. Sixty and three-tenths percent of the chickens purchased by Knoxville produce houses were purchased from country stores or rolling stores; 22.2 percent were purchased from country produce dealers. Knoxville produce houses purchased 8.4 percent of their chickens from other Knoxville produce houses. Carlot shipper produce houses purchased from other houses when there was a surplus of poultry and other dealers purchased from the shipper when there was not enough local poultry to meet the demand. In the early spring friers were shipped in from North Carolina and Georgia. Such shipments accounted for 2.6 percent of the total number of pounds of chickens handled by nine Knoxville

produce houses the year round.

Origin of turkeys. Most turkeys, 50.9 percent, were purchased directly from farmers. That was probably due to the fact that most of the turkeys were purchased during November and December and that there was sufficient money involved so that the farmer was interested in marketing the birds personally. Some Knoxville produce houses preferred to buy turkeys from the farmer, especially those farmers whose flocks they had been able to observe during the year. Country stores and rolling stores were the source of 44.2 percent of the turkeys handled while only 2.6 percent was purchased from country produce dealers. Only 2.3 percent of the turkeys were purchased from other Knoxville produce houses. That was due to the fact that one carlot shipper purchased 30 percent of his turkeys from Knoxville produce houses. One Knoxville produce house, most of whose business was retail, purchased ten percent of their turkeys from other Knoxville produce houses. The general practice in all the other seven produce houses was to purchase from farmers or country stores and rolling stores.

Source of ducks. Purchases of ducks were most important from farmers; 47.9 percent were purchased from farmers direct and 27.0 percent from country stores and rolling stores. Country produce dealers were the source of 16.7 percent and other Knoxville produce houses 8.4 percent. The reason so many were handled from other Knoxville produce houses was the same as for turkeys.

Source of geese. Approximately 64.9 percent of the geese were

reported as having been purchased from farmers. Country stores and rolling stores sold 18.9 percent of the geese purchased by Knoxville produce houses while country produce dealers only supplied 10.9 percent. Five and three-tenths percent was purchased from other Knoxville produce houses.

Source of guineas. Fifty-three and nine-tenths percent of the guineas were purchased direct from the farmer and 25.0 percent from country stores and rolling stores. Only 18.4 percent were purchased from country produce dealers and 2.6 percent from other Knoxville produce houses.

Place of Knoxville produce houses in chicken marketing channels.

Knoxville produce houses bought all chickens live from five different types of sellers, the country store and rolling store, country produce dealers, other Knoxville produce houses, farmers, and from other states. The Knoxville produce house either dressed the birds and sold them locally or shipped them alive. When figures for all Knoxville produce houses were considered together slightly more poultry was sold live than dressed. There were three outlets for live chickens, other Knoxville produce houses, large terminal markets such as New York, and sales to consumers direct. Shipments to large terminal markets was the most important method of sale. There were five outlets for dressed chickens, the most important of which was the grocery store. Hotels, restaurants and other large buyers were second in importance, the remainder being sold to consumers direct, to the local frozen food plant and to meat packing companies.

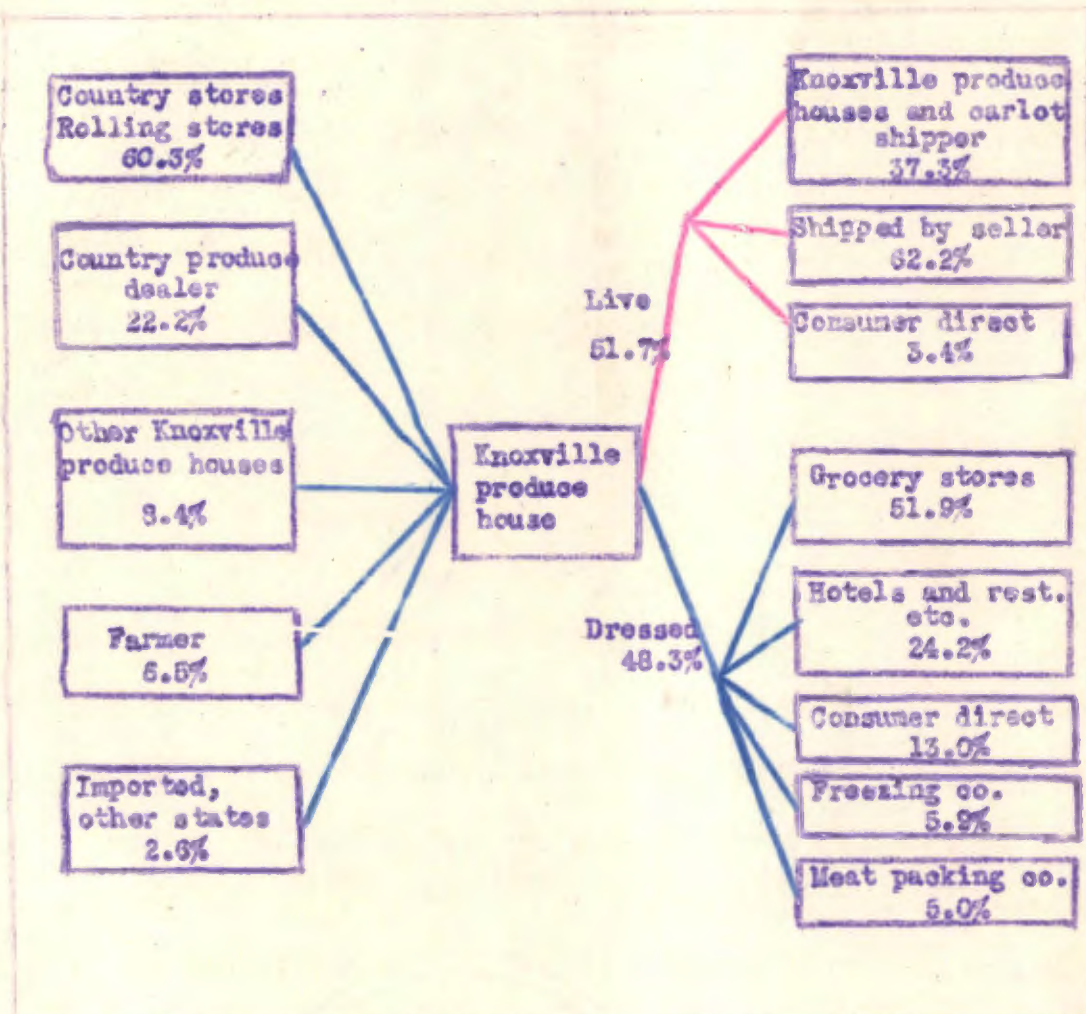


Figure 59. Place of Knoxville produce house in chicken marketing channels

Source: Tables XLVIII, L, and LI.

Place of the Knoxville produce houses in the turkey market channels. Turkeys are purchased from only four different kinds of sellers, farmers, country stores and rolling stores, country produce dealers, and other Knoxville produce houses. Farmers have been the most important source as produce houses preferred to buy from them and because farmers desired to market anything as valuable as turkeys personally. Turkeys were sold both live and dressed as shown in Figure 60, through the same outlets as chickens. The majority of the chickens sold live were shipped while the majority of live turkeys were sold to consumers direct. However approximately 91.2 percent of the turkeys were sold dressed, the majority of which were sold to grocery stores and the hotel and restaurant trade with only about 18.4 percent being sold to consumers direct.

Place of Knoxville produce house in the duck market channels. Farmers were also the most important source of ducks with country and rolling stores second in importance, country produce dealers third and other Knoxville produce houses last, as shown in Figure 61. Ducks were sold both live and dressed. They were sold live to other Knoxville produce houses especially one shipper and to consumers direct but over 57 percent were shipped to terminal markets. Over half of ducks dressed were sold to grocery stores, the remainder to hotels and restaurants and consumers direct.

Place of Knoxville produce house in goose marketing channels. Geese were purchased from the same types of sellers as ducks but a larger

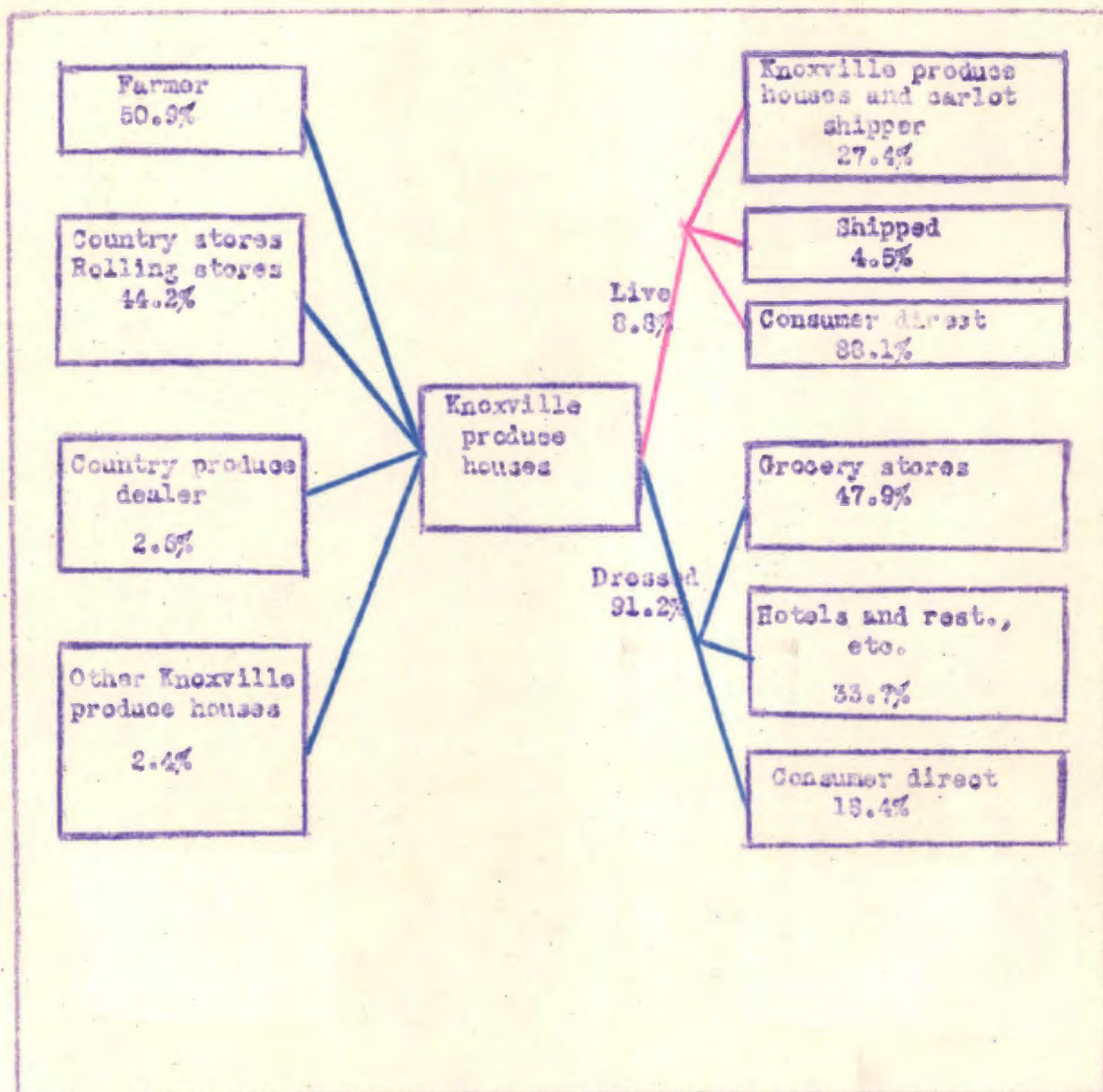


Figure 80. Place of Knoxville produce house in turkey marketing channels

Source: Tables XLVIII, L, and LI.

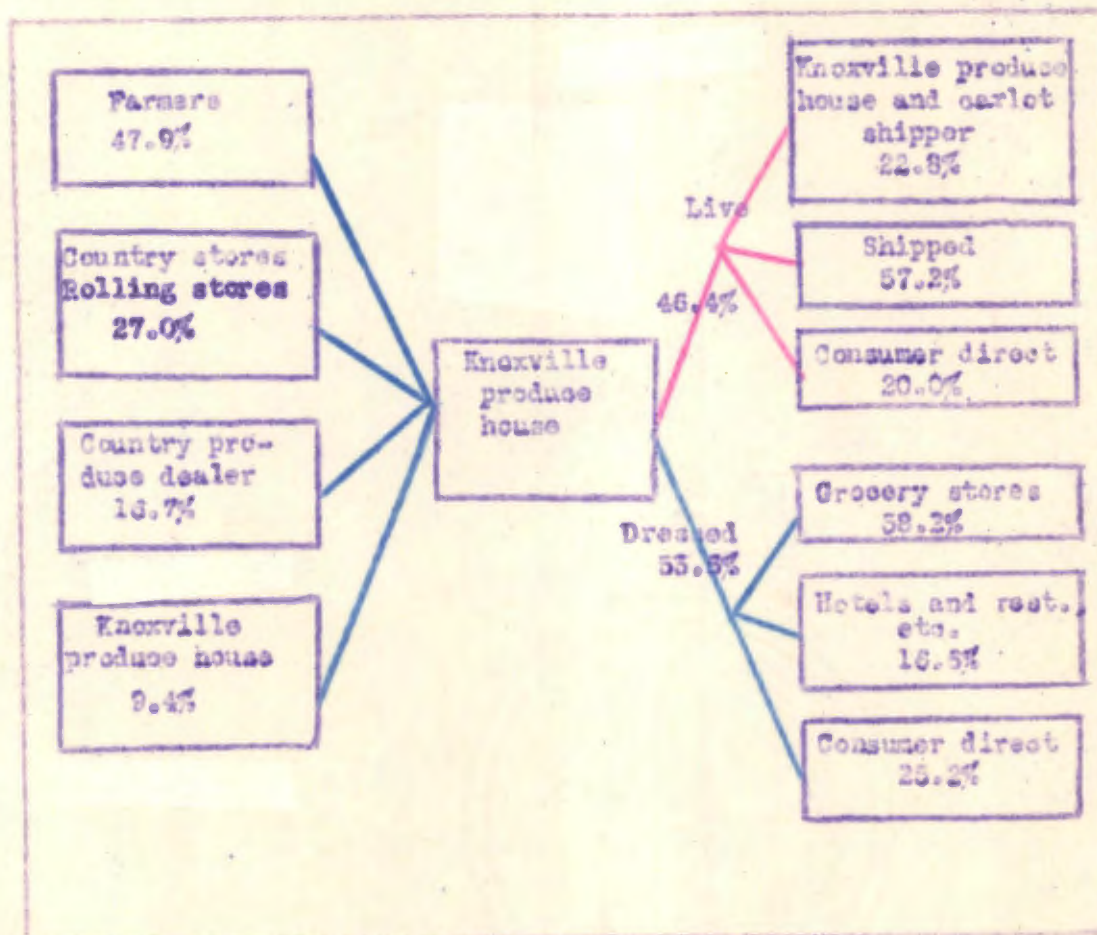


Figure 31. Place of Knoxville produce houses in duck marketing channels

Sources: Tables XLVIII, L, and LI.

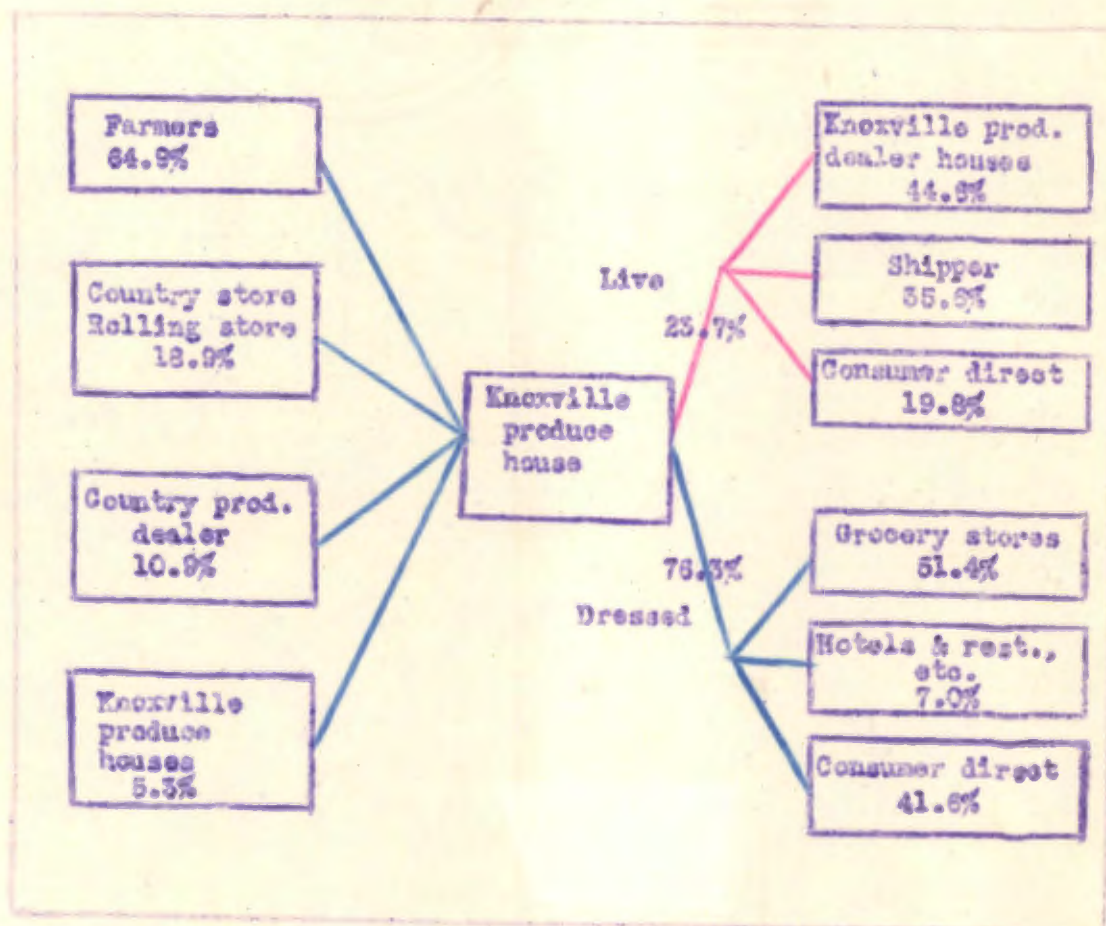


Figure 62. Place of Knoxville produce houses in goose marketing channels

Source: Tables XLVIII, L, and LI.

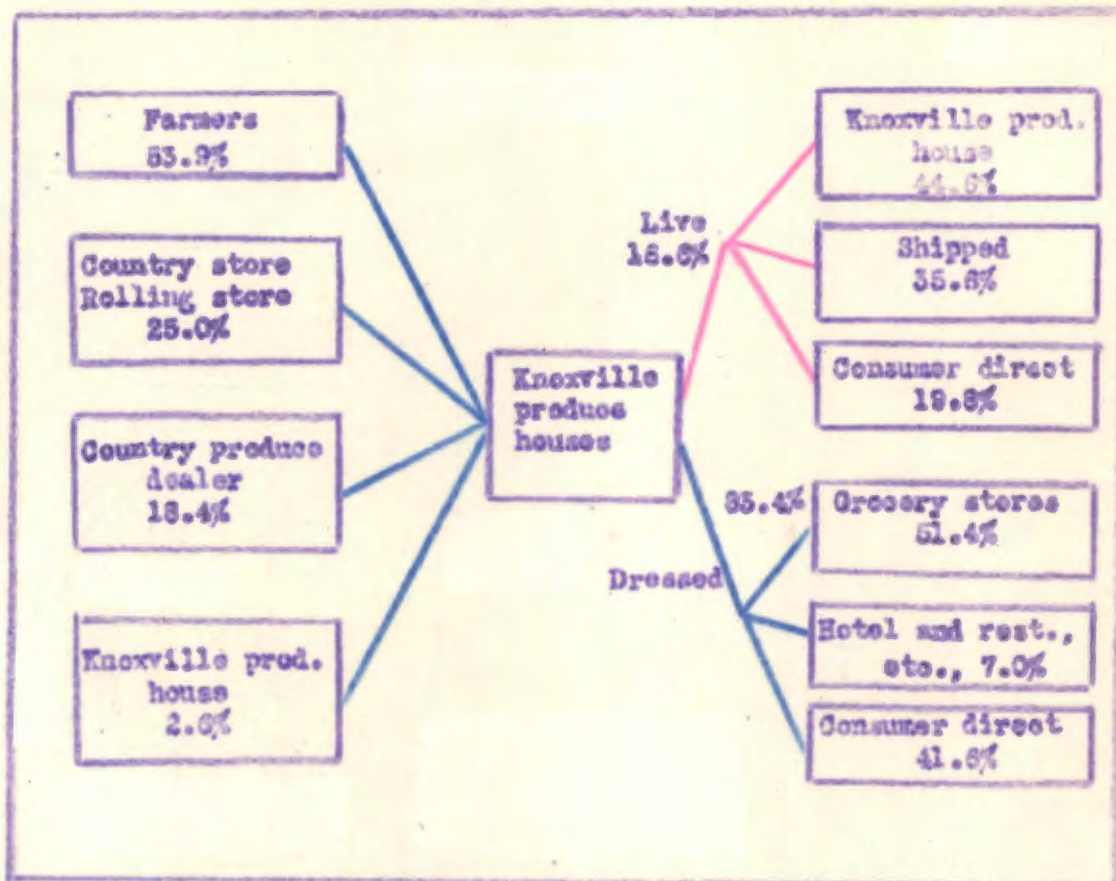


Figure 63. Place of Knoxville produce houses in guinea marketing channels

Source: Tables XLVIII, L, and LI.

percentage, 64.9 percent, was purchased from farmers. Less than one-fourth of the geese were sold alive, most of which went to other Knoxville produce houses which were either shipped or sold alive to consumers. Sales to grocery stores and direct to consumers made up nearly three fourths of the sales of dressed geese. Hotels and restaurants took only a relatively unimportant part of the dressed geese sold.

Place of the Knoxville produce houses in the guinea market channels. Guineas were purchased from the same types of sellers as ducks, as shown in Figure 63. However a larger percentage of guineas were purchased from country and rolling stores, and country produce dealers than had been the case with geese. Only a very small percentage were purchased from other Knoxville produce houses but a large percentage of the 18.6 percent sold live were sold to Knoxville produce houses. One of the produce houses buying this percentage of guineas shipped them live to New York and the other produce house sold the guineas live, which was the same picture as shown for geese. The dressed marketing picture for guineas as shown in Figure 63 was the same as for geese, as shown in Figure 62.

Season of Purchase of Live Poultry

Knoxville produce houses attempt to match the demand and supply of live poultry. Farmers market some poultry in response to favorable prices, some at their convenience. Demand is fairly seasonal in nature. Demand and supply do not always occur in the most desirable sequences. In order to obtain a picture of the demand and supply situation in the

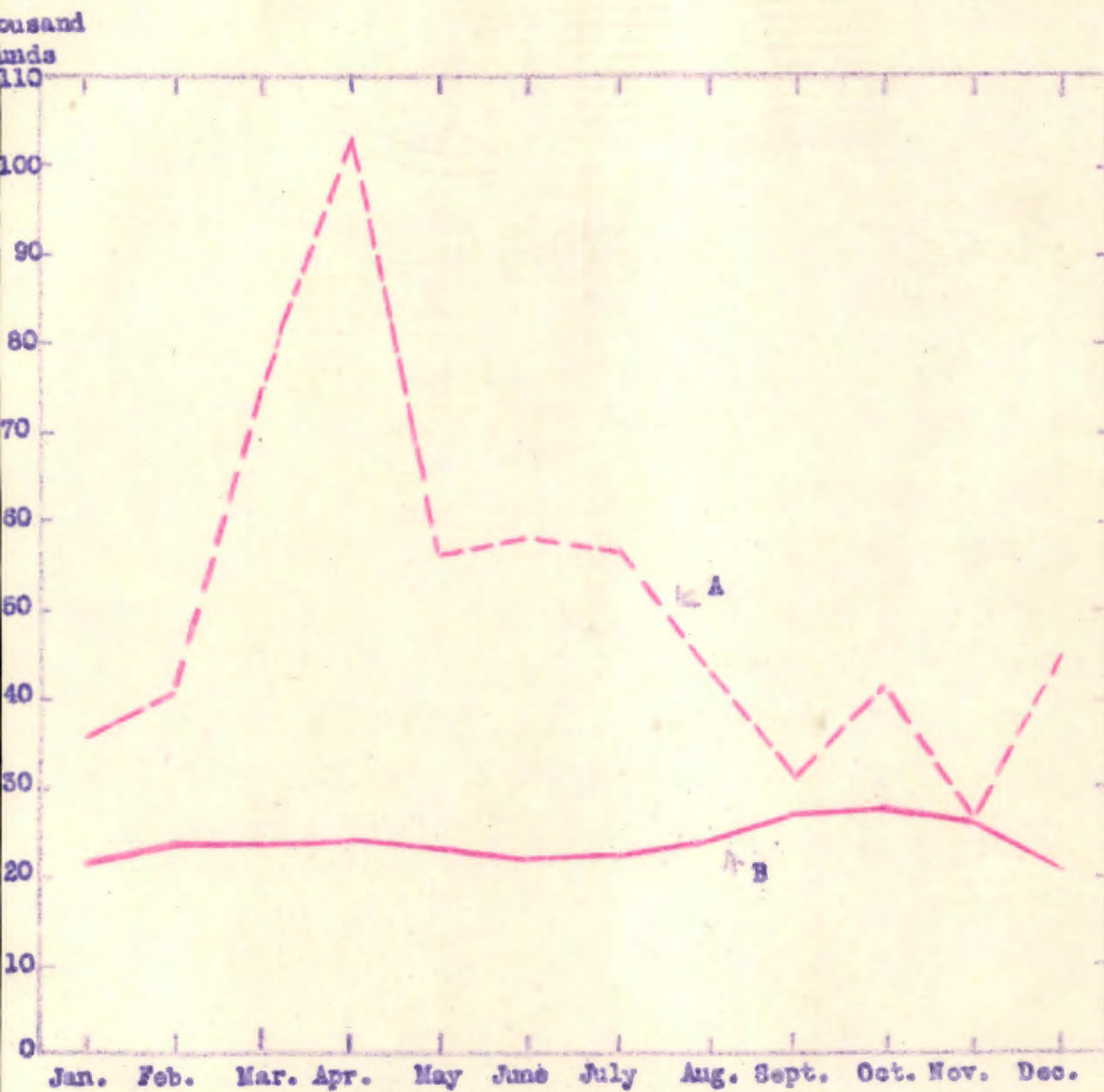


Figure 64. Total monthly purchases of all kinds of chickens by Knoxville produce houses A and B, 1942 *

* Source: Appendix D, Table I.

Knoxville market the live poultry purchases of two different kinds of Knoxville produce houses are shown in the following pages. One produce house, designated as A, was engaged in shipping by carlots. This house purchased all the live poultry it could, shipping most of it to New York, and selling some to other local produce houses which dressed poultry for local consumption. The other produce house, designated as B, was one of the smaller jobbing houses which purchased live poultry and sold dressed poultry to grocery stores, restaurants, et cetera.

Season of purchase of all chickens. Produce house A showed greater variations in 1942 than did produce house B. A's purchases were highest in April, approximately 103,463 pounds, and lowest in November, approximately 27,427 pounds. B, the produce house dressing poultry for local consumption purchased more poultry in September, October, and November with about 26 and 27 thousand pounds each month. The October purchases of both A and B were higher because of the large number of roosters and heavy friers purchased during that month. The first peak for A shown in Figure 64 was due to the purchase of heavy hens. The comparatively similar amounts purchased by A in June and July were due to the large number of friers purchased in those months. Spring purchases result from spring marketings to make room for new hatches, to keep the chickens out of the garden, and to obtain money to buy feed and chicks. Inasmuch as B's purchases represent, for the most part, movement into local consumer channels and A's represent shipment from Knoxville

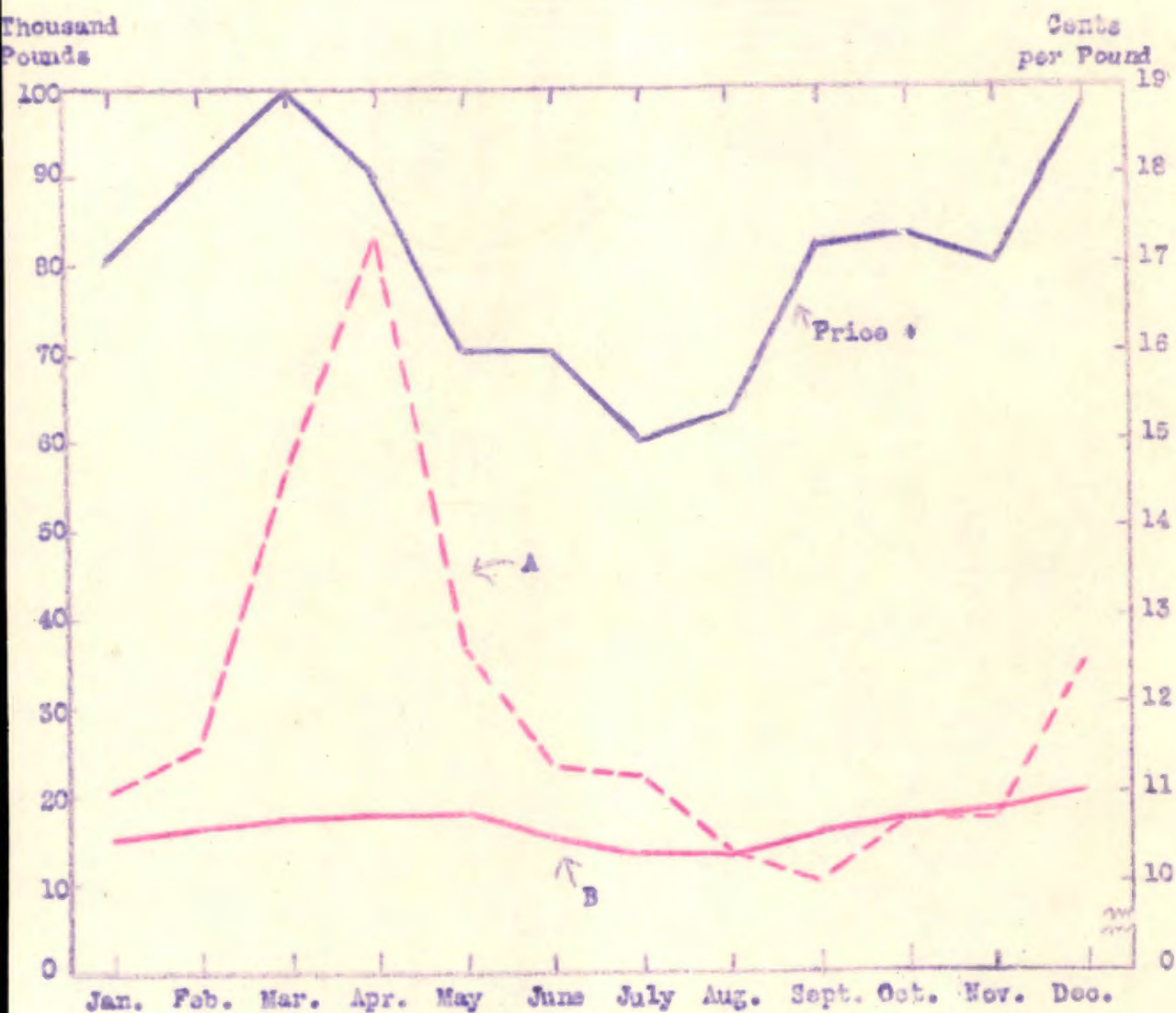


Figure 65. Total monthly number of pounds of hens purchased by Knoxville produce houses A and B, 1942 *

* Average monthly price for colored hens, local quotations, Knoxville Journal

Sources: Appendix D, Table X.

in part, it is important to note the difference in periods of purchase. A's purchases were heavier in the early spring and summer months, while B's purchases were comparatively heavier in the late summer and fall months. B's increased purchases in terms of pounds purchased, was influenced by the large number of heavy hens and roosters purchased during that time.

Season of purchase of hens. Produce house A purchased large quantities of hens during March, April, May, and June, 1942; approximately 56, 82, and 36 thousand pounds respectively. Most of these hens were shipped to terminal markets as local demand for hens was falling off, except during Easter holidays, and the demand for friers was becoming stronger. B's purchases showed that while local demand was strong during March, April, and May, the demand as evidenced by purchases was heaviest in October, November, and December. A's purchases also were up in October, November, and December.

The marketing of hens in Knoxville was similar to the marketing of hens in Kentucky during 1936-1940.¹⁰ In Kentucky, it was estimated by dealers that -

In marketing from farm flocks other than those supplying hatching eggs, the producers commonly select the heaviest hens for sale irrespective of age or laying conditions. Dealers estimate that probably 70 percent of the hens marketed are young hens or pullets, many in laying condition.

10. Roberts, J. B., Marketing and Pricing Chickens in Kentucky, Kentucky Agricultural Experiment Station, University of Kentucky, Bulletin 433, p. 6, June 1942.

The investigator has observed that the farm women who killed hens to sell in the Knoxville Market House not only sold cull hens during the spring months but hens which were obviously still laying. It is common for farm women to sell hens when the price of eggs begins to fall.

Season of purchase of springs. Purchases of springs and of Leg-horns by produce house A occurred in the same general seasons.¹¹ Produce dealer A's purchases of springs increased from 9,734 pounds in January of 1942 to 13,657 pounds in May of 1942. A peak of approximately 30,846 pounds was reached in June. Purchases declined to approximately 17,823 pounds in October and only 5,028 and 3,432 pounds in November and December respectively.

Springers appear on the market depending upon the time of hatch which depends upon the hen and the weather.

The seasonal pattern for spring chickens, shown in Figure 66, reaches a peak earlier than seasonal pattern for springers in Kentucky.¹² The bulk of Kentucky springers were marketed in July, August, September, and October. It was claimed that -

Exaggerated seasonal marketing at this time results in unfavorable prices when most Kentucky springers are sold.¹²

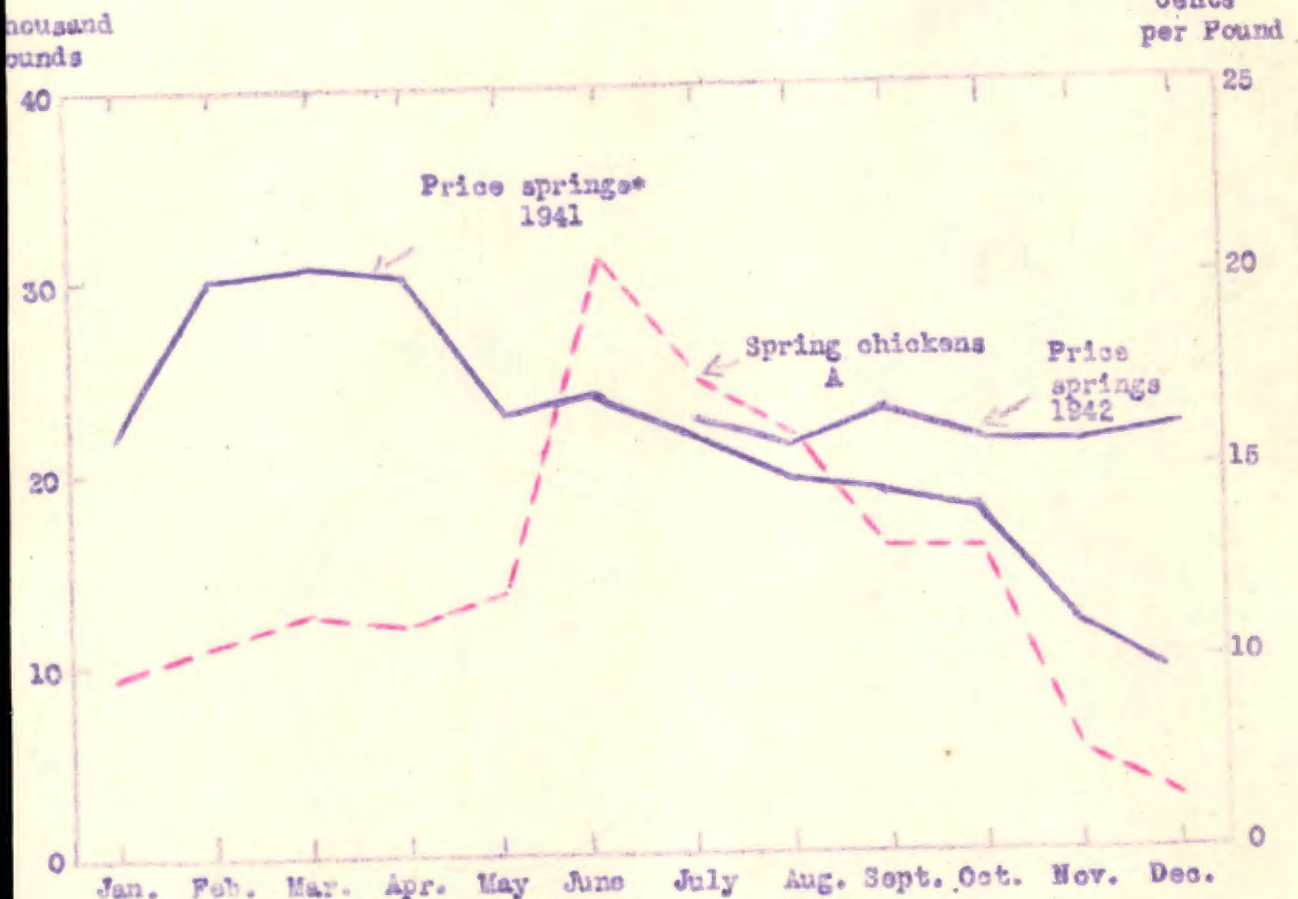
More springers were purchased by A in June, July, and August than in any other months.

When prices paid in 1941 are compared to quantity marketed in 1942

11. Springs are young chickens weighing 1 1/2 to 3 1/2 pounds live weight (sometimes designated as friers). Leghorn chickens are the same weights, only includes all white chickens of those weights. Weight depends on demand.

12. Roberts, J. B., op. cit., p. 7.

200.



* 1941 price for springers because complete 1942 data unavailable.

Figure 66. Total monthly numbers of pounds of spring chickens purchased by produce dealer A and price quotations, Knoxville Journal, 1942

Source: Appendix D, Table X. (Springs designated as friers in Appendix Table X)

(complete 1942 price data were not available) the same situation seemed to occur as occurred in Kentucky. Although Tennessee springers are marketed earlier, probably as a result of an earlier spring hatch, the price drops when the springs appear on the market in large quantities. Tennessee farmers have a slight price advantage in beginning marketing of springers one month earlier than the states farther north.

Season of purchase of friers and Leghorns. Both A and B did not list their produce purchases in the same classification; however, the periods of purchase of Leghorns and friers seemed similar. B's purchases of friers were about the same for the first five months of 1942, but increased from approximately 6,348 pounds in June to 8,247 pounds in July. Purchases continued to increase reaching a peak of slightly over 10,642 pounds in September. Purchases then decreased to approximately 3,721 pounds in December.

A's purchases of Leghorns were never more than 6,500 pounds in any one month and never less than 2,000 pounds in any one month. Peak purchase periods were April, July, and August. A's purchases of Leghorns increased from approximately 3,256 pounds in January to approximately 5,000 pounds in April. July, approximately 6,000 pounds, and August, approximately 5,191 pounds, were important months.

The price of Leghorn hens is shown in Figure 67. If there is any relationship between the two it is very slight as the price of Leghorn hens per pound never went over 15 cents and was never less than 13 cents.

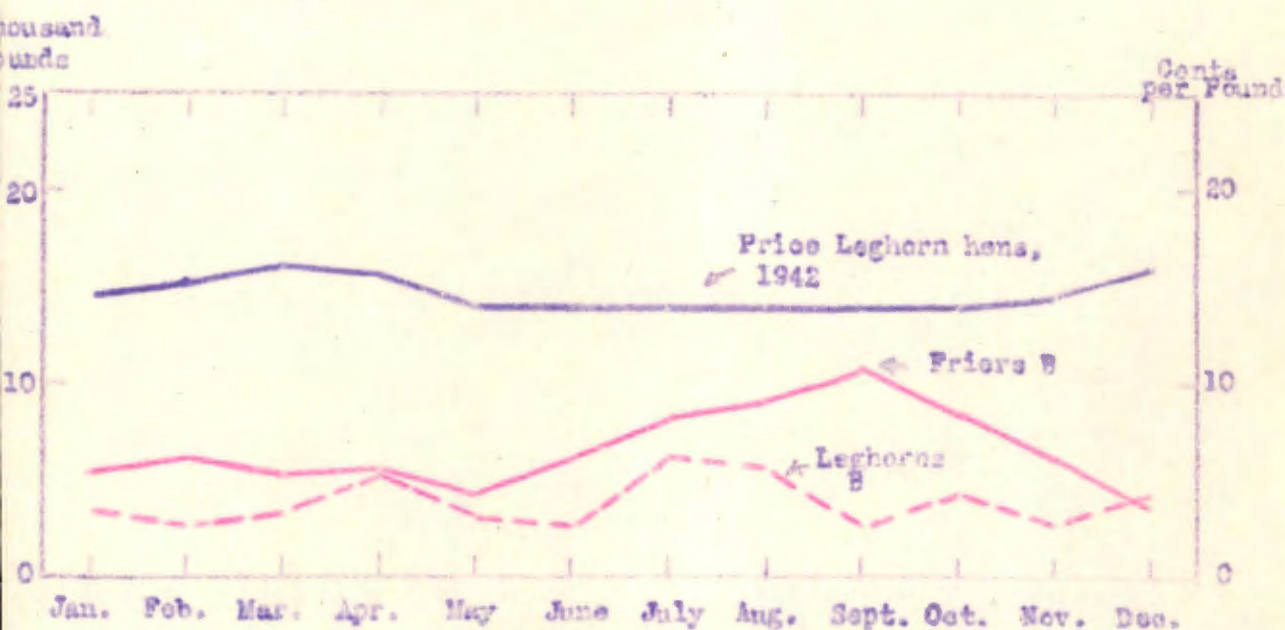


Figure 67. Total monthly purchases of pounds of friers by Knoxville produce house B, of pounds of Leghorns by Knoxville produce house A, and average monthly price of Leghorn hens, local quotations, Knoxville Journal, 1942

Source: Appendix D, Table X.

Season of purchase of roosters. Produce house A's purchases of roosters varied more than produce house B's. The highest month for A was April with approximately 4,000 pounds purchased and the lowest was February with only approximately 1,000 pounds. B's purchases were less varied. B never purchased more than approximately 1,600 pounds of roosters or less than a thousand pounds in any one month.

Peak purchase of roosters by firm A occurred in April, one month earlier than the peak purchase in Kentucky. The marketing of hens and roosters both reached their peak in April, while in Kentucky the peak for roosters lagged one month behind the peak marketing of hens.¹³ Hens and roosters are sold after the hatching season.

Season of purchase of turkeys. Turkeys were usually reported as purchased only during November and December by all Knoxville produce houses. A few turkeys were purchased the year round. One dealer claimed that quite a few turkey hens were brought in by farmers during February, March, and April, after such hens were no longer considered necessary.

Produce house A purchased a few, approximately 30 to 249 pounds each month and about 728 pounds in November. A's purchases were heaviest in December, approximately 2,000 pounds. B's purchases exceeded A's in both November and December with approximately 2,000 and 3,000 pounds purchased in each of the respective months.

13. Ibid., p. 6.

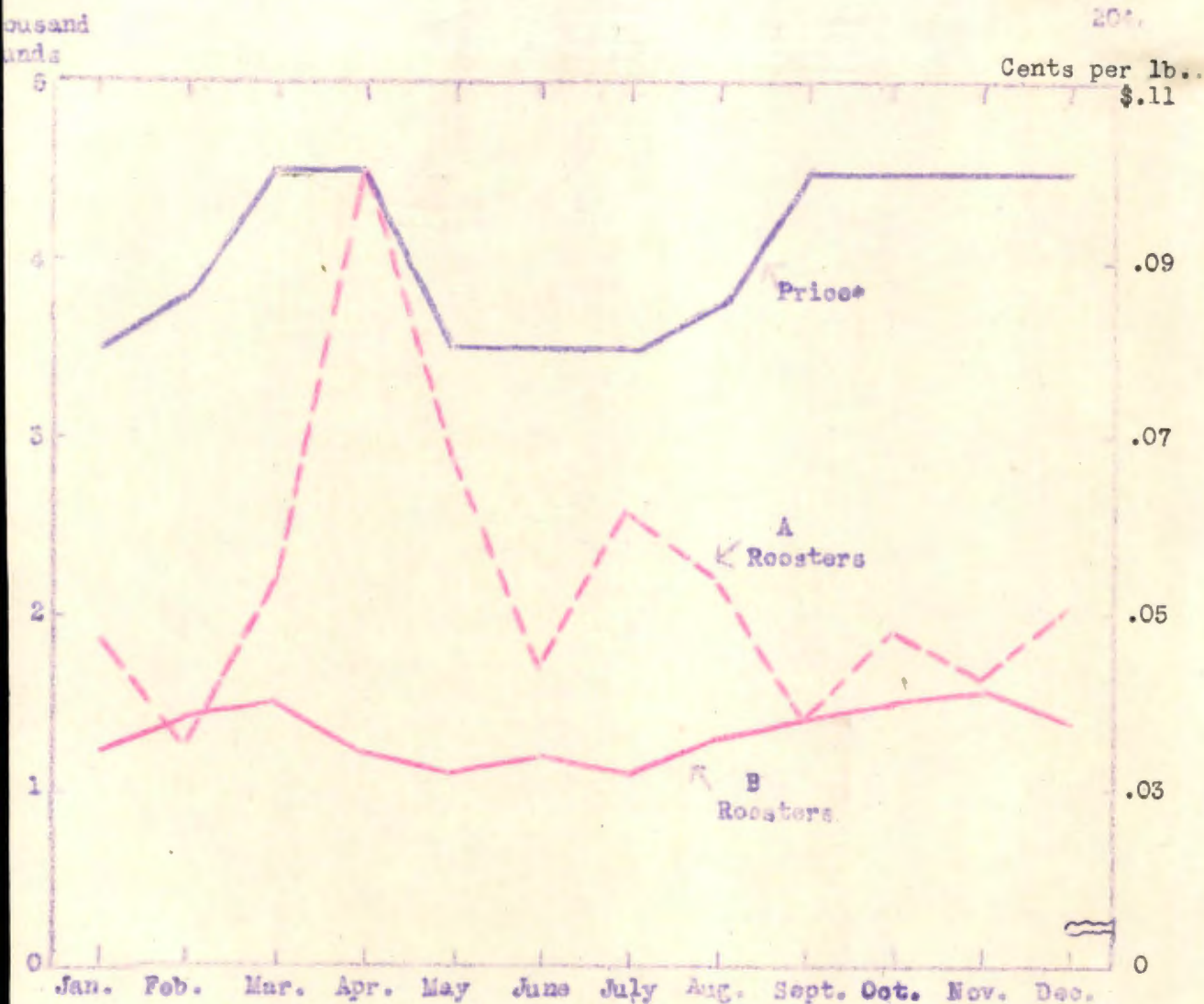


Figure 33. Total number of pounds of roosters purchased by produce houses A and B, 1942

Source: Appendix D, Table X.

* Price quoted for roosters, local quotations, Knoxville Journal, 1942.

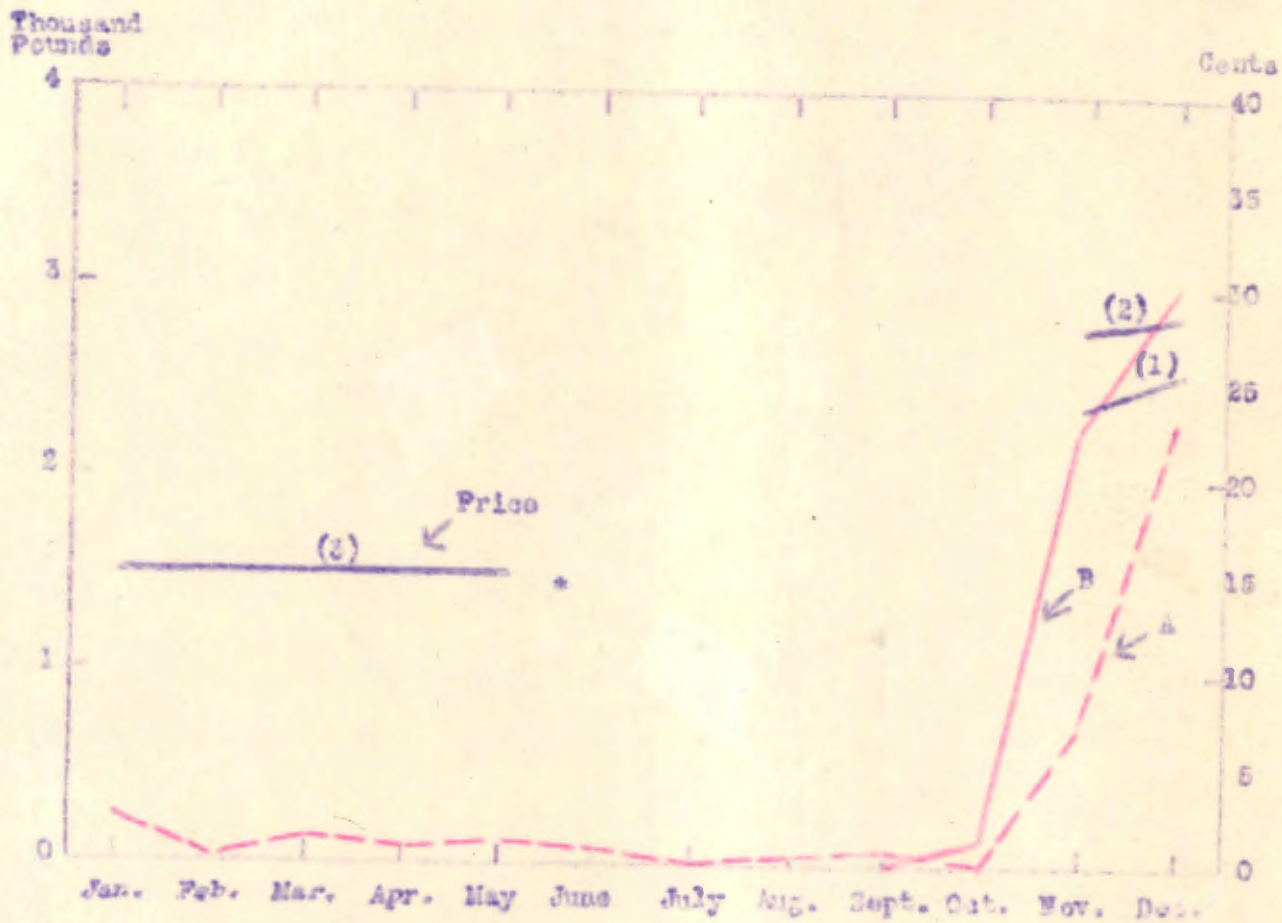


Figure 69. Number of pounds of turkeys purchased by Knoxville produce houses A and B, 1942

Source: Appendix D, Table X.

* No data available

- (1) Price of tom turkeys
- (2) Price of hen turkeys
- (3) Price of all turkeys

Season of purchase of ducks. Knoxville produce houses purchased a few ducks every month although they purchased the bulk of the amount they handled during November and December. Produce house B purchased 220 pounds in November and 243 pounds in December, and not more than 367 pounds the rest of the year. Produce house B purchased a few pounds every month. April and May were A's peak months with 381 and 520 pounds respectively. June, August, and October were all slightly over 200 pounds each while November and December were each less than 200 pounds each.

Season of purchase of geese. Five Knoxville produce houses purchased geese only during the holiday period and four reported purchasing a few geese the year round.

Produce house A purchased 38 pounds in August, eight pounds in October, 173 pounds in November, and 137 pounds in December. Produce house B purchased 63 pounds (at about 10 pounds each) in November and 115 pounds in December.

Season of purchase of guineas. Nine Knoxville produce houses reported purchasing a few guineas each month, only two of which reported purchasing more in November and December. Produce house B purchased approximately 11 guineas (at two pounds each) during 1942 while A purchased more than that in either November or December alone.

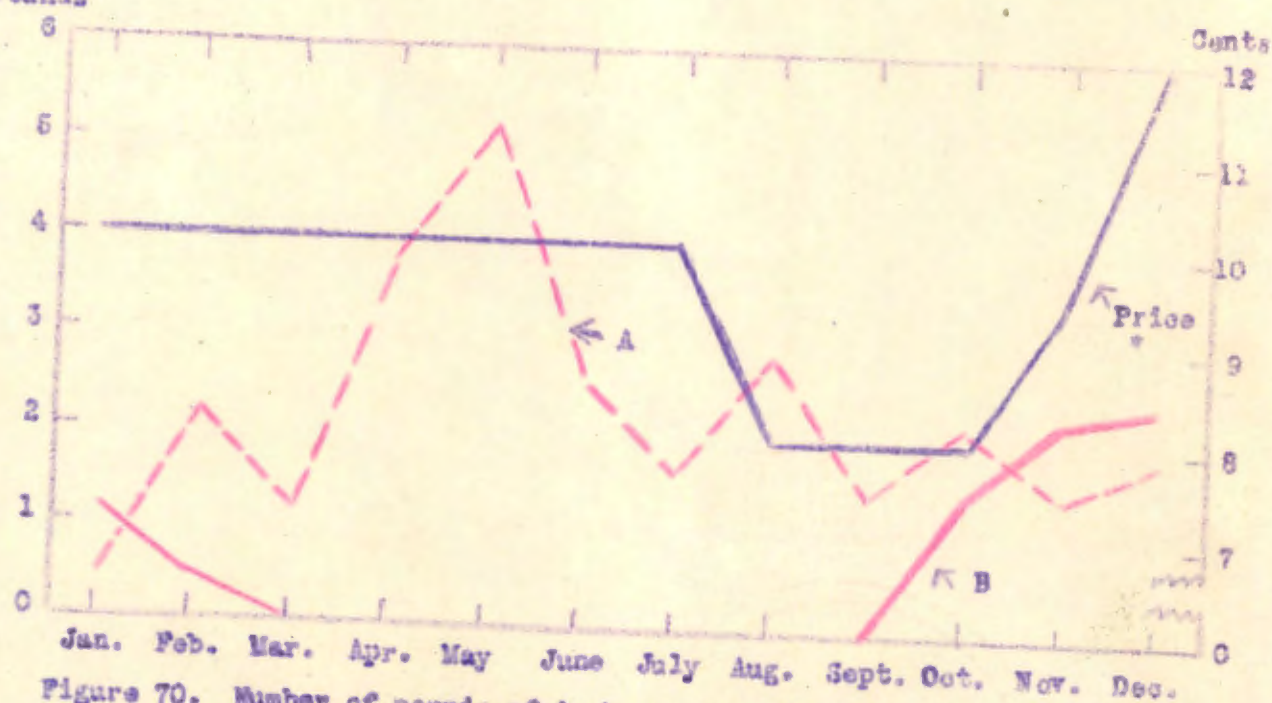
Hundred
Pounds

Figure 70. Number of pounds of ducks purchased by Knoxville produce dealers A and B, 1942 *

Source: Appendix D, Table X. 1942 *

* Average monthly price of ducks, local quotations, Knoxville Journal, 1942.

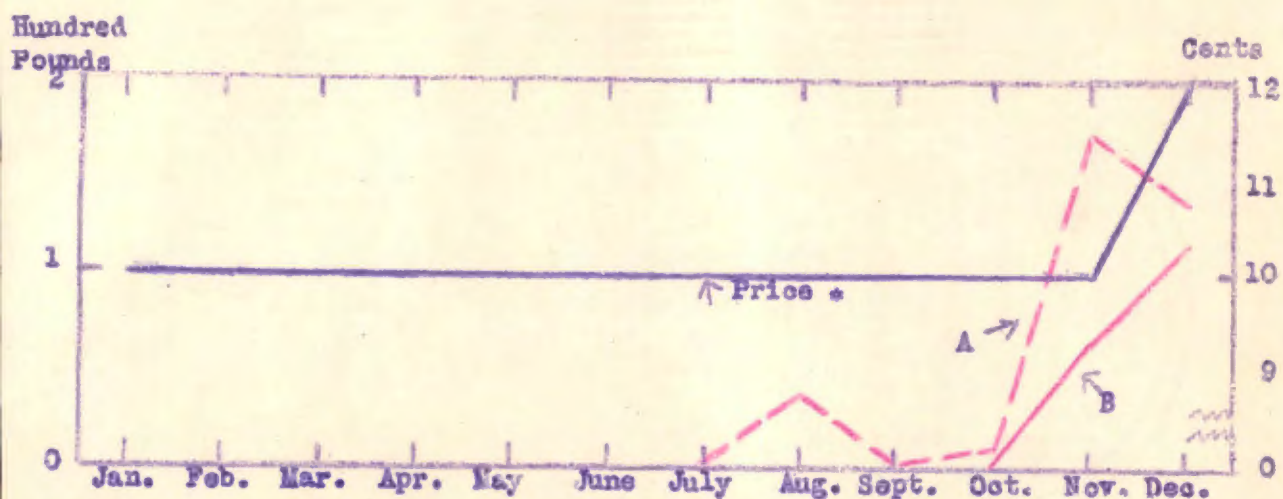


Figure 71. Number of pounds of geese purchased by Knoxville produce dealers A and B, 1942

* Average monthly price of geese local quotations, Knoxville Journal.

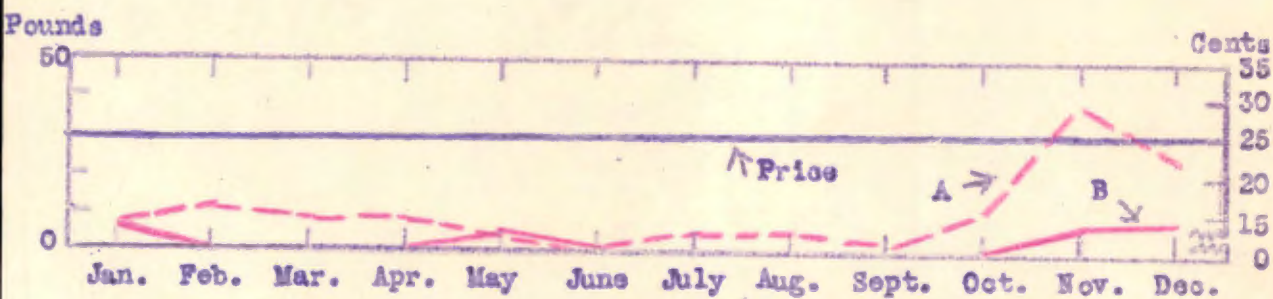


Figure 72. Number of pounds of guineas purchased by Knoxville produce houses A and B, 1942

Source: Appendix D, Table X.

Sale of live or dressed poultry. The number of pounds of all poultry sold live or dressed was influenced by the percentage of chickens sold live and sold dressed. Approximately 49.5 percent of all poultry handled by nine Knoxville produce houses was sold live. The percentage would not have been so high if two of the produce houses had not been carlot shippers who bought a considerable percentage of their live poultry from Knoxville produce houses and then shipped live over half of the poultry they handled. Approximately 51.7 percent of the chickens were sold alive. Only 8.8 percent of the turkeys were sold alive as it was customary for one of the carlot shippers to dress turkeys during the holiday season. A large percentage, 46.4 percent, of the ducks were sold live, because there was a better market for ducks in New York

TABLE XLIX. LIVE AND DRESSED POULTRY SALES OF NINE KNOXVILLE PRODUCE HOUSES, BY KIND OF FOWL, 1942 *

Kind of Poultry	Total Number of Pounds Purchased Live	Number of Pounds Sold Live	Percent Sold Live	Number of Pounds Sold Dressed **	Percent Sold Dressed
Chickens	2,901,762.5	1,499,159.2	51.7	1,402,603.4	48.3
Turkeys	149,900.0	13,204.5	8.8	136,695.5	91.2
Ducks	10,234.6	4,747.6	46.4	5,487.0	53.6
Geese	2,560.0	605.7	23.7	1,954.3	76.3
Guineas	1,298.0	215.6	16.6	1,082.4	83.4
All poultry	3,065,755.1	1,517,932.6	49.5	1,547,822.6	50.5

* Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

** Pounds live weight.

*** Some of the poultry sold live was sold to other Knoxville produce houses which in turn sold it dressed.

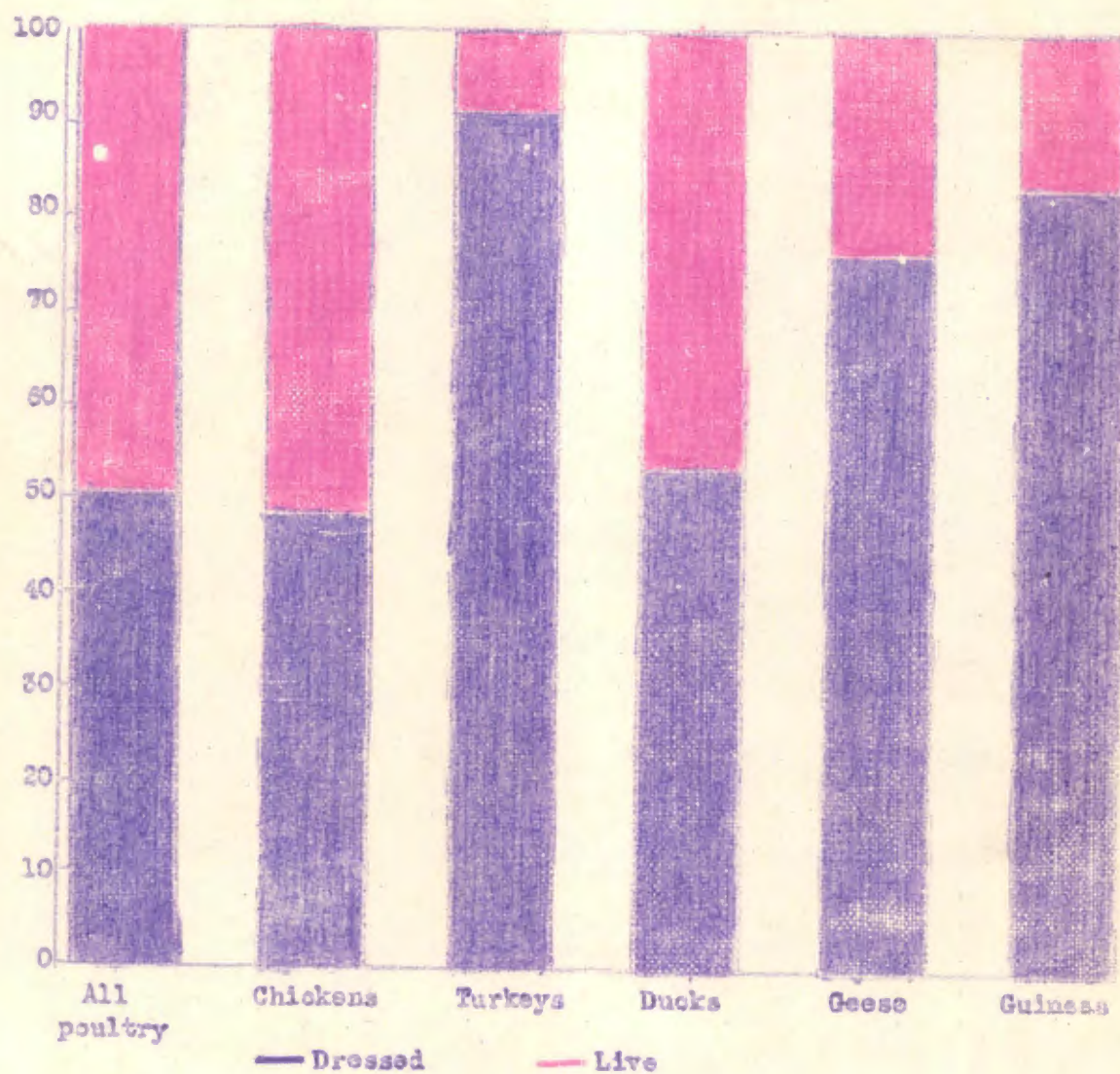


Figure 73. Percentage of poultry sold live and sold dressed, by nine Knoxville produce houses, 1942

Source: Table XLIX.

and with the Jewish and colored trade in Knoxville than with the grocery and other outlets in Knoxville. More geese and guineas were sold dressed than live as such a small number were handled.

Buyers of dressed chickens. Grocery stores purchased 51.9 percent of the dressed chickens; hotels, restaurants, et cetera, 24.2 percent; consumers direct, 13.0 percent; freezing plants, 5.9 percent; and meat packing companies 5.0 percent. The amount sold to freezing and meat packing companies fluctuated more than the amounts sold to other buyers.

Buyers of dressed turkeys. Approximately 47.9 percent of the dressed turkeys were sold to grocery stores; 33.7 percent to hotels, restaurants, et cetera, and 18.4 percent to consumers direct.

Buyers of dressed ducks. About 58.2 percent of the dressed ducks were sold to grocery stores; 16.6 percent to hotels, restaurants, et cetera, and 25.2 percent to consumers direct.

Buyers of geese and guineas. Grocery stores purchased 51.4 percent of the dressed geese and guineas sold by the nine Knoxville produce houses; consumers purchased 41.6 percent direct and hotels and restaurants purchased 7.0 percent direct.

Live poultry outlets. There were just three selling outlets for all live poultry. The largest number of chickens, turkeys and ducks sold live were shipped to terminal markets such as New York, except in the case of geese and guineas, which were sold to other Knoxville produce

TABLE L. PERCENTAGE DISTRIBUTION OF DRESSED POULTRY SOLD
BY NINE KNOXVILLE PRODUCE HOUSES, 1942 *

Destination	Chickens		Turkeys		Ducks		Geese and Guineas	
	No. of Pounds	Pct.	No. of Pounds	Pct.	No. of Pounds	Pct.	No. of Pounds	Pct.
Total no. of live pounds sold dressed	1,402,603.4	100.0	136,695.5	100.0	5,417	100.0	2,686.7	100.0
Grocery stores	728,605.4	51.9	65,532.1	47.9	3,151	58.2	1,380.4	51.4
Hotels, restau- rants, etc.	339,204.3	24.2	46,034.2	33.7	900	16.6	187.5	7.0
Consumer direct	182,214.4	13.0	25,129.2	18.4	1,366	25.2	1,118.8	41.6
Freezing plant	82,645.2	5.9	-	-	-	-	-	-
Meat packing company	69,934.2	5.0	-	-	-	-	-	-

* Source: Estimates from Knoxville Poultry and Egg Marketing Survey, 1942-1943.

TABLE LI. PERCENTAGE DISTRIBUTION OF LIVE POULTRY SOLD BY
NINE KNOXVILLE PRODUCE HOUSES, 1942 *

Destination	Chickens		Turkeys		Ducks		Geese and Guineas	
	No. of Pounds	Pct.	No. of Pounds	Pct.	No. of Pounds	Pct.	No. of Pounds	Pct.
Total number pounds sold live	1,499,159.2	100.0	13,204.2	100.0	4,747.6	100.0	1,121.3	100.0
Other Knox- ville produce houses	560,343.5	37.3	3,622.2	27.4	1,081.3	22.8	499.7	44.6
Shipped	933,615.7	62.2	8,992.5	68.1	2,716.3	57.2	399.1	35.6
Consumer direct	5,200.0	3.4	589.8	4.5	950.0	20.0	222.5	19.8

* Source: Estimates from Knoxville Poultry and Egg Marketing Survey, 1942-1943.

houses and thence to consumers both live and dressed. Only a relatively small percentage, 3.4 percent, of the chickens were sold alive direct to consumers. Sixty-two and two-tenths percent were shipped to terminal markets. Sixty-eight and one-tenth percent of the live turkeys sold were shipped to terminal markets. About 57.2 percent of the ducks sold alive were shipped to terminal markets and only 35.8 percent of the geese and guineas, combined.

Live poultry buying bases. Live poultry is purchased by market groups in Knoxville and in the area supplying Knoxville with live poultry. The prices are quoted, for example, for the following market groups, spring chickens, Leghorn chickens, Leghorn hens, colored hens, stags, roosters, ducks, geese, guineas and turkeys, at either so much per pound or so much each. It has only been in the last few years that different prices have been quoted for hen and tom turkeys. Each produce house operator may use a somewhat different buying terminology, but it all is on the basis of market groups and not grades of birds. The produce dealer lumps everything offered him in the same market groups at one price.

Selling basis. When customers pick out their own poultry to be dressed by the produce house, grade is not of any importance. When the produce houses dressed poultry they claimed to pick out the best to dress. However, the investigator observed that when orders were phoned in to the produce house that the specified number and kind of chickens were picked out and there was little selection practiced.

The live poultry shipped to New York was sold there on a grade basis but purchased in Knoxville on a market group basis.

When poultry was dressed for sale to meat packing companies and freezing plants in Knoxville those buyers were in a position to demand that the produce house assemble a large quantity of uniform birds for them.

Knoxville grocery stores did not individually purchase large enough quantities of dressed poultry to note much difference in quality. This would be especially true among stores which only ordered poultry once each week.

Improvements to be made by farmers in quality and quantity of birds marketed. Knoxville produce dealers were not particularly pleased with the quality of chicken they received, especially those coming from the area immediately surrounding Knoxville. The most common suggestions made by Knoxville produce houses were:

(1) to market poultry intelligently, i.e., pay some attention to the demands of the market and bring in chickens when they are ready and wanted, not just because the farmer takes a notion to market them,

(2) market chickens when they are the right size,

(3) feed the birds better,

(4) keep the birds clean,

(5) be sure they have plenty of water,

(6) start with good chicks of a good breed from the hatchery and take good care of them,

(7) raise only one breed,

(8) attempt to improve breeds.

It is not likely that much progress can be made in improving the market quality of poultry as long as those who produce the poultry are paid the same price per pound for grade A poultry as for grade C poultry. The factors which determine quality are complex, and improvement in quality will be slow; but the first requisite is an economic motive which graded buying with suitable price differentials would provide. The quality of market strains of poultry, by breeding for desirable market characters, by controlling diseases and parasites, and by following other good management practices. 15

Methods of and facilities for handling live market poultry.

Live poultry should be handled carefully while being moved to market. Heavy mortality and losses in quality frequently result from rough handling and failure to protect the birds against unfavorable weather conditions. The birds should be protected against rain or snow in cold weather and against heat during the summer. Birds exposed to draft while in transit often develop colds when placed in feeding stations and therefore lose weight.¹⁶

Live poultry in the Knoxville area is moved from farm to the produce house by many different kinds of automobiles and trucks, but always in wooden spindle coops. Farmers and country stores marketing poultry often have their own coops as do produce houses.

The spread of poultry disease could be reduced if poultry coops were never moved from farm to farm or from the poultry market back to the farm. 17

Although the preceding statement is probably true it is far from practical and certainly the opposite of the general practice in the Knoxville area. In Figure 74 is shown a truck in which poultry are shipped

15. Winter, A. R., Funk, E. M., op. cit., p. 495.

16. Ibid., p. 488.

17. Ibid., p. 488.



Figure 74. Truck for hauling live poultry. Note tarpaulin for covering coops, May 1943.



Figure 75. Chickens for sale on display, produce house window, May 1943.

from the Knoxville area to markets such as New York.

While awaiting sale, live poultry are kept in wooden or metal coops depending upon the produce house in which they were kept. Four of the produce houses also had large pens, just behind the front windows, in which many birds were kept. One had chickens in the window, as shown in Figure 75. One earlet shipper kept chickens in large metal batteries on the second and third floor of the produce house. Another had metal batteries in a cold back room. Three produce houses had sort of wooden arrangements resembling a rabbit hutch. Usually, in the summer, the poultry were kept very warm and in the winter the produce houses were cold and drafty. In one produce house, especially last spring, the observer noted that the back room was so cold that many friers, which had been raised in warm places, died within a day or so after being confined in such a place.

Very few of the produce houses could have been called sanitary. They were usually completely sprayed with some paint covering during the spring of the year. Although the coops were cleared of waste material about once a week or less often, they seldom underwent complete disinfection. Although produce houses were required to have fans at the front door to drive the flies out, there were always many swarming about.

Knoxville produce houses have an opportunity to maintain quality and possibly improve weight while holding live poultry for sale.

Provision of water and the right kind of feed could at least maintain the weight of the bird. The investigator observed that little,

if any, attention was given these matters. Water seemed a matter of small import and just any kind of feed seemed to be used, and in small quantities. When birds were to be killed for dressing, there was an advantage in light feeding, but that did not seem advisable when shipment was the object.

Maintenance of quality of dressed poultry.

Freshly killed poultry should be cooled as soon as possible. Cooling in cold water is sometimes used when the birds are killed for local consumption in local or nearby markets. Because several hours are required for cooling and the keeping qualities of the birds are reduced, water cooling has limited usage in poultry packing plants; however it is used in some plants as a supplement to dry chilling.¹⁸

In Knoxville produce houses dressing poultry for local consumption very little cooling is done. The chickens' throats are slit and as soon as they quit flopping they are dumped into a large drum of scalding water. The water has been observed to be so hot that only three or four quick motions of the hand are necessary to remove all the feathers. The chicken is then passed through another drum of hot water - the head and feet are then cut off and the entrails removed. The chicken is then dumped into cold water or cold water is run into the abdominal cavity. The giblets are replaced in the bird; it is weighed, put in a bushel basket and sent to the grocery store ordering it. All of these operations take only a very few minutes per bird. All of the produce houses were equipped with small ice coolers, but seldom used them except in preparation for a holiday rush, as it was customary not to kill chickens until they

18. Ibid., pp. 487-523.

were ordered. According to a Federal Inspector who recently visited these produce houses none of them operate under proper sanitary conditions. In one of the produce houses a dressing plant with a large capacity has been set up for dressing chickens to be shipped to markets outside of Tennessee. If the conditions under which such operations should be carried on are as shown in Funk's Poultry Science and Practice then the conditions in the Knoxville dressing plants are so inferior as to warrant only complete change.¹⁹ In the Knoxville dressing plant shipping poultry, all operations from killing to packing in iced barrels is carried on in the same basement room. Ventilation has been provided for, but that is about all. The plant is relatively new and improvements may be made when the operators have been in the business longer.

New York price for poultry less important today. To the two Knoxville produce dealers who shipped poultry, the New York price had for years been the factor determining to whom they would sell. If the New York price of live poultry was enough higher than the Knoxville price so that shipping would be profitable they shipped everything. Local demand used to be of secondary importance to the two shippers. At the time of writing both firms were experimenting with dressing more and more poultry, both for shipping and for local consumption. Two other produce houses also used to ship to New York depending upon the New York price. However, they have built up sufficient local trade and local demand has been so good for the past few years that they no longer think

19. Ibid., pp. 487-523.

of shipping, but dress all poultry for local consumption. Two establishments, which should really be classed as retail produce houses, sold most of their poultry dressed although much of it is picked out while still alive by the buyer. Two produce houses sold all poultry dressed, to the local market until local demands had been met. If they still had surplus poultry on hand one produce house sold it live to another produce house while a second produce house shipped the poultry live or dressed, depending upon whichever way it would bring the greatest profit.

Knoxville produce houses have found themselves in a particularly difficult situation as concerns meeting local demands for poultry, because farmers have not always seemed inclined to market poultry when local demand was best and the consumers would usually purchase only poultry killed within the last 24 hours. For example, one produce house had found itself with a great deal of surplus poultry on hand and had frozen it for sale at a later date. This produce house was finally able to dispose of it through a hotel but grocery stores would not buy it. This produce house has not tried freezing any more. It is expensive to hold live poultry for too long a period of time.

In general, it may be said that the New York price of live poultry used to determine whether poultry was dressed and sold in Knoxville or shipped to New York. Now the local demand is the important factor. Knoxville produce houses, except shippers, prefer to fill all the local

demand for poultry and then ship the surplus to New York if they do not feel it would be profitable to hold it until local demand again picked up.

Some prefer to sell poultry live and some prefer to sell it dressed. One firm, although doing some dressed poultry business, preferred to sell nearly all its poultry live to a Knoxville produce house which was also a carlot shipper. This produce house preferred to sell to the shipper as it did not figure dressing paid for the trouble it made. Three produce houses, two of which were also engaged in shipping in carlot quantities, preferred to handle poultry live as they figured it was less trouble that way. One produce house, although important as a retail establishment, still sold much of its poultry live as it had a large colored and Jewish trade. The two shippers who preferred to sell live were very decided on that question when interviewed in November and December of 1942. However, by June of 1943 one had added a dressing plant to his operations and another was figuring on a large eviscerating plant. It had become no longer profitable for them to ship live poultry in large quantities, under then existing government regulations. The other five produce houses preferred to dress poultry not only because they filled the demand of retail stores, but because they thought there was more profit in dressing poultry than in just collecting it for sale to a shipper.

Possibility of shipping dressed poultry. As mentioned before,

one Knoxville produce house is now shipping dressed poultry instead of live poultry. These operations have not been under way long enough to make valid comparisons between the cost and efficiency of shipping live poultry as against shipping dressed poultry from Knoxville. Under present Government price ceilings, by shipping to Baltimore in preference to New York, the produce house shipping dressed instead of live poultry has been able to realize two cents more per pound in profit.²⁰

A dressing plant depends upon a continuous volume of poultry. This dressing plant in Knoxville is only one branch of a larger produce house operating in Rogersville, Tennessee. With so many buyers sending poultry to the Knoxville dressing plant, volume should be sufficient and continuous. To be successful a dressing plant depends upon buying volume at low prices. However, the price will not be dropped too low or the volume will not be forthcoming. Knoxville will benefit from such a dressing plant as more persons are involved in the operations than in shipping live poultry.

Comparison of poultry marketing through Knoxville produce houses and Kentucky produce houses. Some of the marketing problems faced by Knoxville produce houses and Kentucky produce dealers are similar. The following statement is as applicable to the Knoxville area as to Kentucky.²¹

20. Interview, Mr. J. Harrison, May, 1943.

21. Roberts, J. B., op. cit., p. 14.

The problem of marketing Kentucky poultry and eggs consists mainly in assembling small lots of poultry and eggs from the farms and accumulating a volume large enough for economical handling and shipment. Many producers sell chickens in lots of 2, 5, or 10 and market eggs in baskets of 5, 10, or 15 dozen. These marketings are irregular, noncontinuous, and seasonal. ...

Although Knoxville produce houses are not entirely dependent on assembling small lots from farmers, they do assemble slightly larger lots from country buyers who purchased the poultry and eggs from the farmer in small lots. It was reported that Kentucky dealers received such a conglomeration of different classes and qualities of chickens that in some seasons they marketed them as mixed loads. There is seldom a truck or a car of live poultry leaving Knoxville that is not mixed.

Grading practices in Kentucky have evidently been similar to what was found to exist in the Knoxville area. Roberts had the following to say about grading practices in Kentucky:

22

First, chickens do not lend themselves to exact classifications. Both wholesale markets and individual buyers grade and classify poultry according to their own standards. Second, there is much confusion among buyers in any given market because grades lack definition and standardized application. Furthermore poultry is perishable and its quality subject to change. Third, purchases from small farm flocks include all sizes, breeds, and sexes in a volume which does not warrant the application of refined weight, sex, age, and quality classifications.

When chickens are bought without being graded, payment is made solely on the basis of number and average weights. Such a system offers no incentive to the careful producer who has poultry of better than average quality. In some sections larger buyers recognize quality by paying premiums for especially desirable lots, but the practice is not general and producers may or may not receive the benefit.

22. Roberts, op. cit., pp. 15 and 16.

The whole organization of Kentucky country marketing was similar to that in the Knoxville area.²³ However, in Kentucky egg buyers were licensed and some accurate count was therefore available on the actual number of buyers. This is not the case in the Knoxville area.

As in the case of Kentucky, poultry is purchased in the Knoxville area in small lots and passed along from dealer to dealer until enough is accumulated to ship to eastern terminal markets or to sell locally. Roberts found that the Kentucky poultry buyers' outlets were limited by the volume handled.²⁴ Roberts concluded that:

A review of the economic position of each kind of country buyer shows that only the carlot shipper is in a position to send full truck lots, 6,100 pounds or more, to distant markets the year round. All other kinds of buyers have fractional truckloads and become dependant upon nearby markets or carlot shippers during a part of the year. The carlot shipper is thus placed in a key position between country districts and wholesale live poultry markets in consuming centers. Farm prices in most sections of Kentucky are dependant upon or closely aligned with those offered by the carlot shipper.²⁴

This has been the situation in the Knoxville area up until the last few years when local demand has been sufficient to challenge this price leadership. The carlot shipper is still important as he markets those few pounds of surplus that would force down the price on the local market.

23. Roberts, op. cit., p. 17.

24. Ibid., pp. 24 and 25.

Roberts believed that more direct marketing would increase prices paid to farmers. He declared that,

The margin taken by each handler is relatively small, though the total margins in marketing cost bulk large The more times the produce is resold before it is finally consumed the less, proportionately, the farmer may expect to receive for it. The number of steps which a producer can eliminate depends upon the location of his farm with respect to markets. 25

Some farmers have realized that this situation exists in the Knoxville area and have found it possible to sell direct to the consumer and thus bypass all these handlers. Such a solution will not solve the problem of marketing poultry at higher prices to farmers.

The pricing, grading, and buying practices that all dealers are forced to follow under competitive conditions demand that they pay less than the poultry and eggs are worth. The risk element in buying current receipt eggs, and mixed classes and qualities of poultry must be charged somewhere, therefore one farmer receives less than his poultry is worth and another more.

25. Ibid., pp. 40 and 41.

CHAPTER VIII

KNOXVILLE MEAT PACKING COMPANIES AND MILK PLANTS AS POULTRY AND EGG MARKETING AGENCIES

Meat packing companies and milk plants sell products other than their leading products as an accommodation to their customers and as a supplementary enterprise. Poultry and poultry products are supplementary products sold by Knoxville meat packing companies. Knoxville milk plants sell only eggs, as a supplementary poultry product. Meat packing companies handle these products in greatest volume and so will be considered first.

A. Meat Packing Companies

Knoxville meat packing companies, including branches of nationwide meat packing companies, sell both poultry and eggs in Knoxville and in their trade territories surrounding Knoxville.¹ In general meat packing companies serve a rather select trade calling for a certain grade of product, especially during the holiday season.

There are four meat packing companies in Knoxville, all of which sell eggs, and three of which sell poultry. Two of the companies are local concerns but federal inspected general livestock slaughterhouses,

1. Two of the companies, branches of nationwide concerns, have limited trade territories set by their parent companies. The two local companies have unlimited trade territories; these companies have limited their trade territories since the war began.

engaged in interstate business, the other two are branch distributing houses of large nationwide meat packing companies. Of the three meat packing companies selling poultry, only one does any dressing of poultry and then only such finish work as is required on rough dressed poultry purchased from Knoxville produce houses. The two other meat packing companies sell dressed poultry only in the capacity of distributors of a finished product.

Amount and Value of Poultry and Poultry
Products Sold

When sales of poultry and poultry products by the four companies are considered together egg sales are more important than all poultry sales combined, in terms of value. However, the margin required is probably less than on dressed poultry. Of an estimated \$437,004 worth of poultry and poultry products sold by Knoxville meat packing companies in 1942, 71.2 percent was attributable to egg sales; 23.2 percent to the sales of dressed chickens; 3.7 percent to the sales of dressed turkeys; 1.9 percent to the sale of ducks.

Approximately 36,703 cases of eggs have been sold annually by four Knoxville packing companies; however, only about 30 percent of which were sold in the city of Knoxville, the remainder being sold in the respective meat packing company trade territories outside of Knoxville.

Three of the meat packing companies have usually sold about 411,000 pounds of chickens both full and feather dressed. Only 32.9 percent of these chickens were sold in the city of Knoxville.

TABLE LII. ESTIMATED QUANTITIES AND VALUE OF POULTRY AND EGGS
SOLD BY KNOXVILLE MEAT PACKING COMPANIES,
1942 *

Item	No. of Companies	Estimated Amounts Handled, 1942	Estimated Prices Received, August 1942	Value	Percent of Total Value
Eggs, cases	4	36,703	\$9.45/case	\$346,843	71.2
Chickens, lbs	3	411,000	.275	113,025	23.2
Turkeys, lbs.	3	55,700	.230	17,824	3.7
Ducks, lbs.	3	38,800	.240	9,312	1.9
Geese and guineas, lbs.	2	**	-	-	-
			Total	\$487,004	100.0

* Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

** Two meat packing companies handled geese and guineas but only so seldom they were unable to give estimates on quantity sold. Usually such poultry were purchased locally for resale to friends.

*** Prices received by meat packing companies in August of 1942 kindly furnished by Mr. Garner of the East Tennessee Packing Company. Although the prices for poultry are for feather-dressed poultry all poultry were not sold that way. Sales included full-dressed and feather-dressed poultry.

August prices 1942

Chickens, feather-dressed, fancy	.275 cents per pound
Turkeys, feather-dressed, choice	.32 cents per pound
Ducks, fancy Long Island	.24 cents per pound
Eggs	(.315)
U. S. Extras	.335
Standards	.295

Approximately 55,700 pounds of turkeys have been sold annually by Knoxville meat packing companies, 67.8 percent of which were sold in the city of Knoxville.

Approximately 38,800 pounds of ducks have been handled annually by three Knoxville meat packing companies, about 82.0 percent of which were sold in the city of Knoxville.

Place in Marketing Channels

Chicken marketing channels. Knoxville meat packing companies buy dressed chickens from Knoxville produce dealers and from branches of their parent companies, or other packing companies. Packing companies sell chickens to grocery stores, hotels, restaurants, and institutions in their respective trade territories, Knoxville included. Inasmuch as only one packing company in Knoxville even so much as process-dressed the poultry, one could hardly class the packing companies as a whole as dressing plants. In reality the packing companies are distributors of a uniform grade of chickens to a trade demanding large quantities of uniform grades.

Turkey marketing channels. All the turkeys handled by Knoxville meat packing companies were imported from other areas and states either full dressed or feather dressed.² Turkeys evidently were not purchased locally. Again, the meat packing company was merely a distributor,

2. Feather-dressed birds required less refrigeration than full dressed birds.

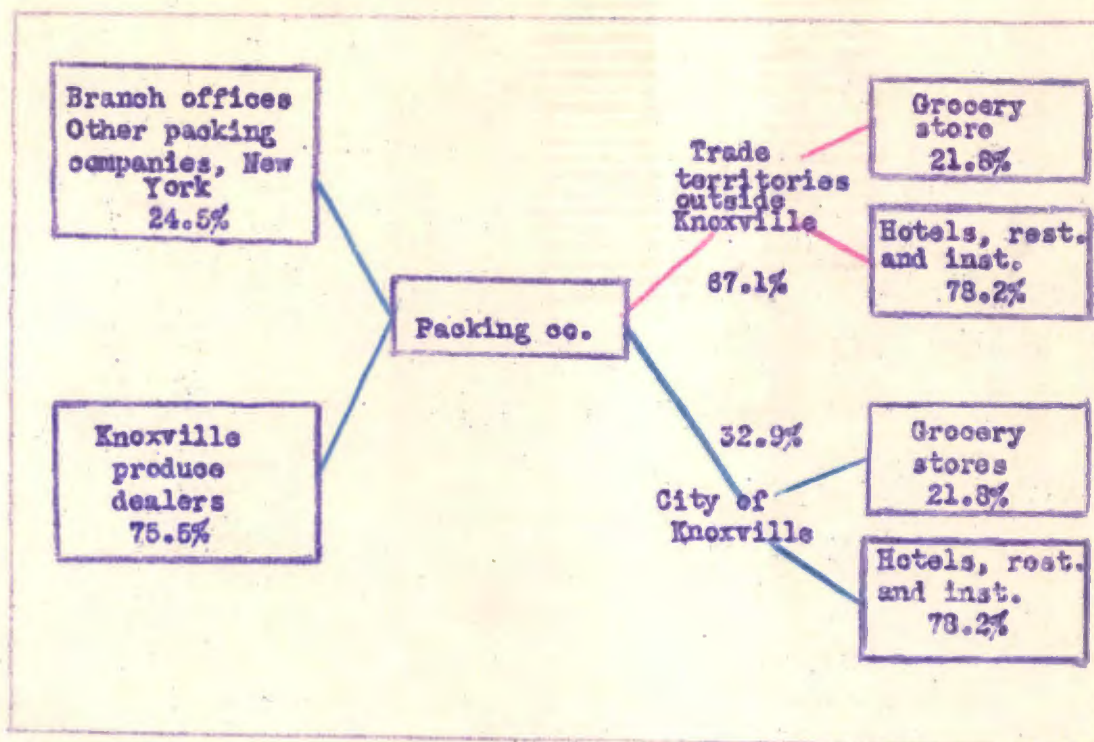


Figure 76. Place of Knoxville meat packing companies in chicken marketing channels

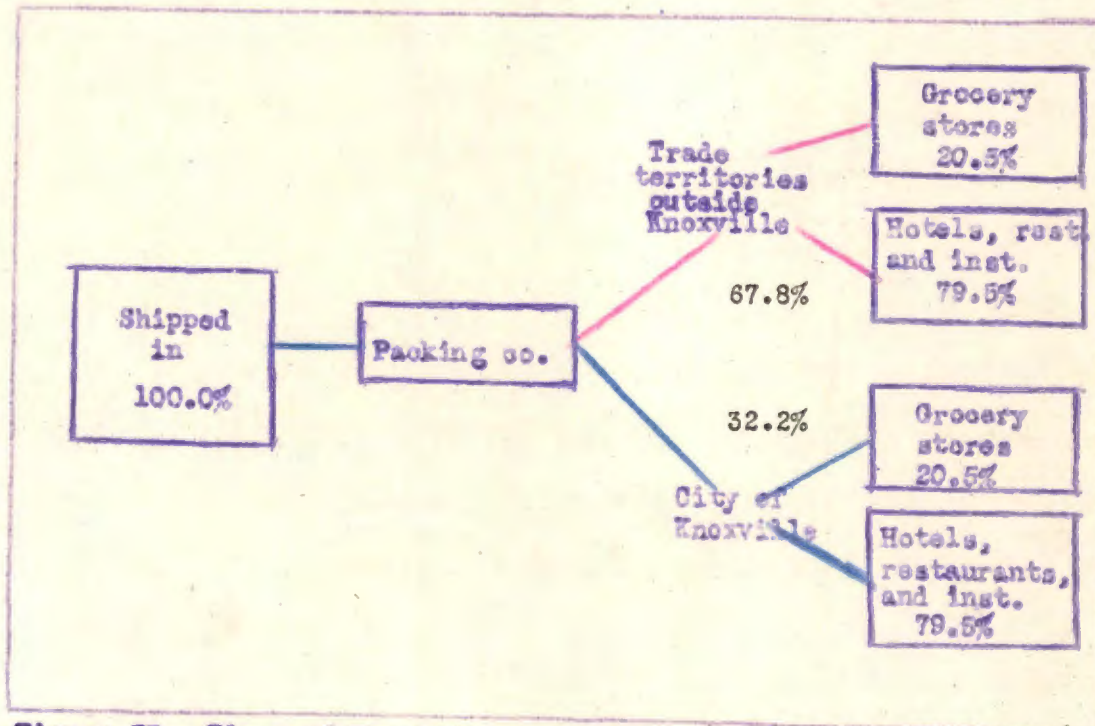


Figure 77. Place of Knoxville meat packing companies in turkey marketing channels

Source: Tables LIII and LIV.

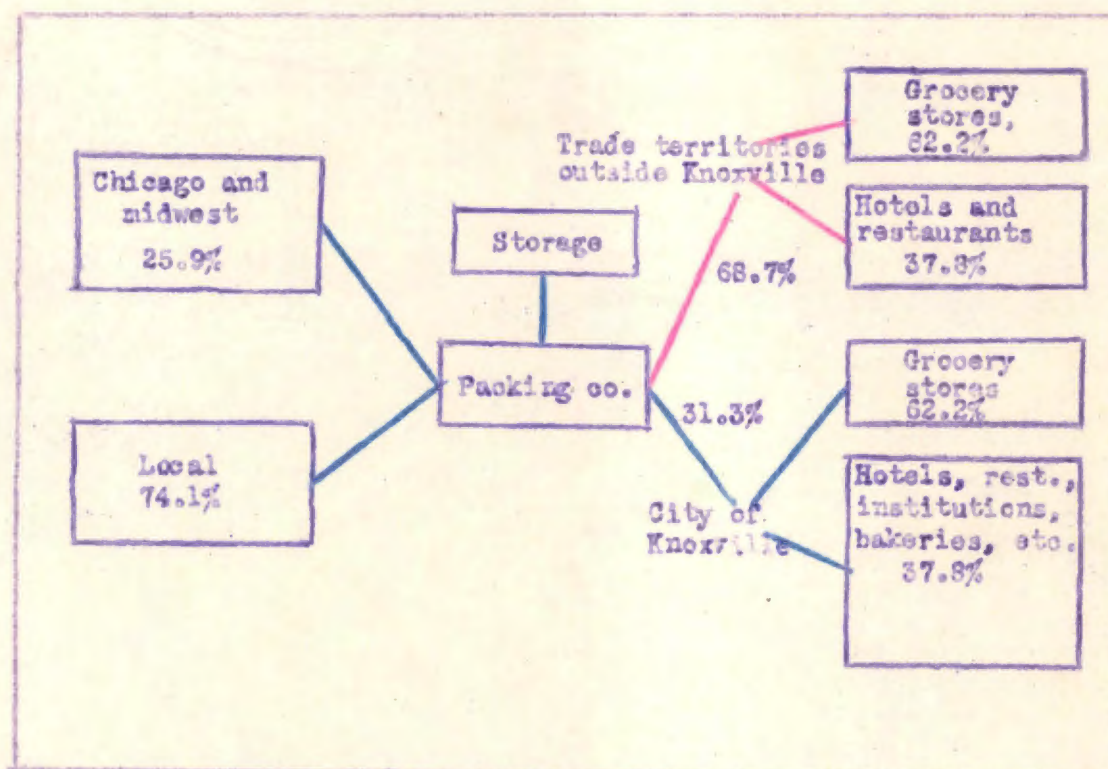


Figure 78. Place of Knoxville meat packing companies in egg market channels

Source: Tables LVII and LIV.

providing an exacting trade with a quality produce in large quantities such as was not available locally.

Egg marketing channels. Meat packing company egg marketing services are storing, importing, grading and distributing. (Eggs are better graded by meat packing companies than by other marketing agencies in Knoxville.) Meat packing companies purchased eggs in the Knoxville area, stored them and also imported eggs from other areas and states. By importing they provide their customers in their trade territories with graded eggs when eggs are scarce.

Source of Dressed Poultry and Eggs Handled by

Knoxville Meat Packing Companies

Source of dressed chickens. Twenty-four and five-tenths of the packing companies purchases of chickens were from Knoxville produce dealers, and 75.5 were from the other branches of the packing company or from the Chicago market. One company purchased all the dressed poultry it handled from its other branches in Nashville and in Texas. Another company purchased full-dressed birds from the midwest, usually through the Chicago market, and when the demand was sufficient to make it profitable some feather-dressed birds were secured from New York. Another packing company purchased chickens from Knoxville produce dealers only during the spring months. The birds imported from other markets were either frozen or iced.

Source of turkeys. Nearly 100 percent of all turkeys handled by

Knoxville meat packing companies were imported from other areas. They originated in dressing plants in Nashville; Louisville, Tennessee; Des Moines, Iowa; and in Texas. A few have been imported feather-dressed from New York.

Source of ducks. All the ducks handled by Knoxville meat packing companies were reported to be Long Island ducks and were purchased from New York or from other dressed poultry markets. They were imported in barrels. None were purchased locally.

Source of geese and guineas. Geese and guineas were handled by only two local packing companies, and then so seldom that there was little or no information available about them. When they were bought and sold, they were purchased from Knoxville produce dealers to fill special orders for personal friends of the packing company personnel.

Poultry buying areas. Dressed poultry bought and sold by Knoxville meat packing companies was either imported or purchased from produce dealers

TABLE LIII. ORIGIN OF POULTRY AND POULTRY PRODUCTS HANDLED BY KNOXVILLE MEAT PACKING COMPANIES, 1942 *

Source	Chickens		Turkeys		Ducks		Eggs	
	Total Lbs.	Pct.	Total Lbs.	Pct.	Total Lbs.	Pct.	Total Cases	Pct.
Total amt. handled	411,000	100.0	55,700	100.0	38,800	100.0	36,703	100.0
Imported, other areas	100,695	24.5	55,700	100.0	38,800	100.0	10,500	25.9
Purchased locally	310,305	75.5					26,203 ¹	74.1

1. 300 cases were purchased as graded eggs as they were graded eggs which had been imported from other areas by a Knoxville produce dealer. All other eggs purchased locally were purchased as "current receipts" or "rehandled eggs".

Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

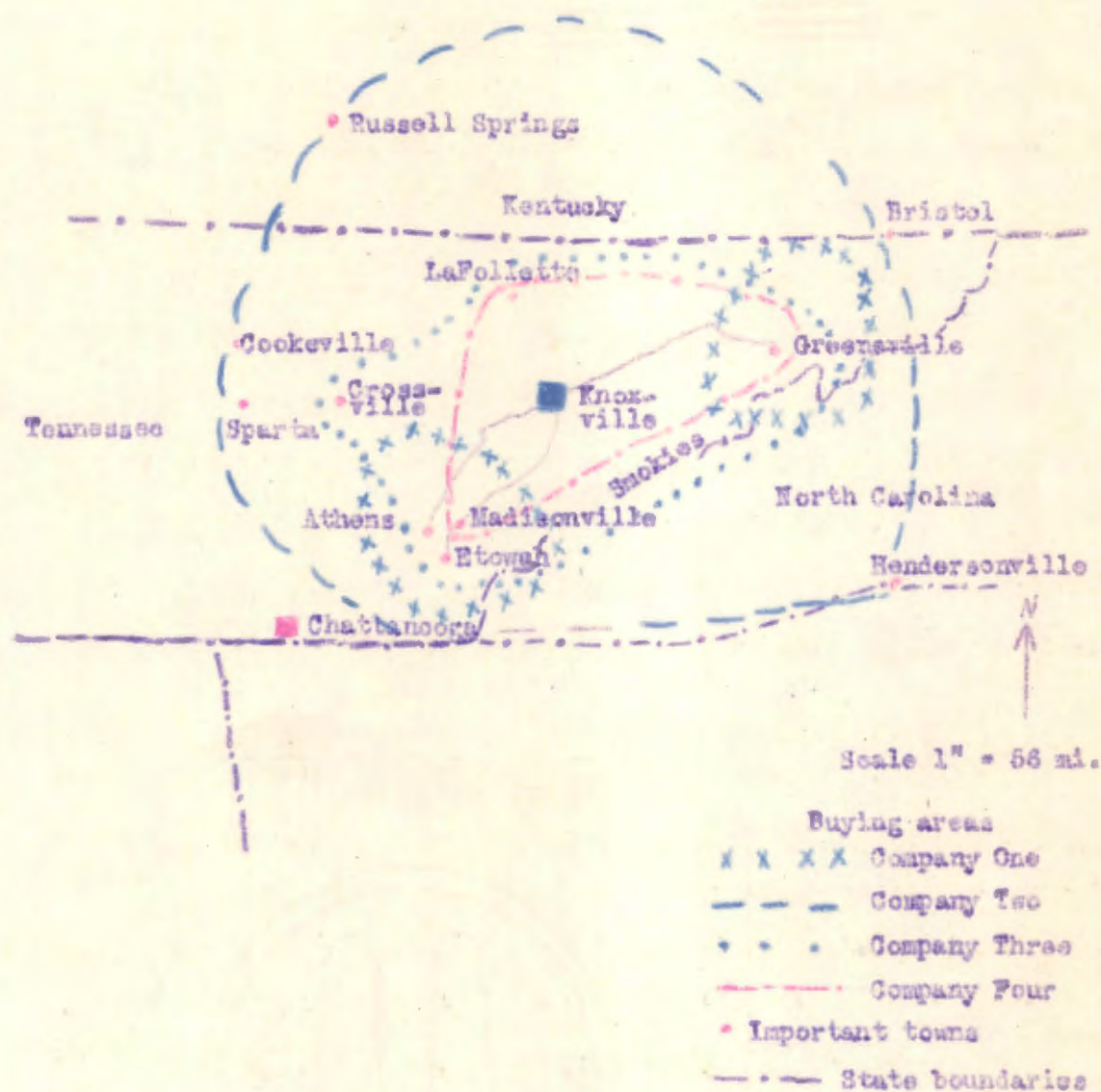


Figure 79. Knoxville meat packing company egg buying areas

Source: Knoxville Poultry and Egg Survey, 1942-1943.

located in Knoxville; therefore there was no farm buying area.

Source of eggs bought and sold by packers. The packing companies purchased local eggs from farmers and produce houses only during certain months, usually the spring months. During the months when the local supply of eggs was short eggs were brought in from Chicago and some purchased from local produce houses. Of the eggs that were purchased locally 9.6 percent were purchased from farmers, 3.9 percent from Knoxville produce dealers, 47.8 percent from country stores, and 38.7 percent from country produce dealers. Seventy-four and one-tenth percent were purchased locally and 25.9 percent were imported from the midwest, usually through Chicago.

Local egg buying areas. One meat packing company's egg buying area included all parts of its trade territory. That company had a trade territory of about 125 miles in all directions from Knoxville. Therefore, some eggs were secured from North Carolina and Kentucky as well as from Tennessee. The next largest local egg buying area included Crossville, LaFollette, Greeneville, Athens, and Etowah, Tennessee. Another egg buying area included Madisonville, LaFollette, and Greeneville, Tennessee. One company usually purchased local eggs only during the spring months from farmers located around Greeneville, Etowah, and Athens, Tennessee. This company contracted with certain large egg producers in those areas to take all the eggs they produced and all they could purchase from their neighbors and candle for the packing company. Therefore this company's egg buying area is shown in Figure 79 by crosses circumscribing the main cities around which these egg producers were located.

Months of local purchases of eggs. One packer purchased eggs from farmers and country stores from about February 15 through December 1st. Two others purchased from them the year round. One purchased from farmers only in the spring months, February, March, and April, and another purchased from local wholesalers only during those same months. The packers purchased from these local sources during these months because they were the months of peak production and the months during which the best quality of eggs were produced. Because of their good quality, surplus eggs were usually stored during these months. The two meat packing companies, purchasing eggs locally the year round, bought and sold more eggs and had better established marketing channels than the other packing companies.

Origin of eggs imported. Of the 10,500 cases, or 24.4 car equivalents, of eggs imported by local meat packing companies, the bulk of them were purchased on the Chicago market. Kansas, Missouri, Minnesota, and other midwest areas were also sources of egg purchases at times. All packers did not import eggs during the same periods of the year. One packer brought in eggs from December 1 through February 15, another from October through December, and a third from August through December. One packer brought in eggs from July through September. He did not attempt to fully meet the demand for eggs during the winter months but he did attempt to import good eggs during July and through September when local eggs were considered of especially low quality.

Changes in seasonal production of eggs. One packer felt that farmers had been attempting to increase egg production during the winter

months, while two other packers felt that production has not increased and that farmers had made no attempts to smooth out production peaks. One packer had noticed no change as he had been purchasing fewer eggs and was not in contact with the selling market.

Months of local purchases of chickens. One of the packing companies depended upon Knoxville produce houses to supply them with dressed chickens during all seasons and only imported dressed chickens if they felt local demand was good. Another company bought from produce houses only during the spring of the year at which time friers were purchased. Meat packing company customers demanded quantities of uniform quality birds and these companies were not always able to find such birds on the Knoxville market. One company only handled dressed chickens imported from other areas.

Months of turkey purchases. Purchases preceded sale by only a few weeks. From 85 to 87 percent of the turkeys handled were sold during the Thanksgiving and Christmas holiday season. Only 13 to 15 percent of the 55,700 to 65,700 pounds of dressed turkeys sold by packing companies were sold before the Thanksgiving holiday period.

Local purchases of turkeys. No turkeys were reported as purchased locally.

Distribution of Poultry and Poultry Products by Knoxville

Meat Packing Companies

All poultry and poultry products sold by Knoxville meat packing companies were sold in their respective trade territories. Poultry and

poultry products sold by Knoxville meat packing companies were sold in their respective trade territories. Poultry and poultry products were a sideline interest and were sold to their meat customers on demand. However poultry and poultry products were not always sold at the same time that meat was sold to their customers.

Selling trade areas of Knoxville meat packing companies. One Knoxville meat packing company sold poultry and poultry products in a meat trade territory covering Middle and East Tennessee, Kentucky, North Carolina, and Georgia. One had a trade territory covering towns within a radius of 110 miles of Knoxville; another had a trade territory covering towns within a radius of 125 miles of Knoxville. This latter firm also delivered products as far east as Asheville, North Carolina, and southwest into Virginia. Before the war it delivered as far east as Raleigh, North Carolina, but its trade territory had been cut due to the war. The fourth meat packing company had a rather limited trade area bounded by Greeneville, Athens, New Tazewell, and Sevierville, Tennessee.

Distribution of chickens sold. Although the greatest bulk of the chickens were purchased locally, 67.1 percent of all chickens sold by the meat packing companies were reported in 1942 as sold in the packing company trade territories outside of Knoxville, the remainder in Knoxville. Hotels, restaurants, and institutions received 73.2 percent of all chickens sold by Knoxville meat packing companies in 1942, while grocery stores received only 21.8 percent.

Distribution of turkeys sold. Although no turkeys were reported

as purchased in Knoxville, 67.8 percent of all turkeys sold by Knoxville meat packing companies were sold in Knoxville. However, 79.5 percent were sold to hotels, restaurants and institutions, while only 20.5 percent were sold to grocery stores.

Distribution of ducks sold. All ducks sold by Knoxville meat packing companies were reported as Long Island ducks which had been imported from other states. Knoxville purchased 82.0 percent of these ducks, while only 18.0 percent were sold in the meat packing company trade territories outside of Knoxville. Hotels, restaurants, institutions bought 68.0 percent of those ducks while grocery stores bought 32.0 percent.

Distribution of eggs sold. Although 74.1 percent of the eggs sold by Knoxville meat packing companies were purchased locally, only 31.3 percent of them were sold in Knoxville. The meat packing companies' customers in their trade territories purchased 68.7 percent of the eggs sold by them. Grocery stores were the heaviest buyers of eggs, taking 62.2 percent of the total number of cases handled. Thirty-seven and eight-tenths percent went to hotels, restaurants and institutions. During 1942, two of the firms sold eggs "U. S. Extra" to the armed forces. Only one firm occasionally sells to the armed forces, on competitive bids. Sales amount to only a few cases a year. The other firm discontinued this phase of its activity, because of the illness of the man in charge of the egg department. When the Civilian Conservation Corps camps were large and important, some eggs were sold to them. Few, if any, are sold

to them now. The armed forces have been considered by the investigator as included in the same class of buyer as hotels, restaurants, and institutions.

Months of sale of chickens. Knoxville meat packing companies reported selling nearly the same total number of pounds of chickens every month though amounts of different kinds of chickens vary according to the season. Naturally more fliers were sold in the spring and summer months and more hens in the winter months. One Knoxville meat packing company reported that their heaviest sale of chickens occurred during November and December because of the holidays. That company imported all the chickens they sold. Because Knoxville meat packing companies sold to hotels and restaurants, they were able to take surplus chickens off the local market and store them, frozen, until there was the demand at a later date.

Regular produce dealers in Knoxville cannot operate in this manner, because they must receive orders from customers before killing and dressing. The Knoxville housewife wants the bird as soon as possible after killing.

Months of sale of turkeys. Only 13 to 15 percent of 55,700 to 65,700 pounds handled were sold throughout the year. The remainder were sold during November and December. The sale of turkeys was a seasonal business with the Knoxville meat packing companies.

Months of sale of ducks. The sale of ducks was reported to be about

the same every month although it increased slightly during the holidays.

Months of sale of eggs. Knoxville meat packing companies reported selling more eggs during the late summer, fall and winter (August through February 1st) than during the other months. One meat packing company sold more eggs during June, July, August, and September, when local eggs were considered of especially poor quality.

TABLE LIV. DISTRIBUTION OF POULTRY AND POULTRY PRODUCTS
HANDLED BY KNOXVILLE MEAT PACKING COMPANIES, 1942*

	Chickens		Turkeys		Ducks		Eggs	
	Total	Pct.	Total	Pct.	Total	Pct.	Total	Pct.
Total amount handled	(Lbs.) 411,000	100.0	(Lbs.) 55,700**	100.0	(Lbs.) 38,800	100.0	(Cases) 36,703	100.0
Sold in Knoxville	135,219	32.9	37,764.6	67.8	31,830	82.0	11,500.3	31.3
Sold in packing company trade area	275,781	67.1	17,935.4	32.2	6,970	18.0	25,202.7	68.7
Sold to grocery stores	89,598	21.8	11,418.5	20.5	12,430	32.0	22,829.3	62.2
Sold to hotels, restaurants, institutions, etc.	321,402	78.2	44,281.5	79.5	26,370	68.0	13,873.7	37.8

* Source: Estimates obtained in Knoxville Poultry and Egg Marketing Survey, 1942-1943.

** 55,700 ----- 65,700 turkeys is a more accurate estimate as they bought turkeys depending on what they received orders for and the amount varied.

Dressed Poultry Handling Practices

Packing companies prefer to sell to their regular customers. Local packing companies handled only dressed poultry, either full or feather-

dressed. They preferred to sell such poultry to their regular meat customers. One local packing company was not particular about whom it sold to as long as they were the highest bidder for the grade of poultry it had available.

Buying basis, dressed poultry. All dressed poultry that was shipped in to Knoxville by the meat packing companies had been purchased elsewhere on a grade basis. Dressed poultry purchased from Knoxville produce houses was purchased on the basis of type of bird and not on a grade basis. The meat packing companies attempted to get birds of uniform quality and size locally, but such purchases were difficult due to the variety of birds brought in to the produce houses by local farmers.

Selling basis, dressed poultry. Two of the packing companies, being branches of nation wide concerns, sold graded poultry which had been sold to them by these concerns. Each company sold certain brands which really represented a specific grade. The one local plant, selling local poultry, attempted to meet government grading regulations. Packing companies handled nearly all of the carefully graded poultry that was sold in Knoxville.

Local quality considered poor. Of the three local packing companies handling poultry, only one purchased any local poultry. The others preferred to buy poultry from their parent plants or from other large packers or dealers in Chicago. Their type of trade demanded a uniform product in large quantities and they felt that they were not able

to purchase a uniform product from Knoxville produce houses. One of the packers purchased large quantities of full dressed chickens from local produce house, but it was necessary to further process them in order to meet its quality standards. This same firm has found local quality and dressing jobs to be so poor that they prefer to buy birds from other large companies, especially dry-picked birds from the New York market. One local packer, whose out-of-state source of supply had been curtailed due to the war, had attempted to contract with a local produce house for dressed chickens. Because of the lack of uniformity in quality and because of the poor dressing job, he was unable to go through with the arrangements. Even on a lower grade basis the local produce dealer could not assure him the quantities needed to fill his orders.

The fact that two out of three packers handling poultry preferred to import large quantities of graded poultry was in itself indicative of the fact that they could not purchase what they needed locally. When packers had different outside connections they preferred to import dressed chickens from other areas and states.

The one meat packing company which purchased most of its dressed poultry locally further processed it. The obvious improvements would therefore be (1) the production of large quantities of uniform quality chickens all of the same breed, and (2) a better dressing job by Knoxville produce dealers.

Egg Handling Practices and Preferences

Packing companies prefer to sell to their regular customers. Inasmuch as eggs were also a sideline with packing companies, they handled them to meet the demands of their customers. They claimed to sell to their regular customers first, and then sold to grocery stores and large buyers when they had surpluses. Business done with persons other than regular customers was usually a result of large orders on competitive bid basis; such orders came from the city, army or other large buyers. One packer preferred to sell in large quantities on competitive bids. Egg sales by packing companies were limited to their trade territories because salesman solicited egg and poultry business incidental to the meat business solicited.

Method of collection. Ninety-five and three-tenths percent of the eggs purchased locally by packing companies were brought in to the meat packing houses. The other 4.7 percent were gathered by the trucks of the packing companies either on specific egg gathering missions or from country stores while on their regular delivery routes.

Packers preferred to buy eggs as they appeared. Only one packer preferred to make arrangements with farmers for purchasing the farmers' eggs on a contract basis. The other three preferred to buy eggs as they appeared, i.e., as they were brought to them. One packer had attempted to contract with country stores for eggs and had found the arrangement unsatisfactory. When they did not contract for eggs, they were under no

price obligation and were free to reject substandard quality eggs.

Monday and Tuesday important egg buying days. Two packing companies had no special egg buying days. One company, whose trucks brought in a few cases from country stores, found that they secured more eggs on Mondays and Tuesdays because of the large number of eggs sold to country stores on Fridays and Saturdays. Another company, whose eggs were delivered to them also had observed that country stores had brought in more eggs on Mondays and Tuesdays.

Egg buying basis. Inasmuch as packers claimed to buy only in case lots, usually 10 or more cases, one would have expected to find them buying graded eggs, but 96.6 percent of the eggs purchased locally by meat packing companies were purchased on a "current receipts" or "flock run" basis. None of the packers bought on a "loss off basis". One packer made special arrangements with certain farmers whom he thought reliable, to sell him all their eggs and to gather eggs from adjacent farms for him. These farmers candled the eggs and also removed the dirty and small eggs. These eggs were considered "rehandled eggs". None of the packers offered less for dirty eggs. They preferred not to purchase them whenever possible.

Eggs shipped in by packers were all graded as they were purchased on the basis of Chicago market prices as quoted for certain grades of eggs.

Losses due to poor quality. Losses were considered small during the spring months through May. On a yearly basis packers estimated losses

of from one to three percent. They considered losses to be much higher in the summer months. One packer estimated his losses to be as high as eight to nine percent during the summer, while another estimated losses during the summer to be as high as 15 percent, especially during June, July, and August. The packer experiencing the 15 percent loss during the summer months, 90 percent of eggs purchased locally were from country stores.

Selling basis, eggs. Regardless of how or where eggs were purchased by Knoxville meat packing companies, all eggs sold by them were graded on a grading basis similar to the United States grades for eggs. When grading on this basis they found that 28.6 percent were top grade, 48.8 percent middle grades, and 22.6 percent in the lower grades.

Eggs held under ideal conditions by packing companies. Although none of the packing companies held eggs for current sale for more than a week, they were held under refrigeration or cold storage conditions during that time.

Egg storage by packing companies. The number of eggs put into cold storage each year by meat packing companies varies according to the following factors: (1) the season of egg production, (2) the price of eggs, (3) the demand and price outlook for eggs in the fall. From 5,900 to 15,800 cases of eggs have been stored from February through May by local packing companies, depending upon the above factors. Eggs that were stored for any period of time were stored at the Atlantic Ice

Company storage house. One of the packing companies had short term storage facilities.

Regular delivery of eggs. Meat packing companies did not have certain days on which they sold more eggs than on others as they delivered them on their regular routes while delivering meat and other products handled by the meat packing companies.

Improvements suggested by packers. Local packers were far from satisfied with the quality of local eggs. That was understandable when it was realized that their trade demanded graded eggs and yet when they bought eggs locally they could not buy on a graded basis. They cited as improvements the following changes to be made by both farmers and country merchants (both country stores and produce houses):

(1) removal of rotten eggs by candling before the eggs leave the farm or store, (2) sell only clean eggs, thus refuse to purchase dirty eggs from the farmers, and (3) move eggs to market more quickly; farmers should market eggs more than once each week; merchants should not let eggs accumulate for a week before taking them to market.

B. Knoxville Milk Plants

Four milk plants delivering milk in Knoxville also reported selling³ eggs. Eggs were delivered in milk trucks by three concerns, and at the

3. Data obtained from milk plant operators.

sales room of the other concern. These four plants sold eggs retail but not wholesale. Of the four milk plants selling eggs only one reported purchasing eggs from Knoxville produce dealers. All eggs were usually purchased from the producer direct. One milk plant occasionally purchased eggs from a Knoxville produce dealer when his usual supply was insufficient to meet the demand of his customers. None of the milk plants sold eggs to Knoxville produce dealers, as their customers willingly purchased all surplus production during the periods of peak production, because of the low price during such periods.

Source of eggs handled by milk plants. The University of Tennessee Creamery, one of the four milk plants, handled only those eggs produced on the Agricultural Experiment Station farm. A small milk plant handled only a few dozen eggs each week, all of which were produced on the farm of the milk plant owner, which farm was located in Knox County. One milk plant handled eggs collected from farmers all located within a radius of six miles of the fork of the French Broad and Holston rivers. Eggs were brought in by farmers who hauled milk to this plant. The most important milk plant handling eggs obtained them from three farmers, one located near Sweetwater, one near Greenville and one in Knox County, Tennessee. (Milk collection routes operate from Sweetwater and Greenville to Knoxville, but are not utilized regularly for collection of these eggs.)

Importance and quantity handled. Approximately 336 to 409 dozen, or 11.2 or 13.6 cases, of eggs have been sold by the four milk plants

weekly. The quantity sold naturally changed depending upon the production of the flocks on which the milk plants depended for their supply. About 88 percent of the eggs sold were delivered to the customers on the milk routes. The combined egg sales of the four milk plants were about equal to the average sales of four Knoxville grocery stores. Sales were relatively insignificant but the manner in which they handled eggs was important.

Methods of handling eggs practiced by four Knoxville milk plants.

The eggs from the Agricultural Experiment Station were usually candled. Two other milk plants purchased only strictly fresh candled eggs from farmers. The one milk plant handling its own eggs did not candle them as they were delivered within two or three days after they were laid. Candling was not so important where eggs were passed from producer to consumer as quickly as was usually the practice of the milk plants.

Quality maintenance depends upon the conditions under which eggs are held while waiting sale. Two of the milk plants held eggs under the same temperature as milk while waiting delivery. Eggs sold by the two other milk plants were held under normal room temperatures with no attempt to keep them cool. However, deterioration of eggs for immediate delivery under such conditions would not be as serious as in eggs held in Knoxville produce houses for two or three days and then held in a grocery store for an equivalent or longer period.

If eggs are moved from farmer to consumer rapidly the handling conditions are not so important as when they are moved through the market

channels slowly. The three milk plants delivering eggs did so at least four times each week. Eggs sold in the sales room of the University of Tennessee Creamery were delivered to the sales room every Tuesday and Friday.

Eggs are perishable and should be handled as a perishable commodity. Packing companies and milk plants have excellent facilities for handling a limited number of eggs. Milk plants provide a direct market channel from producer to consumer. Packing companies have excellent facilities for holding eggs for short periods of time.

CHAPTER IX

KNOXVILLE RETAIL GROCERY STORES AS POULTRY AND EGG MARKETING AGENCIES

In Farm Management and Marketing,¹ by Hart and Bond, independent retail food stores were rated first in importance, and chain retail stores second as outlets for farm raised food products. Surveys of consumer practices and marketing agencies in Knoxville also show the importance of these agencies, especially in the marketing of eggs.

Preceding Surveys

In 1933, T. L. Mayes found that 49 percent of the families he interviewed in West Knoxville purchased eggs from grocery stores, 23 percent from chain grocery stores, and 26 percent from independent grocery stores.²

In a later survey of four sections of Knoxville, made by Samuel L. Hansard in 1938,³ it was determined that 44.5 percent of the 400 families interviewed purchased eggs from grocery stores, 32.0 percent from

1. Hart, V. B., Bond, M. C., Cunningham, L. C., Farm Management and Marketing, New York, John Wiley and Sons, Inc., 1942, p. 399.

2. Mayes, T. L., Egg Consumption in West Knoxville. Report on file, Poultry Husbandry Department, University of Tennessee, Knoxville, Tennessee, 1933.

3. Hansard, Samuel L., A Study of Consumer's Preferences and Practices in Buying and Using Eggs and Meat in Knoxville, Tennessee. Unpublished Thesis, University of Tennessee, Knoxville, Tennessee, 1938. pp. 117.

independent stores and 12.5 percent from chain grocery stores. Purchases from grocery stores varied with the different sections of the city. In West Knoxville only 22.0 percent purchased eggs from independent grocery stores and 14.0 percent from chain grocery stores, while in the Mill Section 57.0 percent purchased from independent grocery stores and 23 percent from chain grocery stores, or 80 percent from grocery stores. This investigator believes that the percent purchasing from independent grocery stores was higher in the Mill Section, not only because of the lower income status of the people but because of their dependence on credit.

In 1939 Walter Carter made a survey of 100 Knoxville retail grocery stores.⁴ He found that West Knoxville stores purchased 55.3 percent of their supplies from produce dealers and 44.7 percent from producers direct; South Knoxville, 58.0 percent from produce dealers, and 42.0 percent from producers; North Knoxville, 59.0 percent from produce dealers and only 41.0 percent from producers direct; East Knoxville, 27.1 percent from produce dealers and 72.9 percent from producers direct. The sample upon which these findings were based was, admittedly, not representative of East Knoxville because the stores visited were located on Vine Street, Jackson, and McCalla Avenue, all regular thoroughfares for farmers who brought their produce to market and their livestock to the

4. Carter, Walter, Survey Report of Knoxville Stores, Senior Thesis, Poultry Husbandry Department, University of Tennessee, 1939.

Union Stock Yards. Carter found that East Knoxville stores sold the largest number of cases of eggs, 5.7 cases per week, at the lowest prices. West, South, and North Knoxville sold five, four, and three and three-tenths cases of eggs per week in the order given. Carter

TABLE LV. SUMMARY OF WALTER CARTER'S FINDINGS, SURVEY OF
100 KNOXVILLE GROCERY STORES *

	Total	West	East	North	South
Number of stores	100	28	22	34	16
Source of eggs:					
Percent produce dealer	-	55.3	27.1	59.0	58.0
Percent farmers direct	-	44.7	72.9	41.0	42.0
Average number of cases sold per week	-	5.0	5.7	3.3	4.0
Place eggs kept					
Front	-	8	10	14	9
Rear	-	17	9	20	6
On counter	-	14	11	27	-
Under counter	-	-	11	7	-
In refrigerator	-	8	-	1	-
With meat	-	1	-	-	1
Eggs sold in cartons:					
Yes	10	6	-	3	1
No	90	22	22	31	15
Number selling more than one grade:					
Yes	21	8	2	8	3
No	78	19	20	26	13
Customer's preference:					
Brown	19	4	4	7	4
White	30	13	2	11	4
None	51	11	16	16	8

* Source: Carter, Walter, Survey Report of Knoxville Stores, Senior Thesis, Poultry Husbandry Department, University of Tennessee, 1939.

believed that North and South Knoxville stores reported fewer eggs sold because the people kept some chickens of their own and purchased more

from farmers direct. The number of stores selling more than one grade was thought to be influenced by the standard of living and the type of store. There were 78 stores which reported selling only one grade of eggs. No stores graded eggs after receiving them. Only ten stores reported using cartons and six of these were in West Knoxville. Few stores paid much attention to where eggs were kept and few displayed them, although those that did reported higher sales. West Knoxville prices were highest and East Knoxville prices lowest, while South and North Knoxville prices were about the same.

In a Patronage Motive Study of Knoxville, Tennessee, Retailers, made by E. O. Dille, it was found that of 132 Knoxville retail grocers, 37 purchased 100 percent of all products including poultry and dairy products from Knoxville wholesale establishments. Of the remaining 95, 51.0 percent purchased local poultry and dairy products exclusively.⁵

Representativeness of the Sample

The sample. For the purposes of this survey it was considered sufficient to interview 100 grocery stores or slightly less than a third of the 328 grocery stores operating in Knoxville on June 15, 1943. For the purposes of this survey, the city was divided into districts as shown in Table LVI and Figure 80. Only a representative number of stores were interviewed in each of the eight districts. The location of the chain and independent stores interviewed is shown in Figure 80, and the location of all stores in Figure 81.

5. Dille, E. O., A Patronage Motive Study of Knoxville, Tennessee, Retailers. The University of Tennessee Record, Extension Series, Vol. XVI, No. 2, Knoxville, Tennessee. Published by The University of Tennessee Press, October, 1940, p. 43.



Figure 80. Location of 100 grocery stores included in retail grocery store survey, 1943

Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

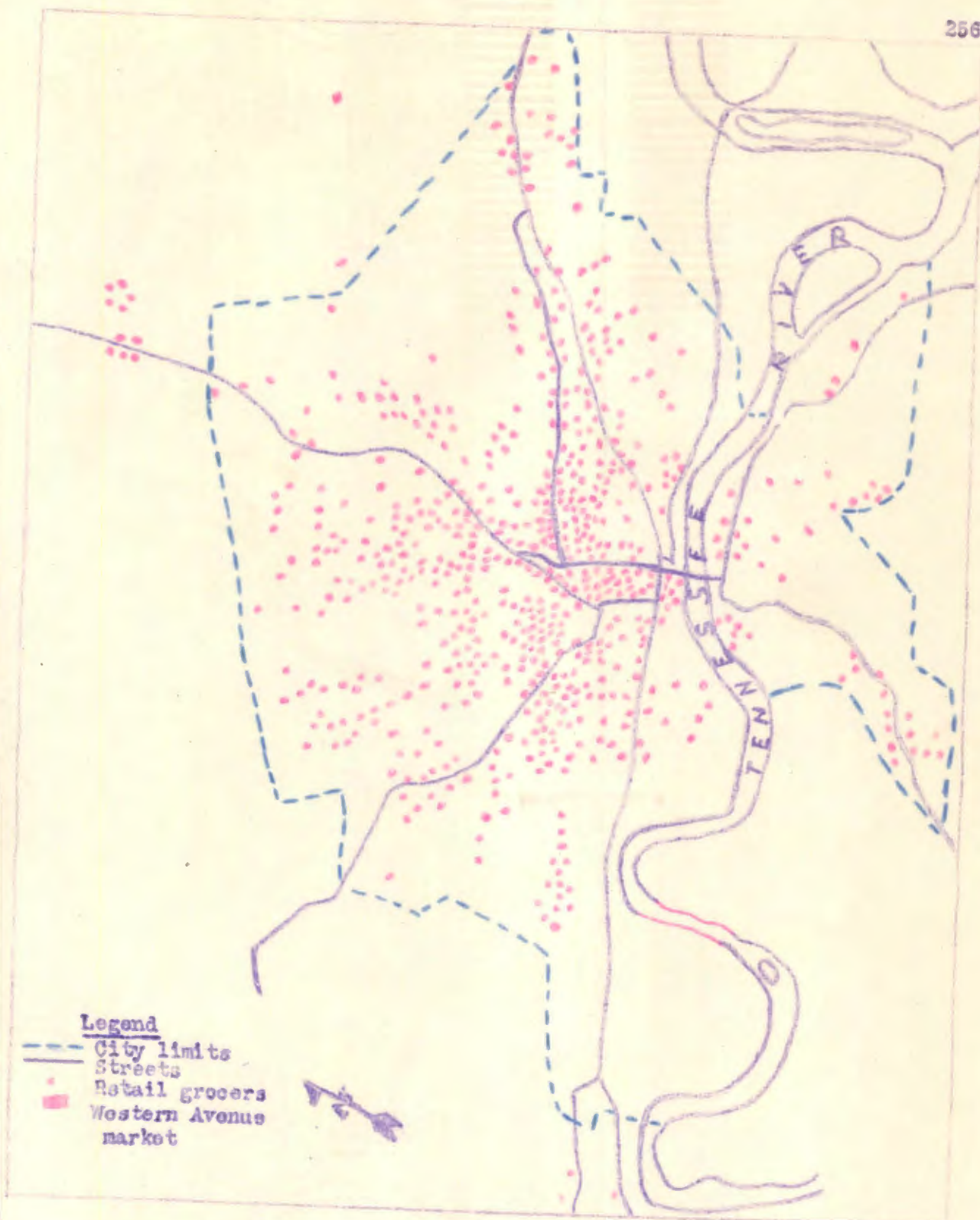


Figure 81. Location of 645 retail grocery stores in Knoxville, Tennessee, and suburbs, 1939.

Sources: Knoxville Wholesale Fruit and Vegetable Market, Allred, C. E., Luebke, B. H., Crawford, W. S., Dept. of Agricultural Economics and Rural Sociology, Agricultural Experiment Station, University of Tennessee, 1939, Figure 11, page 66.

The eight districts, or divisions, were made by taking into consideration several factors; first, the characteristics of the population in various levels; second, boundaries such as railroads, rivers, and main thoroughfares; third, knowledge of consumer characteristics of the different sections supplied by Professor B. J. McSpadden.

TABLE LVI. DISTRIBUTION OF ACTUAL AND SAMPLE NUMBER OF
CHAIN AND INDEPENDENT GROCERY STORES BY DISTRICTS*
1943

Districts	Actual ¹		Sample ²	
	Independents	Chain	Independents	Chain
I. South Knoxville	27	4	8	3
II. Sequoyah Hills and Kingston Pike	4	2	1	1
III. Lonsdale and Mechanicsville	77	6	19	4
IV. Lincoln Park and Oakwood	28	6	7	4
V. North Knoxville	40	3	10	6
VI. East Knoxville	38	3	9	2
VII. West Knoxville	34	7	7	5
VIII. Park City and Burlington	39	5	9	5
Knoxville	287	41	70	30

1. The actual number of stores was obtained from the 1942 City Directory and telephone directory and has been corrected for those stores going out of business before June 15, 1943.

2. It was reported, by the 1935 Census of Business in Retail Distribution, Vol. II, in the County and City Summaries, that 22 percent of the \$2,462,000.00 sales by grocery stores without meats and 35 percent of the \$5,725,000.00 sales made by combination stores (grocery stores with meats) were made by chain stores. Calculations show that 31.04 percent of the total retail food sales were made by chain stores, therefore 30 percent of the stores interviewed were chain stores. A further division of stores was made on the basis of the number in each of the eight districts as shown above. Those stores considered as chain stores for the purpose of this survey were the Gas Walker, White, and Atlantic and Pacific Food Stores.

Classification of sample stores. After each visit to a grocery store, the investigator gave the store a rating depending upon whether it was a class A, B, or C store in its neighborhood.⁶ Obviously, a class A store in one neighborhood might rate as a class C store in another neighborhood. Had the same system of rating been applied the city over, the number of class A stores would have been unduly low.

TABLE LVII. CLASSIFICATION OF SAMPLE RETAIL STORES,
KNOXVILLE POULTRY AND EGG MARKETING SURVEY,
1942 - 1943 *

	Chain	Independent	Total or Percent
Total number	30	70	100
Number - Class A	18	18	36
Number - Class B	10	27	37
Number - Class C	2	25	27

* Source: Appendix Table X, Section A.

Inclusion of colored population. An attempt was made to include at least one store on every street which had a grocery store. Stores were chosen at random from the names of stores listed on cards, one different card for each street in each section. Therefore, a few stores

6. Class A - Relatively large, well lighted, clean, merchandise attractively displayed, excellent facilities; i.e., refrigeration, vegetable bins, etc.

Class B - Medium size, fairly orderly and clean, mediocre facilities.

Class C - Small, dark, merchandise poorly arranged, dirty, improper or no facilities for refrigeration, etc.

in colored neighborhoods were included in the group and several stores having considerable colored patronage. Colored trade did not necessarily indicate a colored neighborhood, as domestic help did some personal buying in the neighborhoods where they worked.

TABLE LVIII. NUMBER OF STORES REPORTING ANY COLORED TRADE, BY PERCENT REPORTED, 1942 - 1943 *

	None	Less Than 1%	1-25%	26-50%	51-75%	76-100%
Total	25	25	32	11	1	6
Chain	3	13	9	4	1	-
Independent	22	12	23	7	-	6
District total						
District I	7	3	1	-	-	-
District II	-	-	2**	-	-	-
District III	7	5	6	3	-	2
District IV	5	4	2	-	-	-
District V	-	5	9	1	1	-
District VI	-	-	2	5	-	4
District VII	2	5**	5	-	-	-
District VIII	4	3	5	2	-	-

*Source: Appendix Table X, Section B.

** Domestic help, but personal buying.

Eggs

Eggs were sold by all 100 stores in the survey and poultry by only 55; therefore, eggs will be discussed first.

Volume of Business

Comparison of districts. The average numbers of cases of eggs sold in Knoxville was 4.6 cases, or 7.1 cases per chain and 3.6 cases

per independent store.⁷ District V and VII stores averaged 6.3 cases sold per week. This was probably due to the location of a larger number of chain stores in these districts than in the others (see Table LVI).

TABLE LIX. TOTAL AND AVERAGE NUMBERS OF CASES OF EGGS SOLD PER WEEK AS REPORTED BY 100 KNOXVILLE GROCERY STORES, 1942 - 1943 *

	100 Stores	Total		Districts							
		Chain	Ind.	I	II	III	IV	V	VI	VII	VIII
Total	464	214	250	29.5	7.5	77.7	48.8	101.0	62.9	75.5	61.0
Average	4.6	7.1	3.6	2.7	3.8	3.4	4.4	6.3	5.7	6.3	4.4

* Source: Appendix Table K, Section A.

Seasonal aspects. Thirty-eight of the stores, 29 of which were independents, reported that egg sales were about the same the year round. Thirty stores, 13 of which were chain stores, reported selling more eggs during the winter months than during other months. The store operators said the reason was that their customers were unable to obtain eggs from farmers during these months.⁸ Three independent stores reported selling more eggs during both winter and spring months. Thirteen stores,

7. All figures in terms of usual business, not in terms of sales in 1943.

8. The investigator observed that in Districts I, III, IV, V, and VI chickens being raised were more numerous than in the other districts.

seven of which were independents, reported selling more eggs during spring months than during other months. These stores were in districts III, V, VI, and VIII. Customers of stores in these districts purchased more eggs in the spring because of the low prices at that time.

TABLE LX. PERIOD OF GREATEST SALE - REPORTED BY 100 KNOXVILLE GROCERY STORES, 1942 - 1943 *

	None	Winter Months	Spring Months	Winter & Spring Mo.	Summer Months	Easter & Holidays
Total or percent	38	30	13	3	1	15
Chain	9	13	6	-	-	2
Independent	29	17	7	3	1	13

* Source: Appendix Table X, Section B.

Source of Supply

Channels utilized. The percentage of the total volume of eggs reported as purchased from different sources is shown in Table LXI.

TABLE LXI. RELATIVE IMPORTANCE OF DIFFERENT SOURCES OF EGGS BY PERCENT OF TOTAL PURCHASES AND BY NUMBER REPORTING - 100 KNOXVILLE RETAIL GROCERY STORES, 1942 *

Origin	Chain		Independent		Total	
	Pct.	Number Rptg.	Pct.	Number Rptg.	Pct.	Number Rptg.
Knoxville produce dealers and packing companies	57.3	28	46.5	56	51.5	82
Farmer direct	40.3	25	41.0	50	40.7	75
Country stores and rolling stores	0.7	3	8.9	12	5.1	15
Hucksters, country produce dealers	-	-	2.7	3	1.4	3
Other Knoxville grocery stores	1.7	2	-	-	0.8	2
Trucker	-	-	0.9	2	0.5	2
	Cases		Cases		Cases	
Total number of cases sold per week	214	30	250	70	464	100

* Source: Appendix Table X, Section A, and Appendix Table XI.

TABLE LXII. RELATIVE IMPORTANCE OF DIFFERENT EGG SOURCES
BY PERCENT OF TOTAL PURCHASES FROM THOSE SOURCES BY
CHAIN AND INDEPENDENT GROCERY STORES IN EIGHT
DISTRICTS OF KNOXVILLE, TENNESSEE, 1942 *

Source	I		II		III		IV	
	Chain	Ind.	Chain	Ind.	Chain	Ind.	Chain	Ind.
Knoxville produce dealers and packing companies	46.9	52.5	100.0	0.1	19.8	50.1	25.0	34.0
Farmer direct	53.1	47.5	-	99.0	75.8	36.3	75.0	25.0
Country store and rolling store	-	-	-	-	4.4	10.5	-	41.0
Huckster, country produce dealers	-	-	-	-	-	2.6	-	-
Other Knoxville grocery stores	-	-	-	-	-	-	-	-
Trucker	-	-	-	-	-	0.5	-	-

(continued)

Source	V		VI		VII		VIII	
	Chain	Ind.	Chain	Ind.	Chain	Ind.	Chain	Ind.
Knoxville produce dealers and packing companies	76.1	65.3	78.3	50.2	62.9	25.4	39.0	54.2
Farmer direct	23.9	22.2	21.7	38.7	23.0	70.6	58.7	26.2
Country store and rolling store	-	7.7	-	-	0.3	-	2.3	19.6
Huckster, country produce dealers	-	4.8	-	11.1	-	-	-	-
Other Knoxville grocery stores	-	-	-	-	13.7	-	-	-
Trucker	-	-	-	-	-	4.0	-	-

* Source: Appendix Table X, Section A.

Grocery stores reported 51.5 percent of the eggs were purchased from product dealers (egg dealers and produce houses), and packing companies; 40.7 percent from farmers direct; 0.5 percent from truckers; 0.8

percent from other Knoxville grocery stores; 1.4 percent from hucksters and country produce dealers. Some of the purchases from country stores and rolling stores were consummated indirectly through such agencies as salesmen, friends, and other persons making regular trips between the country store and the Knoxville grocery store.

One chain store, located on a main highway in District VII, purchased more eggs than it could use in order to take the total volume of certain farmers. This store resold these eggs, wholesale, to other stores of the same chain in the same and other districts of Knoxville. Some other stores also reported purchasing eggs to resell wholesale. Purchases, if not for direct sale to consumers, were not tabulated.

In three districts, III, V, and VI, independent stores purchased eggs from country produce dealers and hucksters. This was found especially typical of the operations of a couple of stores operated by colored people. These store operators had friends who regularly went through the country buying up both eggs and poultry.

Truckers, who brought fruits and vegetables to the Forest Avenue Fruit and Vegetable Market, also brought in eggs. Both stores reporting purchases from truckers were in neighborhoods through which trucks passed on their way to this market.

Comparison of sources. Chain stores reported purchasing 57.3 percent of the eggs they handled from produce dealers and packing companies; 40.3 percent from farmers direct; 1.7 percent from other chain

grocery stores; 0.7 percent from country stores. Part of the reason why so many of the eggs were purchased from produce dealers was that an important chain store group handling a large volume of eggs purchased them through a Knoxville produce house and another important chain purchased a great part of its total volume from a Knoxville egg dealer.

Independent stores purchased 46.5 percent from produce dealers and packing companies; 41.0 percent from farmers direct; 8.9 percent from country stores and rolling stores; 2.7 percent from hucksters and country produce dealers; 0.9 percent from truckers. Independent stores would have probably purchased direct from the farmer an even greater percentage of the eggs they handled, had the farmer been able to supply them the year round.

Season of purchase. Sixty-four stores purchased some eggs from farmers during all months of the year; 11 stores during the spring months. These stores probably had to order supplementary supplies from Knoxville produce houses and packing companies during periods of slack production. In fact, nine stores reported buying from produce dealers and packing companies merely to "fill in". Ten stores, six of which were independent stores, purchased eggs from produce dealers and packing companies only during the winter months. Two chain stores purchased eggs from these sources only during the summer months, while 61 stores purchased some eggs from these sources the year round.

TABLE LXIII. MONTHS OF EGG PURCHASES FROM FARMERS, PRODUCE DEALERS AND PACKING COMPANIES, REPORTED BY 100 KNOXVILLE GROCERY STORES,* 1942-1943

Months of purchase of some eggs:	Chain	Independent	Total
From farmers:			
Spring months	2	9	11
All months	23	41	64
From produce dealers and packing companies:			
All months	16	45	61
To fill in	4	5	9
Winter months	4	6	10
Summer months	2	-	2

* Source: Appendix Table X, Section B.

Origin of eggs by counties. Many grocery stores purchased eggs from farmers and country stores in more than one county. Poultry was purchased from farmers in the same counties although more poultry was purchased from farmers nearer Knoxville. The location of the grocery store determined in part the counties from whose farmers and country stores it purchased eggs. For example, a Sevier County farmer would be more likely to market eggs in District I than in District IV. Origin of purchases of combined districts are shown in Figure 82.

For the city as a whole, Knox County was given as one source of eggs purchased from farmers and country stores by 49 percent of the stores interviewed; Sevier County was mentioned by 24 percent; Union County by 18 percent; Jefferson County by 16 percent; Blount and Grainger counties by 14 percent; Anderson County, 4 percent; Roane County, 2 percent;

Campbell, Claiborne, and Washington counties, each one percent.

In District I, five grocery stores purchased eggs from Knox County farmers; six from Sevier County farmers; four from Blount County farmers.

The two stores included in District II both purchased some eggs from highly commercialized poultry farms in Knox County.

In District III, 12 grocery stores purchased eggs from Knox County sources; five from Sevier County sources; four from Jefferson County; three from Blount County and three from Union County; two from Anderson County and two from Grainger County.

In District IV, Knox and Union County farmers and country stores were reported as selling eggs to six grocery stores. Three grocery stores purchased eggs from Grainger County country sources; one reported buying eggs from Blount County country sources; one from Jefferson County country sources.

District V grocery stores reported buying from more farmers and country stores in Knox, Union, and Sevier counties. Six grocery stores purchased eggs from Knox County sources, six from Union County; four from Sevier County; three from Grainger County; two from Jefferson County; two from Roane County; one each from Campbell, Claiborne, and Anderson county sources.

In District VI, five grocery stores reported buying some eggs from Knox County farmers; two some from Sevier County farmers; two some

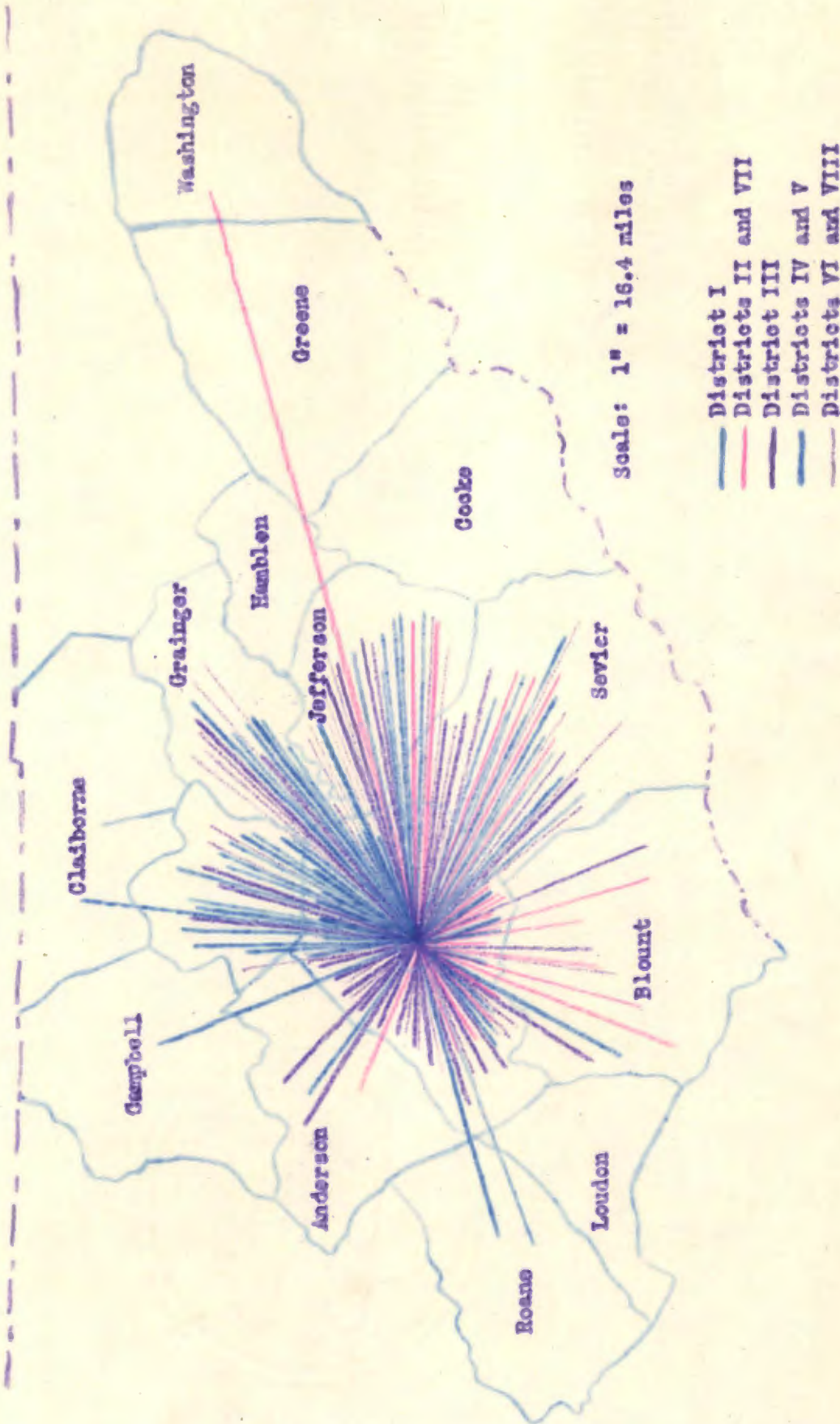


Figure 82. Source of eggs purchased from farmers and country stores by 100 Knoxville grocery stores, by districts, 1942-1943

Source: Table LXIV.

TABLE LXIV. ORIGIN BY COUNTIES OF EGGS PURCHASED FROM
FARMERS AND COUNTRY STORES BY 100 KNOXVILLE GROCERY
STORES, 1942 - 1943 *

Number of Stores

County	Total	Chain	Ind.	Districts							
				I	II	III	IV	V	VI	VII	VIII
Knox	49	17	32	5	2	12	6	6	5	8	5
Sevier	24	9	15	6	-	5	-	4	2	4	3
Blount	14	4	10	4	-	3	1	-	1	5	-
Jefferson	16	9	7	-	-	4	1	2	1	2	6
Anderson	4	1	3	-	-	2	-	1	-	1	-
Union	18	4	14	-	-	3	6	6	1	-	2
Grainger	14	7	7	-	-	2	3	3	2	-	4
Campbell	1	1	-	-	-	-	-	1	-	-	-
Roane	2	1	1	-	-	-	-	2	-	-	-
Washington	1	1	-	-	-	-	-	-	-	1	-
Glaiborne	1	1	-	-	-	-	-	1	-	-	-

* Source: Appendix Table

from Grainger County farmers; and one each some from Blount, Jefferson, and Union county farmers.

In District VII, more grocery stores purchased eggs from Knox, Blount, and Sevier county country sources. Eight grocery stores purchased some eggs from country sources in Knox County; five from Blount County country sources; four from Sevier County farmer; two from Jefferson County country sources; one each from Anderson and Washington county country sources.

District VIII grocery stores purchased eggs from more Jefferson, Knox, and Grainger County farmers and country stores. Six grocery stores reported purchasing from Jefferson County country sources; five

from Knox County country sources; four from Grainger County country sources; three from Sevier County country sources; two from Union County country sources.

Buying and Selling Practices

Buying bases from farmers. Forty-eight of the grocery stores interviewed bought eggs from farmers on a case county basis, i.e., they accepted the eggs as they are brought to the grocery store with nothing more than a verbal guarantee as to quality and no recourse if the eggs proved bad. A relatively larger number of chain stores than independent stores purchased egg case count. Twelve stores purchased eggs on the farmer's reputation, i.e., they purchased eggs case count, but they traded with certain farmers all the time and had grown confident of the quality eggs sold by them. Fifteen stores purchased graded eggs from farmers. (Graded eggs in this case included day-old infertile eggs.)

TABLE LXV. BUYING BASES FROM FARMERS, AS REPORTED BY KNOXVILLE RETAIL GROCERY STORES *

Buying Basis	Chain	Independent	Total
Case count	20	28	48
Farmer's reputation	2	10	12
Grade **	3	12	15

* Source: Appendix Table X, Section C.

** Grade, in this case, includes day-old infertile eggs.

Buying basis from produce dealers. When buying eggs from the produce dealer 58 stores reported buying on a grade basis and 24 case

count.

TABLE LXVI. BUYING BASES FROM PRODUCE DEALERS, AS REPORTED
BY KNOXVILLE RETAIL GROCERY STORES,
1942 - 1943 *

Buying Basis	Chain	Independent	Total
Case count	9	15	24
Grade	17	41	58

* Source: Appendix Table X, Section C.

Regrading. Eighty-five percent of the grocery stores did not re-grade eggs, of course 58 of the stores included in that number had purchased graded eggs from produce dealers. Fifteen percent of the stores interviewed regraded eggs before they sold them. These stores had found that if they candled eggs before resale, they did not have to make good so many bad eggs.

Price differential between dirty and clean eggs when buying from farmers. Fifteen stores refused to buy dirty eggs from farmers if they could see the eggs were dirty. Eighty-three stores paid the same price for dirty eggs as for clean eggs. Several store operators considered washing eggs a routine operation. Twelve stores did not make any difference in price when purchasing dirty eggs but they paid a premium price for extra clean eggs. These and two other stores actually paid price differentials ranging from two to eight cents per dozen depending upon how dirty the eggs were considered to be.

Crax and checks. Ninety grocery stores claimed not to sell any crax or checks. Six of these stores admitted getting some when they pur-

chased eggs case count, but they claimed to eat them or to throw them away. Ten grocery stores, eight of which were independent stores, admitted selling crax and checks, only one of which sold them for less, three cents in that case.

"Country eggs". Fifty of the grocery stores sold eggs as "country eggs". Some were selling eggs direct from the farmer and a few sold eggs from produce houses as "country eggs". Thirty-five of the stores selling "country eggs" were independent stores. Twelve, eight and ten stores in districts III, IV and V respectively sold eggs as "country eggs". Twenty-nine stores sold eggs as "just eggs". An equal number of the 14 stores selling strictly fresh or fresh eggs were chain and independent stores. Only nine stores sold graded or brand name eggs.

TABLE LXVII. EGG SELLING NAME REPORTED BY KNOXVILLE GROCERY STORES, 1942-1943 *

Name	Total	Chain	Ind.	Districts							
				I	II	III	IV	V	VI	VII	VIII
Country eggs	50	15	35	7	-	12	8	10	3	6	4
Just eggs	29	7	22	2	-	8	3	1	7	2	5
Strictly fresh or fresh eggs	14	7	7	-	-	2	1	4	1	3	3
Cold storage	2	1	1	-	-	-	1	-	-	-	1
Mixed	1	-	1	-	-	-	-	1	-	-	-
Day old infertile	4	1	3	1	-	1	1	-	-	1	-
Graded or brand name	9	5	4	1	2	-	1	2	-	2	1
Produce eggs	1	-	1	-	-	1	-	-	-	-	-

* Source: Appendix Table X, Section C.

Four stores sold "day-old-infertile eggs". Two stores actually sold eggs purchased from the produce house during the winter as cold storage eggs

and one grocery store sold produce house eggs as such. One store designated the eggs sold as mixed eggs.

Number of grades or prices. Regardless of what name eggs were sold by, only 22 stores sold eggs at more than one price or by more than one grade. Eight chain stores and 14 independent stores sold two or more grades or prices of eggs. Of the 78 stores selling only one grade or price eggs, 56 were independent stores.

Holding period. Forty-one of the stores held eggs for only 2 days; 17 held them for only one day; 74 held them for less than 4 days, 27 of which were chain stores. Of the 26 stores holding eggs more than three days 23 were independent stores.

TABLE LXVIII. EGGS: NUMBER OF DAYS KEPT AS REPORTED BY
100 KNOXVILLE GROCERY STORES, 1942-1943*

Number of Days Eggs Held	Chain	Independent	Total
1	6	11	17
2	17	24	41
3	4	12	16
4	2	14	16
5	1	2	3
6	-	7	7

* Source: Appendix Table X, Section C.

Eggs stored in back room. Many of the stores kept all the eggs they had for sale on display. A few kept more eggs on hand than they displayed. Of these, 25 kept them in cases in the back room. Nine of this 25 stores were chain stores. Twelve stores, 11 of which were independent stores, kept extra eggs in cases under the counter.

TABLE LXIX. EXTRA EGGS: PLACES KEPT AS REPORTED BY
KNOXVILLE GROCERY STORES, 1942-1943 *

Places Kept	Total	Chain	Independent
Back room	25	9	16
Under counter	12	1	11
Refrigerator	7	-	7
Case on floor	5	1	4
Ice box	3	-	3
Cooler inside	1	1	-
Basement	1	1	-
Cooler outside	1	-	1

* Source: Appendix Table X, Section C.

Seven independent stores kept extra eggs in the refrigerator and three independents kept them in the ice box. Four independents and one chain store kept them in cases on the floor. One chain store kept extra eggs in a cooler and one in a basement. One independent store kept extra eggs in a cooler outside of the grocery store.

Grocery stores kept eggs on display. Although only one or two of the chain stores had eggs arranged in a real display, 83 of the 100 stores had eggs on display or at least where they could be seen by the consumer. Twenty-nine of the 30 chain stores kept eggs on display. Fifty-four of the 70 independent stores kept eggs on display.

Sixty-seven of the 83 stores keeping eggs on display had them in the front of the store; 29 of these stores were chain stores. Of the 16 stores keeping eggs on display, but in the back of the store, nine were chain stores. In many instances the stores were so small that all the merchandise could be seen from the door regardless of whether it was in

the front or the back of the store.

Eggs kept in front of store. Sixty-seven stores reported displaying eggs in the front of the store and 16 in the back of the store. Twenty of the chain stores displayed eggs in the front of the store. The most popular display container was an egg case on the floor. Some sort of container on the counter was found as the display container in 20 stores and in 11 stores eggs were displayed in upright wire baskets. Unused vegetable bins were used as display containers by eight independent stores. Seven stores displayed eggs in bushel baskets, usually on the floor. Other places in which eggs were displayed were: front window, on meat counter, sitting next to the frozen foods and in the refrigerator.

TABLE LXX. NUMBER OF STORES REPORTING EGGS DISPLAYED, WHERE DISPLAYED, TYPE OF DISPLAY CONTAINER, 1942 - 1943 *

	Chain	Independent	Total
Eggs on display:			
Yes	29	54	83
No	1	16	17
Front of store	20	47	67
Back of store	9	7	16
Cases on the floor	11	18	29
On counter	11	9	20
Wire basket	3	8	11
Vegetable bin	-	8	8
Bushel basket on floor	2	5	7
Front window	-	3	3
On meat counter	2	1	3
Refrigerator	-	1	1
Next to frozen foods	-	1	1

* Source: Appendix Table X, Section C.

Eggs sold from cases. Eggs were not always sold from the same containers in which they were displayed. Thirty-four grocery stores reported selling eggs direct from the cases they were purchased in. Twenty-three stores sold eggs from large wooden or paper boxes. Eggs were placed loose in such boxes. Nineteen stores sold eggs from large wire baskets; 10 stores sold cartoned eggs; 10 sold eggs from bushel baskets; six from vegetable bins; 2 from the vegetable display racks in the windows; 2 direct from the refrigerator; 1 from the ice chest.

TABLE LXXI. EGG DISPLAY OR SELLING CONTAINER REPORTED BY
KNOXVILLE GROCERY STORES, 1942-1943 *

Eggs Sold from	Chain	Independent	Total
Cases	10	24	34
Wooden or paper boxes	8	15	23
Wire baskets	5	14	19
Cartons	4	6	10
Bushel baskets	4	6	10
Vegetable bin	-	6	6
Window	1	1	2
Refrigerator	-	2	2 **
Ice chest	-	1	1

* Source: Appendix Table X, Section C.

** Does not total 100 even because some stores sold eggs from more than one container.

Delivery and purchase containers. Seventy-eight of the stores, 54 of which were independent stores, reported that their customers carried eggs home in paper bags. Only 11 stores reported that customers carried eggs home in cartons, 7 of which were independent stores. Eleven stores

reported that some of their customers carried eggs home or had them delivered in bags and some in cartons. Those sold in cartons were usually delivered. Several of the store operators reported that when delivering eggs they preferred to do so in cartons rather than paper bags.

TABLE LXXII. TYPE OF EGG PACKAGE REPORTED AS USED BY 100
KNOXVILLE RETAIL GROCERY STORES,
1942 - 1943 *

	Chain	Independent	Total
Paper bags	24	54	78
Paper cartons	4	7	11
Paper bags and cartons	2	9	11

* Source: Appendix Table X, Section C.

Consumer Preferences

Egg qualities demanded by consumers. Forty three grocery store operators reported that their customers were interested in "just eggs". The usual remark was that the customer phoned in an order or just asked for a dozen eggs. This occurrence was most common in districts III, IV, V, and VI. Freshness was the quality demanded by the customers of 34 grocery stores, 24 of which were independents. No customers demanded 'infertile' eggs as, although many stores sold only 'infertile' eggs, customers realized they were obtaining fresh eggs from those stores and

probably probed the matter no further. Only three stores reported that their customers preferred clean eggs. The housewife wants the most for her money and so she usually picks out the largest eggs. Only four stores reported their customers as desiring medium eggs. Twenty one grocery stores reported that their customers showed a definite preference for large eggs. The remainder of the stores reported that the preference was not evident enough to be stated as it varied with individual customers. This was the case with many of the other questions.⁹

TABLE LXXIII. EGG QUALITIES DEMANDED BY CONSUMERS OF STORES REPORTING, 1942 - 1943 *

	Total	Chain	Ind.	I	II	III	IV	V	VI	VII	VIII
Color:											
Brown	19	11	8	2	1	4	3	4	-	2	3
White	21	11	10	1	1	5	3	5	-	4	2
Size:											
Large	21	9	12	1	1	3	-	6	2	3	5
Medium	4	-	4	1	-	-	-	1	-	1	1
Clean shells	3	-	3	-	-	1	-	-	-	1	1
Freshness	34	10	24	5	2	5	2	5	2	7	6
Uniformity	1	1	-	1	-	-	-	-	-	-	-
Infertile	-	-	-	-	-	-	-	-	-	-	-
Just eggs	43	13	30	4	-	12	8	9	7	2	1
Price	1	-	1	-	-	1	-	-	-	-	-

* Source: Appendix Table X, Section C.

Suggestions for Improvement

Grocery store operators suggested egg marketing improvements to be made by farmers. Twenty three stores, 13 chains and 10 independents,

9. Grocery store operators only reported on those qualities thought important. Some reported more than 1 quality.

suggested that farmers grade eggs as to size before marketing them. They felt that the farmer lost by not grading as they could only pay higher prices for selected eggs.

Sixteen store operators thought farmers should not market rotten eggs, i.e.; that they should candle eggs on the farm. (This would seem to indicate that farmers had sold them rotten eggs.)

Sixteen store operators objected to dirty eggs as purchased from farmers. Two other operators suggested that farmers should provide nests for the hens.

Seven operators suggested that farmers gather eggs more often.

Six operators complained that farmers were not dependable, that they promised to come by every week and forgot to do so, and that they did not make an effort to market eggs regularly.

Other improvements suggested were: keep eggs cool, improve stock of chickens and to keep other persons from posing as farmers.

Twenty stores, 16 of which were independents, thought that the eggs they were purchasing from farmers were all right and they could see no need for improved practices.

Eight store operators had no opinions to offer or had had insufficient experience in buying eggs from farmers.

TABLE LXXIV. COMMENTS BY KNOXVILLE GROCERY STORE OPERATORS
ON EGG MARKETING BY FARMERS, 1942-1943 *

Suggestions for Improvement	Chain	Independent	Total
Grade (size)	13	10	23
Candle (rots)	3	13	16
Eliminate dishonesty	1	2	3
Clean eggs	9	7	16
Gather eggs more often	1	6	7
Provide nests	2	-	2
Market eggs often and regularly	2	4	6
Keep eggs cool	-	1	1
Improve stock of chickens	-	1	1
Should cull flock	-	3	3
Miscellaneous comments			
Farmers' eggs O.K.	4	16	20
Does not trade with farmers, as they do not go to out of way stores	-	4	4
Does not trade with farmers	-	3	3
Keep people from posing as farmers	-	1	1
Farmers just slow all around	1	1	2

* Source: Appendix Table X, Section C.

Egg marketing improvements for produce dealers. On the whole, grocery store operators were satisfied with the eggs they were receiving from Knoxville produce dealers. Forty-four stores reported no improvement by produce houses necessary. This was not only because the produce house candled eggs, but because it would replace any eggs which were reported to the store as rotten. Farmers did not do this.

Nine store operators suggested that produce dealers grade eggs and six that they candle for rots. This would indicate that, although produce houses do candle, that some rotten eggs pass unnoticed or that

they are held in the store until they become rotten.

Six store operators thought that the quality and size of eggs sold by produce houses did not compare with those sold by farmers.

Four store operators thought produce dealers could deliver eggs to grocery stores sooner after purchase by them.

Two stores objected to cold storage eggs and one to bad eggs in the summer.

TABLE LXXV. COMMENTS BY KNOXVILLE GROCERY STORE OPERATORS
ON EGG MARKETING BY PRODUCE DEALERS,
1942 - 1943 *

Suggestions for Improvement	Chain	Independent	Total
No improvement	21	23	44
Grade eggs (size)	1	8	9
Candle (rots)	1	5	6
Move eggs faster	1	3	4
Improve quality and size	2	4	6
Eliminate cold storage eggs	-	2	2
Eliminate bad eggs in summer	-	1	1

* Source: Appendix Table X, Section C.

Poultry

Only 55 of 100 stores interviewed sold either live or dressed poultry. Half of the chain stores sold poultry and only 40 of the 70 independent stores sold poultry. All of these stores sold chickens; only 32 stores, 21 of which were independents, sold turkeys. Nine stores sold ducks, only three of which were chain stores, but they sold the majority of the ducks sold.

TABLE LXXVI. PERCENTAGE DISTRIBUTION OF STORES SELLING
POULTRY, 100 KNOXVILLE RETAIL GROCERY STORES,
1942 - 1943 *

	Total	Chain	Independent
Number interviewed	100	30	70
Number selling poultry	55	15	40
Number selling chickens	55	15	40
Number selling turkeys	32	11	21
Number selling ducks	9	3	6

* Source: Appendix Table X, Section D.

Volume of Business

Amount handled. When all stores selling chickens were considered together they averaged 1,786.5 chickens sold per year or 98,259.5 combined. Chains sold an average of 2,488 chickens each per year and independents 1,523.5.

Knoxville grocery stores sold only a few turkeys each year, usually only during the holiday season. Chain stores averaged 44 turkeys sold, independents only 38.6, while all stores combined averaged 40.3 each.

Only nine stores sold ducks, but three of them were chain stores averaging 2,370 ducks each. The six independent stores sold only 32.7 ducks each.

None of the stores reported selling geese or guineas.

TABLE LXXVII. TOTAL AND AVERAGE NUMBERS OF POULTRY REPORTED
SOLD ANNUALLY BY KNOXVILLE GROCERY STORES,
1942 - 1943 *

	Chickens		Turkeys		Ducks	
	Total Number	Ave. No.	Total Number	Ave. No.	Total Number	Ave. No.
Total year volume	98,259.5	1,786.5	1,290.5	40.3	7,308	812
Chain	37,320	2,488	479	44	7,100	2,333.3
Independent	60,939.5	1,523.5	811.5	38.6	208	33
District I	6,050	1,008.3	77	25.6	-	-
II	8,580	4,290	76	38	12	12
III	6,916	864.5	23.5	7.8	4	4
IV	6,535.5	1,089.3	52	17.3	10	10
V	10,036	1,115.1	88.0	17.6	-	-
VI	9,892	1,413.1	86	28.6	-	-
VII	33,602	7,321.3	730	60.8	5,150	1,030
VIII	16,748	4,187	158	31.6	1,950	1,950

* Source: Appendix Table X, Section D.

Seasonal aspects of turkey sales. All of the 32 stores reporting selling turkeys sold them during November and December. Turkeys were considered holiday meat. Many stores handled turkeys only on special orders during the holidays.

Seasonal aspects of duck sales. Although six stores reported selling more ducks during the holidays, two of the three stores selling them the year round sold the greatest number of ducks. In general, ducks were a holiday fowl just as turkeys were. However, Long Island ducks were sold the year round by three stores.

Seasonal aspects of chicken sales. Eight stores sold more chickens

in summer than at any other time. Seven sold more in the winter; five on holidays; five the year round. Four stores stated that sales went up on Friday and Saturday, but that they experienced no seasonal changes in sales.

Nineteen stores specified that they sold more hens in winter and 23 specified that they sold more friers in summer.

TABLE LXXVIII. PERIODS OF SALE OF CHICKENS REPORTED BY
KNOXVILLE RETAIL GROCERY STORES, 1942-1943 *

Period	Number of Stores Selling Each Period		
	Chain	Independent	Total
Winter	2	5	7
Summer	5	3	8
Holidays	4	1	5
Week ends	1	3	4
Year round	4	1	5
Hens in winter	5	14	19
Friers in summer	6	17	23

* Source: Appendix Table X, Section E.

** Does not equal 55 as some stores specified more than one period of sale.

Source of Supply

Source of chickens. Knoxville grocery stores reported purchasing 71.7 percent of the chickens handled from produce houses and packing companies.

Independent grocery stores purchased a larger percentage, 76.5 percent, from produce houses and packing companies than did chain grocery

stores. Farmers were the second most important source of chickens, furnishing 20.2 percent of chickens purchased by grocery stores. Independent stores purchased 23.3 percent from farmers. Chain stores purchased 16.7 percent from farmers. The farmer usually contacted the grocery store a few days before he wanted to sell some chickens; he then delivered them dressed, on order. Many friers were sold this way in the summer. There were also several large commercial farmers furnishing grocery stores with a high grade of dressed poultry in large quantities, especially in districts II and VII. These commercial farmers dressed poultry in large quantities and presented it for sale in water-proof packages.

Eighteen and two-tenths percent of the chickens purchased by chain stores were purchased by stores of one chain from a man operating a battery feeding station in district V. This man handled about 500 friers each week through the battery feeding station and brought in other chickens from the country where he lived.

Other sources of chickens accounting for 0.6 percent of the chickens sold were: (1) the meat buying department for the stores of one chain; (2) other meat markets; (3) hatchery.

TABLE LXXIX. PERCENTAGE OF ANNUAL VOLUME OF CHICKENS PURCHASED FROM SOURCES REPORTED BY KNOXVILLE RETAIL GROCERY STORES, 1942

Source	Chain		Independent		Total	
	Percent Total	No. Rptg.	Percent Total	No. Rptg.	Percent Total	No. Rptg.
Farmers	16.7	9	22.3	14	20.2	23
Country and rolling stores	-	-	0.9	1	0.6	1
Produce house and packing company **	64.0	10	76.5	37	71.7	47
Battery feeding station	18.2	2	-	-	6.9	2
Others	1.1	1	0.3	2	0.6	3
Total number sold per year	37,320.0	16	60,939.5	40	98,259.5	56

* Source: Appendix Table X, Section D and Table XI.

** The percentage from packing companies was probably insignificant. Grocery store operators did not differentiate between produce houses and packing companies.

Source of turkeys. Produce houses furnished only about 64.0 percent of the turkeys sold by retail grocery stores. The percent was about the same for chain and independent stores. Farmers sold more turkeys direct to independent stores, 36.3 percent of the total volume handled, than they did to chain stores, which was only 3.0 percent. Independent stores did not report purchasing turkeys from packing companies. (It is believed that independent grocery store operators classed produce houses and packing companies together.) One independent store purchased turkeys from farmers and a hatchery, bulking the percentage together, thus tending to overestimate the amount purchased from farmers.

Inasmuch as the actual number of turkeys handled was so small the purchases of one store from a certain source may have over-emphasized the importance of that source. For example, one chain store in district VIII, purchased 60 turkeys, or 12.5 percent of the turkeys purchased by chain stores, from a country produce dealer. The numbers being so small give undue importance to this percentage.

TABLE LXXX. PERCENTAGE OF ANNUAL VOLUME OF TURKEYS PURCHASED FROM SOURCES REPORTED BY KNOXVILLE RETAIL GROCERY STORES, 1942 *

Source	Chain		Independent		Total	
	Pct.	No. Rptg.	Pct.	No. Rptg.	Pct.	No. Rptg.
Purchased from farmers	13.0	2	36.3	6	27.6	8
Produce house	64.3	7	63.7	13	64.0	25
Meat packing company	10.2	3	-	-	3.3	3
Others	12.5	1	-	-	4.6	1
Total number sold per year	479.0	11	811.6	21	1290.5	32

* Appendix Table A, Section D and Table XI.

Source of ducks. Approximately 97 percent of the ducks sold were reported as sold by three chain stores. Two-tenths percent of these ducks were purchased from farmers and 99.8 percent from two different sources, the most important of which was the main warehouse of one of the larger chain stores. This warehouse purchased ducks indirectly from Long Island packers. The rest of the ducks handled by chain stores were also Long Island ducks, but came in through Knoxville meat packing companies.

The local frozen food distributor also sold some Long Island ducks to an independent store.

TABLE LXXXI. RELATIVE IMPORTANCE OF SOURCES OF DUCKS PURCHASED BY KNOXVILLE RETAIL GROCERY STORES, BY PERCENTAGE OF TOTAL VOLUME, BY NUMBER REPORTING, 1942 *

Source	Chain		Independent		Total	
	Pct.	No. Rptg.	Pct.	No. Rptg.	Pct.	No. Rptg.
Farmer	0.2	1	62.5	1	2.0	2
Produce house	-	-	31.7	4	0.9	4
Packing company	27.5	1	-	-	26.7	1
Others	72.3	1	5.8	1	70.4	2
Total number sold per year	7,100	3	208	6	7,308	9

* Source: Appendix Table X, Section D and Table XI.

Buying and Selling Practices

Chickens purchased dressed. Fifty-five grocery stores selling chickens reported buying 96 percent of the chickens dressed and only 3.9 percent alive. Chain stores purchased practically none live, while independents purchased 6.2 percent alive. Several grocery store operators remarked that they were retail stores and did not engage in processing operations. Those independent stores purchasing live poultry did so, partly because they had direct contacts with country sellers and partly because their customers desired to purchase live poultry. Only five of the independent stores which purchased any live poultry sold some of it dressed. Two of these stores were in district I. One purchased some

live chickens and had them dressed at a produce house, and another purchased live turkeys and had them dressed at a produce house. In district III one independent store purchased live chickens but they were dressed by a neighbor after the housewife had picked out the live bird that she desired. One small independent store operator in district VIII purchased live poultry, dressed it, and kept it in a freezing compartment a few days before selling it. He claimed that his customers were willing to pay him a premium price for the better dress job and care that he used in preparing poultry for sale.

TABLE LXXXII. PERCENTAGE OF CHICKENS PURCHASED LIVE AND PERCENT PURCHASED DRESSED, 1942 *

	Chain	Independent	Total
Total number of chickens sold per year	37,320.0	60,939.5	98,259.5
Percent purchased alive	0.1	6.2	3.9
Percent purchased dressed	99.1	93.8	96.1

* Source: Appendix Table X, Section D.

Those districts in which more than 10 percent of the chickens were purchased alive by independent stores were districts, III, IV, and VI.

Size of hens or heavy chickens sold. Grocery stores reported selling hens weighing from 2 3/4 to five pounds; however, 3 1/2 to four pounds was the usual size hen sold.

TABLE LXXXIII. NUMBER OF STORES REPORTING BY AVERAGE SIZE
OF HENS SOLD, 1942-1943 *

Size of Hen, Lbs. **	Number of Stores Reporting		
	Chain	Independent	Total
5	-	2	2
4 1/2	3	3	6
4 1/4	-	1	1
4	5	9	14
3 3/4	3	14	17
3 1/2	2	5	7
3 1/4	-	1	1
3	-	2	2
2 3/4	1	-	1

* Source: Appendix Table X, Section E.

** 1 chain and 3 independents did not sell hens.

Size of friers. Most stores reported selling friers averaging less than two and one-half pounds. Eleven stores reported selling friers averaging one and one-half pounds, 9 stores reported friers sold as averaging one and three-quarter pounds; 15 reported selling friers averaging two pounds, and 13 stores sold friers averaging 2 1/4 to 2 1/2 pounds.

TABLE LXXXIV. NUMBER OF STORES REPORTING BY AVERAGE SIZE
OF FRIERS SOLD, 1942 - 1943 *

Size of Friers, Lbs.	Number of Stores Reporting		
	Chain	Independent	Total
3 1/2	1	-	1
3	-	2	2
2 1/2	1	4	5
2 1/4	1	7	8
2	4	11	15
1 3/4	2	7	9
1 1/2	5	6	11
1 1/4	1	3	4

* Source: Appendix Table X, Section E.

Size of turkeys. All sizes from 9 to 13 pound birds seemed to be equally favored. Six stores reported selling turkeys averaging nine pounds in weight; six 10 pounds in weight; five 10 1/2 pounds; three 11 pounds; four 11 1/2 pounds; three 12 pounds; four 13 pounds.

TABLE LXXXV. NUMBER OF STORES REPORTING BY AVERAGE SIZE OF TURKEY SOLD, 1942 - 1943 *

Size by Pounds	Chain	Independent	Total
13	1	3	4
12	-	3	3
11 1/2	3	1	4
11	1	2	3
10 1/2	2	3	5
10	1	5	6
9	2	4	6
8 **	1	-	1

* Source: Appendix Table X, Section E.

** Hen turkey.

Size of capons. Only three independent stores reported weight of capons sold. Two sold capons averaging from four to six pounds and one capons from six to eight pounds.

Size of ducks. Nearly all ducks averaged four pounds, as the majority were Long Island Ducks.

Customers out up own chickens. Of the 55 Knoxville grocery stores interviewed 25 reported cutting up chickens for none of their customers; 19 for less than one percent; and four for from one to three percent.

One chain store reported cutting up chickens for five percent of its customers and one independent cut up chickens for ten percent of its customers. One chain cut up 30 percent of the chickens it sold. In district VII, one chain and one independent and in one chain in Park City, the butcher had to cut up over 90 percent of the chickens they sold.

TABLE LXXXVI. NUMBER OF STORES REPORTING BY PERCENTAGE OF CUSTOMERS ASKING TO HAVE THEIR CHICKENS CUT UP, 1942 - 1943 *

Percent as Reported	Number of Stores Reporting		
	Chain	Independent	Total
None	4	22	26
Less than 1 percent	5	14	19
1 - 3%	2	2	4
5%	1	-	1
10%	-	1	1
30%	1	-	1
90%	2	1	3

* Source: Appendix Table X, Section E.

Selected cuts. Forty-nine of the 55 stores selling chickens reported that they could not sell selected cuts of chickens. Some store operators had never considered selling chickens that way and only 29 gave a definite reason why they could not sell selected cuts of poultry. Twenty grocery store operators felt that their trade was too small and nine that it would be too much trouble. Six stores, three chains and three independents, felt that they could sell selected cuts of poultry. One large chain store butcher said that he had been able to sell chickens as selected cuts when he could sell them no other way. One independent

store had sold selected cuts in limited amounts.

Store selling preferences. Grocery stores are retail establishments, interested in selling processed products, not in processing them. In general the grocery store operator felt it was less trouble to handle dressed poultry. Forty-four of the 55 stores preferred to sell dressed poultry and nine, all independents, preferred to sell live poultry. Two grocery store operators would have preferred to sell no poultry at all as they figured it was a nuisance.

Holding facilities. Nine of the stores sold some live chickens. These were kept in coops outside of the store while awaiting sale. Thirty four of the 55 grocery stores selling poultry kept the dressed birds in the meat refrigeration unit and 11 others kept them covered with ice and in a meat refrigeration unit. A few operators admitted soaking the chickens in icewater in order to preserve their appearance, especially if they had to be held over for sale a day after purchase. Chickens that have been scalded before picking tend to dry out and turn

TABLE LXXXVII. CHICKENS: HOLDING FACILITIES REPORTED BY
KNOXVILLE GROCERY STORES, 1942-1943 *

Place	Number of Stores Reporting		
	Chain	Independent **	Total
Coops	1	8	9
Meat refrigeration unit	9	25	34
Meat refrigeration unit & ice	5	6	11
Refrigerator or ice box	1	4	5
Frozen food compartment	-	3	3

* Source: Appendix Table X, Section E.

** Number held in other than coops does not equal 40 because 2 independents sold only live poultry.

brown when exposed to the air. Five of the smaller grocery stores reported keeping chickens in the refrigerator or ice box while waiting sale. Three independent grocery stores were equipped with frozen food compartments in which they kept poultry when it was not sold the same day.

Consumer Preference

Factors determining consumer choice of poultry. Of the 55 stores interviewed which sold poultry, 25 reported price as an important factor determining whether the housewife purchased poultry or not. Seventeen of these stores were independent stores. In normal times chickens were considered a luxury meat. In the lower income sections grocery store owners stated that they had been able to sell only a few chickens except during periods when wages were relatively high or chickens were exceptionally cheap. The size of the chicken was mentioned as an important factor by 17 grocery stores selling poultry. Size is related to price and determines price in part, so that it is difficult to distinguish between size and price as determining factors. The appearance of the skin was a real determining factor and was reported by 11 of the grocery stores. Some of the operators of these grocery stores claimed that if they could put chickens, which had nice appearing skin, on display that they could sell them easily. The quality was given as a determining factor by five stores. Quality can hardly be determined

TABLE LXXXVIII. FACTORS CONSIDERED IMPORTANT BY CUSTOMERS IN CHOOSING POULTRY AS REPORTED BY KNOXVILLE GROCERY STORES, 1942 - 1943 *

Factors	Number Reporting		
	Chain	Independent	Total
Price	8	17	25
Size	3	14	17
Age of bird	3	3	6
Appearance of skin	3	8	11
Amount of fat	2	6	8
Color of skin	1	3	4
Quality	1	4	5
Just chickens	-	2	2

* Source: Appendix Table X, Section E.

before eating except by appearance of skin. The age of the bird was considered important by the customers of six of the stores reporting. The customers of eight stores considered the amount of fat on the bird an important factor in determining their purchase. The color of the skin was mentioned as important by only four of the stores. Two of the stores reported making sales "just as long as it was chicken".

Suggestions for Improvement

Marketing improvements suggested. Grocery stores reported that they could sell more poultry in normal times if poultry were of a better quality and on display. Fifteen grocery stores reported that if chickens were of a better quality they would be able to sell more. One independent grocery store operator, in the Lincoln Park section, said that if Leghorns were kept off the market that the quality would be better. Nine grocery store operators said that if they could keep chickens on display they would sell more. Two of these grocery store operators said that when they put chickens on display that customers would buy them. Otherwise, they might not ever ask for them. Chickens were not usually given much prominence in meat refrigeration units. Eight grocery stores reported that they thought no improvements could be made and that the present quality and dress was satisfactory. However, five independent stores claimed that the dressing job turned out by local dressing plants left much to be desired. Seven grocery stores reported that if the price was lower, in normal times, they could sell more poultry as they thought that was the one thing that determined the purchase of poultry

These stores were located in the lower income sections. One chain store operator said that if milk fed poultry could be introduced in the Knoxville market it would sell. Another chain grocery store operator thought that advertising would help the sale of poultry in Knoxville. One independent grocery store operator claimed that if housewives could be sure they were getting a dressed bird that had not been diseased they would buy more dressed poultry. One grocery store operator thought that if there were more holidays and special occasions more poultry would be sold. Many operators said that if everyday was Sunday they could sell more chickens, because their customers only ordered chickens for Sunday dinner.

TABLE LXXXIX. MARKETING IMPROVEMENTS SUGGESTED BY
KNOXVILLE RETAIL GROCERY STORES,
1942 - 1943 *

Improvements	Number of Stores Reporting		
	Chain	Independent	Total
Better quality	6	9	15
No improvement in quality necessary	2	6	8
Birds on display	2	7	9
Better dress	-	5	5
Lower price	3	4	7
Milk fed poultry	1	-	1
Inspection certificate to show health of fowl	-	1	1
Advertising	1	-	1
Special occasions	-	1	1

* Source: Appendix Table X, Section E.

Summary of Differences Between Chain and Independent Grocery Stores as Poultry and Egg Marketing Agencies

The average chain store reported selling 7.1 cases of eggs per week, or nearly twice as many eggs as sold by the average independent store. Chain store egg sales fluctuated more than did independent store sales. A larger percentage of the independent stores reported selling nearly the same number of cases of eggs weekly the year round.

A larger percentage of chain stores than of independent stores purchased eggs from produce dealers and packing companies. Chain stores also purchased a larger percentage of their total weekly volume of eggs from Knoxville produce dealers and meat packing companies. Independent stores purchased a larger percentage of their total weekly volume of eggs from farmers and country stores.

A larger percentage of the chain stores than of the independent stores purchased eggs from farmers on a case count basis. About the same percentage of chain stores as independent stores purchased eggs from produce houses on a graded basis. More independent than chain stores admitted selling some cracked and checked eggs. A larger percentage of chain than independent stores sold eggs as strictly fresh or fresh eggs. A larger percentage of chain stores sold graded or brand name eggs than did independent stores. A larger percentage of chain than independent stores sold more than one grade or price of eggs. A larger

A larger percentage of the independent than of the chain stores held eggs for more than four days. A larger percentage of the chain stores than of the independent stores kept eggs on display and in the front of the store. About the same percentage of chain and independent stores used cartons for egg packages, however paper bags were more commonly used by both.

A larger percentage of the independent than of the chain stores reported that their customers asked for "just eggs" and did not specify quality preference. A larger percentage of the chain stores than of the independent stores reported that their customers expressed a preference for a certain color of egg. However, white and brown eggs were equally important for all chain stores together. Preferences differed with districts.

A larger percentage of the chain than of the independent stores suggested that farmers should grade eggs, i.e., sort for size, and clean eggs or bring only clean eggs to market. A larger percentage of chain than of independent stores reported entire satisfaction with produce house eggs. The difference was probably due to the different produce houses patronized.

Independent stores, in the aggregate, sold more chickens during a year than chain stores. On a per store basis, however, chain stores sold more chickens. Chain stores sold more of other kinds of poultry. One group of chain stores sold larger quantities of ducks every week, when they were available in previous years. Over 97 percent of the

ducks sold during a year were sold by the chain stores, 98.8 percent of which were imported from other states.

Independent stores purchased a larger percentage of their poultry from farmers, produce houses and packing companies than did chain stores. This was largely due to including one group of chain stores which purchased a large percentage of their chickens from a battery feeding station. All independent stores combined sold more turkeys and purchased more of them from farmers direct than did chain stores.

Independent stores purchased more of their chickens in the live state than did chain stores. Chain stores preferred not to sell live poultry because they were not equipped to handle it and because they did not like to bother with it.

A larger percentage of the chain stores than of the independent stores reported that more of their customers asked to have their chickens cut up for them. A larger percentage of chain than of independent stores thought that they might be able to sell selected cuts of poultry. (one of the requisites for this kind of marketing is a large trade with varied preferences.)

A larger percentage of the chain than of independent stores kept chickens in the meat refrigeration unit without ice while awaiting sale.

Recent Trends Based on Comparison With Earlier Studies

If the findings of this survey are compared with those of Walter Carter's survey (Table LV) it would seem that in general grocery stores

are procuring eggs from the same sources now as they were in 1939. Stores seem to be selling about the same volume of eggs per week. However, more stores are keeping eggs on display in the front of the store. Only one more store reported selling eggs in cartons in 1943 than in 1939; however, in 1943 11 stores reported selling eggs in both bags and cartons. The same number of stores reported selling only one grade or one price of eggs in 1943 as in 1939. There now seems to be as many persons expressing a preference to their groceryman for white eggs as for brown eggs; although, in 1939 there was found to be a preference for white eggs. In general it would seem that during the four year period the grocery stores have not materially changed their practices.

E. O. Dille found that of 132 Knoxville retail grocers, 37 purchased 100 percent of their poultry products from Knoxville wholesale establishments and of the remaining 95, 51.0 percent purchased from these sources.¹⁰ Fifty-one and five tenths percent of the eggs and 71.7 percent of the chickens handled by the 100 stores reported in this survey were purchased from local wholesale establishments.

10. See page 254.

CHAPTER X

MARKETING FUNCTIONS OF KNOXVILLE POULTRY AND

EGG MARKETING AGENCIES

Eggs and poultry must undergo a certain amount of handling and processing between the time of production and consumption. These processes are usually the function of some marketing agency or agencies. Each agency to justify its existence should perform some one or more of these functions, i.e., do something to create time, place or form utility in the product. Those things which are usually done to most farm products during the marketing and associated processes have been grouped together by Norton and Scranton under the following headings:

- a. Assembling
- b. Distributing
- c. Sorting and grading
- d. Packaging
- e. Storing
- f. Transporting
- g. Financing¹
- h. Risk bearing (insuring)
- i. Processing
- j. Buying and selling²

1. No special study was made of this marketing function. Egg and poultry transactions in the Knoxville area are usually on a trade, cash, or check basis. Marketing agencies usually resell poultry or eggs within a few days after purchase and the refore even short term loans are unnecessary.

2. Norton, L. J., and Scranton, L. L., The Marketing of Farm Products, Interstate Printers and Publishers, Danville, Illinois, 1937, p. 8.

The functions of Knoxville poultry and egg marketing agencies will be discussed in the order just shown. Eggs and poultry will be considered together for discussion except where one is specified.

Assembling

This is the process of bringing together relatively small quantities of produce grown on individual farms so that they may be handled economically, as well as bringing together the surpluses of individual communities into a few large central markets.³

Primary assembling. Primary assembling agencies purchase poultry and eggs direct from the farmer. Knoxville area agencies coming in direct contact with the farmer are the rolling store, country store, country produce dealer, huckster, produce dealer, meat packing company, milk plant, retail grocery store, and bakery.

Secondary assembling. Secondary assembly agencies purchase poultry and eggs from agencies which have already purchased them from farmers. The principal secondary assemblers are produce dealers and meat packing companies. In the Knoxville area these agencies are also primary assemblers. Country produce dealers and country stores are also sort of intermediate secondary assemblers as the country stores buy from rolling stores and country produce dealers buy from country stores. Purchases by Knoxville produce dealers and meat packing companies from country produce dealers and country wholesale grocery stores represents third person purchases.

Assembling from other states. Shell eggs are assembled from other states by Knoxville wholesale receivers and meat packing companies. Frozen eggs are also assembled from other states.

3. Ibid., p. 7.

Live poultry is assembled from other states by both Knoxville wholesale receiving and jobbing produce houses.

Dressed poultry, chickens, turkeys and ducks, are assembled from other states by Knoxville meat packing companies, large chain stores and frozen food products distributors.

Egg marketing channels.

The channels of trade followed by eggs are of interest as representing a type of market organization developed for a commodity, which is produced as a side line in very small quantities. Moreover, there is in the main, no processing and eggs reach the consumer in the form as originally produced. Cooperative effort can do much to expedite the movement of the product and particularly to make the country market more sensitive to consumers' quality preferences, but as already pointed out, it does not reduce the number of steps which are usually necessary in bridging the gap between producer and consumer.

The marketing system developed for eggs is frequently criticized on the ground that there too many steps and that too many middlemen add a profit which the consumer must pay. The real disadvantage of having so many steps does not lie in this direction at all, and the extra profits taken by the various middlemen add very little to the ultimate cost of the eggs. The real faults with this many-linked assembling and distributing system are that it does not adequately stimulate the production of high-quality eggs by paying premiums for quality, and does not expedite the movement of eggs through the trade channels in such a way as to reduce loss from spoilage and extra handling to the possible minimum. Both the cooperative movement and the tendency toward integration on the part of large distributors look toward the correction of these evils. 4

Knoxville marketing agencies perform their assembling and distributing operations. Which agency is relatively more efficient depends upon what season of the year you consider. It might be possible for farmers to market all eggs either direct to grocery stores or consumers if they

4. Erdman, Henry E., American Produce Markets, D. C. Heath and Company, New York, 1928, p. 50.

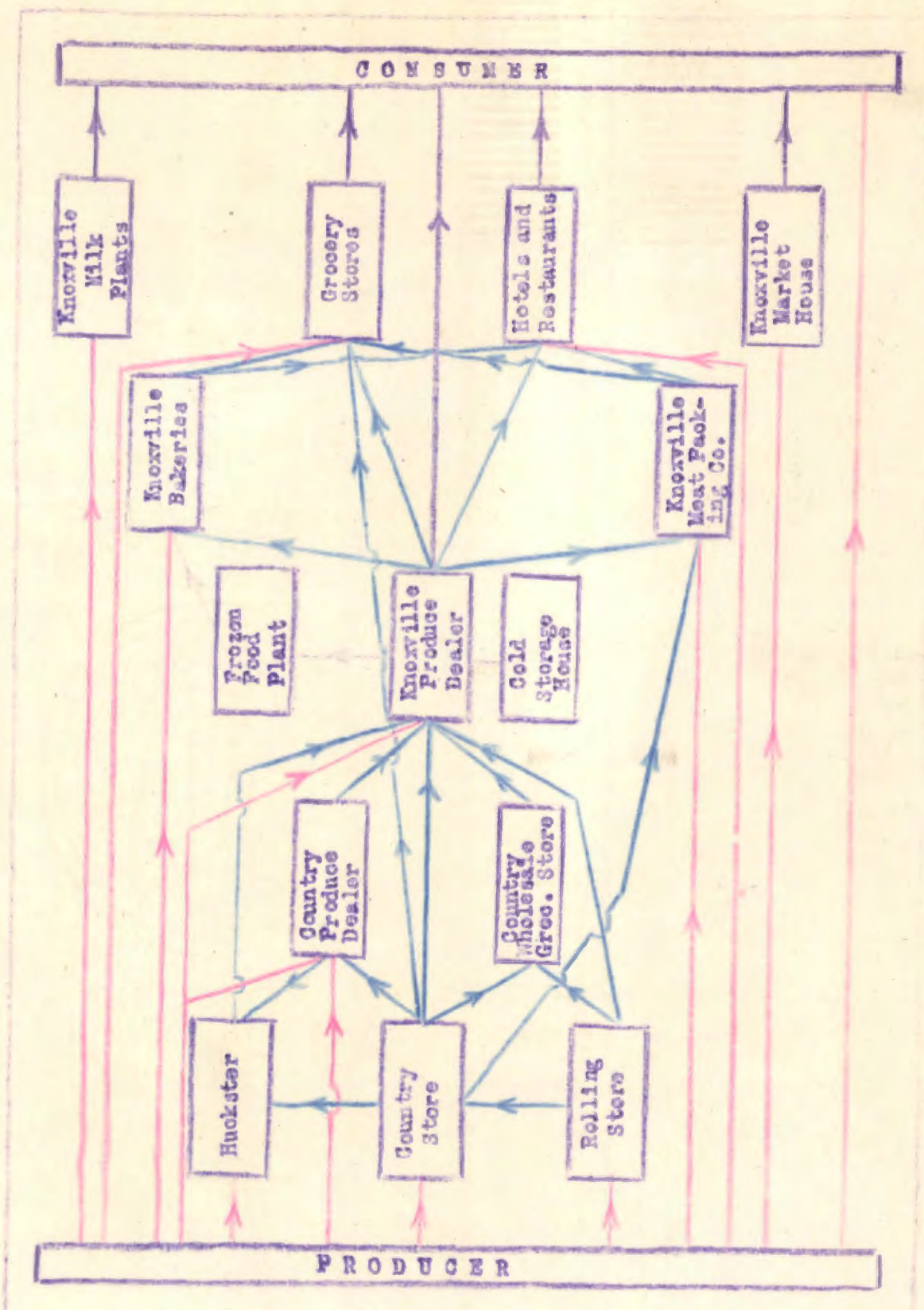


Figure 83. Egg marketing channels, Knoxville, 1942-1943.

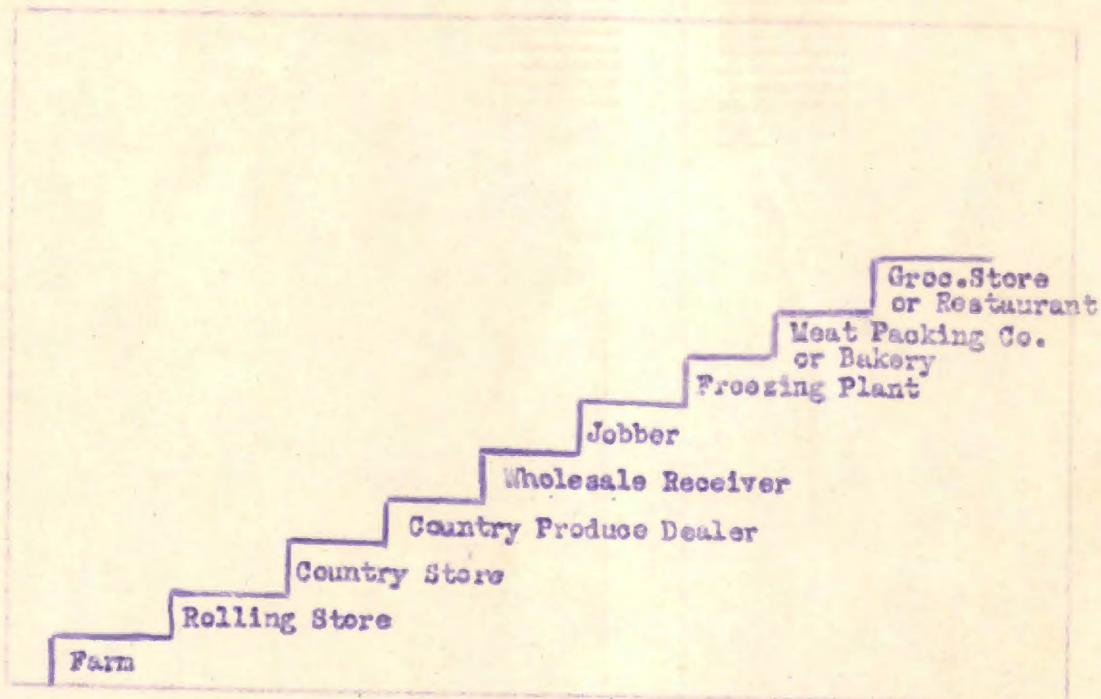


Figure 84. Maximum possible number of agencies involved in marketing poultry or eggs in the Knoxville Area, 1942-1943.

so desired. It is probable that this would cause the price of eggs to be unnecessarily high because of the inefficiency of marketing in small quantities. It is probably more efficient to market through longer channels. However, if assemblers and distributors pass eggs from one agency to another without performing any other functions other than assembling there is undoubtedly much waste motion. It is possible for eggs and poultry both to pass through all the market agencies shown in Figure 84. The more direct the market channels the smaller is usually the spread between the price paid the farmer and that paid by the consumer.

Difference between poultry and egg marketing channels. In the main the marketing channels for poultry and eggs are the same with only a few minor exceptions. Poultry is not brought to Knoxville agencies by the agency shown as a huckster in Figure 83. Poultry is brought to the grocery store by personal friends of the grocery store operator who have bought up poultry in the country. Poultry is not marketed through the bakery or the milk plant as are eggs.

Sorting and Grading

Sorting is the process of dividing farm products into like groups according to size, appearance, and quality, i.e., into lots of similar characteristics. In an area like Knoxville, where so many eggs move into local market channels, some elementary sorting on the farm is advisable. It is to the farmer's disadvantage to market a conglomerate assortment of

eggs. Only relatively few enterprising farmers who sell direct to consumers in the Knoxville area have practiced sorting, to obvious advantage.

Sorting by the first country assembler is even more important than sorting by the farmer. The country assemblers purchase small lots of poultry and eggs from all kinds of farmers, under varying conditions. In the Knoxville area where all size and kinds of eggs, i.e., duck, Bantam, and guineas, are all marketed together, it should be one of the functions of the country assembler to see that these eggs do not all go to market in the same case. Henry E. Erdman summarized the grading situation at country points in the following paragraph:

The amount of grading done in the marketing of eggs at country points varies from none at all to very careful grading for fancy hotel and private trade. When eggs are to move through the longer trade channels, there is no particular advantage in grading closely at the country points, since the grade may change materially before the eggs reach the market, which is often a thousand miles or so distant and is not reached for several weeks. There should, however, be enough grading at country points to separate eggs with any substantial differences in value so as to reward the producer of superior products. When eggs are gathered by hucksters or sold to local stores, farmers do not grade at all, and at times do not even discard the unmerchantable eggs except in such states as have laws requiring that eggs be bought on a "loss off" basis. 5

Sorting and grading may be done in the same operation, or sorting may precede grading. Sorting depends in part on the amount of grading to be done, and grading depends upon where the eggs are being marketed and what the grading law is in effect in the state where the eggs are first

5. Ibid., p. 51.

sold. Grading in the Knoxville area is under the jurisdiction of the Tennessee egg law.

Who sorts and grades eggs in the country. The Tennessee egg law specifies that all those persons purchasing eggs from farmers for resale shall candle when purchasing between May 15 and December 31.⁶ The law also states that it is necessary to remove inedible eggs. Finer grading distinctions are not specified. Hucksters and rolling stores usually cannot bother or are not equipped to candle eggs. The farmer is therefore in a position where he can sell them anything in a shell. To act within the law the rolling store may then candle the eggs before resale; they often do not. Country stores when buying from farmers in person could return the rotten ones when they have time to candle. It is more customary to candle the day's purchases at night, if at all. The Knoxville produce dealers do not candle eggs when they purchase them from farmers but when the eggs are assembled at their place of business. Meat packing companies do not candle eggs until after they have purchased them. Milk plants do not candle but resell immediately.

Agencies sorting and grading eggs in Knoxville. Eggs are candled by wholesale receivers before shipment to other markets. Knoxville jobbers candle eggs before resale to grocery stores and sometimes sort them into color and size grades. One jobber sells eggs by weight. There is much room for improvement in candling and in grading of eggs as now practiced by Knoxville produce dealers.

6. See Appendix F.

Possibility of egg sorting and grading at country points. Grading is profitable if it increases consumption and increases returns to farmers. The average consumption of eggs in Knoxville was estimated at 28.6 dozens per person annually in 1938,⁷ and the prices paid farmers have been about the average of the prices paid farmers in the U. S. for eggs for several years. Consumption could possibly be increased to 30.4 dozens per person, or an egg a day. Prices could be increased to farmers somewhat without increasing the cost of eggs. Produce dealers and retailers have all said they would pay premiums for eggs that had been sorted and were guaranteed not rotten. Prices for eggs shipped would be higher if a higher quality egg was available for shipping. Eggs are brought into Knoxville from other states during certain periods of the year. If a better quality of eggs were available in Knoxville during the late spring and summer months more local eggs might be stored.

Consumption is already so high that an increase is limited. Proper use of low quality eggs as well as high quality eggs should be stressed so as to avert an unbalanced price situation.

Sorting and grading has the greatest possibility of increasing farmer's incomes not through increased local consumption but increased price for shipping eggs. In one community in Iowa where eggs were graded statistics were compiled which showed that after grading the community price rose above the state average price. The community price also obtained an increasingly better position in regard to the New York price for

7. Hansard, Samuel L., op. cit., p. 112.

"mixed color standards".⁸

In 1939 eggs produced were valued at \$7,492,185 for the state as a whole and \$1,924,663 for the 20 counties of the Knoxville area.⁹ It has been estimated that improper handling and lack of grading on the farm causes a loss of 5 percent the United States over in the egg crop.¹⁰

Assuming the loss is no greater in Tennessee farmers could increase the value from eggs produced by \$374,609, if they handled eggs properly and prepared them for market.

Although grading of shipping eggs at country points is less important than grading of eggs for local consumption it is still an important marketing function. The loss incurred by someone in carrying rotten eggs around the country and of having to candle them out at a later date is usually borne by someone, probably the farmer. The elimination through candling of rotten eggs marketed by the farmer does not insure the remainder of the eggs against rotting. Country store keepers do not buy on a grade basis and so they do not wish to sell on a grade basis. The farmer is used to thinking of eggs as a medium of exchange and not as a food. The same farmers who spend hours sorting and preparing tobacco for sale on a grade market does not give a thought to the grade or size of the eggs he exchanges for groceries. Egg returns are in the form of groceries purchased throughout the year while tobacco is paid for in

8. Oderkirk, A. D., Selling Iowa Eggs by Grade, Ext. Circ. #237 (revised), Table 1, p. 5., December 1940, Iowa State College, Agricultural Extension Service, Ames, Iowa, pp. 24.

9. See page 27, Table IX.

10. Seaton, M. A., quoted in Produce Packer editorial, "Carelessness Wastes Millions of Eggs", May 24, 1941, p. 8.

folding money all in one day.

Egg laws. Tennessee's egg laws were passed in 1923, their stated purpose being to

promote the production of better eggs in the State of Tennessee; to provide for the candling of eggs offered for sale for human consumption; to regulate the traffic in eggs; to prevent the sale of eggs which are unfit for human food and to fix penalties for the violation of the provisions of this Act. 11

There have been no additions to the law. The law declared that an egg that be addled or moldy, have black rot, white rot, or a blood ring; or having an adherent yolk or a bloody or green white; or be incubated beyond the blood ring stage; or if composed in whole or in part, of a filthy decomposed or putrid substance, is unfit for human consumption and may be sold only for commercial purposes.¹² It provides further that eggs shall be candled between May 15 and December 31 of each year by every person buying or selling them whether the payment for the eggs be made in cash or merchandise.¹³ The law defines "candled" as meaning the careful examination of the whole egg, in a partially dark room or place suitable for the purpose.

The forms of apparatus and methods to be employed in the candling of eggs to be home made or bought. 14

11. Appendix F.

12. Appendix F, Sec. 11161.

13. Ibid., p. 545 Sec. 11162.

14. Ibid., p. 545 Sec. 11163.

Offenses against the statute are misdemeanors and convicted offenders are subject to a fine of not less than ten dollars and not more than fifty dollars for each offense.¹⁵

Practice of these laws in the Knoxville Trade Area. Local egg dealers complain that when they purchase eggs from primary and secondary buyers that they have not been carefully candled, if at all, otherwise so many rotten and incubated eggs would not have to be disposed of. This would intimate that this law is not strictly adhered to by country stores and other buyers of first incidence. It is the practice of local and country dealers to buy eggs as they appear on a current receipt basis at a current receipt price, and candle them at some later hour or day, usually after their identity of origin has been completely lost.

Egg handlers¹⁶ are aware of the fact that there is such an egg law on the statute books, but they are also aware of the lack of enforcement and inconsequential fines even if they were to be convicted. (No case covering this law has ever been recorded as reaching a higher court.) Egg handlers are also aware of the long standing custom of trading any and all eggs for merchandise, regardless of quality and so find it easier to follow the traditional practice rather than buck it. It would not be to their advantage to candle and grade if they could in turn only receive one price for all eggs they sold. A good law provides for incentive as well as punishment.

15. Ibid., P. 545, Section 11164.

16. Persons engaged in buying and selling eggs.

Adequacy of the law. The law was purportedly designed to protect the consumer against the possibility of buying eggs unfit for human consumption. In this trade area the law has provided little protection as there is nothing to prevent sale of eggs becoming unfit for human consumption after candling. Local housewives are careful to break each egg into a separate container. This practice does not indicate implicit confidence in all eggs purchased which would be the case if the law had made certain that no eggs unfit for human consumption would be sold.

The law provides for the candling of eggs but is so general in its definitions of candling that an egg that has been examined in front of a light by a person in a partially dark room would be considered candled regardless of whether any actual candling operations had taken place.

It provides that the buyer or seller may not take or give a greater or less "loss off" for eggs unfit for human food than the actual loss off resulting after careful candling of the eggs so purchased. In actual practice the buyer or seller traffics in eggs at an average price as he has no idea of the loss to expect, in individual case, until long after the deal has been consummated. An effective law would protect buyer and seller alike and allow them to bargain on the basis of known rather than unknown quality.

The provision that eggs must be candled only between May 15 and December 31 assumes, as does most of the general public, that eggs

brought to market from January 1 to May 14 are indubitably fresh. Actual experience does not bear this out. It is true that the weather is more favorable and therefore deterioration is slower during these early months. Poor handling either on the farm or in the market channels may hasten deterioration in eggs any time of year. To expect a produce firm to hire a candler for 7-1/2 months and to do an efficient job of candling is impossible on the fact of it. Such an employee must necessarily either be so poor as to command only a small wage or he must have other duties in the produce house.

Few eggs are candled in the presence of the seller and therefore are not returned to him as provided for in the law.

The fine is sufficient, but evidently not imposed.

There are no provisions in the present law concerning cold storage eggs or the handling of same.¹⁷

On the whole the egg law is literally ineffective and wholly inapplicable to the situation as it exists, at least in the Knoxville Trade Area. This is not the opinion of the investigator alone, but also of A Special Committee of National Association of Marketing Officials who, in 1935, stated that,

Egg laws in Tennessee are confessedly not well enforced. Attempts have been made at poultry egg grades, but were abandoned through lack of funds. However, this state has a Division of Markets, which is endeavoring to educate farmers and consumers by means of market news bulletins, radio talks and the daily press.¹⁸

17. Appendix F.

18. Special Committee of The National Association of Marketing Officials, Egg Legislation and Grades in The United States, Connecticut Department of Agriculture, State Office Building, Hartford, Connecticut, 1935, p. 167.

Such education seems to have been ineffective if one were to judge its results by the eggs appearing in the local market. There has been a slight improvement in eggs shipped to large centers such as New York, but this can be explained in terms of the desire of local shippers for necessary profit and the demands of the market to which they are shipping.

An adequate egg law should (1) provide for the protection of the farmer, middleman, and consumer; (2) the burden of its enforcement should fall equally upon all; and (3) its benefits should be reaped by all; (4) should be applicable to the actual situation, yet everyone should not be required to grade eggs. It should not be complex, should be easily understood and enforced. It should be all inclusive and should consider the problem of cold storage eggs. It should in no way set up trade barriers. It should not be a fresh egg law except in the provisions that eggs meeting certain candling requirements are allowed the use of the term "fresh".

Cold storage egg law. There has been no discriminatory or regulating legislation concerning cold storage eggs inasmuch as the general public opinion is in such violent opposition to their use. However, much of the reason for this opposition could have been obviated had there been enforceable statutory regulations concerning the handling of and method of storage of eggs. A cold-storage law more concerned with storage facilities and conditions than with eggs would not open the way for discrimination against cold storage eggs, but would insure their quality.

Egg grades. As a result of the egg law and demands of outside markets a rough three grade basis has grown up. However, these grades are not understood as meaning the same thing by all persons handling eggs. In general the

three grades may be designated by the terms: "Current Receipts"; "Candled No. 1's"; "Candled No. 2's". Although other terms may sometimes be used, these are the gradations they refer to. "Current Receipts" means eggs purchased as-is. "Candled No. 1's" means that the eggs have been candled, the rotten ones removed and the dirties, crax, smalls, guineas, and Bantam eggs sorted out. These discards from "Candled No. 1's" constitute "Candled No. 2's", in some instances. Some producers grade, unconsciously, by selecting only their best eggs to sell under a guaranteed brand name. It would appear that Tennessee is still in private grades stage and that it has yet to adopt state grades, let alone Federal grades.

Proposals. Those persons engaged in and interested in the industry in Tennessee have been proposing egg grading for some time. The following editorial excerpt on statements by Dr. V. L. Fuqua state dairy Commissioner of Tennessee in 1940, indicates the thinking along this line:

Dr. Fuqua reported that there has been some little improvement in Tennessee egg grading and practices. He pointed out that most consumers seem to agree that all commodities including eggs should be sold based on weights. Dr. Fuqua said that Tennessee, at various times has considered but not adopted, legislation in this connection based on the Colorado law. This requires substantially that all eggs be sold based on weights and distinguished as large, medium or small and graded for quality such as No. 1, No. 2 or 3 --- Dr. Fuqua pointed out that in the last ten years (1930-1940) the production of cheese in the state of Tennessee has increased from 225,000 lbs. to 13,000,000 lbs. per year which was made possible by standardization and upbuilding of grades. 19

19. Produce Packer editorial, "Southern Association Meeting", September 21, 1940, p. 5.

The Knoxville area, and so Tennessee, is in need of an adequate workable egg law. It should be applicable, equitable, all inclusive and non-discriminatory. An enforceable cold storage law specifying holding conditions is needed, but a cold storage law directed against cold-storage eggs would cause unnecessary further discrimination against them.

Live poultry grading. Live poultry grading has not become as common as egg grading in most all states. There is evidently no law on the buying of poultry. It is equally as important as the value involved is relatively larger per bird. In the Knoxville area, live poultry is purchased by type and only seldom is even weight mentioned in a price quotation. Knoxville produce houses ship poultry to New York where the poultry is not only sold by grade, but there are many more type divisions on that market than in Knoxville.²⁰ When farmers receive the same price for a chicken that would rate Grade C as for one that would rate Grade A on the New York market he is receiving an average price low enough to cover the buyer's risk in buying on a type basis and selling on a grade basis.

Packaging

Packaging makes handling easier, prevents loss due to bruising and exposure and divides up the product into convenient lots for the buyer.²¹

20. See American Egg and Poultry Review, "Monthly Statistical Review, Live Poultry".

21. Norton and Scranton, op. cit., p. 10.

Eggs. The convenient package for the egg is the 30 dozen egg case. Country store, rolling stores, hucksters and other agencies buying eggs in the country are the first agencies to package eggs. Sometimes country stores do not assemble eggs in cases and secondary buyers must do so before transporting the eggs to market. Eggs are moved through the channels of trade, in the Knoxville area, in cases. Some farmers bring eggs to the produce house, and the market house and grocery stores in cases, especially if they are large commercial producers.

The carton and paper bag are the distributing packages most often used for eggs. Seventy-eight percent of the grocery stores reporting reported selling eggs in paper bags, 11 percent in cartons and 11 percent in cartons and paper bags.²³ Only one produce house having a contract with a large chain of stores in Knoxville cartoned eggs before delivering them. All other produce houses and egg dealers delivered eggs to grocery stores in cases. Some grocery stores cartoned eggs to facilitate delivery.

Live poultry. Live poultry is transported in wooden spindle coops through all the Knoxville area trade channels.

Dressed poultry. Dressed poultry sold by Knoxville produce houses is not packaged. It is delivered in bushel baskets and the poultry placed in the grocery store refrigerator. Dressed poultry sold by general farmers to Knoxville grocery stores and in the Knoxville Market House is not sold in packages. A few commercial poultry farms located near Knoxville sell dressed chickens packaged in moisture proof paper, especially friers sold to grocery stores in Knoxville. Poultry sold by Knoxville meat

23. See Table LXXII, p. 276.

packing companies was delivered in boxes or barrels, depending on whether it was frozen or feather dressed.

Storing

Both eggs and poultry may be stored to preserve them for future use. Eggs are stored either as shell eggs under cold storage conditions or frozen or dried. Poultry held for a few days may be kept on ice or in a meat refrigeration unit as in a butcher shop but for longer periods it is frozen.

Knoxville cold storage facilities.²⁴ The location of Knoxville's cold storage house is shown in Figure 53, page 151. It has 200,000 cubic feet of storage space which is used for storing different things in varying quantities, depending upon the seasons and upon surpluses appearing on the market. Some storing is also done by a local freezing plant and by other concerns, bakeries, ice cream companies, et cetera, having limited facilities for short time holdings.

Amount stored. No more than 16,000 cases, maximum capacity, are stored in the cold storage house during the height of any one season. Even with the increased amount being stored by drying plants and by freezing plants the amount is less than it was last year due to the uncertainty of the market and the present price situation (1943).

Persons storing eggs. When there is a great surplus of eggs local grocers may store some shell eggs, but their total amount has not

24. Interview: Mr. Shattuck of Atlantic Ice and Coal Company, April 20, 1942.

exceeded one percent of the total amount of eggs in storage at any one time. Knoxville produce houses and country produce dealers in East and Middle Tennessee store eggs in the Knoxville cold storage house. All of these shell eggs do not necessarily move into the local trade channels, but may be shipped elsewhere. Recently a drying plant operating at McKenzie, Tennessee, has been storing great quantities of eggs in this Knoxville cold storage house.

Season. Eggs begin to go into storage in February and March, depending upon the amount of warm weather that occurs in those early months. The bulk begin to go in about April 1 and by the end of April 75 percent of the eggs to be stored have already gone into storage, the remainder going in in May or later. Eggs are stored in June and July only if there is a great surplus on the market. Eggs stored in June and July are not considered as having been stored in the season and are only short term holdings, and the rates are not as favorable as for eggs that are put in for a whole season. Eggs are considered as having been put in for a season when they are put in February, March, April, or May, and taken out in October. The charge is 44 cents per case for a carload lot; carlot quantities are the usual storage deal. There is an extra charge for eggs that are left in after October 31, which is considered the end of the local cold storage season; so, nearly all eggs are out by then. Only a few are left in to be portioned out in November and December to the regular customers of the local wholesale produce houses. Eggs start moving out in August and are nearly all out by December, depending upon the shortage of local eggs.

Preparation for storage. Eggs put into storage before May 15 are usually not stored unless the weather has been warm for that period of the year. The prime quality eggs go in in late April and May, especially after candling is begun. Usually only clean eggs are put into storage and they are put in in clean cases, fillers and flats. All the cases of eggs observed in storage April 20, 1943, were in clean new cases.

Storage conditions. Storage temperature for shell eggs was held at about 31 to 32 $\frac{1}{2}$ ° F., and the humidity was assumed to be constant although no humidifier was owned by the storage company. When eggs are held in sufficient quantities they usually command the use of a whole room; however, it is very common practice to store other things in the same room.

Treatment of shell eggs upon removal from storage. Eggs sweat when removed from storage. Local produce houses take the eggs out of the cases they have been stored in and sometimes spread them in wire baskets or on trays and turn a stream of air on them; they are candled, wiped and repacked in order to prevent mold from occurring as a result of sweating.

Storage of frozen eggs. Frozen eggs are not only stored in the Knoxville freezing plant, but in the cold storage house. There are three large freezing rooms in the cold storage plant and all contained some frozen eggs at the time the investigator observed them. Frozen eggs are stored in the same freezing room with meat, vegetables, fruits, etc. (Frozen eggs do not take on odors as readily as do cold storage eggs.)

Persons storing frozen eggs. Eggs frozen in Knoxville and in the Middle West are stored in Knoxville. Those frozen in Knoxville are either owned by or sold to local bakeries and so move into local consumption. Eggs frozen elsewhere and stored here are shipped to other points in the south at the order of the owner.

Poultry storage. All poultry that is held is frozen. Very little poultry is held for local dressing plants except during November and December when they kill ahead in order to be able to meet holiday demand. Then turkeys are usually held for a local hatchery and three produce houses.

Up until recently large quantities of chickens in packages and barrels have been stored for other dressing plants in East Tennessee, particularly one plant in Greenville, Tennessee. Recently the demand has been so great that there have been few chickens stored. One hundred pounds of chickens were stored in April, 1943, which is less than usual. One large produce house which used to have an office in Knoxville stored eggs and poultry there, but does not do so since their Knoxville operations have been discontinued.

Transporting

Eggs and poultry are transported from the farm in trucks and from the country concentration point to large cities in either trucks or freight cars. Although rail shipments of eggs and poultry from Knoxville have been important in the past, most of the shipments of these products now go by truck to terminal markets.

The advantages and disadvantages of transporting eggs by truck and by rail have been presented in Studies of the Market Quality of Eggs from 109 Farms in Southeastern Illinois:

1. When the time in transit was the same, there was practically no difference in the quality of eggs shipped by rail and by truck. The truck service in 1935 was quicker than the available freight service, and consequently the truck shipments arrived in New York in better condition than the rail shipments.

2. When the rail shipments move to New York in three days in refrigerator cars, as they did in the 1936 test, it was not necessary to ice the cars. The insulation provided by the refrigerator car, the egg case, fillers and flats are apparently sufficient to protect the precooled eggs during the three-day shipment.

3. The trucking of eggs over country roads for several hours previous to shipment appeared to have no serious effect on egg quality except when the eggs were not protected from heat and from rough handling. 25

Only about 20 percent of the eggs leaving Knoxville for eastern markets go by rail; the remainder being moved by trucks. Live poultry is shipped entirely by truck except in the case of a few cars, mostly turkeys, preceding the holiday market. Dressed poultry is shipped express by rail.

Transportation of local eggs to Knoxville. Many persons and agencies are engaged in transporting eggs and poultry into Knoxville from the country.

The transportation of eggs and poultry to Knoxville by farmers and

25. Alp, H. H., Ashley, R. C., and Card, L. E., Studies of the Market Quality of Eggs from 109 Farms in Southeastern Illinois, Urbana, Illinois, University of Illinois Agricultural Experiment Station, Bulletin No. 441, April 1938, p. 411.

country store operators is usually in conjunction with the transportation of some other product to or from town. Much duplication in this case is not necessarily synonymous with increased marketing costs.

Eggs are hauled because another trip is being made and not because it is necessary to take eggs to town. (In one way this is unfortunate, as it does not speed the marketing of eggs.) It costs less to haul eggs this way.

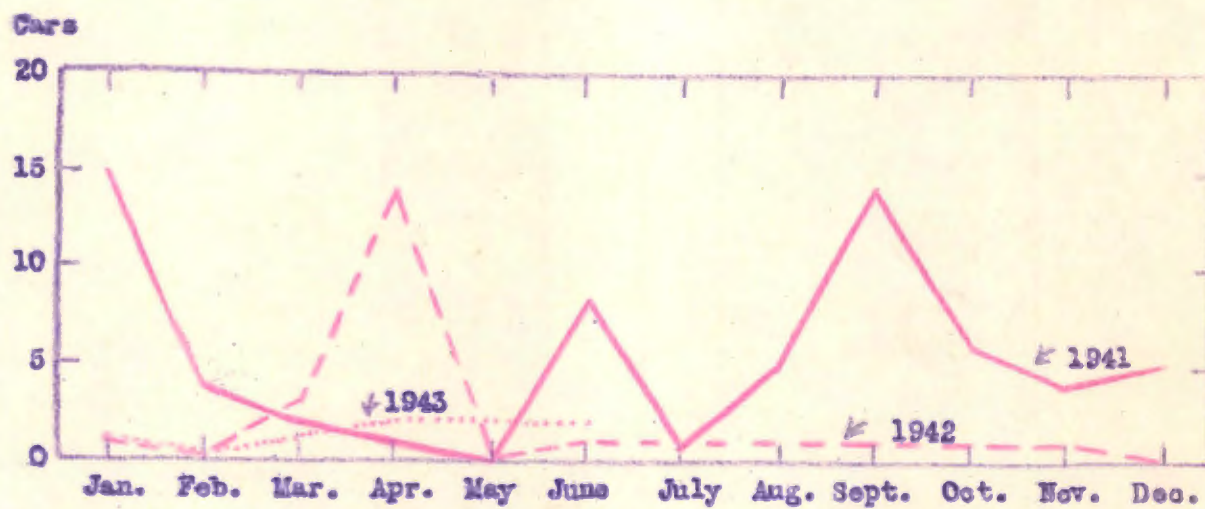
When either a farmer or country store has sufficient volume of eggs or poultry, or both, on hand some Knoxville produce dealers will send their pick-up trucks into the country for the produce. This is not necessarily a one-way haul, as the produce dealer sends empty cases and chicken coops to country points.

Knoxville meat packing company delivery trucks also pick up a few cases of eggs from country stores on their various routes.

Knoxville receipts and shipments of eggs by freight. Although the shipment of eggs into and out of Knoxville by truck is more important than shipments by rail the only accurate data available on such movements is on freight movements. Knoxville receives more eggs by freight than are shipped from Knoxville. In 1941, 65 cars of eggs were received in Knoxville and only 2 shipped out of Knoxville. In 1942, 24 cars were received and six shipped out. These six were only about 20 percent of the 28.9 car equivalents of eggs shipped from Knoxville in 1942.²⁶ The remaining percentage were shipped by truck.

Cars shipped out as shown in Table XC were destined for New York. Cars received in Knoxville were from Chicago, Kansas City, and St. Louis.

26. Table XLIV, p. 170.



Source: Table XC.

Figure 85. Eggs: Knoxville receipts by freight, 1941-1943.

Eggs are shipped into Knoxville for two reasons, one, to supply immediate local demand and two, to provide a high quality of egg for storage. Receipts for 1941 shown in Figure 85 represent receipts for storage during April and for immediate consumption the balance of the year. April is usually the lowest price period, in all areas of the United States, and if a produce dealer wishes to import eggs to put on storage that is the most profitable period. Companies importing eggs have been the produce houses, meat packing companies, bakeries, and in a few instances, wholesale grocery firms.

TABLE XC. FREIGHT MOVEMENTS OF EGGS IN AND OUT OF
KNOXVILLE, 1941 - 1943 *

Month	Cars Received			Cars Shipped		
	1941	1942	1943	1941	1942	1943
Jan.	15	1	1	1	1	1
Feb.	4	-	-	-	-	-
March	2	3	1	-	-	1
April	1	14	2	-	1	2
May	-	-	2	1	-	-
June	8	1	2	-	-	1
July	1	1	...	-	-	...
Aug.	5	1	...	-	-	...
Sept.	14	1	...	-	-	...
Oct.	6	1	...	-	-	...
Nov.	4	1	...	-	4	...
Dec.	5	-	...	-	-	...
Total	65	24	...	2	6	...

* Southern Railway Freight Traffic Department.

Knoxville freight rates. Freight rates from Knoxville to New York and Baltimore, the two main receiving markets for poultry and poultry

products shipped from Knoxville, are less than from any other section in Tennessee and the same as rates from Greeneville, another East Tennessee shipping point, which is even a few miles closer to the eastern markets. Knoxville to Baltimore rates are naturally more favorable than Knoxville to New York rates as the distance is shorter.

TABLE XCI. COMPARISON OF KNOXVILLE FREIGHT RATES ON
POULTRY AND POULTRY PRODUCTS AND RATES FROM
EIGHT OTHER SHIPPING POINTS IN TENNESSEE,
1942 *

Origin and Destination	Cents per Hundredweight		
	Live Poultry	Eggs	Dressed Poultry
Nashville to New York	133	111	111
Memphis to New York	144	121	121
Union City to New York	122	102	102
Jackson to New York	134	112	112
Cookeville to New York	140	117	117
Chattanooga to New York	124	103	103
Greeneville to New York	113	95	95
Knoxville to New York	113	95	95
Knoxville to Baltimore	100	83	83

* Source: Southern Railway Traffic Department, Knoxville, Tennessee, July 1943.

Distributing

Although the distribution of farm produce is the last and break down step in marketing it will be discussed next, as the same agencies which assemble poultry and eggs in Knoxville area distribute it in small quantities in Knoxville.

Primary distributing. Produce houses and wholesale receivers are primary distributors in Knoxville. The two wholesale receiving firms

sell small quantities of poultry and eggs to jobbers. (This does not mean that jobbers purchase most of their poultry and eggs from the wholesale receivers - they do not.)

Secondary distributing. Jobbers are secondary distributors as they candle eggs and then distribute them in case lots to grocery stores, hotels, restaurants, bakeries and meat packing companies. Jobbers dress poultry and distribute it a few pounds at a time to grocery stores, hotels, restaurants and meat packing companies located in and near Knoxville.

Direct selling by farmers. Farmers sell both poultry and eggs direct to the consumer, either by house to house sales or by selling at Market Square. They sell direct to grocery stores, hotels, restaurants, bakeries and milk plants which all may sell direct to the consumer.

Risk Bearing

There is a risk involved in any buying and selling operation, if only because of the possibility of price change between the time of purchase and time of sale. Additional risk is incurred when the buyer is not buying on a quality basis, also when he is buying eggs, for example; flock run and selling them on grade. Buyers protect themselves by buying on a low average price. This is not only true in the Knoxville area but in other areas as stated by A. D. Oderkirk in Selling Iowa Eggs by Grade:

When one producer sells eggs of which 90 to 100 percent are all placed in the higher quality grades, while another sells a lot of which only 30 to 40 percent are high quality 'it is a recognized

fact¹ that the buyer on an ungraded basis must pay an average price on all receipts of eggs, that is low enough to protect him against loss on the low quality eggs. 26

Processing

Eggs. Eggs are ready for human consumption when layed. Eggs only require processing when they have been held long enough for natural decomposition to take place or when man wishes to preserve them in some unnatural form for future use.

Candling is the process by which the stages of decomposition in eggs may be determined. If eggs have been kept in cold storage treatment, they undergo a certain amount of sweating when removed. They must be dried, candled and repacked.

Eggs are preserved in the dried form in some plants in Tennessee. There isn't any egg drying plant in Knoxville. Eggs shipped from Knoxville have been indirectly destined for egg drying plants.

Freezing eggs is another way of preserving them for future use. Frozen eggs are also a convenient product for use in bakeries, restaurants, ice cream companies, et cetera. One icecream company in Knoxville freezes eggs not only for their own use, but for bakeries. There is a large freezing plant in Knoxville which reported the following on freezing eggs;²⁷ it freezes eggs three way, whites, yolks and mixed; freezes only

26. Oderkirk, A. D., Selling Iowa Eggs by Grade, Agricultural Extension Service, Extension Circular #237 (revised), Iowa State College, Ames, Iowa, December 1940, p. 4.

27. Mr. Ed Booker, Winter Garden Frozen Products Company, Knoxville, Tennessee, April 14, 1943.

during February and March as its operations are supplementary, one product following another. This plant froze approximately 100,000 pounds of eggs (10,000 case equivalent) in 1942, all of which was sold to one Knoxville bakery. In 1943 they froze nearly one half million pounds or 500,000 case equivalents for sale to the government and to local bakeries.

Poultry. Live poultry may undergo all degrees of processing before it is ready for sale to the consumer in Knoxville. The consumer may go into a produce house, pick out a live bird and have it killed and dressed on the premises in less than five minutes. Chickens may be sold in the market house full-dressed by the farm woman who raised them, or sold live from coops attached to cars parked on market square. Chickens are sold full-dressed to grocery stores after having been dressed in the produce house just as they are dressed for the housewife who goes to the produce house to pick out her own bird. Even after the chicken has been full-dressed in a Knoxville produce house, it may undergo further processing.

Meat packing companies purchasing full-dressed poultry from Knoxville produce houses must further finish the dressing of such poultry before it will meet their established grading regulations. Such poultry must then be either held iced or frozen until ready for sale.

Processing dressed poultry for shipment. Poultry for shipment is prepared about the same as for sale to Knoxville consumers. Except that one wholesale receiver now shipping poultry has one colored woman

hired to kill the birds by slitting the jugular vein, but not severing the neck, as is the usual practice in Knoxville. Otherwise, the dressing operation is the same with the exception that more care is taken in cooling the poultry before packing it in iced barrels than would be the case if it were being dressed for local consumption.

Freezing poultry. The Knoxville freezing plant handled approximately 20,000 pounds of turkeys in 1942 and intends to handle 50,000 or more pounds in 1943. It obtains turkeys as it does friers, already full-dressed from Knoxville produce houses. The freezing plant then goes over the poultry to insure a good dress job and to be sure it is in good condition ready for freezing. Turkeys are frozen usually during November while friers are frozen during one of the spring months if and whenever they can get a supply guaranteed for from 30 to 60 days. This freezing plant would rather freeze turkeys than friers as the cost of preparing a turkey and a frier for freezing are the same. The larger birds are more profitable to handle.

Buying and Selling

Assembling and distribing cannot be accomplished without buying and selling. Agencies performing marketing functions, naturally, expect to sell at a price higher than the purchasing price.

In buying and selling eggs and poultry in the Knoxville area very little bookkeeping is required. Much of the business is transacted in cash and groceries. Verbal contracts committing all or part of the produce

of any one agency to another agency are common, but never committed to paper. Payment for poultry is made in cash or check at the time of sale. Knoxville grocery stores sometimes pay cash or groceries for eggs purchased from farmers. Payments to produce houses may be either on a cash or monthly basis.

Making the price is one of the most important buying and selling operations.²⁸ The most important price is that paid by the wholesale receiver to the country assembler. The wholesale receiver in the case of Knoxville is also the carlot shipper of both eggs and poultry and so is in touch with the price situation in the terminal markets. This agency assumes price leadership. Other agencies may over- or under-bid the wholesale receiver, depending upon the condition of the local market. If a Knoxville jobber has an order for a certain amount of eggs or poultry, he will pay more than the market for it and take a smaller margin in order to keep his customers.

Country assemblers pay a price either below or equal to what they are paid by the Knoxville produce houses. At country points, where eggs and poultry are especially important as a medium of exchange, country assemblers may bid the price up over what they receive in order to capture the trade at that point.

28. This is curtailed under Government price regulations.

CHAPTER XI

MARKET BALANCE

Marketing consists of procedures involved in moving farm produce from producer to consumer. The location of the producer and the consumer generally determine the distance a product will travel and the agencies through which it will pass. The grade of product produced and the grade demanded by the consumer determines what channels and distances certain grades of products shall traverse.

The quality of poultry and eggs produced and the areas in which they are produced have been covered from many different approaches in preceding chapters. Consumer preferences have been partly covered under the chapter on direct sale and additional information will be presented in Chapter XIV. It is the purpose of this chapter to show the balance between supply and demand.

Eggs

Some eggs are produced on nearly all farms. Eggs move off the farm to market when more are produced than are needed by the farm family. If local demand is great eggs will move into consumption in the community where produced; if demand is small in relation to production eggs will move out of the local community into the channels of trade.

Market balance in Tennessee. Consumption of eggs is greater for the State of Tennessee as a whole than is production. When urban consumption

is estimated at 29,378,092 dozens and rural consumption at 26,629,754 dozen, total consumption based on 1940 population was 9,402,092 dozen greater than production for the preceding year.

TABLE XCII. PRODUCTION AND CONSUMPTION OF EGGS IN
TENNESSEE, 1939 *

	Number
Total population, 1940	2,915,841
Urban population, 1940	1,027,206
Rural population, 1940	1,888,635
	Dozens
Total egg production, 1939	46,605,754
Urban consumption, 1939 **	29,378,092
Rural consumption, 1939 ***	26,629,754
Total consumption	56,007,846
Per capita	19.2
Actual deficiency	9,402,092
Deficiency at maximum ****	42,035,812

* Source: U. S. Census of Agriculture, 1940.

U. S. Census of Population, 1940, Vol. I, p. 1015.

** 28.6 dozen per capita, Hansard, Samuel L., A Study of Consumer Preference and Practices in Buying and Using Eggs and Meat in Knoxville Tennessee, unpublished thesis, University of Tennessee, 1936, p. 63.

*** 14.1 dozen per capita rural, Powell, J. C., Milk and Egg Study, attached to Meat Production and Consumption in Different Areas of Tennessee. Typed report, University of Tennessee, Agricultural Library, December, 1928, p. 2.

**** Maximum 30.4 dozen or an egg a day.

This means that even though there may occur surpluses during certain seasons of the year, production for the whole year is less than consumption. Therefore, even if all eggs produced were either consumed or stored for future consumption it would still be necessary to import



Figure 86. Areas of deficiency or surplus production at normal consumption

Source: Computations from U. S. Census of Agriculture, and Table XCIII.

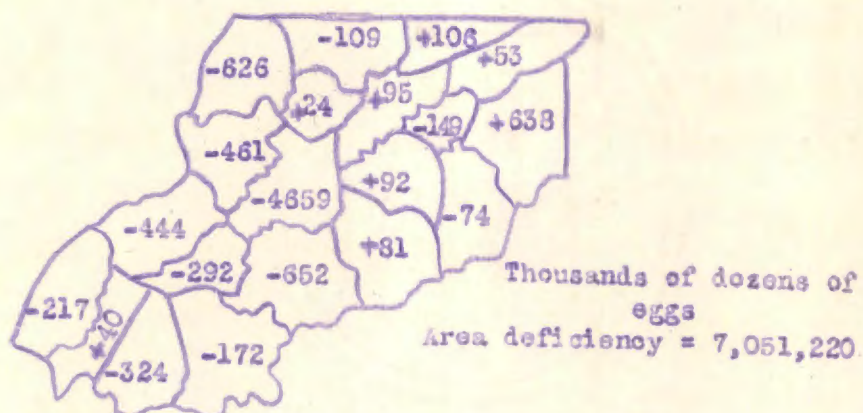


Figure 87. Areas of deficiency or surplus production at maximum consumption

Source: Computations from U. S. Census of Agriculture, and Table XCIII.

some eggs from out of state. Eggs are subject to storage, and are easily moved; therefore, there is even greater interstate traffic in eggs than would be indicated by mere production and consumption figures.

Assuming that consumption were to be raised to 30.4 dozen per capita, or an egg a day, Tennessee egg producers would have to increase production by 42,035,812 dozens of eggs to completely meet the consumer demand in Tennessee alone.

Market balance in the Knoxville area. The Knoxville area, one of the most important egg producing areas in the state, does produce more eggs than are consumed by the people in this area alone. Part of the reason for this is that the consumption of eggs in the rural districts was given as 1.1 dozen less than the average for the state by J. C. Powell. Although production does exceed consumption that does not mean

TABLE XCIII. PRODUCTION AND CONSUMPTION OF EGGS, KNOXVILLE AREA, 1939 *

	Number
Total population, Knoxville area, 1940	614,462
Rural population	434,510
Urban population	179,952
Total number of dozen of eggs produced, 1939 **	11,628,425
Rural consumption ***	5,648,630
Urban consumption ****	5,146,627
Total consumption	10,795,257
Per capita consumption	17.6
Actual surplus	833,168
Deficiency at maximum	7,051,220

* U. S. Census of Agriculture, 1940. Computations from U. S. Census of Population, 1940, Vol. I, p. 1015

** Table IX, p. 27.

*** 13.0 dozen per capita in East Tennessee. Powell, J. C., Milk and Egg Study attached to Meat Production.

**** 28.6 dozens, Samuel L. Hansard, loc. cit.

***** 30.4 dozens, maximum consumption, an egg a day

that eggs are not imported into that area. They are. Eggs are also shipped from the area in large quantities during periods of peak production.

If every person in the Knoxville area were to consume an egg a day production would have to be increased by 7,051,220 dozen if local production were depended upon entirely. It is possible that consumption could be increased in this area, and in the state as a whole. In 1938 when Samuel L. Hansard determined consumption in Knoxville to be 28.6 dozen per capita, consumption in the United States averaged 25.8 dozen. However, in 1928 J. C. Powell determined full consumption to be 14.1 dozen, while U. S. consumption was 28.1 dozen per capita. It would seem that urban consumption is about average, but that consumption in the rural areas could be increased. In 1940 the year for which population figures are given in the preceding¹ tables average consumption in the United States was 26.6 dozen per capita. In Tennessee per capita consumption was 19.2 dozen per capita with rural and urban consumption figured at 28.6 dozen per capita and rural consumption at 14.0 dozen per capita. In the Knoxville area the average per capita consumption was 17.6 dozen, when urban consumption was figured at 28.6 dozen per capita and rural consumption at 13.0 dozen per capita.

1. Agricultural Statistics, 1942, p. 529.

Market balance for the City of Knoxville. Knoxville residents buy more eggs from the grocery store and the farmer direct than from any other source. Approximately 184,324 people lived in greater Knoxville during March of 1942.² Assuming that they were able to obtain all the eggs they desired they probably consumed 5,271,688.4 dozens of eggs, i.e., 28.6 dozen per capita.³ In Table XCIV is shown the sources from which Knoxville consumers purchased eggs and the percent of the total consumption handled by the various agencies. Knoxville grocery stores supplied and handled 45.0 percent or 2,374,184 dozens of the eggs consumed, of which they purchased 625,176.3 dozen from nine produce houses, 342,120 dozen from two egg dealers and 214,598 dozen from the packing companies.

Delivery by farmers, sales on Market Square, and other sources for which estimates were not known handled and furnished 44.6 percent of the eggs consumed in Knoxville during 1942. Sales in the Market House accounted for 1.2 percent of the amount consumed. About 46.0 percent of the eggs consumed were purchased from farmers direct. This high figure is not inconsistent with previous findings. In 1938 Samuel L. Hansard found that 38.5 percent of the families he interviewed purchased eggs from farmers by town delivery, 5.57 at the market wagons (including sales inside the Market House), and 11.25 percent from more than one source.⁴

2. Knoxville, Tennessee, City Directory, City Directory Company of Knoxville, Vol. XXII, 1942.

3. Samuel L. Hansard, op. cit., p. 83.

4. See page 73.

TABLE XCIV. ESTIMATED CONSUMPTION AND SOURCE OF SUPPLY OF
EGGS FOR THE CITY OF KNOXVILLE, 1942 *

Items	Dosen	Percent Han- dled	Percent Sold to Consum- ers
Estimated total consumption, 1942	5,271,666.4	-	100.0
Source of supply:			
Knoxville produce house: *			
Sales through grocery stores (625,176.3)	957,413	18.1	6.3
Sales direct to consumers 48,227.8			
Sales to hotels, restaurants, etc. 284,008.6			
Knoxville egg dealers: **			
Sales through grocery stores (342,120)	342,120	5.2	-
Knoxville packing companies:*** 345,009	345,009	6.5	2.5
Sales through grocery stores (214,596)			
Sales to hotels, restaurants, etc. 130,413			
Knoxville milk plants: **** 19,370	19,370	0.4	0.4
Sales direct to consumers 19,370			
Knoxville Market House: ***** 63,629	63,629	1.2	1.2
Knoxville grocery stores:*****			
Sales to consumers 2,374,194	2,374,194	45.0	45.0
Eggs not purchased from above sources 1,192,301.7			
Unknown: ***** 2,351,823.7	2,351,823.7	44.6	44.6
Wagons on Market Square			
Town delivery by farmers and other sources			

* See Table XLIV, p. 170, 11,534.3 cases were shipped from Knoxville, 3,658.3 cases sold to packing companies and 408.2 or more cases sold to freezing plant. The 373,704 dozen sold to other wholesalers is considered here as cancelling out with amount purchased from other wholesalers.

** See Tables XLIV and XLVII, p. 178.

*** See Table LIV, p. 241, 36,703 cases estimated as handled in 1942, 31.3 percent of which were sold in Knoxville, 62.2 percent to grocery stores and 37.8 percent to hotels, restaurants, etc.

**** See page 248, average total weekly sales 372.5 dozens.

***** See Table XXVI, page 90.

***** See Table LVI, page 257, and Table LXI, page 261.

***** Unknown was derived by subtracting from total estimated consumption the number of dozens of eggs sold through sources for which estimates have been given.

Although Knoxville produce houses handled 18.1 percent of the eggs consumed they sold only 6.3 percent of the eggs consumed direct to consumers or to hotels, restaurants, and boarding houses.

Knoxville egg dealers handled 5.2 percent of the eggs consumed but sold no eggs direct to consumers.

Knoxville packing companies handled 6.5 percent of the eggs consumed but only sold 2.5 percent of the eggs consumed to consumers through hotels and restaurants, etc.

Knoxville milk plants handled only 0.4 percent of the eggs consumed, all of which were sold direct to consumers.

Market balance as concerns import and export of eggs to and from Knoxville has already been discussed.

Chickens

Market balance in Tennessee and the Knoxville area. Neither Tennessee nor the Knoxville area produce as much chicken as is consumed by their population. Assuming that consumption in Tennessee and the

TABLE XCV. PRODUCTION AND CONSUMPTION OF CHICKEN IN TENNESSEE AND THE KNOXVILLE AREA, 1939 *

	Knoxville Area	Tennessee
Chickens raised, 1939 *		
Number	2,880,255	14,868,909
Pounds live weight **	11,521,020	59,475,636
Pounds dressed weight ***	10,138,498	52,338,560
Population, 1940 ****	614,462	2,915,841
Consumption per capita U.S., 1939 (dressed pounds) *****	19.4	19.4
Production per capita dressed pounds	16.5	17.9
Deficiency (dressed pounds)	1,782,065	4,228,755

* See Table III, page 18.

** Live weight equals an average of four pounds per bird.

*** Dressed weight equals 88 percent of live weight.

**** U. S. Census of Population, 1940, Vol. I, p. 1015.

***** Agricultural Statistics, 1942, page 506.

Knoxville area was the same as for the United States as a whole, 19.4 dressed pounds per capita, then production in the state as a whole fell 4,228,755 dressed pounds below consumption for the same period. In the Knoxville area production was 1,782,065 dressed pounds below consumption in 1939.

Turkeys

Market balance in Tennessee and the Knoxville area. Although there are two major areas where turkeys are raised in Tennessee the most important one is the section in the northeast part of the Knoxville area (Figure 14). Production of turkeys and consumption of turkeys is not equal in either the Knoxville area or in the state as a whole. Assuming that per capita consumption in Tennessee in 1939 was the same as that for the United States, 3.00 dressed pounds per capita, only 0.51 dressed pounds per capita were produced in Tennessee. The remainder would have had to be imported. In the Knoxville area in 1939, if all the turkeys raised were consumed locally, 2.08 dressed pounds per capita would have had to be imported. It is known that many turkeys are shipped alive from the Knoxville area, as well as from other areas of Tennessee. Therefore if consumption in Tennessee is anywhere near that of the United States the greater part of such turkeys must be imported from other areas.

TABLE XCVI. TURKEY PRODUCTION AND CONSUMPTION PER CAPITA
IN TENNESSEE AND THE KNOXVILLE AREA, 1939 *

	Knoxville Area	Tennessee
Production, 1939		
Number of turkeys *	52,026	135,969
Pounds live weight **	624,312	1,631,628
Pounds dressed weight ***	568,123.9	1,484,781.5
Population, 1940 ****		
Number of persons	614,462	2,915,841
Production per capita	0.92	0.51
Consumption per capita, United States, dressed pounds, 1939 *****		3.0

* See Table III, p. 18.

** Live weight equals 12 pounds per bird.

*** Dressed weight equals 91 percent of live weight.

**** U. S. Census of Population, 1940, Vol. I, p. 1015.

***** Agricultural Statistics, 1942, p. 524.

Other Poultry

Market balance of other poultry. Insufficient data are available to allow comparison of consumption and production of ducks, geese, or guineas. These fowl have limited outlets in large cities such as Knoxville, Chattanooga, Nashville, and Memphis. Those that are marketed in the usual live poultry market channels eventually find their way either into local consumer markets or to large eastern terminal markets. Production of these less important types of poultry is in such insignificant numbers that it is usually sold alive in the market channels, and only occasionally dressed when a direct sale is made by a farmer.

CHAPTER XII

OUTSIDE MARKETS FOR POULTRY AND EGGS SHIPPED FROM KNOXVILLE AREA

Poultry and eggs produced in the Knoxville area principally destined for outside markets are handled through dealers in Knoxville and other shipping points in the area. Farmers do not ship direct except in the case of the Tennessee Poultry Producers' Association. The scope of this study does not include shipments from points in the area other than Knoxville. (These should be taken up in any further study of the area.)

Inasmuch as eggs produced on farms in the Knoxville area were valued at \$1,924,663 and chickens raised at only \$1,318,126 in 1939, eggs will be discussed first.

Markets Receiving Eggs

Of six large markets receiving eggs, only New York, Chicago, and Philadelphia were credited in Agricultural Statistics 1942 with receipts from Tennessee.¹ Boston, although a good brown egg market, has received a negligible number of cases of eggs from Tennessee, two cases

1. Agricultural Statistics, United States Department of Agriculture, United States Government Printing Office, Washington, D. C., p. 531, 1942.

in 1937 and 24 in 1936.² In 1941 Philadelphia received only 3,000 cases and in 1940 5,000.³ In 1942 Philadelphia received eggs from Tennessee in February, June and October. Chicago received 2,000 cases in 1940 and 6,000 in 1941. These eggs at Chicago probably originated in Middle and West Tennessee, as shipments from East Tennessee usually go east. The New York market received 19,000 cases from Tennessee in 1940 and 22,000 in 1941.⁴

Knoxville produce dealers reported shipping eggs to New York in the main, and sometimes to a few other minor eastern markets.

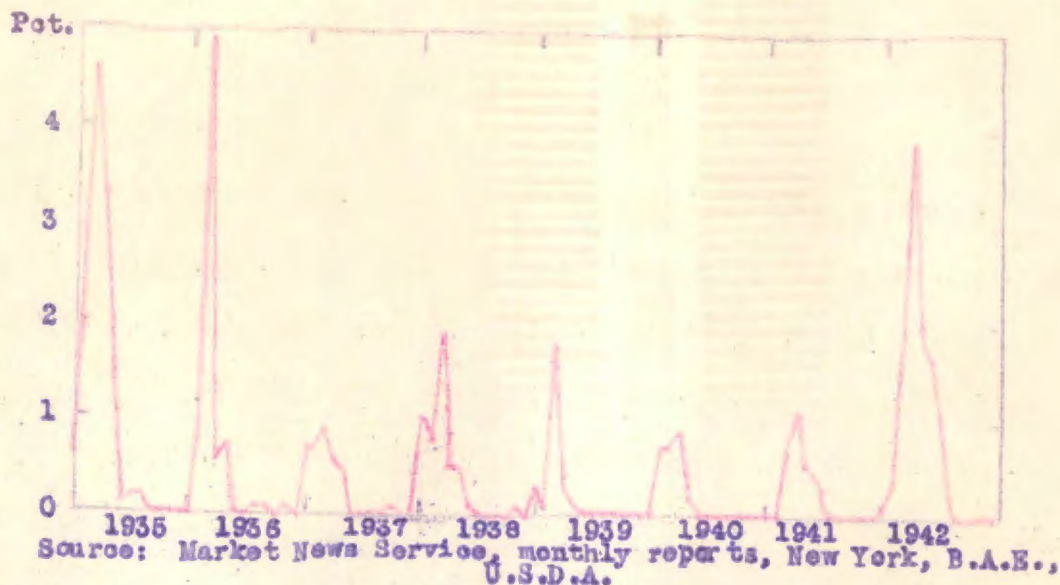
New York egg receipts from Tennessee. Annual total New York egg receipts from Tennessee during 1935 to 1942 accounted for more than 1.5 percent of New York egg receipts. Receipts from Tennessee were more important during certain months. March was the most important month, 1935 to 1939, and April 1940 to 1942 (Figures 88 and 91). During months other than spring months such receipts have been relatively unimportant. Receipts from Tennessee, although totaling approximately 68,000 cases in 1942, were still less than in 1935. An increasing number of eggs received from Tennessee have been moved to New York by truck rather than by rail (Figure 93).

In 1941 total New York egg receipts were only 134,781 cases less than they had been in 1935; however in 1942 receipts were 359,445 cases

2. Market News Service Report, mimeographed, U.S.D.A., Bureau of Agricultural Economics, Boston, 1936.

3. Agricultural Statistics, loc. cit.

4. Ibid.



344.

Figure 88. Monthly New York egg receipts from Tennessee in percentage of total, January 1935 - December 1942.

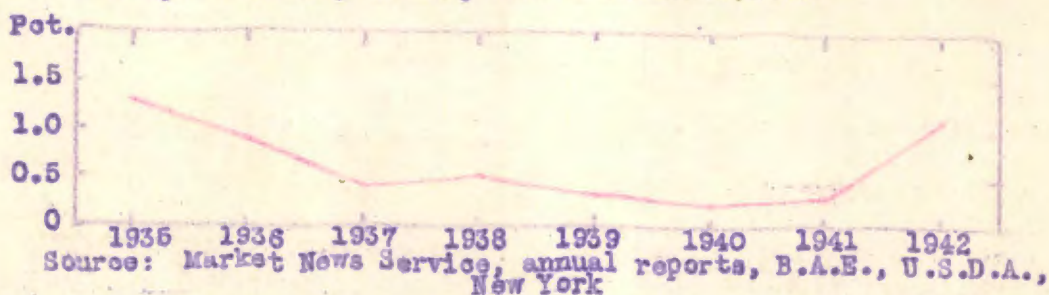


Figure 89. Percentage of yearly total in New York egg receipts from Tennessee, January - December 1942.

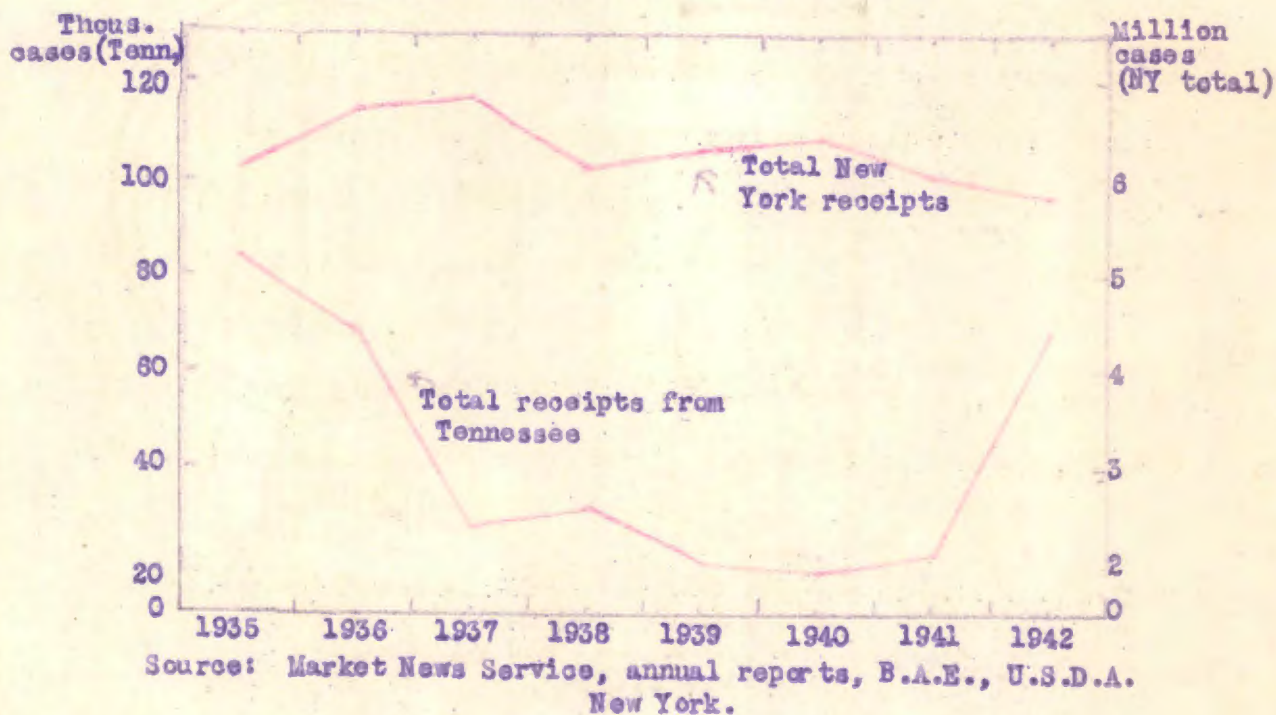
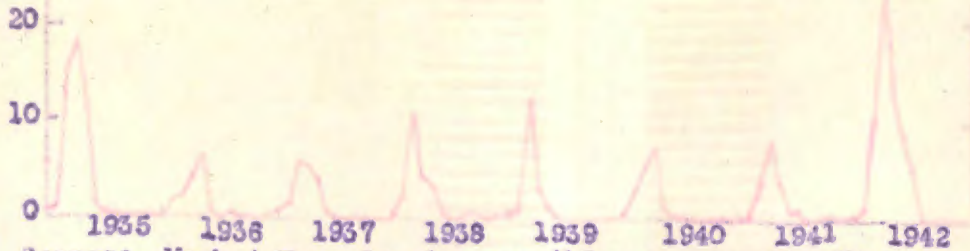


Figure 90. Yearly total New York egg receipts, and New York egg receipts from Tennessee, January 1935 - December 1942

Thousands
cases

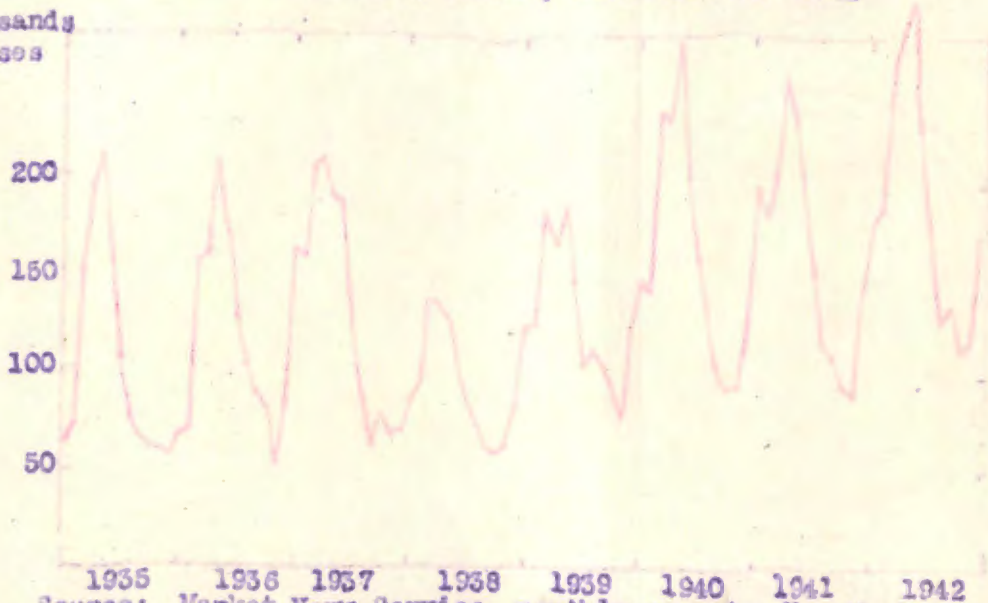
345.



Source: Market News Service, monthly reports, New York,
B.A.E., U.S.D.A.

Figure 91. Total monthly egg receipts at New York, by truck,
from Tennessee, January 1935-December 1942

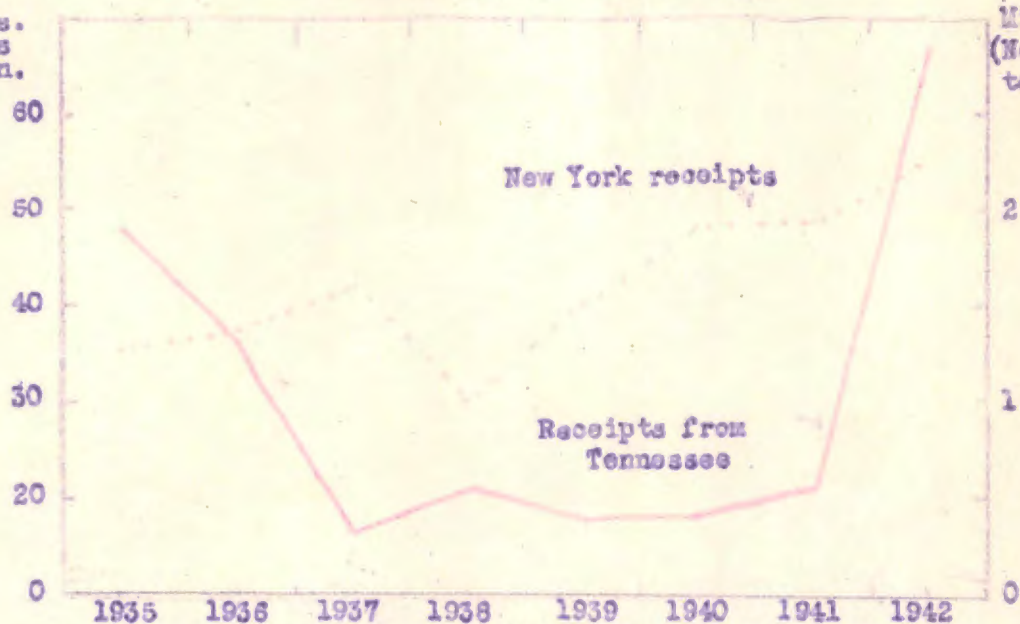
Thousands
cases



Source: Market News Service, monthly reports, New York,
B.A.E., U.S.D.A.

Figure 92. Total monthly egg receipts at New York, by truck,
January 1935 - December 1942

Thous.
cases
(Tenn.)



Source: Annual Reports, Market News Service, New York,
B.A.E., U.S.D.A.

Figure 93. Total yearly New York egg receipts and total egg
receipts from Tennessee, by truck, 1935-1942

eases less than 1935 (Figure 90). The decrease in receipts in 1941 and 1942 was possibly due to growing demand in other sections of the United States usually shipping to New York.

Total egg receipts from Tennessee declined steadily from 1935 to 1941 when they increased slightly, and by 1942 receipts from Tennessee were more than three times that in 1941 (Figure 90); however, receipts had still not reached their 1935 total.

In 1942, 1.18 percent of the eggs received in New York were shipped from Tennessee. This was the greatest percentage to have been shipped from Tennessee since 1935 when 1.3 percent of the total receipts were from Tennessee.

On a yearly basis it may be assumed that Tennessee eggs are not important on the market.

Monthly receipts from Tennessee were most noticeable during the months of February, March, April, and May, when they have made up as high as 4.9 percent of total receipts in the last eight years (Figure 88). In 1935, 2.1 percent of the eggs received in February, 4.6 percent in March, 3.3 percent in April, and 1.5 percent in May were from Tennessee. In the years from 1935 to 1942, although shipments during these months were important, they made up a negligible part of the receipts. In 1942, the shipping season seems to have been late as it was not until March, April, May, June and July that Tennessee shipments made up an appreciable percentage of the total receipts (Figure 88).

New York receipts from Knoxville. Knoxville produce dealers shipped 16.8 percent of the eggs shipped from Tennessee to New York in

1942 (assuming all eggs shipped from Knoxville were destined for New York, which was practically the situation in 1942). The number of cases of eggs shipped to New York has been highest when local demand was not great. Knoxville shipments are even more important when it is understood that the majority of the shipments occur in the spring months.

TABLE KOVII. IMPORTANCE OF EGG RECEIPTS FROM KNOXVILLE IN NEW YORK, 1942 *

Total Receipts	Cases
New York receipts	5,815,220
New York receipts from Tennessee	68,682
New York receipts from Knoxville	11,551 **
	Percent
New York receipts from Tennessee	1.2
Tennessee shipments from Knoxville	16.8

* Source: Table XLIV, p. 170, and Agricultural Marketing Service, Monthly Reports, New York, 1942.

** 28.9 car equivalents @ 400 cases per car.

If shipments of eggs to New York from all other major shipping points in East Tennessee such as Rogersville and Greeneville were added to shipments from Knoxville, the total would probably account for an appreciable percentage of the total shipments to New York from Tennessee. Shipments from these East Tennessee towns do not all originate in East Tennessee, as many produce dealers in the Knoxville area obtain many eggs from Middle Tennessee.

It has been customary in the past few years for at least two Knoxville produce houses and one egg dealer, i.e., three produce dealers, to

ship eggs to New York during the surplus production period in the spring, and for one of these produce dealers to ship some eggs during nearly every month of the year. This dealer's produce house has recently been taken over by a larger produce house in Rogersville, and the Knoxville branch is now purchasing even more eggs than previously.

When Knoxville prices are good it has proven more profitable and less trouble to sell eggs as "current receipts" to grocery stores in Knoxville than to take the additional trouble to properly prepare them for shipment to New York.⁵

When Tennessee eggs have been shipped to New York, they have been well received until June. After June the quality was reported as dropping considerably.⁶ This opinion of the quality of eggs received in New York after June is in harmony with that of Knoxville produce dealers.

Knoxville produce dealers have not always shipped eggs just to New York. In 1938 one produce dealer made the following statement:

Few eggs are shipped to New York but most of them go to Florida, North Carolina, and South Carolina. ⁷

Markets Receiving Dressed Poultry

Of the four markets, Boston, New York, Chicago, and Philadelphia, for which dressed poultry receipts were given by states of origin in Agricultural Statistics 1942,⁸ New York receipts were largest for the period 1930 to 1941. However, in 1940 and 1941 Chicago receipts had

5. See Professor B. J. McSpadden, Poultry Husbandry Department, University of Tennessee, Knoxville, Tennessee.

6. Conversation with egg grader, New York, November 1942.

7. Carter, Walter, Tracing the Movement of Poultry and Eggs, term paper, 1938.

8. Agricultural Statistics, 1942, p. 509.

risen to about half of New York receipts. Tennessee receipts at the Chicago market were lower than at any of the other three markets. More poultry was shipped dressed from Tennessee to New York in any year from 1930 to 1941. However, in 1940 and 1941 Chicago receipts had risen to about half of New York receipts. Tennessee receipts at the Chicago market were lower than at any of the other three markets. More poultry was shipped dressed from Tennessee to New York in any year from 1930 to 1939 than was shipped in 1940 and 1941. In 1941 only 1,535 thousand pounds of dressed poultry were shipped to New York from Tennessee. It is possible that the same amount as during 1930 to 1939 is being dressed, but is possibly being shipped to other markets such as Baltimore which is not listed as one of the four leading markets.

One wholesale receiver in Knoxville has begun shipping dressed poultry in large quantities in 1943 to both New York and Baltimore, but sufficient data were not available on past and present shipments to go into a detailed study of receipts at any one market. After dressing operations have been carried on for a sufficient period, under normal conditions, the shipment of dressed poultry from the Knoxville area should be studied. This would include a study of shipments and operations in such shipping centers as Greenville, which dressed a much greater quantity of poultry than is dressed in Knoxville at present.

Markets Receiving Live Poultry

Tennessee live poultry, especially from the Knoxville area, moves

Car Equivalents

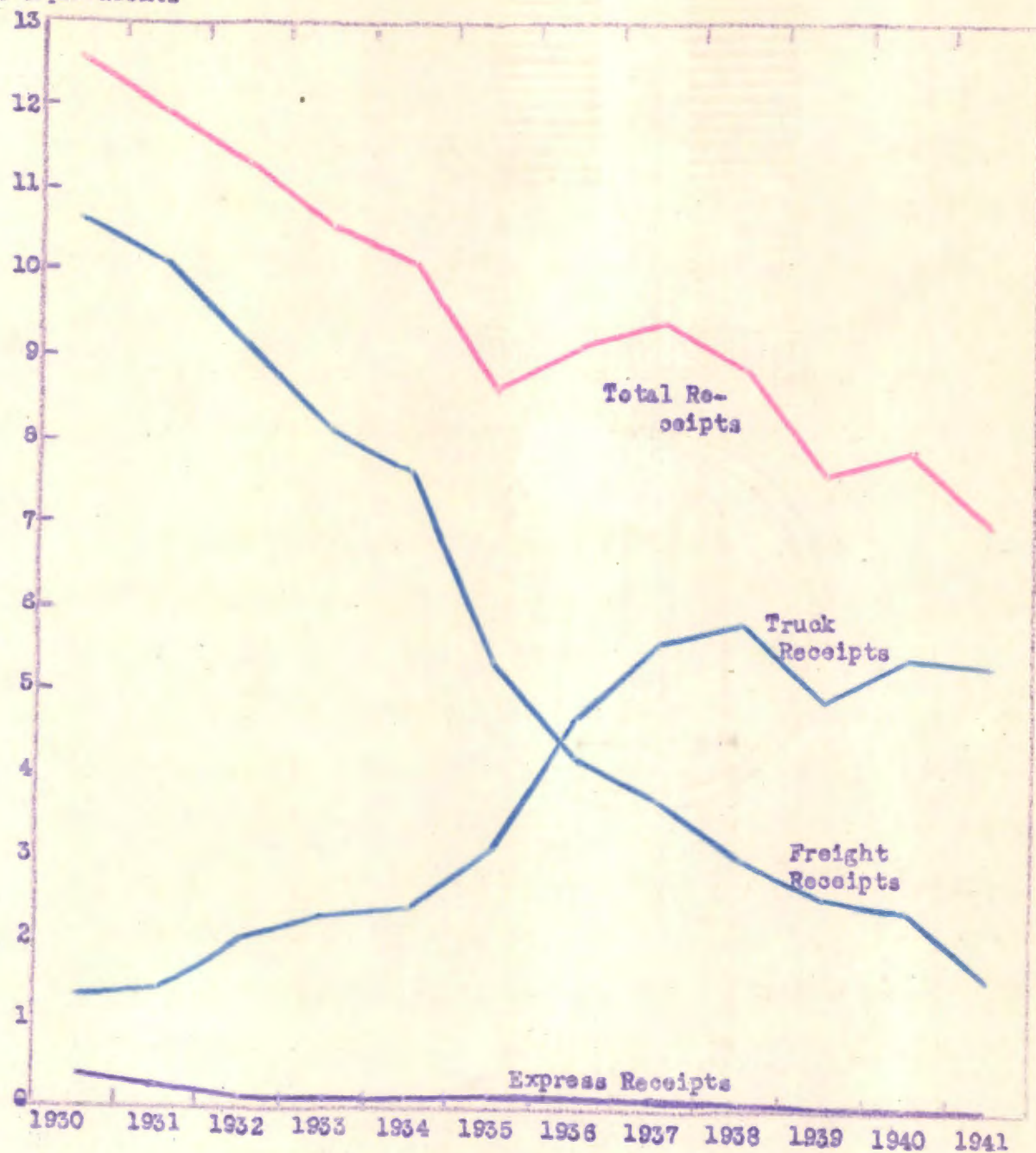


Figure 94. Live poultry: receipts at New York, in cars, 1930-1941.

Source: Agricultural Statistics, 1942, U.S.D.A.
Washington, D. C., p. 507.

east to New York and to seacoast towns and southeast to Florida.

Live poultry receipts at Chicago and New York are given for the period 1930 to 1941 in Agricultural Statistics.⁹ During that time New York receipts have always been more than twice the Chicago receipts. However, Chicago receipts have only decreased by 755 car equivalents from 1930 to 1941, while New York receipts have decreased by 5,503 car equivalents during that period. Shipments to Chicago are usually all destined for dressing plants while shipments to New York are destined for a consumer live poultry trade.

Chicago receipts have not been reported by state of origin but it is assumed from conversations with East Tennessee produce dealers that the majority of the live poultry shipped from East Tennessee is destined for New York or Newark, New Jersey.

Live poultry is shipped from Knoxville both by freight and by truck. There is some loss in weight by truck shipment whereas there may be some gain or some loss in weight by freight shipments. The loss in weight by truck shipment is partly compensated for by the time saved. The heaviest shipments of chickens occur in the spring because hens that have laid eggs during the fall and winter are sold in the spring. These spring shipments of fat hens arrive in New York in time to catch the Kosher trade at the peak of its holiday season.¹⁰

9. Agricultural Statistics, 1942, p. 507.

10. Professor B. J. McSpadden, Poultry Husbandry Department of University of Tennessee, Knoxville, Tennessee, November 1942.

The leading produce dealer shipping poultry in 1938 reported that 85% of the chickens shipped from Tennessee the first six months of the year go to New York. These were mostly old hens. He also reported that in the last six months they were divided between Chicago, Baltimore, Philadelphia, Florida, or the Carolinas.¹¹

Importance of Tennessee and Knoxville live poultry shipments in the New York market. Tennessee shipments by car were always more important than Tennessee shipments by truck, at least until 1937. Tennessee shipments by freight and New York freight receipts both declined from 1930 to 1937, although total New York receipts declined faster than Tennessee shipments.

In 1937, when figures were last reported for origin of live poultry receipts by state, less than .01 percent of the express receipts were from Tennessee, 10.7 percent of the freight receipts were from Tennessee, and 3.8 percent of the truck receipts for six months were from Tennessee.¹²

In 1942 approximately 119,736 thousand pounds of live poultry was received on the New York market. Knoxville shipped 945,724 pounds to that market. (Knoxville shipments really went to both the New York Live Poultry Terminal and to the Newark, N. J., market, but the destination is the same in either case and so it is assumed that all shipments went to New York.) New York live poultry receipts by state of origin

11. Carter, Walter, loc. cit.

12. Bureau of Agricultural Economics, United States Department of Agriculture: Receipts of Live Poultry at New York. Mimeographed, New York, New York, 1937.

have not been reported since 1937 and so it is not possible to compare Knoxville shipments with all shipments from Tennessee. Most all poultry shipped from Knoxville to New York was shipped by truck. If it is assumed that all the live poultry was shipped by truck and that it was all destined for New York, Knoxville shipments would account for 20.5 percent of the truck receipts of live poultry in New York for 1942.

TABLE XCVIII. IMPORTANCE OF LIVE POULTRY RECEIPTS IN NEW YORK FROM KNOXVILLE, 1942 *

Total Receipts	Lbs. Live Weight
New York receipts	119,736,000
New York truck receipts	4,620,800
New York receipts from Knoxville	945,724
	Percent
Knoxville shipments as a percent of total New York receipts	0.79
Knoxville shipments as a percent of New York truck receipts	20.5

* Source: Food Distribution Administration, Live Poultry Receipts, Monthly Receipts at New York, mimeographed U. S. Department of Agriculture, New York, 1942; and Table LI, page 212.

Importance of the New York live poultry market to Knoxville and its trade area. The prices paid for live poultry in New York influences the prices paid for poultry in the areas shipping to New York. One of Knoxville's leading shippers has sent about 60 percent of all the poultry passing through his produce house to either New York or Baltimore and the other carlot shipper has sent about percent of the produce handled

by his house to either New York or Newark, New Jersey.¹³ During the spring months as high as 85 percent of the poultry handled by one firm was shipped to New York.¹⁴ The New York live poultry market is important to Knoxville, East and Middle Tennessee because much of the surplus of these areas passes through Knoxville to New York in trucks or freight cars en route to New York. All such poultry does not pass through the hands of Knoxville produce dealers. Knoxville produce dealers seem to have held a more important place in the shipping picture in past years. In 1926 G. E. Brehm had the following to say about the place of Knoxville in the shipping picture:

During the first four months of 1924 there were shipped from East Tennessee on the Knoxville Division of the Southern Railway 162 cars of eggs and 152 cars of live poultry Every Sunday 12 to 15 cars from Middle Tennessee passed through Knoxville to eastern cities. 15

In 1930, 642 cars of live poultry were received in New York from Tennessee and in 1937, 395 cars were received.¹⁶ Although there has been a marked decline in receipts, the New York market is still important especially though those people using the quotation given in the Knoxville Journal. A wholesale receiver in Knoxville who has shipped a great deal

13. Interview, Mr. Harrison and Mr. Prince, Knoxville produce dealers.

14. Carter, William, Tracing Movements of Poultry and Eggs, term paper in Agricultural Economics 332 (Marketing), 1938, University of Tennessee.

15. Brehm, G. E., Tennessee (Facts about soil, climate, etc.), Nashville, Tennessee, Department of Agriculture, 1926, p. 33.

16. Yearbook of Agriculture, Washington, D. C., U. S. Department of Agriculture, 1935, Table 425, p. 623.

of poultry from Knoxville has also been the price quoting agency for Knoxville and the trade area. This firm has direct contact with the New York situation and so can make daily changes in price while other dealers usually maintain the same price for two or more days.

Although local demand is such at present that only a relatively smaller amount is being shipped than usual it is still necessary to ship to New York and other eastern markets to drain the surplus off the East and Middle Tennessee markets. The second most important shipper of live poultry from Knoxville only ships after local demand has been met and he still has a surplus available for shipment elsewhere.¹⁷

Normally the surplus must be shipped from East and Middle Tennessee or else create a depressed price situation in the areas of production. Although increased local demand in Knoxville has been so great since rationing that a local price situation has nearly been created separate from any New York influence, it is still possible for the price to be quoted by the local shipper who is figuring his price at the New York price less so much for marketing costs between Knoxville and New York. Other wholesale produce dealers both locally and at country points use this price as the basis for their quotation. It is therefore necessary to give some consideration to the New York live-poultry market.

Inasmuch as New York takes so much of the surplus poultry from the Knoxville produce dealers and the Knoxville area the producers and shippers in this area should attempt to formulate a better understanding

17. Interview with Mr. Prince of the Prince Poultry and Egg Company on March 29, 1943.

of how that market operates.

TABLE XCIX. POULTRY SHIPPED FROM KNOXVILLE IN 1942 *

	Lbs. Sold	Shipped Pounds Live Weight	Percent
Chickens	2,901,762.5	933,615.7	32.2
Turkeys	149,900.0	8,992.5	60.0
Ducks	10,234.8	2,716.3	26.5
Geese and guineas	3,858.0	399.1	10.3
	3,065,755.1	945,723.6	30.8

* Source: See Table L and LI, page 212, and Table XLIX, page 209.

New York and Knoxville poultry consumers compared. In a survey made in New York City in March and April of 1935 it was shown that consumption of poultry was definitely affected by the race or nationality of the family, by its size, by its income, and by the price to be paid. Among families of four with weekly incomes of \$16.00 to \$25.00 it was found that 83 percent of the Jewish families had purchased poultry during the week recorded while only fifty six percent of the Negro families had purchased poultry. Fifty one percent of the native whites, 37 percent of the Northern Europeans, 44 percent of the Mediterraneans, and 48 percent of the other groups had purchased poultry during the week recorded.¹⁸

It is not enough to know that more families of Jewish and Negro nationality reported buying poultry than other groups. Knoxville ships live poultry and it is important to know who buys live poultry. It was

18. Sprague, G. W., Gordon, W., Sturges, A., and Radabaugh, James H., Economic Survey of the Live-Poultry Industry in New York City, Washington, D. C., U. S. Department of Agriculture, August 1937, Misc. Publication No. 283, page 60.

found that the Jewish and Mediterranean groups purchased the greater percentages of live poultry.

TABLE C. PERCENTAGE OF FAMILIES BUYING POULTRY, LIVE OR DRESSED, BY RACE OR NATIONALITY, NEW YORK CITY, MARCH - APRIL, 1935 *

Race or Nationality	Live Poultry Percent	Dressed Poultry Percent
Native white	15.2	84.8
Northern European	18.8	81.2
Negro	51.1	48.9
Mediterranean	61.2	38.8
Jewish	94.7	5.3

* Source: Sprague, G. W., Gordon, W., Sturges, A., and Radabaugh, James, H., op. cit., p. 661

It is a happy coincidence that the Knoxville trade, both colored and white, have very similar tastes to those of the New York trade. It is the surplus fat hen that goes to New York in the early spring and catches the Jewish trade at the peak of the Jewish religious holiday season. The Tennessee farm family likes chicken and dumplings as does the local trade in Knoxville, otherwise it is possible that the farmer's wife wouldn't worry much about raising fat hens. It is a happy coincidence that New York is willing to take this surplus in the spring when old flocks are being cleaned out.

Because Tennessee shipments of live poultry go to a special trade in New York for which the live poultry market was created it is necessary to give some consideration to the nature, characteristics, and determining factors acting upon that trade. The Jewish religion and consequently the Jewish trade has been the determining factor on the New York live

live poultry market since its inception. This subject has been best covered in an Economic Survey of the Live Poultry Industry in New York City, made in 1927 by Gordon W. Sprague and others.¹⁹

Jewish slaughterhouses. The retail Jewish slaughterhouse is the connecting link between the live poultry market and the Jewish housewife and it is there that customs are most important and it is there that the marketing practices are determined. Therefore a brief description of the operation of such an establishment in New York is in order here. It will also serve to set up a background for a discussion of the New York live poultry market.

Through the kindness of Mr. J. C. Powell, Agricultural Marketing Specialist at the University of Tennessee, and Mr. Julius Kastein, a New York commission merchant, the investigator was privileged to visit a combination wholesale and retail Jewish slaughterhouse at 205 De Lancey Street in New York in November 1942. The following is a discussion of what was observed there.

The slaughterhouse was divided into two parts, one for handling wholesale trade and the other retail trade.²⁰ Each had a separate office and separate set of rabbis to do the kosher killing. The retail butcher shop or grocery phones in an order and the birds are kosher bled and killed and weighed then sent out to the butcher shop just as is with the

19. Ibid., pp. 29-31.

See "Hebrew Holidays" in current issues of the Produce Packer. Swift & Company, Significance of Jewish Holidays to the Livestock Producer, Chicago, Illinois, July 1937, Agricultural Research Bulletin No. 9, pp. 1-3.

20. See Figure 95.

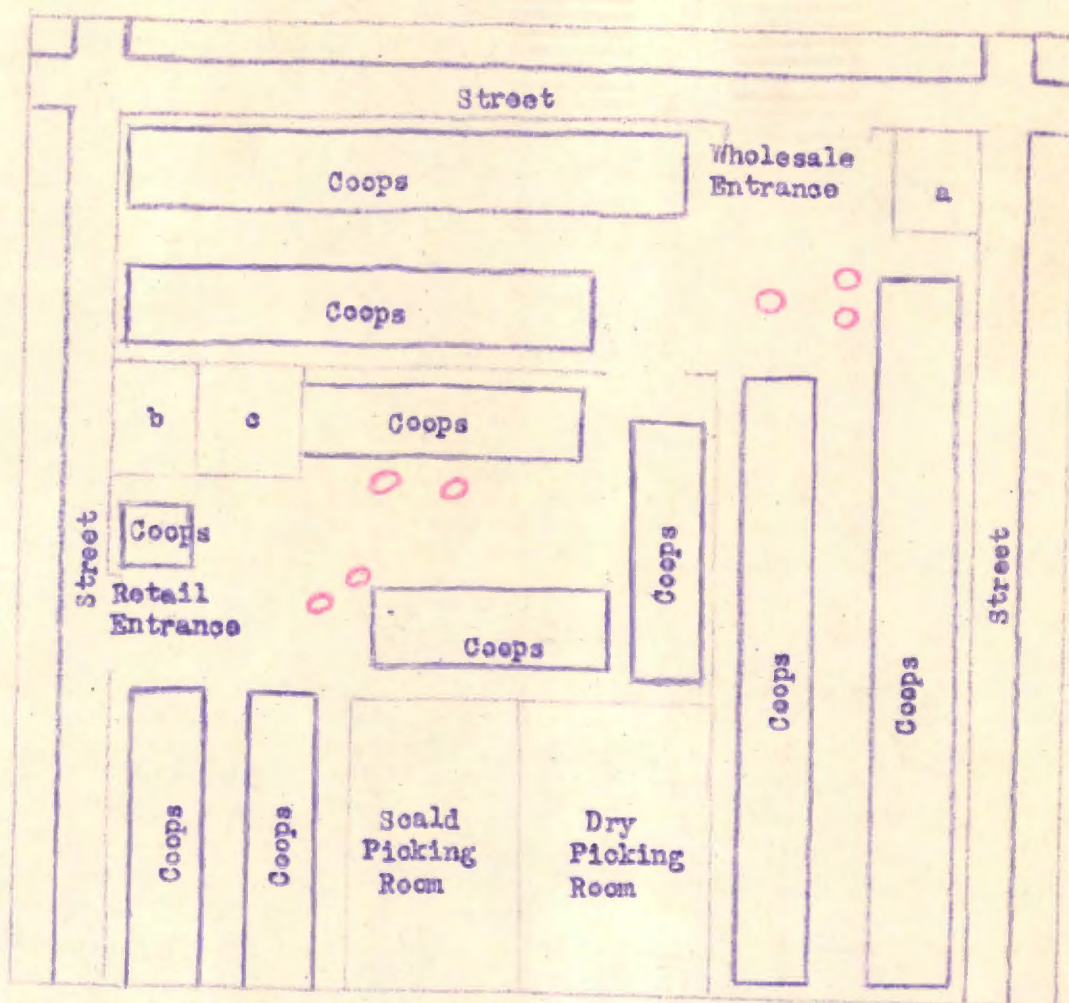


Figure 95. New York Jewish wholesale and retail slaughterhouse

- a. Wholesale office
- b. Retail office
- c. Selling area

○ Barrels over which the rabbis kosher killed the poultry.

feathers still on. The retail process is necessarily more complicated because each housewife must pick out her own bird and see to it that she has the same bird when she leaves. After closely perusing the birds in all the coops the Jewish housewife picks out the bird she wants and takes it to the salesman who weighs it. She pays for the bird and it is tagged for identification. The salesman takes the bird to the rabbi who kosher kills it by grasping the bird under the left arm and slitting the throat with a sharp knife held in the right hand. The bird is then dumped head down into a cone shaped receptacle in the top of a barrel. If it is a turkey it is tossed into a barrel with other turkeys and there allowed to flop and bleed until dead. Sawdust is put in with the turkeys to absorb some of the excess blood. Turkeys killed for the wholesale trade are similarly handled except that the birds are dumped on the floor from the barrel before being weighed. After life has left the bird and it has ceased bleeding it is removed and identified by the leg tag.

Kosher killing, although necessary under Jewish religious dictates, is not practiced in strict form in New York, especially during the rush of the holiday season. The rabbi is supposed to pray over each bird but when rushed he prays over the first and last bird and does not even give the bird so much as a hasty cursory inspection as to health, etc. All poultry passing into New York is now supposedly adequately inspected at the New York terminal.

The cost to the Jewish housewife is more than if she bought a dressed bird from a store. The slaughterhouse operator admitted that it was not the cheapest way to get poultry to the consumer and also added

that some big dressing plants were kosher killing and shipping certified kosher-killed birds to New York. As few figures will show the position of the New York Jewish housewife under the price conditions existing during the pre-Thanksgiving holiday season in 1942.

TABLE CI. COST TO THE NEW YORK HOUSEWIFE OF PURCHASING A TEN-POUND LIVE TURKEY, KOSHER KILLED, AND AN EIGHT-POUND DRESSED BIRD NOT KOSHER KILLED, THANKSGIVING SEASON, NOVEMBER 1942

Turkey	Lb. Price	Total Price	Picking Charge	Total	Difference	
Kosher killed 10 pounds: *** tons	\$0.40	\$4.00	\$0.25	\$4.25	Tons	Hens
hens	0.45	4.50	0.25	4.75		
					\$0.49	\$0.73
Chain store dressed bird 8 pounds:*						
tons	0.45	3.76	-	3.76		
hens	0.47	3.92	-	3.92		

* 10 lbs. live is considered roughly equal to 8 lbs. dressed.

*** Includes cost of kosher killing.

Even if the Jewish housewife picks the bird herself (which was observed to happen only seldom) it would still constitute a saving to purchase from a grocery store, if it were not for religious custom. Some of the Jewish people contacted at the slaughterhouse and on the New York market felt that there was a tendency to become less observant of these religious rules as the Jewish families became less orthodox in numbers and as they tended more to mix with other nationalities and races. Although there will always be some market for live poultry in New York members of

the trade looked for a decrease in the amount kosher killed.

New New York live poultry terminal. The new terminal market was erected in 1942 to overcome the evils of the old terminal and markets on Manhattan Island²¹ (Figures 96 and 97). In reading the following description of the situation at New York the reader is cautioned to take into consideration the fact that the writer was on the New York market for only four days preceding November 24, 1942, and that the terminal had been in operation only since August of 1942.

The terminal was erected as a result of much agitation by shippers, business and academic interests but obviously not at the request of the commission men themselves, who are not too well pleased with the new terminal or with the new marketing problems it has sprouted. Whether the new terminal was justified or not is not a matter for discussion here. Shippers must deal with the situation as it exists and not as it could or should exist.

Location of the terminal. The new terminal is located in Queens on an inlet from the East River, as shown in Figure 96, on the Pennsylvania railroad yard. It is necessary to circle the entrance to Queen's Midtown Tunnel and to cross the Pennsylvania railroad tracks in order to transact business at the terminal. The location of the terminal in relation to parts of the New York City Live Poultry Market as it existed in 1935 is shown in Figure 96.

21. Op. cit., pp. 115.

Beuchel, F. A., Wholesale Marketing of Live Poultry in New York City, United States Department of Agriculture, Agricultural Technical Bulletin #107, 1929, pp. 68.



Figure 96. Location of New York live poultry terminal in relation to New York live poultry market

- A. New live poultry terminal.
- 1. Live poultry terminal, New York Central Railroad
- 2. West Washington market
- 3. Live poultry terminal, Lackawanna Railroad
- 4. Live poultry terminal, Central Railroad of New Jersey
- 5. Live poultry terminal, Lackawanna Railroad
- 6. Erie poultry terminal, Weehawken
- 7. Live poultry terminal, Lackawanna Railroad

Source: Sprague, Gordon W., "Economic Survey of the Live Poultry Industry in New York City", Washington, D. C., United States Department of Agriculture, Misc. Publication No. 283, August 1937, p. 17.

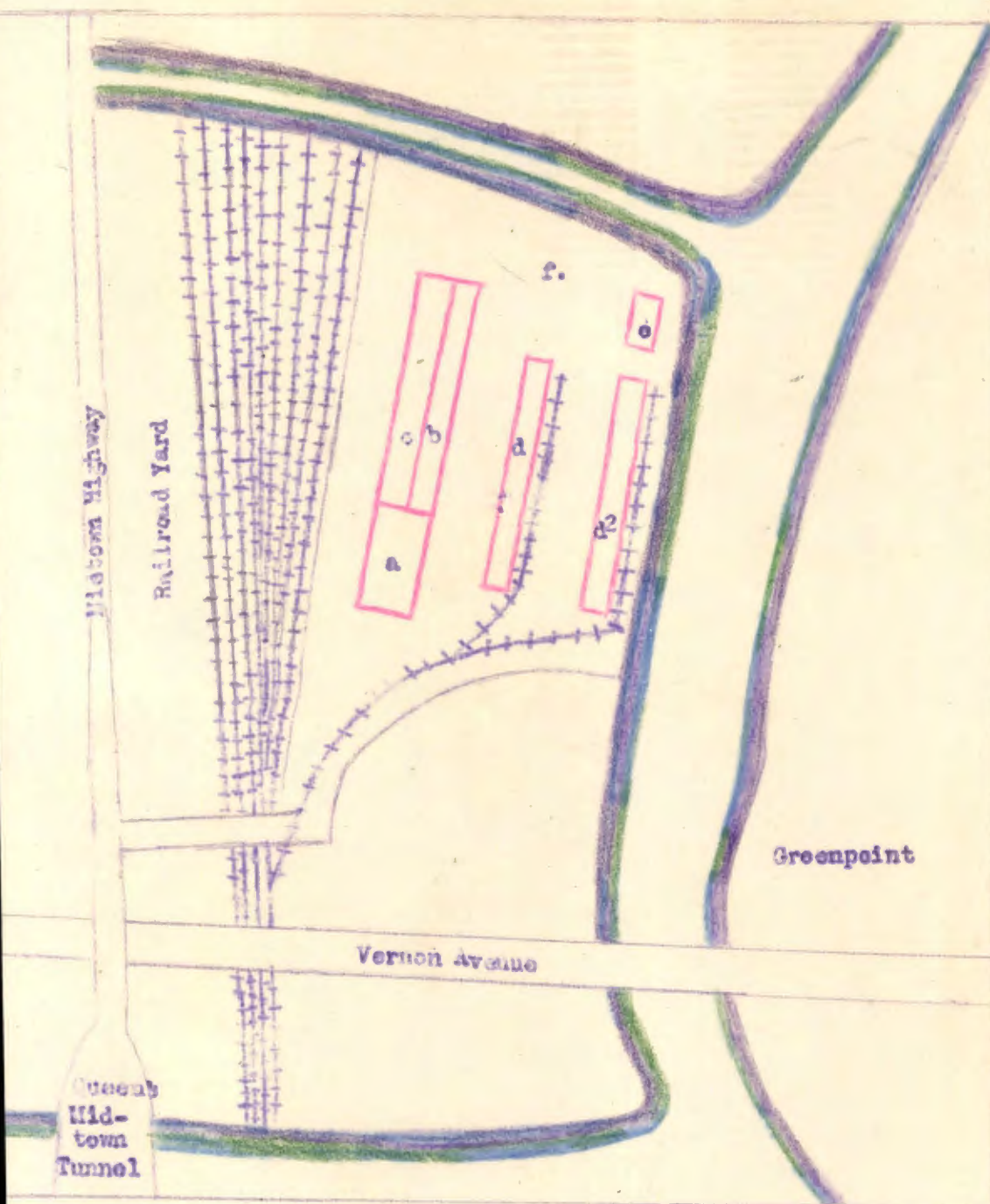


Figure 97. Location of buildings in New York Live Poultry Terminal

- a. Offices, restaurant, barber shop, etc.
- b. Truck sales platform
- c. Truck receiving platform
- d¹ and Freight unloading platforms
- d²
- e. Truck inspection platform
- f. Deep storage space

Source: Drawn from memory and not to scale.

Description of the New York live poultry terminal. Figure 97 is a diagram showing the location of the various buildings composing the New York live poultry terminal. The other figures following are pictures taken of the various buildings and operations carried on at the terminal during the week preceding Thanksgiving, November 1942.

Figure 99 is a view of the offices designated as (a) in Figure 97. The buildings in the far background are on Manhattan Island.

The Pennsylvania railroad yard where the freight cars are "drilled in" is shown in Figures 100 and 101.

Figures 102, 103, and 104 show the buyers and sellers discussing the market in the driveway between the freight unloading platforms designated as d_1 and d_2 in Figure 97. One of the buyers was still observed to be using a horse and wagon in November of 1942, Figure 105. In Figure 105 are also shown the coops piled on the freight unloading platforms preparatory to unloading the freight cars.

Figure 106 shows another horse and wagon waiting at the truck sales platform shown as b in Figure 97. Figure 107 is a close up picture of a selling stall on the truck sales platform. Figure 108 is a long view of the truck sales platform while Figure 109 is a close up of turkeys being loaded onto trucks from the same platform as shown in Figure 108.

Figure 110 shows an incoming truck waiting to be inspected at the platform designated as e in Figure 97. Figure 111 shows the same truck after inspection. Figure 112 shows the proximity of the market to the water as the railroad siding in Figure 112 is the same as that shown to the right of the unloading platform designated as d_2 in Figure 97.



Figure 98. Dedication plaque on office building, New York Live Poultry Terminal, November 1942



Figure 99. Buyers' trucks waiting for sale to begin, New York Live Poultry Terminal, November 1942.

Note offices at right.



Figure 100. Car sidings for extra cars "drilled in",* New York Live Poultry Terminal, November 1942.

Truck unloading platforms at right; note high wire fence.



Figure 101. Cars "drilled in", New York Live Poultry Terminal, November 1942.

Note canvas covers on sides of cars.

* Cars awaiting unloading on freight siding.



Figure 102. Discussing the market, New York Live Poultry Terminal, November 1942.



Figure 103. Driveway between freight unloading platform, New York Live Poultry Terminal, November 1942.



Figure 104. Buyers' trucks between car unloading platforms, New York Live Poultry Terminal, November 1942.



Figure 105. Live poultry buyer's wagon, New York Live Poultry Terminal, November 1942.



Figure 106. Truck buying platform, trucks and wagons waiting to be loaded, New York Live Poultry Terminal Market, November 1942.



Figure 107. Truck buying platform, New York Poultry Terminal, November 1942.

Note inside space. Poultry brought through there from unloading platform on opposite side.



Figure 108. Truck selling platform, New York Live Poultry Terminal, November 1942.



Figure 109. Loading turkeys on buyers' trucks, New York Live Poultry Terminal, November 1942.

Note salesman in white coat.

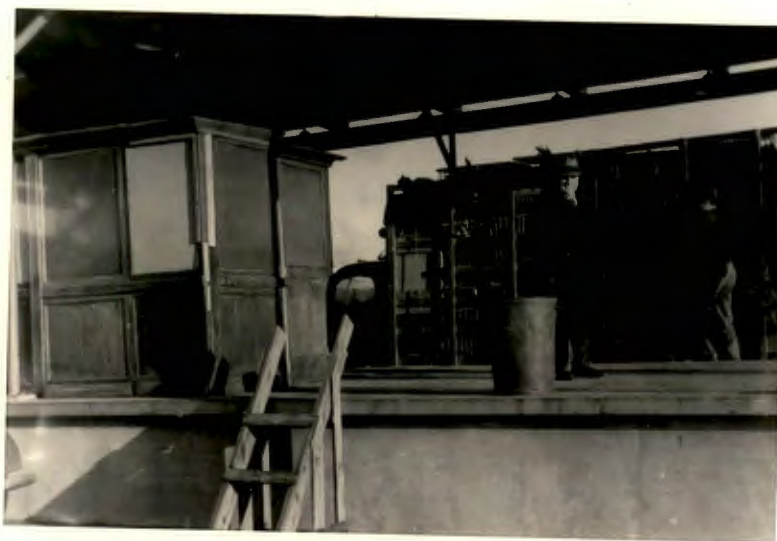


Figure 110. Incoming truck waiting for inspection,
New York Live Poultry Terminal, November 1942.

Note inspector's office, and refuse can for de-
ceased poultry.



Figure 111. Replacing truck sidings after inspection,
New York Live Poultry Terminal, November 1942.



Figure 112. Car on siding facing river, unloading platform at right, New York Live Poultry Terminal, November 1942.

Operation of the terminal. The terminal was constructed under the supervision of the Department of Public Works (see Figure 98) and is rightly called the Wholesale Live Poultry Market. It is operated under the supervision of the City of New York Department of Markets. The Department maintains an office in the terminal office buildings. The commission merchants operating in the terminal rent their offices and stalls from the Department of Markets.

The commission merchants carry on their business about as previously except that it is under the supervision of the Department of Markets inasmuch as there are certain rules which must be observed. Complete duplicate records must be kept of all sales transactions,

copies of which must be filed with the Department of Markets office or made available to the Supervising Inspector, Live Poultry Graders and agents of the marketing news services. Further rules and regulations are given in the Appendix G.

Market news. One of the best descriptions of the government part of the marketing reporting and grading operations was to be found in A.M.A.'s article on "A.M.A. Market News Grading Service Started at the New York Poultry Market."²²

Under a cooperative agreement, Federal State market news and grading services are now being operated at New York's new \$550,000 Live Poultry Terminal. The market news and grading services which started August 3 are being operated jointly by the Agricultural Marketing Administration, the New York Bureau of Markets, and the New York City Department of Markets.

Through a Federal State agreement a Federal State market reporter covers market trends, and prices through actual sales based on Government grades of poultry. [This was not observed to be the actual case.] His reports are widely distributed to poultry dealers and producers throughout the United States through A.M.A.'s leased wire services and terminal offices.

Although the above statement would indicate that market news was based on actual sales that was not the case. The reports were made out early in the morning when trading had just begun, if at all, and were based on statements by the commission merchants as to what they thought the prevailing price was. Price reporting on the basis of actual sales would be possible only at the end of the day's business, if not later.

Price fixing. Such a situation was not possible under the price

22. Davis, L. M., editorial, "A.M.A. Market News Grading Services Started at New York Poultry Market", in A.M.A. Marketing Activities, Agricultural Marketing Administration, U. S. D. A., August 1942, Vol. 5, No. 8.

regulations in effect on the market November of 1942, and was not considered possible when the supply was greater than the demand. At times the buyers have gotten together and laid their cards on the table as to just how much stuff they had coming in by truck and by freight. With the new market set up the commission merchants have a better idea of the supply side than before but they still have to guess as to the demand side of the market. As far as supply is concerned supply is known 24-48 hours out of New York, i.e., freight receipts, as their position is reported by the railroads to Mr. Dwyer. The demand side of the market picture may be shifted at a moment's notice due to changes in weather, business conditions, news reports, etc. In the live poultry business changes in demand are reflected back to the commission merchant and consumer. Of all the factors mentioned, weather is the most important, especially during the holiday season. People are just not Thanksgiving and Christmas holiday minded when the weather is warm. But if a storm is reported the price of chickens and especially turkeys tends to strengthen. When the investigator was on the New York market this situation occurred and the price had risen $1\frac{1}{2}$ ¢ per pound when the storm finally broke.

Unloading a live poultry car at the terminal. The cars are placed on the sidings next to the unloading platforms (Figure 113). If the poultry is to be unloaded within the next few hours the car man immediately feeds them wet mash, followed by corn; all the poultry will take. A member of the "gang" that is to unload the car then goes in and

turns the feed trays and sweeps out the cars. In about one and a half hours the car man tells the Department of Markets Inspector that he can inspect the car. There is usually some argument between the carman and the inspector as the car man tries to feed as much as possible, and so desires to wait awhile before inspection, whereas the inspector is anxious to get the inspection over with and the "gang" are anxious to finish their job.

When the inspector finally goes into the car he inspects about 120 birds out of the whole car by reaching into each layer and feeling the crop of the bird he happens to catch. He observes the bird, its general appearance, and condition of health. If he rejects the car because more than half of the birds have too heavy crops it must be reinspected at later hour at the commission merchant's request and expense. Very few car men are actually able to put weight on the birds, especially at the last minute, as such attempts usually result in rejection by the inspector which becomes very expensive, especially if it means that the car must be held over another day for further unloading.

Previous to the unloading the salesman for the commission merchant has been taking orders from buyers who have come and looked over the birds since their arrival at the unloading platform or even before if they have been "drilled in".

When the car has been inspected and approved the pullers begin to remove those decks designated by the salesman who fills the buyers' orders in the same succession as he took them. The birds are handed from the puller to the carrier who places them in coops whose top slats are



Figure 113. Locked car waiting to be inspected, New York Live Poultry Terminal, November 1942.



Figure 114. Loading buyers' trucks from car unloading platforms, New York Live Poultry Terminal, November 1942.



Figure 115. Commission merchant inspecting poultry at left, salesman in white coats, foreground, New York Live Poultry Terminal, November 1942.



Figure 116. Loading turkeys in coops, New York Live Poultry Terminal, November 1942.



Figure 117. Weighing turkeys, coops weighed empty then full, New York Live Poultry Terminal, November 1942.



Figure 118. "Nailing in", New York Live Poultry Terminal, November 1942.

open (Figures 115 and 116). They are nailed down by the "filler in" when the coops are full. The weight minus the weight of the coop is recorded on the sales slip by the weighmaster of the Department of Markets (Figure 117). The carman also records the weight for the benefit of the shipper and to ascertain the amount of drift that has taken place. A sticker designating the grade of the birds in each coop is placed on the coop by the Department of Markets Inspector. Cull or low grade birds are held aside in a separate coop and later reinspected and the birds graded as C or condemned. If the birds are unfit for human consumption they are disinfected and placed in trash cans, from which they are later picked up and sold to a soap works.

Cars which contained diseased birds had to be so designated that they would receive additional and proper disinfection by the North American Car Corporation who owned the cars at that time.

After the coops, about 80 to a car, are graded they are loaded onto the buyer's truck (Figure 120) which must bear a special New York license, by two loaders who are members of Local No. 560, which was different from Local 435, the local including only the car "gang".

A car can normally be unloaded in about $1\frac{1}{2}$ to 2 hours if everything goes smoothly and the buyers pull up to receive their orders in an orderly fashion. This speed is possible due to the number of people engaged in the unloading. Two pullers, 2 carriers, 1 filler-in, 2 loaders, the inspector, and the weighmaster. The fact that the weighmaster is under the supervision of the Department of Markets should obviate the old practice of weighing on the "up beam", supposedly unfavorable to the farmer.



Figure 119. Changing coops from one truck to another,
New York Live Poultry Terminal, November
1942.



Figure 120. Loading coops onto buyer's truck from car unload-
ing platform, New York Live Poultry Terminal,
November 1942.

During the whole unloading procedure it is necessary that the carman who brought the car through and another representative of the shipper be present to safeguard the seller's interest, i.e., see that as few as possible of the birds are stolen or rejected.

Unloading from trucks. The unloading from trucks is done at another platform separate from the railroad sidings and part of the main building (Figure 97). The sellers' trucks pull to the platform designated as c in Figure 97 and the birds are taken off in the coops they came in and sometimes kept in the same coops for awhile. They are moved through the platform to the entrance on the opposite side, a in Figure 97, and loaded into the buyer's truck (Figure 109). In fact it is sometimes possible to unload directly from the seller's truck to the buyer's truck with the commission merchant merely arranging the deal and providing the place for the exchange to take place. Storage space is not necessary in an exchange of this nature.

Loading and following a car through from Greenville, Tennessee, to New York. Car loading operations are much the same regardless of where they are carried on. The pictures on the following pages depict freight car loading operations as carried on by produce dealers in Greenville and the Tennessee Poultry Producer's Association in Greenville and Jonesboro, Tennessee. When poultry is shipped by car from Knoxville it is loaded and shipped in the same manner. When shipped by truck the loading operation is as shown in Figure 74.

Before a car can be loaded it must be cleaned and disinfected



Figure 121. Produce dealers loading own live poultry cars, Greenville, Tennessee, November 1942.



Figure 122. Live poultry car cleaned and loaded with straw ready for loading, Greenville, Tennessee, November 1942.



Figure 123. Farmers' vehicles awaiting turn to unload, Jonesboro, Tennessee, November 1942.



Figure 124. Chickens to market in baggage compartment, Greeneville, Tennessee, November 1942.



Figure 125. Farmers market turkeys cooperatively,
Tennessee Poultry Producers' Association
car, Greenville, Tennessee, Novem-
ber 1942.



Figure 126. Turkeys ride in style, Greenville,
Tennessee, November 1942.



Figure 127. Turkeys and capons being loaded on a car from coops, Jonesboro, Tennessee, November 1942.



Figure 128. From truck to live poultry car, Jonesboro, Tennessee, November 1942.

either by the North American Car Corporation, owners of the car, or by the shipper for which \$5.00 is remitted to them by the owner. After the car is cleaned the decks are bedded with straw, as shown in Figure 121. About 6 to 8 bales of straw are used to a car. Each deck is bedded 3-4" deep. The car in Figure 121 has had some of the decks removed preparatory to the shipping of turkeys which must be double decked. The two upper decks in Figure 121 are single decks where chickens may be loaded. Greeneville produce dealers loaded their freight cars as shown in Figure 122. The amounts loaded at any one operation by the Tennessee Poultry Producers' Association were naturally less than those loaded by the produce dealers because the Association was making direct purchases from farmers. Figures 123 to 128 show different phases of loading at both Jonesboro and Greeneville, Tennessee.

The poultry is weighed in a "weigh coop" about 85 pounds. This coop must be kept clean or a great loss in weight may be experienced just by weighing in poultry in dirty coops. Most of the birds are weighed only in groups in a coop, but doubtful specimens are weighed to see if they meet minimum weight requirements. Capons weighed in at from $6\frac{1}{2}$ to 9 pounds; Barred Rocks at from $6\frac{1}{2}$ to 7, White Rocks about 9, and Rhode Island Reds from $8\frac{1}{2}$ to 9. At the November marketing if the birds were too light they were handed back to the farmer and he was told to keep them until December.

The decks shown in Figures 121 and 132 are referred to as decks or coops. A deck holds about 12 hen turkeys or 18 capons, 12



Figure 129. Tennessee favorite, Barred Plymouth
Rock capons, Greeneville, Tennessee,
November 1942.



Figure 130. Turkey grower displays her finest Bronze
turkey, November 1942.



Figure 131. Surplus of turkeys waiting to be transferred to another car, Greeneville, Tennessee, November 1942.



Figure 132. Car loaded with turkeys and ready for shipment, Greeneville, Tennessee, November 1942.

Note straw in layers.



Figure 133. Ducks arriving in spindle coops by truck, New York Live Poultry Terminal, November 1942.

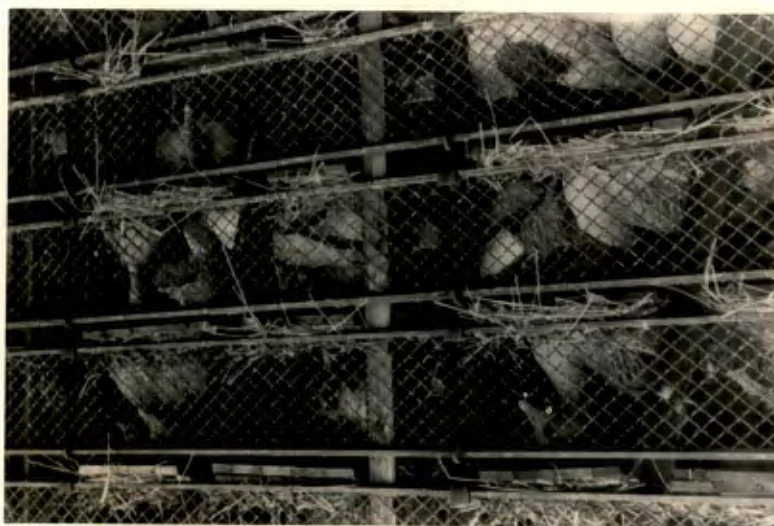


Figure 134. Geese and ducks single decked in a live poultry car, New York Live Poultry Terminal, November 1942.

young tom turkeys or 20 to 25 chickens. Chickens are single decked while turkeys are shipped in double decks. Fourteen thousand pounds per car is about right for turkeys. If the car loads out under 12,000 pounds the shipper is fined.

Figure 131 shows the inside of a loaded live poultry car. Those turkeys standing in the aisles of the car are not to be shipped in that manner but are being so held until they can be transferred to another car which has not yet been made ready for the birds. Figure 132 shows a loaded car from the outside. Note that the straw has not yet been trampled down. Figures 133 and 134 show ducks, geese, and turkeys upon arrival in New York by both truck and freight. Note how the geese and ducks have trampled down the straw in the decks. Poultry travelling to market in spindle coops, for example the ducks in the spindle coops shown in Figure 133, are not provided with straw.

A report on feeding through a car of poultry.²³ The cars were opened for loading in Jonesboro Tuesday morning and finished loading late Tuesday evening and Wednesday morning. They left Jonesboro at noon Wednesday and left Greeneville about 6 o'clock Wednesday night, after having been joined with the cars from Greeneville. They proceeded to Bull's Gap and took on water there about 8 o'clock that same evening. Thursday morning the birds were given a light feed consisting of mash

23. As told to the investigator by Mr. W. A. Williams, a director of the Tennessee Poultry Producers Association, and also B. Massengill, a car man, who had just brought a car through to New York, in November of 1942, when interviewed.

and semi-solid buttermilk (and sometimes oats) which had all been mixed with water in a large barrel with the aid of a spoke wheel attached to the end of a broomstick. Thursday afternoon the birds were again given a light feed and on Friday the same two feedings were duplicated, although the amount of feed was the same it was heavier on Friday because it contained less water. It has been found difficult to get some birds to eat mash because they had not been accustomed to that kind of feed on the farm. Some farmers have begun the commendable practice of feeding mash for one or two weeks previous to shipment, which is very helpful as the birds eat more and that means greater returns to the shipper or at least not such a great drift. (This would be an advisable practice for farmers or anyone shipping under a system where the returns depend upon the weight of the bird when it reaches the final market.)

The cars which had left Greenville Wednesday night arrived at Spencer, North Carolina, at about 3 o'clock Thursday afternoon. They arrived in Washington, D. C., about 4 p.m. Friday and did not leave there until 6 p.m. and then on to New York on the Pennsylvania Railroad. The cars arrived in Jersey City about 3 or 4 in the afternoon and crossed the river by lighter. They were "drilled in" alongside the poultry terminal or in the terminal proper and were unloaded Sunday morning after feeding the poultry (Figure 100). The cars that lay over until Monday or Tuesday were given a heavy feeding similar to that given to the cars on Saturday. The feed carried by the car man interviewed consisted of 14

bags of fatteners and 2 bags of corn, or 1600 pounds of feed in all and $\frac{1}{2}$ barrel of buttermilk.

Car man. The man who tends the poultry en route to their destination from their point of loading is known as the car man. He receives \$7.00 per day beginning the day he goes to work to help load the cars and ending the day he arrives home. It is necessary that he help load the car so that he will know how the weight is distributed and just where what kinds of birds are located in the car. The car man lives in the car until the poultry are unloaded. The unloading of the car is of special interest to him as he must see that no birds are stolen because stolen birds show up as "drift" and too much drift does not look good on his record as it would indicate that possibly he had not fed the birds right. The car man provides his own sleeping and cooking equipment, except the pot-bellied iron stove that is in the car, and provides all his own food. Often he buys little extras for the car and sometimes it is his duty to buy or otherwise see that the car is supplied with side curtains, which are necessary to protect the birds from inclement weather, especially the cold raw winds from the river in New York (Figure 101). Since the opening of the new terminal conditions for the car men have been improved as there are showers, barber shops and sleeping cots provided for his convenience as well as the convenience of the men who unload the cars. These facilities are located in a of Figure 97.

Marketing expenses. The rental of the coops has long been claimed to be a racket but there is some justification for the cost. They are

used in greatest number during only certain periods of the year which makes it necessary to store the surplus during the rest of the year. Some are stored at the end of the live poultry terminal yard (Figure 135 and f in Figure 97), while others are stored in warehouses. It is therefore necessary to make the coops pay for the storage cost the very few days they work out of the whole year.

There used to be a one cent charge for banding the legs of birds killed kosher. This charge was imposed by the Kashruth, a sort of Jewish union of poultry slaughterers, schochets and rabbis. However the lawyers hired by the poultry dealers were able to break this racket and that is one less penny that the housewife must pay for her Kosher killed bird.



Figure 135. Outdoor storage of coops at end of terminal,
New York Live Poultry Terminal, November
1942.

Labor's point of view on marketing costs. The men who unload the poultry cars belong to local no. 435. During normal periods of receipts 15 steady gangs were employed in rotations so that no one gang made more than any other gang. This arrangement was necessary because payment was on a piece rate wage basis of \$9.00 per car. Men belonging to local 435 said that they averaged about 2-3 cars a week, or only about \$18.00-\$27.00 per week at best unless they managed to work on Sundays for which work they received pay and a half. Also if a car had to be held over to finish unloading the second day the men received \$5.00 for the first day and \$9.00 for the second.

The car men of local 435 must always be on call and ready to report and unload a car whenever their turn comes or they are called on. That naturally makes it difficult for him to accept any other permanent part-time job to augment his income.

Out of his monthly wages must come \$4.00 per month union dues, which include death benefit payment.

All men who work the cars are paid the same amount. It was felt by one puller interviewed that this was unfair because he thought it required more experience to be a puller as one had to know the difference between heavy and light hens and roosters, and friers, etc.

Cost of marketing poultry, Tennessee to New York. In November of 1942 the observer gathered information given in Table CII which shows the cost of marketing turkeys from the producer in the Knoxville area to the consumer in New York City to be approximately 17.0 cents per

pound for hen turkeys and 16.0 cents per pound for tom turkeys. A little over nine cents per pound represented the spread between the price paid the farmer and the New York wholesale weight price.

Strangely enough it cost between six and a little over seven cents to market the turkeys live weight, but Kosher killed, after they were purchased by the wholesaler in New York.

**TABLE CII. PRICES PAID AT MARKETING POINTS, TENNESSEE
TURKEYS EN ROUTE FROM PRODUCER TO NEW YORK CON-
SUMER, 1942 ***

	Live Weight Prices, November 1942	
	Hens	Toms
Price paid farmers in Knoxville area *	28.0 ¢	24.0 ¢
New York wholesale freight price **	37.4	33.7
Price paid by New York housewife for Kosher killed bird ***	45.0	40.0
Price spread, Knoxville to New York	9.4	9.7
Price spread, New York wholesaler to New York housewife	7.6	6.3
Marketing cost, producer to consumer	17.0	16.0

Sources: * Appendix H, Table XIX.

** American Egg and Poultry Review, "Statistical Review", December 1942.

*** Prices paid in a New York Retail Jewish slaughterhouse visited by the observer, November 22, 1942.

Another way of showing costs is by invoices showing detailed costs. Such an invoice for a shipment of poultry to New York in November of 1941 is shown in Table CIII. The gross returns do not show on the actual invoice but are shown in Table CIII. The commission merchant received \$27.82 in commissions and paid \$551.70 for costs of marketing shown in Table CIII. The Tennessee Poultry Producers' Association took \$14.36, leaving \$2358.67 for the producer.

TABLE CIII. INVOICE ON SHIPMENT OF LIVE POULTRY TO NEW
YORK, 1941

Kastein-Chelsea Poultry Company, Inc.
Commission Merchant & Dealers
Live Poultry Exclusively

Office 18 Bloomfield Street, West Washington Market

New York 11/19/41

Bought from Tennessee Poultry Producers' Association, Inc.

Inspection	\$2.00	Nov. 17	\$37.08	Hen Trky.	28	\$1038.24
Drafts	2500.00		39.20	Tom Trky.	24	940.80
Freight	197.90		18.08	Tom Trky.	22	406.80
Coops 55 @ 65	35.75		2.06	Old Tom	19	39.14
Cartage 5 @ 25	1.25		13.03	Capons	27	621.81
loaders	19.80		1.52	Fowls	21	31.92
Unloading	52.00		1.44	Chix R	19	27.36
Man in Charge	43.00		.08	Cox (O.R.)	16	.96
Feed	-		5.35	Slips	22	117.70
Commission	(127.82)		127.82	Total Sales		3224.73
Total Advanced	2851.70			Overdraft		
Check	373.03					

() Not shown in actual invoice

Gross 3352.55
Net 2873.03

Difference 679.52
Commission 127.82
Cost Mktg. 551.70

Tennessee Poultry Producers' Association commission = 1/2 of 1% or \$14.36

* Source: Files of Tennessee Poultry Producers' Association,
courtesy Mr. J. C. Powell.

Opinion of Tennessee poultry at the terminal.

We receive good poultry from Tennessee depending upon the season of the year. Tennessee poultry is not good until after Easter as that is when the poultry raised specifically for sale on the market

begins to arrive. The cull birds that arrive in the late fall early months are of such poor quality as to bring small returns to both the farmer and the handlers. 24

It was observed by the investigator that quality was judged on that market as on any other on the basis of volume as well as quality. When the investigator asked to see what the commission merchants would call good quality she was taken to a car of Barred Rock hens from South Dakota. Although they were little different from the ones from Tennessee there was a whole half a car of those birds all about the same size. When the buyers look over a car they are more favorably disposed to purchase from the car where the birds are all alike and uniform as to quality as well as appearance. The poultry buyer is buying more than chicken and unlike the Jewish housewife he does not have time to look each one over thoroughly.

A common complaint about Tennessee poultry was really not about the poultry but the way it was handled. It was said that trucks bringing poultry from Tennessee mixed in poultry from other states and that when it arrived on the market it was all classified as Tennessee poultry and if poor quality was prevalent then Tennessee was blamed as the source of that poor quality.

Objections to the new terminal. Certain objections to the market were voiced by those operating and working in the market. Some are

24. Mr. Jimmy Kastein.

valid and important, others petty and expected result of government restrictions. The objections were as follows:

1. The market is exposed to the weather and is very cold and wet due to the open nature of the buildings.
2. Unloading from extra cars "drilled in" is impossible due to the erection of a high wire fence between the market and the railroad yard. See Figure 101.
3. Unloading platforms in the actual terminal were so arranged that it is necessary to unload all the cars before any one car can be removed and new cars brought up for unloading.
4. Freight unloading facilities were claimed to be inadequate when compared to the old market. (Receipts by rail are decreasing and so this will be less of a difficulty in the future.)
5. Commission merchants have to go after the drafts at the banks whereas the banks brought them to them at their previous locations.
6. Slaughterhouse operators who buy direct from the produce dealers or farmers only have to check through the new terminal for inspection and only buy from the commission merchants on the terminal what they need to fill in. By not buying from the commission merchants it was claimed that they were avoiding the costs of maintaining the new terminal.
7. The commission merchants did not believe that they had enough to say about the actual construction of the market.
8. The actual space for doing business was thought to be smaller than before.
9. The terminal was so located that it is a good five blocks from the nearest subway.

Future importance of the terminal. The live poultry terminal is a place of business for the receiving and selling of live poultry by commission merchants. It was thought by nearly everyone that the

investigator contacted on the New York market that the future of live poultry was unimportant. They all thought that dressed poultry was becoming more important and would be even more so after the war. They also felt that those people who consumed poultry under the dictates of the Jewish religion were becoming less in number. They thought that the young Jewish housewife would prefer to buy certified kosher killed dressed poultry. Therefore the terminal is becoming less important as a receiving point and serves more and more as an inspection point for about $2/3$ of the poultry that is received in New York. The buyers, especially the large dressing plants, only buy just enough on the market to fill in when they are not able to satisfy their needs by buying direct.

Mr. Dwyer, Department of Markets representative, thought that the demand for live poultry in New York could have been increased if the live poultry had been killed and presented in any manner better than that commonly practiced in Jewish slaughterhouses, by kosher tradesmen. Jewish live poultry markets have not been appealing to the exacting housewife who wanted a bird which had been properly handled. When the investigator interviewed Mr. Dwyer he claimed that the supply of poultry was not meeting the demand due to an unnatural situation created by the war but that situation could not be expected to continue after the duration.

Figure 94 shows that receipts in New York of live poultry, especially by freight, have been declining to the point where such freight receipts are literally unimportant. Although receipts by truck are

increasing those receipts passing through the hands of the commission merchants are said to be less and less. It is said to cost less for wholesale receivers and slaughterhouses to purchase poultry from produce dealers and truck it direct to New York in their own trucks. They then pay only a nominal inspection fee if the poultry enters New York City.

Future place of shipments from Tennessee. With the swollen populations in many defense centers in Tennessee it seems doubtful if many turkeys, especially, will be shipped from Tennessee and the Knoxville area. Present government regulations and price ceilings tend to make it more profitable to sell poultry locally than to ship it to New York. To continue to ship live poultry by freight in competition with dressed poultry from other areas will become unprofitable as the New York orthodox Jewish trade diminishes. Shipment of dressed poultry rather than live poultry is not only proving more profitable for one of the local shippers but is being contemplated by other local shippers. The proof of the feasibility of a shift from live to dressed poultry shipments is in the profitable operation of a business in that manner.

CHAPTER XIII

KNOXVILLE POULTRY AND EGG PRICES

Prices put exchange in terms of money. All marketing of produce is related to price. When farmers trade eggs and poultry for groceries they pay the price of groceries with the price of produce. If the price of produce is low and the price of groceries high they obtain few groceries, and vice versa. If the price of one farm product is consistently good, yielding a profit, farmers tend to produce more of that product. Prices over a period of time determine in part the movement of produce to market.

A custom of long standing in the marketing of dairy and poultry products is the use of the terminal market quotations as a basis for buying and selling transactions. 1

In large terminal wholesale markets buyer and seller meet and determine the price at which they will buy or sell. Other agencies along the market channels may also do this; only, within certain confines as set by the terminal market price, i.e., when produce is shipped to terminal markets. Even where local demand is such that a local price system could be set up there is a tendency to follow the price lead of the local shipper who is in contact with the central markets.

Local Price Making

"Local quotations" for poultry and eggs have been printed by the same man in the Knoxville Journal and its predecessor, the Knoxville

1. Davis, L. M., "Are Wholesale Market Quotations Adequate?", A.M.A. Marketing Activities, A.M.A., U. S. Department of Agriculture, Vol. 5, No. 8, August 1942.

Journal and Tribune, for over 40 years.² Although there are at present nine Knoxville produce houses buying poultry and eggs in the Knoxville area, one produce house has been the source of these figures. Other produce houses have at times run advertisements next to the "local quotations". The same firm is still providing the "local quotations" although the price quotation basis was changed early in 1943 when this firm became a branch produce house of a larger produce house in Rogersville, Tennessee. The price quoted in the Knoxville Journal before this change in ownership was the price to be paid producers by country buyers. It was understood that the price paid at the produce house in Knoxville would be more than that quoted in the Knoxville Journal. The new owner of this produce house has been quoting the price he will pay at the door and not the country paying price, since the week of April 25, 1943. The new price quotation is a wholesale buying price and country produce dealers and country assemblers now must set their own price somewhere below this price. Country buyers have become accustomed to the new price quotation with a minimum of difficulty.

There is another wholesale receiver in Knoxville whose business has been comparable in volume to the firm furnishing the "local quotations", but it has not been consulted on price until this year. This second wholesale receiver has begun to be quoted in the Knoxville Journal on Knoxville buying prices "at the door" guaranteed for a week. All other firms

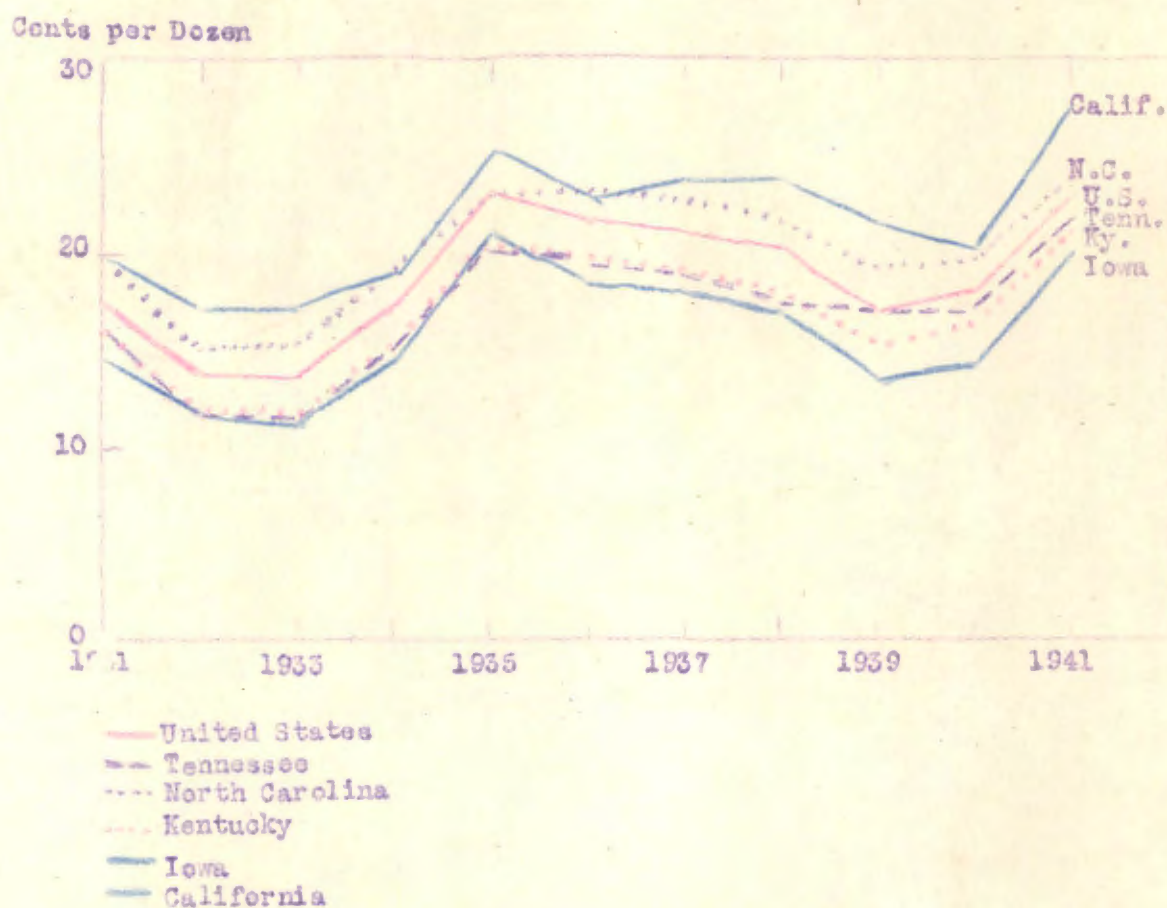
2. Mr. Johnson of Knoxville Poultry and Egg Company. See American Egg and Poultry Review, "Veteran Tennessee Shipper", Vol. I, p. 358, 1940.

quoting prices have done so by means of paid advertisements in the Knoxville Journal and News Sentinel. Knoxville produce dealers maintain that they have paid prices for produce higher than those quoted in the Knoxville Journal. They were paying a wholesale buying price and the paper was quoting a price to be paid to farmers at country points.

Eggs

Farm prices compared with other states. From 1931 to 1941, Tennessee egg producers received a price for eggs below the average price paid producers in the United States. For example, in 1931 Tennessee producers received 15.7 cents per dozen and United States producers 17.3 cents per dozen; in 1936 Tennessee producers received 19.8 cents and United States farmers 21.8 cents; in 1941 Tennessee producers received 21.7 cents per dozen and United States producers 23.5 cents per dozen. In general Tennessee prices changed in direct relationship to United States prices, but were always lower. Kentucky and Tennessee prices paid for eggs were practically the same from 1931 to 1938. From 1938 to 1941 Kentucky prices have been from 0.2 to 1.7 cents lower. Iowa prices for eggs were consistently lower than prices for Tennessee eggs for the period 1931 to 1941 with the exception of 1935 when they were 0.9 cents above. North Carolina, another southern state, received prices for eggs above the United States average price and above the Tennessee average price from 1931 to 1941. California producers in a state more distant from the market and where commercial production is predominant have also consistently received more for eggs than has the Tennessee farmer.

Two of the main factors determining prices paid for eggs at the farm are: one, distance from market, and two, grades of eggs sold. A



Sources: Table CIV, page 406.

Figure 135a. Eggs: farm prices in Tennessee, selected states, and United States, 1931-41.

producer at a distance from the market may receive more for high quality eggs than one near the market for a low quality product. Some Tennessee producers have direct urban outlets for a high grade egg at good prices. Others are far from local markets and still farther from large terminal markets. Few farms specialize in eggs and under small farm flock conditions eggs grade low. There is a third factor in Tennessee prices, the

TABLE CIV. EGGS: FARM PRICES IN TENNESSEE, SELECTED STATES, AND THE UNITED STATES, 1931-1941 *

States	Cents per Dozen										
	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931
United States	23.5	18.0	17.4	20.3	21.3	21.8	23.4	17.1	13.6	13.9	17.3
Tennessee	21.7	17.3	17.0	17.9	19.3	19.8	20.4	15.2	11.6	11.6	15.7
North Carolina	24.4	19.9	19.5	21.8	22.7	23.7	23.0	19.2	15.3	15.0	19.7
South Carolina	24.8	20.1	20.0	22.4	23.4	23.6	23.0	19.6	16.2	16.2	21.6
Georgia	23.9	19.8	19.2	21.7	23.0	23.2	23.0	18.9	15.3	15.4	19.4
Kentucky	21.1	16.6	15.3	17.7	19.4	19.7	20.7	15.1	11.5	11.9	15.9
Virginia	24.0	19.3	18.3	20.5	21.6	22.3	23.0	18.0	14.8	14.6	19.2
Missouri	20.2	14.1	13.4	16.4	18.0	18.5	20.7	13.6	10.3	11.0	14.2
Iowa	20.6	14.4	13.6	17.0	18.3	18.8	21.3	14.3	11.1	11.8	14.8
California	27.8	20.3	21.6	23.9	23.9	23.2	25.2	19.0	17.2	17.2	19.9
Alabama	23.0	17.9	17.0	19.2	20.9	20.9	20.4	16.8	13.0	12.9	16.7

* Source: Agricultural Statistics, United States Department of Agriculture, 1937, 1939, 1941, 1942.

relationship between local and eastern market demand. Knoxville, a large urban center, with a good local outlet for poultry and eggs, is not entirely dependent upon eastern terminal market price leadership.

Farm price in Knoxville area compared with the state as a whole and United States. As shown in Figure 136, average yearly price paid for eggs in Knoxville has been more nearly the United States farm price than the

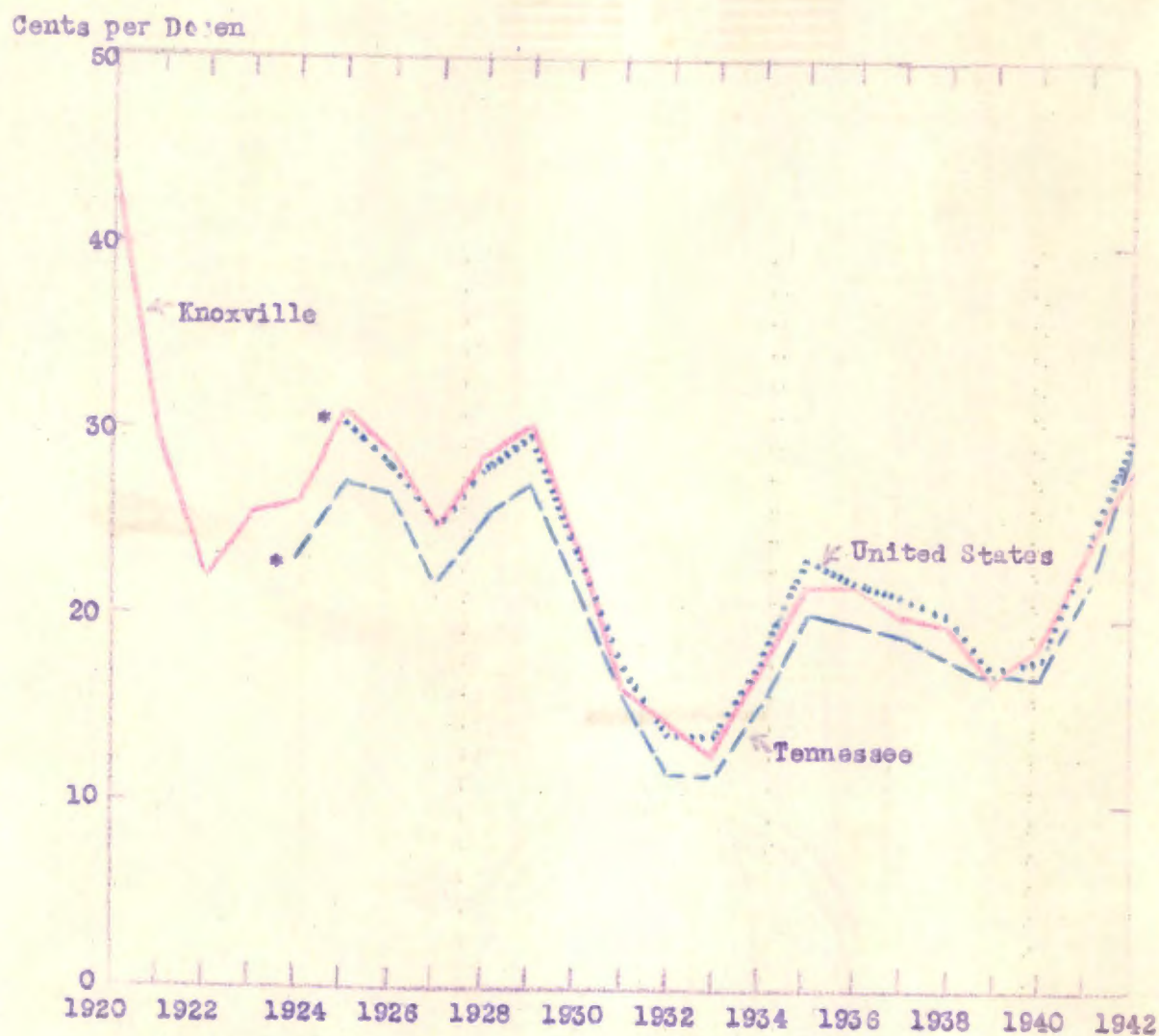
Tennessee farm price. During some periods, for example, 1920 to 1930, and 1940 to 1941, Knoxville egg prices have been equal to or slightly more than the average United States prices (Figure 136). Knoxville is

TABLE CV. EGGS: YEARLY FARM AVERAGE PRICE, KNOXVILLE, TENNESSEE, AND UNITED STATES, 1920-1942 *

Year	United States (1)	Tennessee (2)	Knoxville (3)
1942	29.9	23.5	23.1
1941	23.5	21.7	23.6
1940	13.0	17.3	18.5
1939	17.4	17.0	16.6
1938	20.3	17.9	19.9
1937	21.3	19.3	20.0
1936	21.8	19.8	21.7
1935	25.4	20.4	21.7
1934	17.1	15.2	17.2
1933	13.6	11.5	12.9
1932	13.9	11.6	14.0
1931	17.3	16.7	16.2
1930	23.7	21.3	23.7
1929	29.9	27.4	30.3
1928	23.0	25.3	28.4
1927	25.0	21.9	24.9
1926	23.8	23.5	23.7
1925	30.4	27.0	31.0
1924	26.7	23.2	26.0
1923	26.5	**	25.5
1922	25.0	**	22.0
1921	23.3	**	29.1
1920	43.5	**	43.7

- * Source: (1) Agricultural Statistics, 1942, p. 526.
Crops and Markets (1930-1942), April 1943, Vol. 20,
 No. 2, p. 101.
 (2) Yearbook of Agriculture, 1924-1935.
Crops and Markets, January - December 1942.
 (3) Appendix H, Table XII.

** Comparable average yearly data unavailable.



* Comparable yearly average not available.

Source: Table CV, page 407.

Figure 136. Eggs: average yearly farm prices, Knoxville Area, Tennessee, and United States, 1920-1942

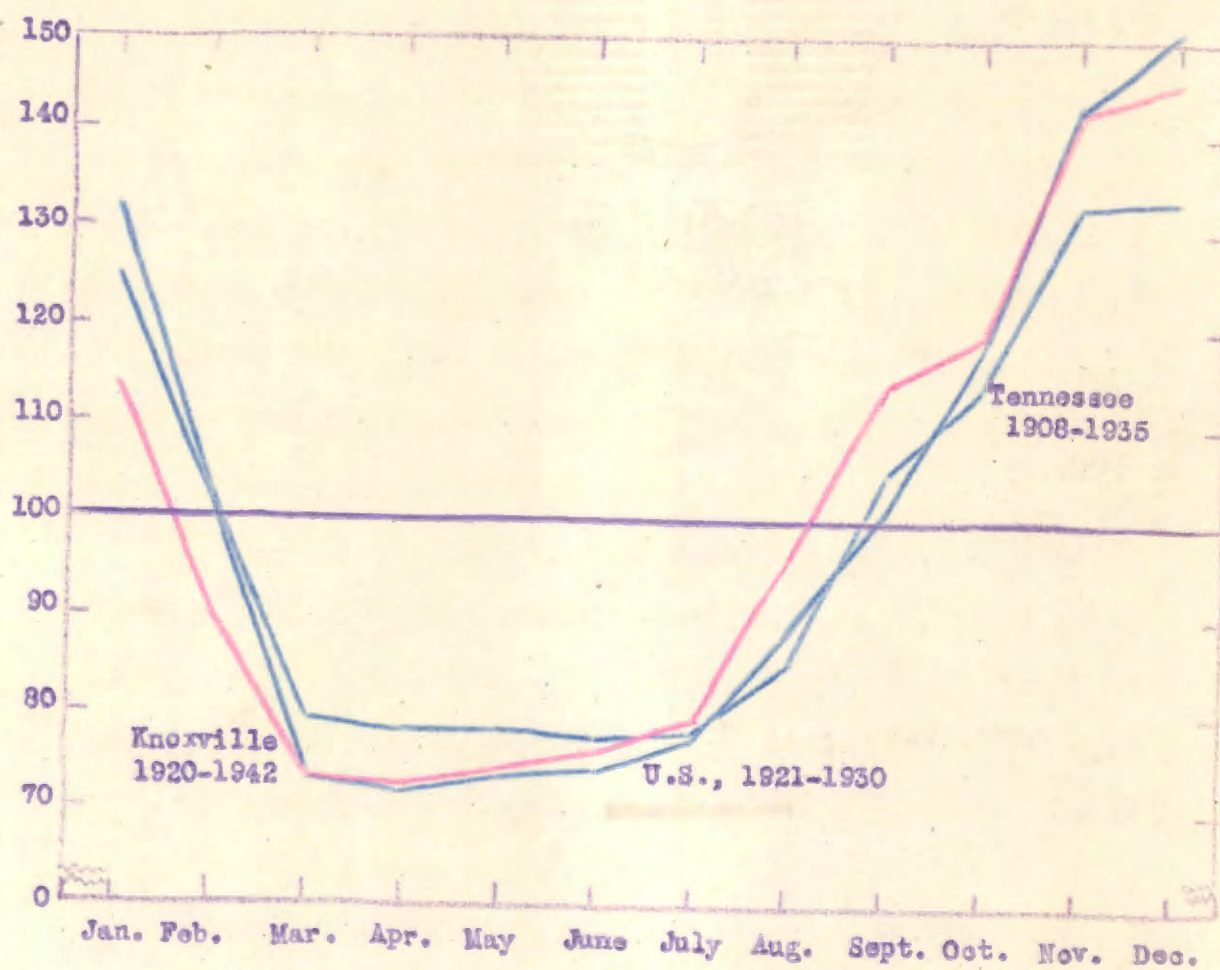
located in one of the three highest farm price regions for eggs in Tennessee.³

Seasonal variation in egg prices. The index of egg prices quoted in the Knoxville Journal from 1920 to 1942 had a low of 72.2 points in April and a high of 145.9 points in December. In general February through August were the low price months while September through January were the high price months. The coefficient of average seasonal point fluctuation is 67.5. The range from the highest point, 145.9, to the lowest point, 72.2, is 67.5 percent of the average of the two points. (The larger the coefficient, the greater the seasonal swing.)

An index of average prices paid farmers in the United States from 1921 to 1930, shown in Figure 137, has the same high and low months as the Knoxville index. The United States index points in January, February, March, November, and December are higher than the Knoxville points for these months. During the other months the Knoxville index points are higher.

Also shown in Figure 137 are the index points for Tennessee prices paid farmers for eggs from 1908 to 1935. These cover an earlier period, so the index is not the same. In the index January and February were also peak price months as were September, October, November, and December. The price decline comes earlier for the Knoxville index due to the inclusion of data only for years after World War I. The reason for variation in indexes of egg prices has been expressed by Shepherd as follows:

3. Allred, C. E., Atkins, S. W., Smith, Craig M., Prices Paid Producers of Farm Products, Tennessee, Department of Agricultural Economics and Rural Sociology, Agricultural Experiment Station, University of Tennessee, August 1936, p. 326.



Source: Appendix H, Table XIII, and Allred, Atkins, and Smith,
op. cit., pp. 75, 76.

Figure 137: Eggs: seasonal indexes monthly farm prices, Knoxville
 Tennessee, and United States

The seasonal pattern of egg prices has been changing slowly with the passage of time. The amplitude of the swing up and down has been decreasing, and the peak of prices has been coming earlier. Forty years or more ago the price peak usually came in January; gradually it moved up to December; for the past several years the peak has come in November, and indications are that in the next few years it may come as early as October. 4

Such price changes result from changing production periods and improved cold storage conditions.

Secular trend in egg prices. The period 1920 to 1942 covered by the seasonal index shown in Figure 137 is so short that it provides insufficient data from which to calculate a secular trend line, because of the effect of World War I and World War II on the data.

The secular trend of the average annual farm price of eggs in Tennessee, 1909 to 1935, has been shown to have been downward since 1909.⁵

The secular trend of the average annual farm prices of eggs in Tennessee, 1909 to 1935, is represented by the straight-line equation, $Y = 23.8 - 0.02x$, when the origin is 1922 (Figure 84). This indicates that egg prices have been experiencing a very slight downward movement since 1909 in Tennessee. Apparently the average decrease has been 0.02 cents per year, or .08 percent when the mean price of 23.8 cents is equal to 100. 5

Cyclical and random fluctuations. Cyclical and random fluctuations were also shown in Prices Paid Producers of Farm Products, Tennessee, 1866-1935.⁶ The following statement was made:

The Tennessee farm prices of eggs have not experienced any cycles of regular or uniform duration since 1911 (Figure 86). Such cycles as have occurred for egg prices have been 10 year,

4. Shepherd, Geoffrey S., Agricultural Price Analysis, The Iowa State College Press, Ames, Iowa, 1941, p. 74.

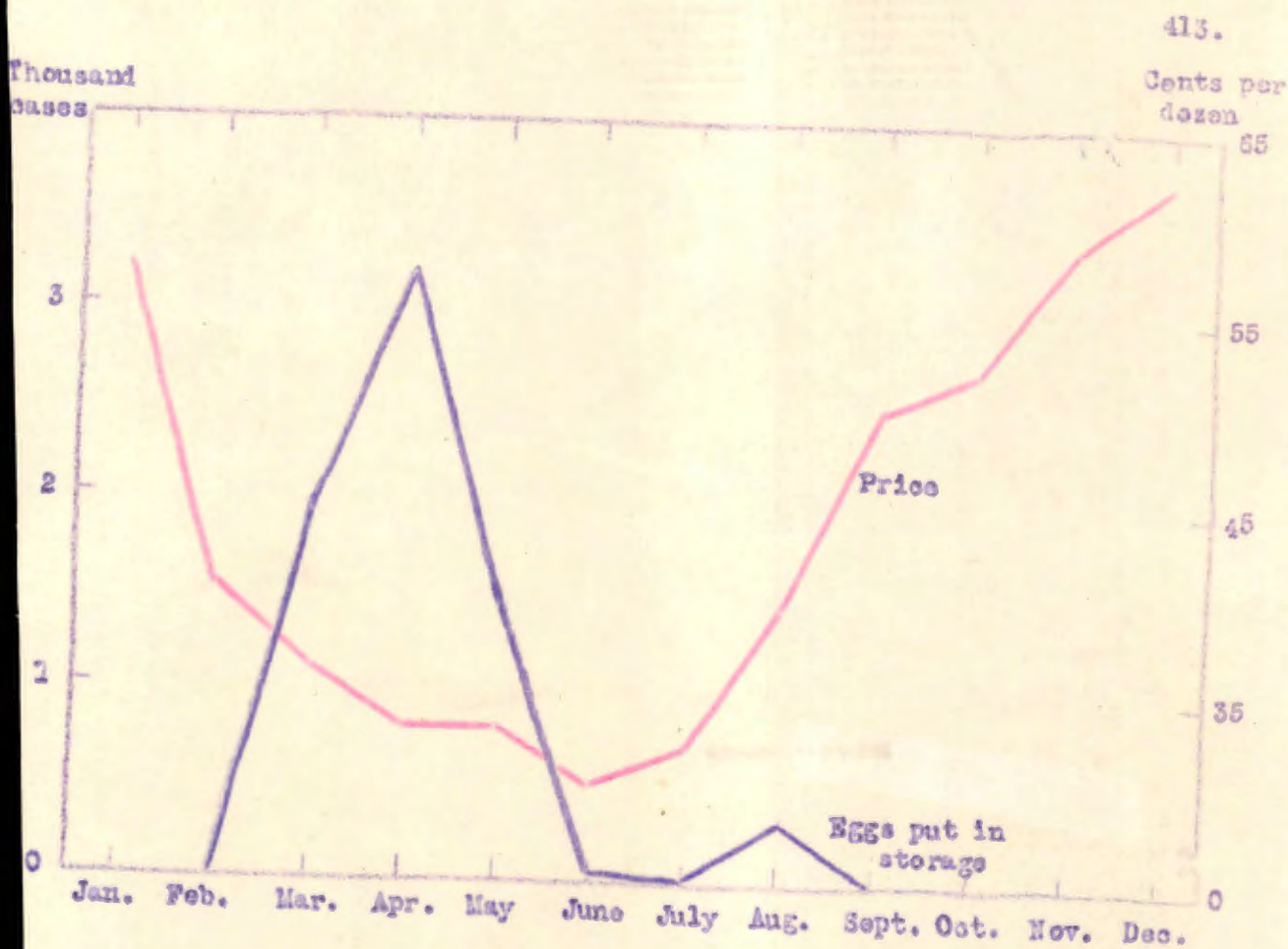
5. Allred and Atkins, op. cit., p. 142.

6. Ibid., p. 144.

3 months; 6 years, 6 months; and 4 years and 9 months, in length. Due to the short time nature of the poultry business, changes may be made in production on a year to year basis and such practices do not create cycles of uniform length. 7

Prices paid as related to cold storage movements. Eggs move into storage when the price is low and when the quality of eggs is good. Prices paid farmers in the Knoxville area (based on Knoxville Journal quotations) and number of cases of eggs put into storage in Knoxville by six Knoxville produce houses in 1942 are shown in Figure 138. In 1942, eggs did not move into storage in Knoxville until the price dropped to 36.0 cents per dozen in March. More eggs were moved into cold storage by Knoxville produce houses in April than in any other month. According to the seasonal index of egg prices paid in the Knoxville area from 1920 to 1942, April has usually been the lowest price month. About half as many eggs were put in storage in May as in April but at the same prices as April. Although the price dropped to 30 cents in June, only 29 cases were put in storage. Knoxville produce dealers claimed that the quality of eggs laid after May was so poor that the risk was too great in attempting to store them even at lower prices. In Figure 138 357 cases of eggs are shown as going into storage in August. These eggs and the 29 cases put into storage in June were all stored by a carlot shipper who had a surplus which he did not wish to ship and so put them in storage for a short time. Eggs put in storage from June on were usually only stored from 30 to 60 days. All eggs moved out of storage in October and November.

7. Ibid., p. 145.



Source: Table XLV, page 174, and Appendix Table XII.

Figure 138. Eggs: cold storage by six Knoxville produce houses and average monthly farm prices in the Knoxville area, by months, 1942.

When movement of eggs into cold storage by Knoxville produce houses is compared with United States cold storage holdings of eggs (Table CVI), it would seem as though the six Knoxville produce houses put more eggs into storage in April while for the United States as a whole, more eggs moved into storage during May. If it is assumed that all eggs stored by the six Knoxville produce houses remained in storage the holdings at the first of the month may be compared to the United States holding at the first of the month. United States holdings increased relatively more during May and June than holdings by Knoxville produce houses. July and August holdings in Knoxville were the same but United States August 1st holdings decreased.

TABLE CVI. COLD STORAGE OF EGGS BY SIX KNOXVILLE PRODUCE HOUSES AND UNITED STATES COLD STORAGE HOLDINGS, 1942 *

Eggs	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct., Nov. & Dec.
Number of cases put in cold storage by Knoxville produce houses	-	-	1,900	3,157	1,463	29	-	337	-	-
Cold storage holdings, 6 Knoxville produce houses, first of the month, cases	-	-	-	1,900	5,057	6,520	6,549	6,549	6,336	...
U. S. Cold storage holdings, first of the month, 1,000 cases	549	331	529	1,798	4,638	6,945	7,935	7,754	...	...

* Source: Table XLV, p. 174, and Agricultural Statistics, U.S.D.A., 1942, p. 535.

... Data not available.

New York wholesale price quotations and Knoxville price quotations. As shown in Figure 139, Knoxville price quotations follow the same general pattern as some New York wholesale quotations.

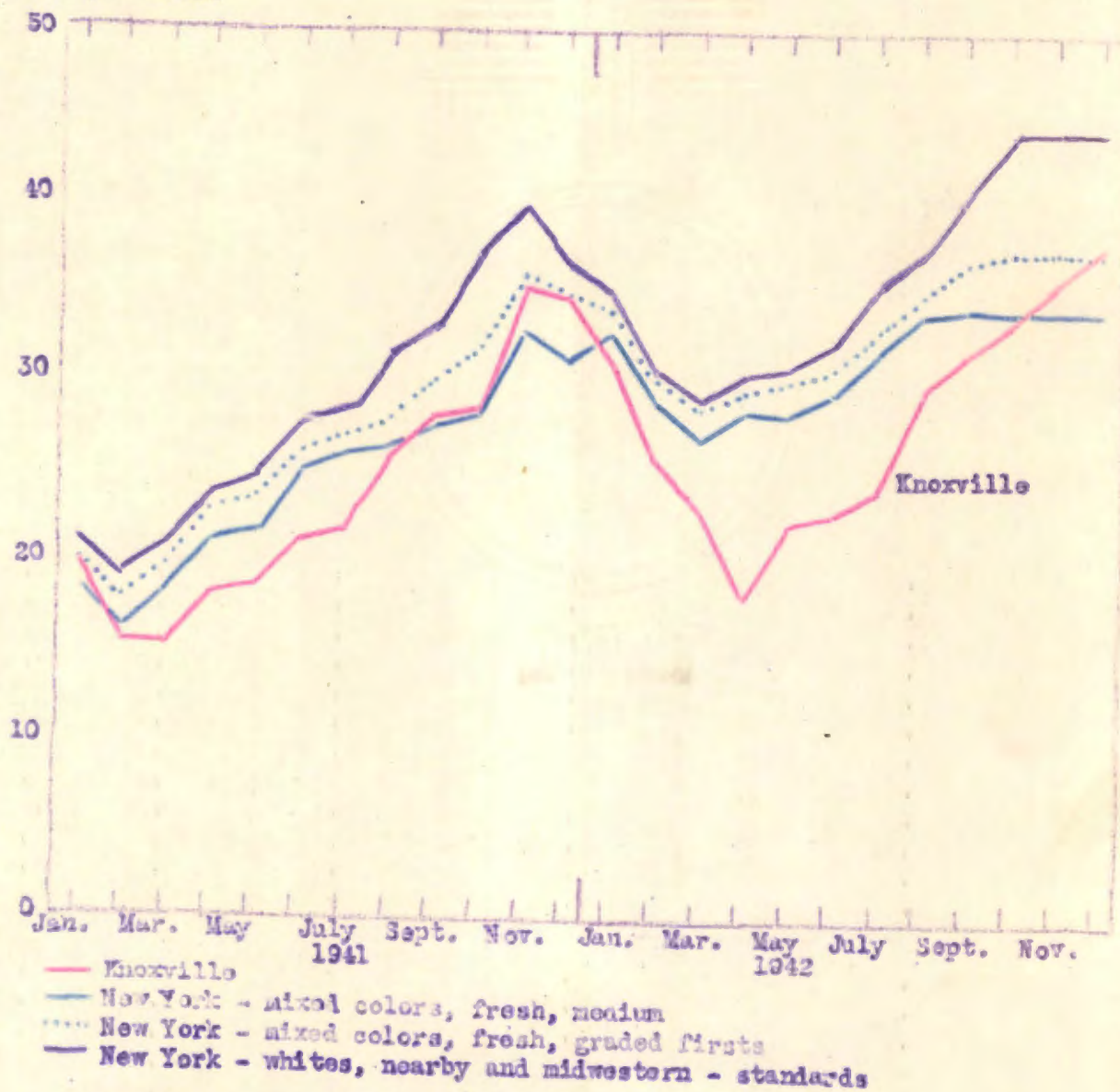
"New York mixed colors, fresh, mediums" were from 4.3 cents above Knoxville quotations in July of 1941 to 3.3 cents below in December of 1941. The statement has been made by a Knoxville produce dealer that he has imported eggs from New York during the winter months. Figure 139 would indicate that such operations were feasible.

TABLE CVII. AVERAGE MONTHLY EGG PRICES, WHOLESALE NEW YORK AND KNOXVILLE AREA FARM PRICE, 1942 *

1942	Knoxville Whse.Price (1)	New York Wholesale Prices (2)		
		Mixed Colors		Whites
		Fresh		Nearby and Midwestern Standard
		Graded Firsts	Medium	
Jan.	31.0	34.3	32.9	35.2
Feb.	25.7	30.2	29.2	30.9
Mar.	23.0	28.8	27.2	29.3
Apr.	18.4	29.9	28.7	30.8
May	22.3	30.3	28.6	31.1
June	22.8	31.2	29.8	32.5
July	24.4	33.4	32.1	35.7
Aug.	29.8	35.3	34.3	37.9
Sept.	32.0	37.0	34.5	41.4
Oct.	33.7	37.6	34.3	44.5
Nov.	36.0	37.8	34.3	44.5
Dec.	38.2	37.8	34.3	44.5
1941				
Jan.	19.8	19.8	18.4	21.3
Feb.	15.3	17.8	16.3	19.1
Mar.	15.3	19.6	18.5	20.9
Apr.	18.0	22.7	21.3	23.8
May	18.5	23.6	21.9	24.9
June	21.0	26.1	25.1	27.4
July	21.7	27.1	26.0	28.6
Aug.	26.0	28.2	26.5	31.6
Sept.	28.3	30.1	27.7	33.2
Oct.	28.6	32.3	28.4	37.4
Nov.	35.4	36.9	33.0	40.0
Dec.	34.8	35.0	31.5	36.8

- * Source: (1) Monthly average of Knoxville Journal "Local Quotations".
 (2) American Egg and Poultry Review, 1941-1942.
 (3) Produce Packer.

Cents per Dozen



* Source: Table CVII, page 415.

Figure 139. Average monthly egg prices, wholesale New York and Knoxville Area farm price, 1941-42

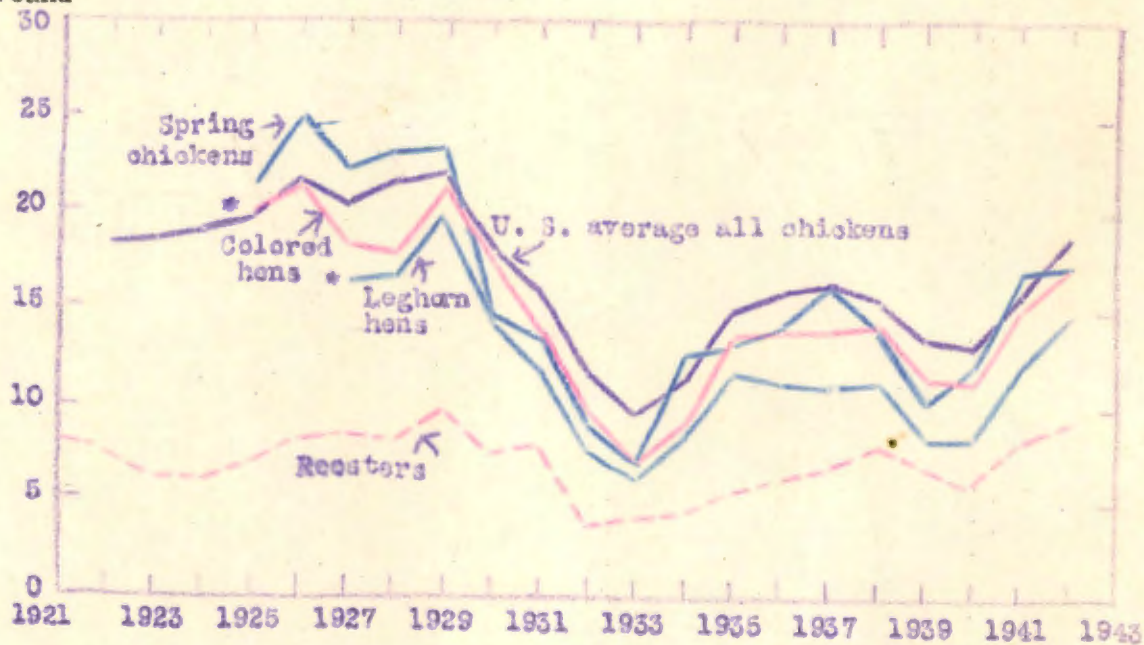
TABLE CVIII. DIFFERENCE BETWEEN AVERAGE MONTHLY EGG
PRICES, WHOLESALE NEW YORK AND KNOXVILLE AREA,
1942 *

1942	Mixed Colors		Whites
	Fresh		Nearby and Midwestern States
	Graded Firsts	Medium	
Jan.	3.3	1.9	4.2
Feb.	4.5	3.5	5.2
Mar.	5.3	4.2	6.3
April	11.5	10.3	12.4
May	8.0	6.3	8.8
June	8.4	7.0	9.7
July	9.0	7.7	11.3
Aug.	5.5	4.5	8.1
Sept.	5.0	2.5	9.4
Oct.	3.9	0.6	10.3
Nov.	1.8	+1.7	8.5
Dec.	+0.4	+3.9	6.3
1941			
Jan.	0.0	+1.4	1.5
Feb.	2.5	1.0	3.3
Mar.	4.3	3.2	5.6
April	4.7	3.3	5.0
May	5.1	3.4	6.4
June	5.1	4.1	6.4
July	0.0	4.3	6.9
Aug.	2.2	0.5	5.6
Sept.	1.8	+0.6	4.9
Oct.	3.7	+0.2	3.8
Nov.	1.5	+2.4	4.6
Dec.	0.2	+3.3	2.0

* Source: Computations from Table CVII.

Live Poultry

Live rather than dressed poultry price quotations are of most concern to producers in the Knoxville area. The majority of the farmers in East Tennessee sell their poultry alive. Only a limited number market

Cents per
Pound

Source: Appendix H, Tables XIII, XIV, XV, XVI, XVII, and XXIV.

Figure 140. Chickens: yearly average farm price per pound, by market groups, Knoxville Area and United States, 1921 - 1942.

poultry dressed and these distribute it themselves. Because of the importance of chickens compared with other poultry live chicken prices will be considered first.⁸

From 1926 to 1930 the Knoxville area was considered in the second highest chicken price region in Tennessee; from 1931 to 1935 one of the highest and from 1926 to 1935 the second highest price region.⁹

"The regions of price variation for chickens included the same sections of the State as did the egg farm prices". The final and highest price region was in the East Tennessee Valley and Unaka Range area.¹⁰ For the period 1931-1935, the farm price in East Tennessee was 11.5 cents per pound and, from 1926 to 1935, East Tennessee was again among the highest.¹¹

Trend and seasonal of chicken prices in Tennessee. In Prices Paid Farmers in Tennessee, 1886-1935, it was found that the long time trend of chicken prices had been slightly upward from 1900 to 1935 and that the average rate of increase had been 12 cents per pound, or 0.77 percent per year, when 15.6 cents equalled 100.¹² The highest

8. See Table III, page 18.

9. Allred and Atkins, op. cit., page 351.

10. Ibid., p. 350.

11. Ibid., page 357.

12. Ibid., page 140.

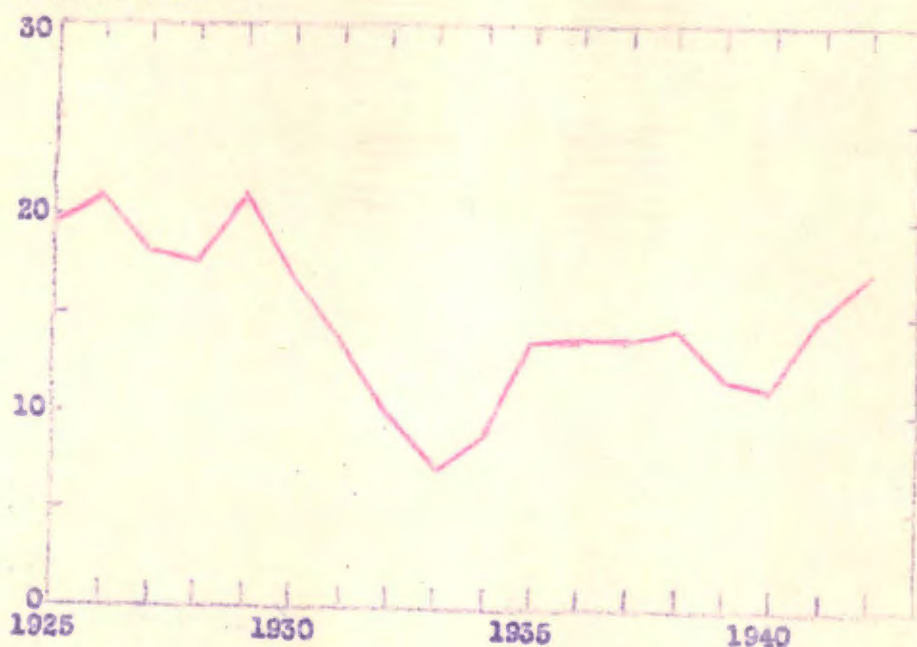
seasonal price for chickens was reached in June and gradually declined through the summer and fall until December, then steadily rose again until June.¹³ Chickens experienced approximately reverse seasonal price fluctuations to those experienced by eggs.

Farm prices for chickens in the Knoxville area and the United States. The yearly average price paid farmers for chickens in the United States has been higher than the average price paid in the Knoxville area for any of the market groups of chickens for which prices have been quoted except during 1925 to 1929 when Knoxville area spring chicken prices were higher. In general, the average price paid farmers in the Knoxville area for colored hens from 1925 to 1942 changed in direct relation to changes in the United States prices paid to farmers for all chickens. Leghorn hen prices in Knoxville also show the same relationship (Figure 140) as they change in direct relation to changes in colored hen prices but are always a few cents less. Knoxville area spring chicken prices have been much more erratic than prices for other market groups of chickens.

Seasonal variation in Leghorn and colored hen prices. The indexes of prices for Leghorn hens, light hens, and colored hens, heavy hens, paid farmers in the Knoxville area 1925 to 1942 are shown in Figure 142. Both indexes show the same general seasonal swings. The index of Leghorn hen prices fluctuated more than the colored hen prices

13. Ibid., p. 140.

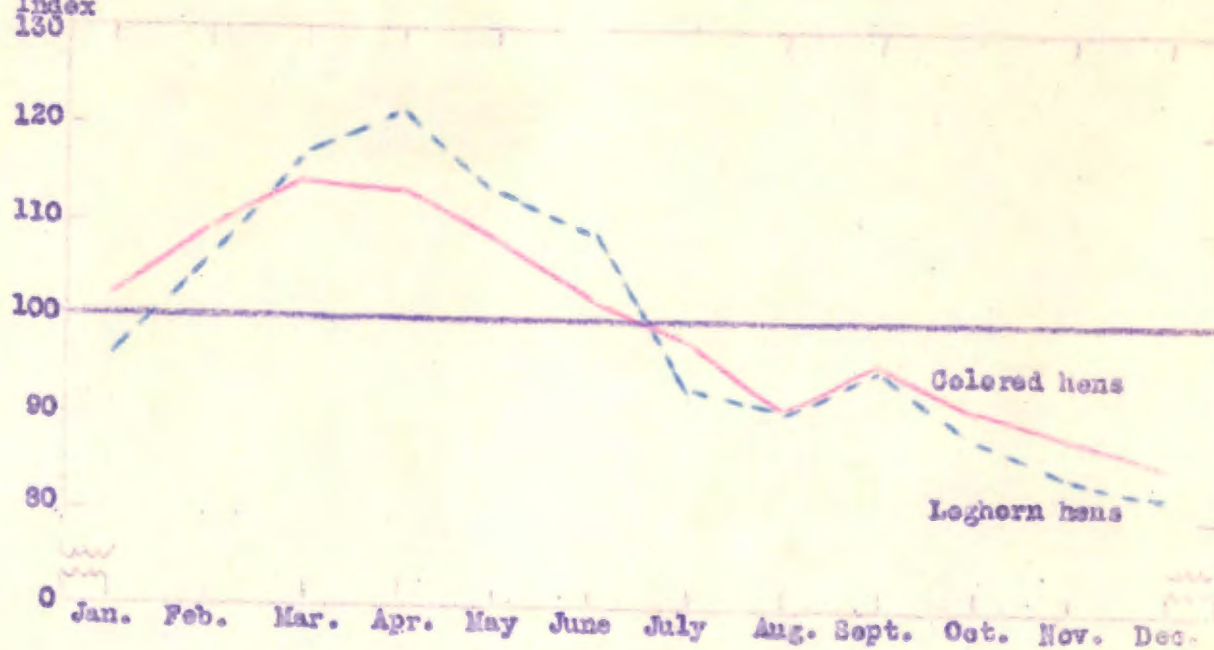
Cents per Pound



Source: Appendix H, Table XIII.

Figure 141. Farm prices for colored hens, Knoxville Area, 1925-42.

Index



Source: Appendix H, Table XXIII.

Figure 142. Seasonal indexes of farm prices for Leghorn hens, 1927-42, and colored hens, 1925-42, Knoxville Area.

index. Leghorn hen index points ranged from 82.9 points in December to 114.3 points in March, a fluctuation of 29.0 points. The two seasonal indexes shown in Figure 142 have the same general swing as those shown for Kansas City prices of light and heavy hens during the period 1924 to 1940, in The Economics of the Poultry Enterprise on Kansas Farms.¹⁴

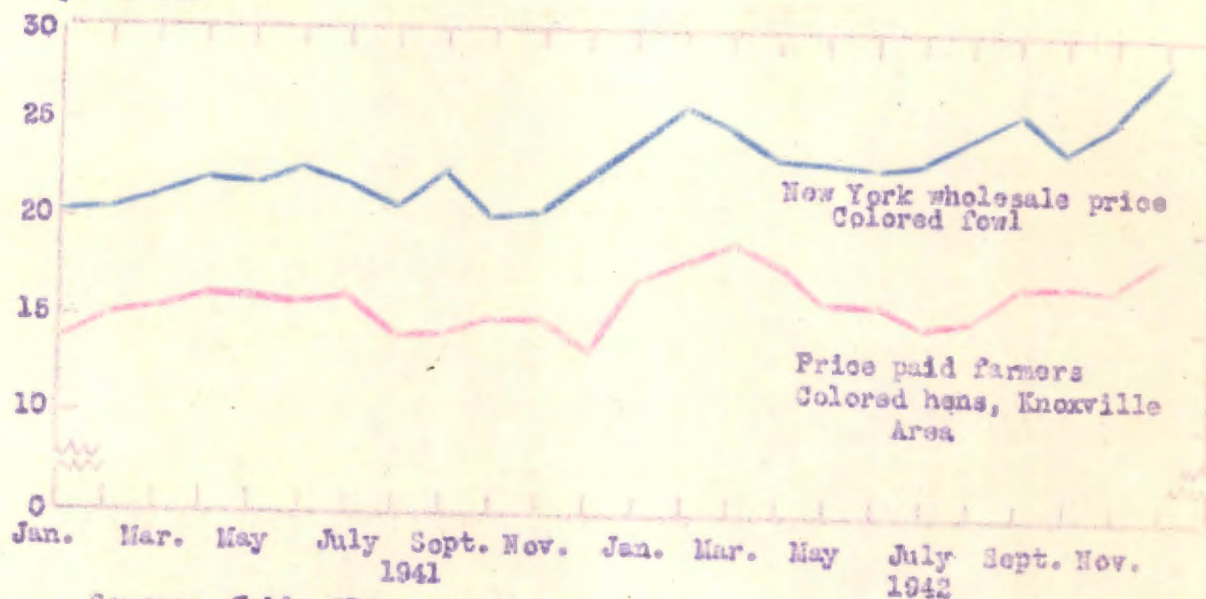
March and April were peak price months in both cases for both light and heavy hens. Prices of both light and heavy hens also rose in September both for Knoxville area and for the Kansas City market. The average index of points for Kansas City heavy hens rose to about 103.6 in September while the index point for the Knoxville area price rose to only 95.8 points. The index for heavy colored hens has been higher in the spring than the Kansas City index.

New York wholesale price for colored fowl and the Knoxville area farm price for colored hens. The Knoxville area prices for colored hens has, for at least the period of 1941 to 1942, changed in direct relation to changes in the New York wholesale prices for colored hens although with evidence of some lag (Figure 143). For example, in July of 1941 the New York price declined while the Knoxville price did not decline until August. The same situation occurred in March and April of 1942 (Figure 143). In May and June of 1942 the Knoxville price was leveling off as was the New York price. The New York price increased in July and August, but the Knoxville price de-

14. Hoecker, R. W., The Economics of the Poultry Enterprise on Kansas Farms, Manhattan, Kansas, Kansas State College of Agriculture and Applied Science, Agricultural Experiment Station Bulletin #308, December 1942, p. 38.

Cents per Pound

423.



Source: Table CIX.

Figure 143. New York wholesale price for colored fowl compared to farm prices for colored hens, Knoxville Area, 1941-42.

TABLE CIX. COMPARISON OF NEW YORK WHOLESALE TRUCK AND
EXPRESS PRICE FOR COLORED FOWL AND KNOXVILLE
FARM PRICE FOR COLORED HENS, JANUARY
1941 - DECEMBER 1942 *

1942	New York Wholesale Truck and Express Price Colored Fowl (1)	Knoxville Area Prices Paid Farmer Colored Hens	Difference
January	24.4	17.0	7.4
February	26.1	18.0	8.1
March	25.2	19.0	6.2
April	23.5	18.0	5.5
May	23.4	16.0	7.4
June	23.2	16.0	7.2
July	23.4	15.0	8.4
August	24.8	15.3	9.5
September	26.0	17.2	8.8
October	24.3	17.3	7.0
November	25.8	17.0	8.8
December	28.0	18.8	9.2
1941			
January	20.3	13.7	6.6
February	20.4	15.0	5.4
March	21.0	15.4	5.6
April	22.0	16.0	6.0
May	21.9	16.0	5.9
June	22.6	15.7	6.9
July	21.9	16.0	5.9
August	20.9	14.2	6.7
September	22.6	14.3	8.3
October	20.2	15.0	5.2
November	20.5	15.0	5.5
December	22.4	13.6	8.8

* Source: (1) American Egg and Poultry Review.
(2) Appendix Table XIII.

creased in July and increased only slightly in August.

It would appear from Figure 143 that the Knoxville area price paid farmers was not quickly adjusted to changes in the New York price, but usually assumed the same direction of change within a month. This may be due in part to the fact that the Knoxville price, although subject to change, was assumed to be for a week in advance. Therefore this price tended to be somewhat conservative.

Knoxville produce dealers said they usually paid a price five or six cents under the New York price. This would seem to be in general agreement with the difference in prices shown in Table CIX for 1941. Only in September and December of 1941 did the difference in prices rise above 6.9 cents or fall below 5.0 cents. In 1942 the differences were more pronounced (1942 was not considered a normal year). Evidently, instead of the Knoxville price increasing and the margin remaining the same the Knoxville price did not rise as much as the New York price, and the margin became greater. In 1942 the Knoxville price averaged seven to eight cents below the New York price instead of five to six cents below as in 1941.

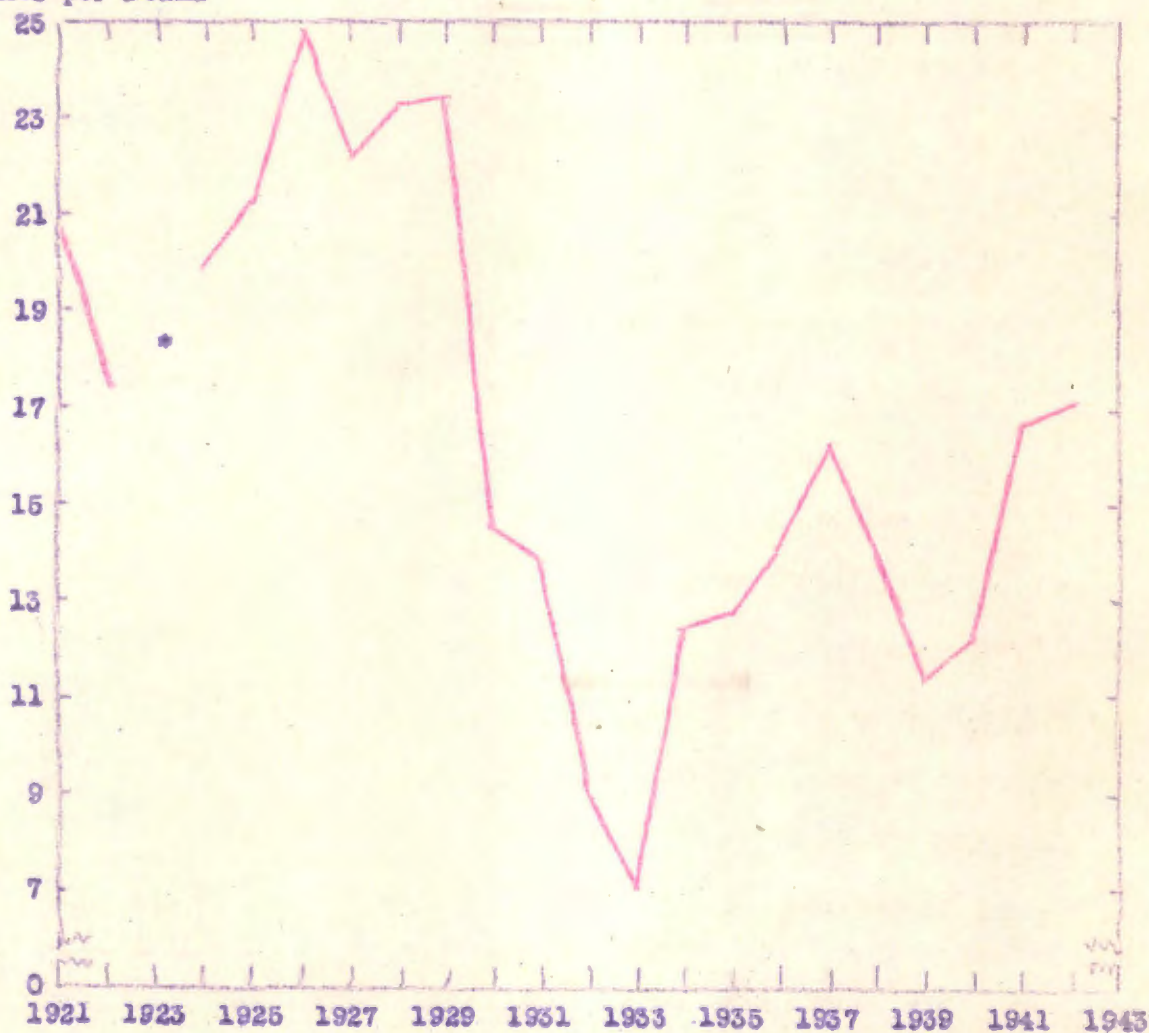
Spring chicken prices. The data available on spring chicken prices were too spotty to allow computation of a seasonal index of prices. In Figure 143 spring chickens prices appeared above the United States average for all chicken prices from 1925 to 1929. The average

yearly price of spring chickens stayed below the average yearly price for spring chickens was slightly more than the average for all chicken prices in the United States. Average yearly prices paid for spring chickens in the Knoxville area were higher than colored hen prices in the same area until 1929. Spring chicken prices have regained their supremacy in this area during 1934 and 1941.

In Figure 144 the price paid for spring chickens in the Knoxville area was shown for each month in 1941 and the numbers purchased during each month during 1942. February, March, and April were the peak price months. March, April, and May were the peak price months shown in a seasonal index of Kansas City spring chicken prices 1924 to 1940. It might be assumed from Figure 144 that the Knoxville produce dealer attempts to tempt or draw out marketings by paying fancy prices. It is more likely that the demand in the earlier spring months warrants payments of premium prices as it exceeds supply where as supply in the late spring and summer months is sufficient to equal or excel the demand. From 1921 to 1942 the price of spring chickens has suffered a decline although a peak was reached in 1926 and a trough in 1933. Prices have still not increased to their 1921 or 1929 levels.

Farm prices paid for roasters in the Knoxville area. Most male chickens are marketed as young cockerels, i.e., friers. A few are kept for breeding and other purposes. The low prices paid for roasters in this area would seem to indicate that this meat was less desirable. Prices paid for roasters have not fluctuated as much as have prices paid for

Cents per Pound

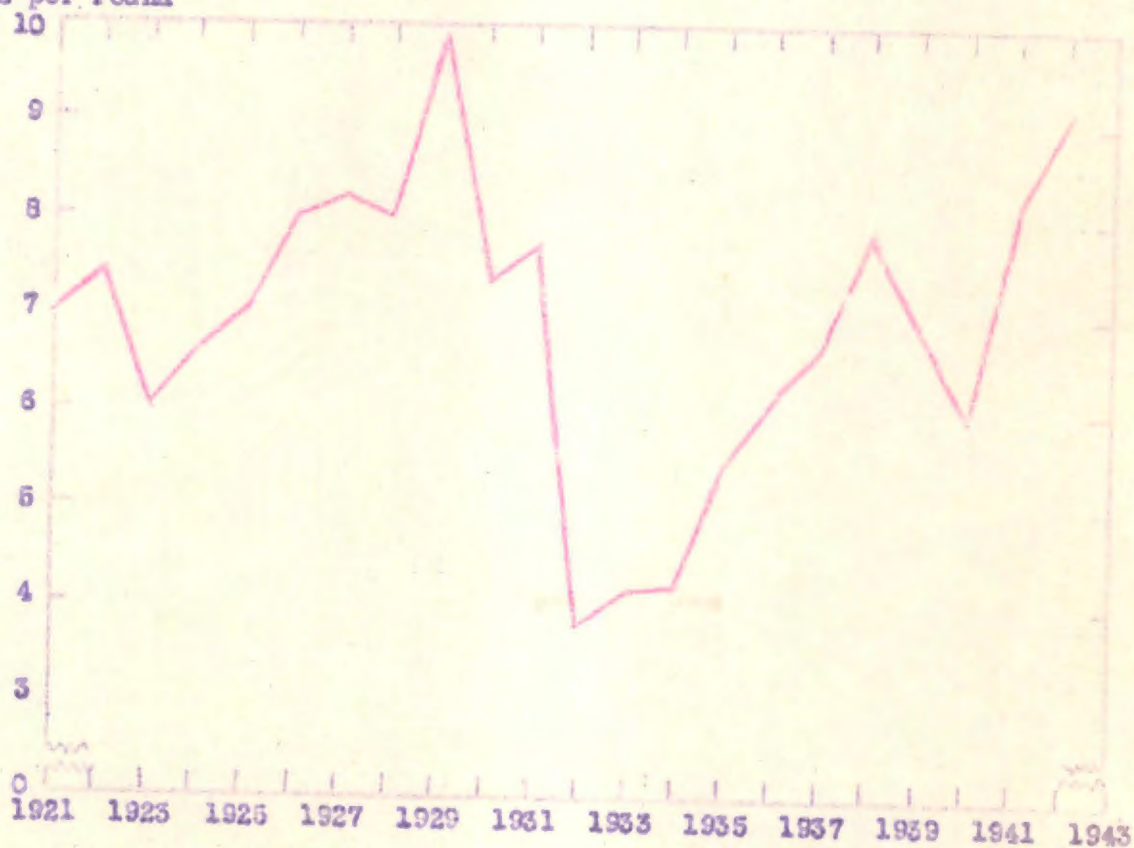


* Insufficient data available.

Source: Appendix H, Table XVI.

Figure 144. Yearly average farm price, Knoxville Area, for spring chickens, 1921-1942.

Cents per Pound



Source: Appendix H, Table XVII.

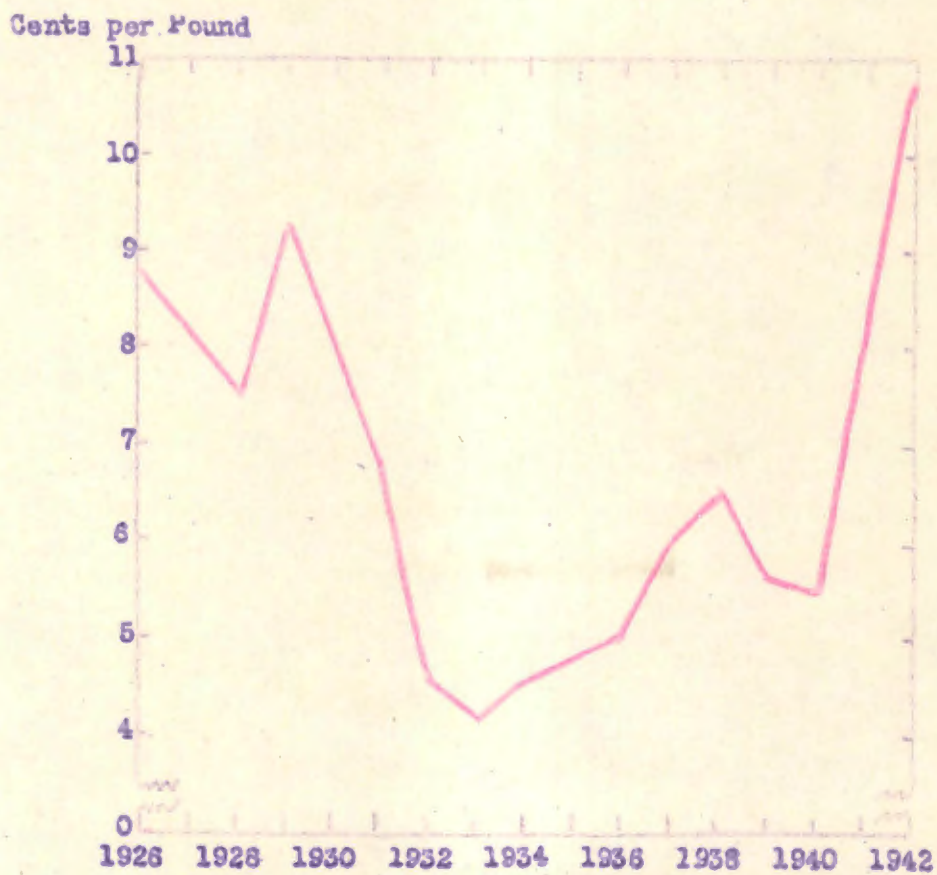
Figure 145. Yearly average farm price of roasters, Knoxville Area, 1921 - 1942

other market classes of chickens in this area (Figure 140). In Figure 145 is shown the average yearly price paid for roasters in this area. The average yearly price has never exceeded 10 cents or fallen below 3.5 cents.

Farm prices for geese in the Knoxville area. Prices paid farmers for geese have only varied from 3.0 cents to 12.0 cents from 1926 to 1940 soared to an average of 10.2 cents, the highest price paid during the period of 1926 to 1942 (Figure 146).

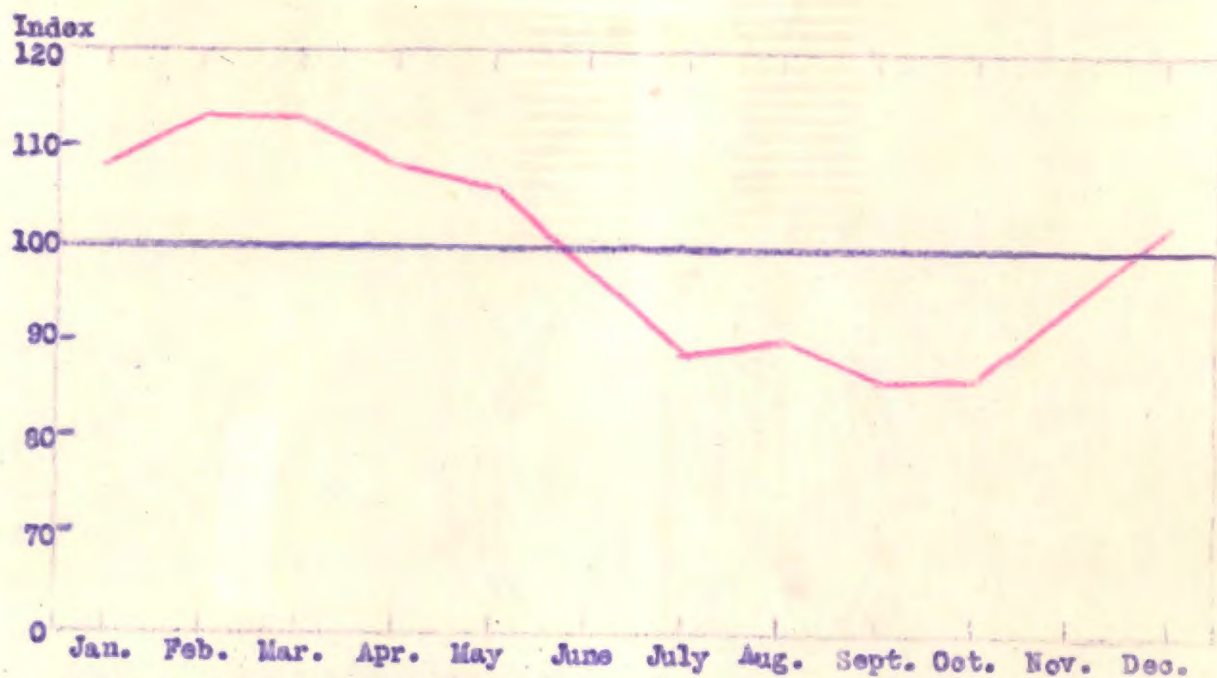
Seasonal variations in farm prices of geese. Prices paid farmers in the Knoxville area for geese have not varied greatly from one month to another. In general, as shown in Figure 146, January through May and December have been the high price months. The price is naturally high during December because of the holiday demand. The price remains high during the spring months because of the demand for geese on the terminals of the eastern markets.

Seasonal variations in prices paid for turkeys in the Knoxville area. Prices paid for turkeys in the Knoxville area have been highest during the months of January through May and October through December. The October, November, and December peak points shown in Figure 148 reflect the holiday demand for that kind of poultry. Although the index points decline from January through May they do remain above 100. The reason is that hen turkeys are marketed during the late spring months and the single price quotation from which the index was computed reflected the sex of the bird being purchased, i.e., it was really a hen price during certain months and yet it was given as a flat turkey price.



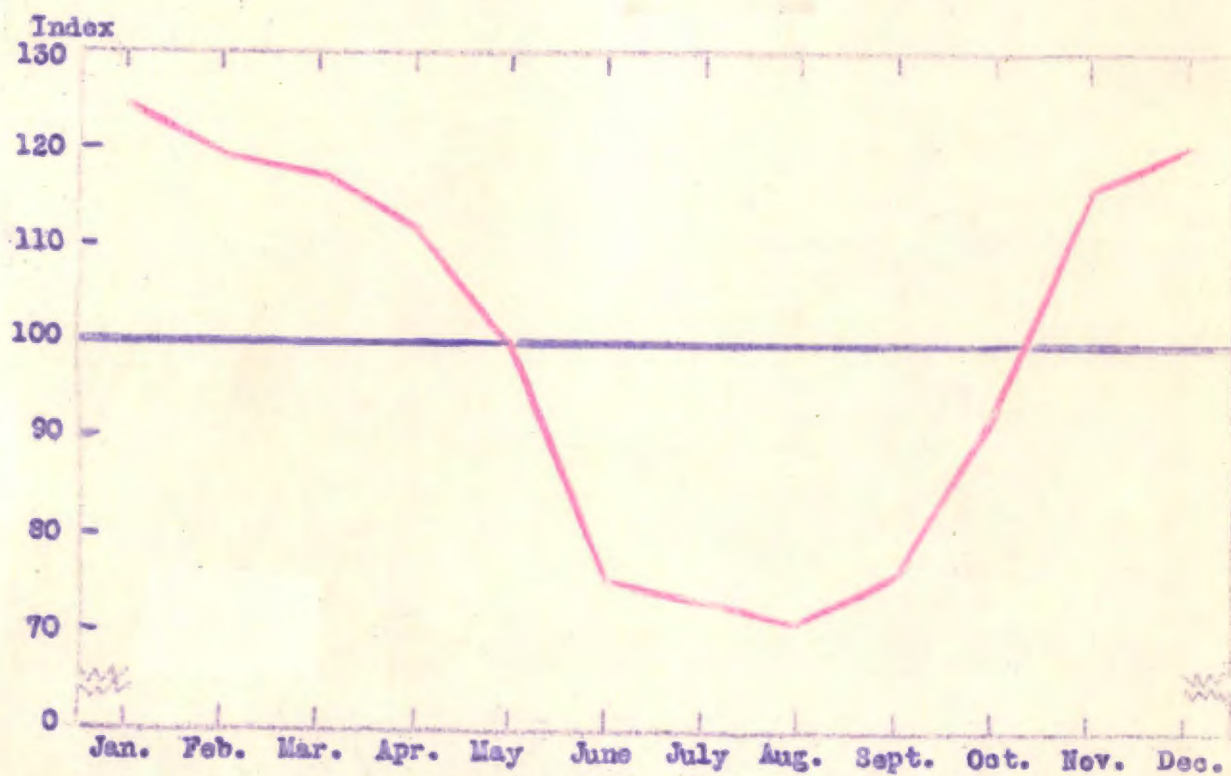
Source: Appendix H, Table XXI.

Figure 146. Geese: yearly average farm price, Knoxville Area, 1926 - 1942.



Source: Appendix H, Table XXIII.

Figure 147. Geese: seasonal index of farm prices, Knoxville Area, 1926 - 1942.



Source: Appendix H, Table XXIII.

Figure 148. Turkeys: seasonal index of farm prices, Knoxville Area, 1920 - 1935.

It is also true that hen turkey prices in New York also remain favorably high until May.¹⁵

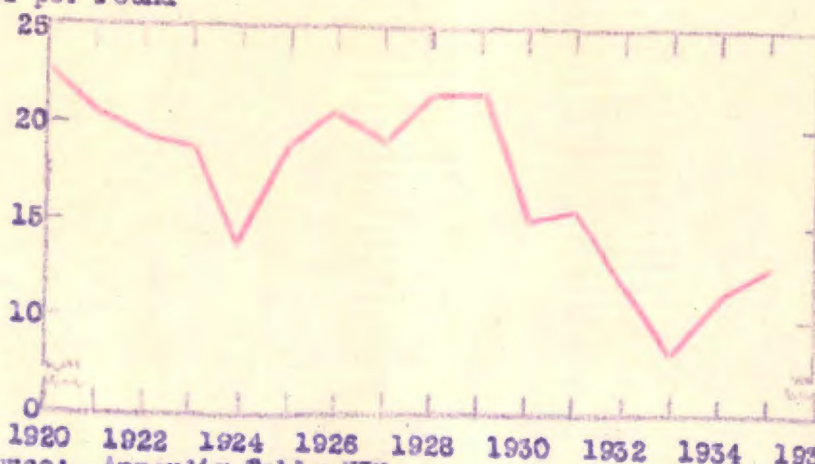
Farm turkey prices in the Knoxville area. Average yearly prices paid farmers in the Knoxville area for turkeys declined from 1920 to 1933 and were rising in 1934 and 1935. The data from which the average yearly prices were computed were incomplete after 1935. Turkey prices rose in the Knoxville area in direct relation to United States average prices (Figures 150 and 151).

The average price paid farmers in the United States for turkeys on each November 15 from 1920 to 1942 followed the same general pattern although the United States average price was about five to nine cents per pound higher from 1920 to 1929. From 1929 to 1932 when prices were descending there was about five cents difference in price. From 1933 through 1935 average November 15 prices paid farmers per turkey in the United States and the Knoxville area have been about the same, the only other available Knoxville price data as shown by red crosses in Figures 150 and 151. It would seem as though with respect to November turkey prices that Knoxville farmers are now in a relative better price position than before 1933 and that their price position is improving.

The December average prices paid for turkeys in the Knoxville area have not changed in such direct relationship to the change in the

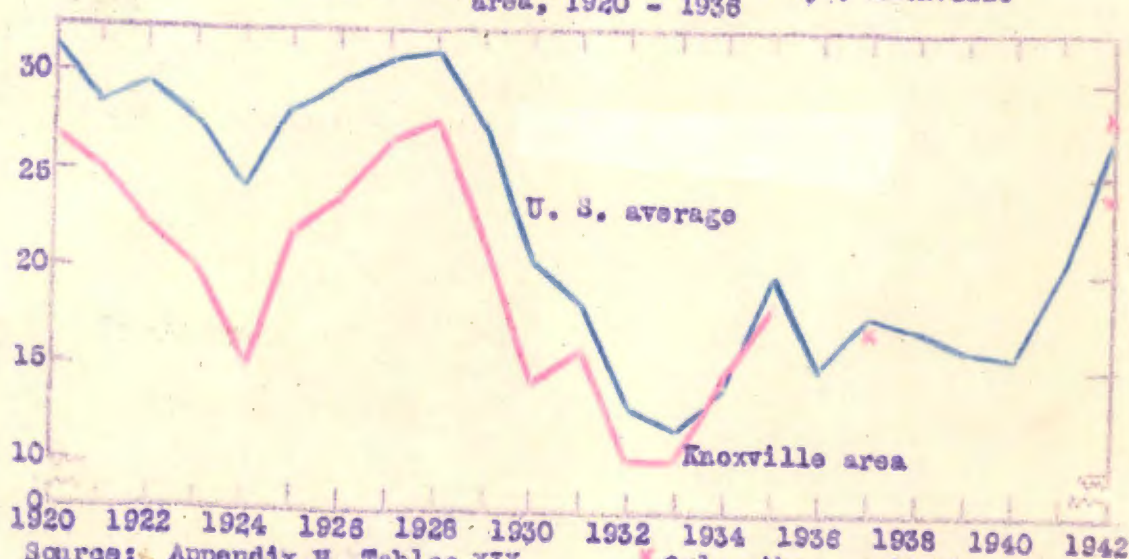
15. See American Egg and Poultry Review, "Statistical Review", 1941 and 1942.

Cents per Pound



Source: Appendix Table XIX.

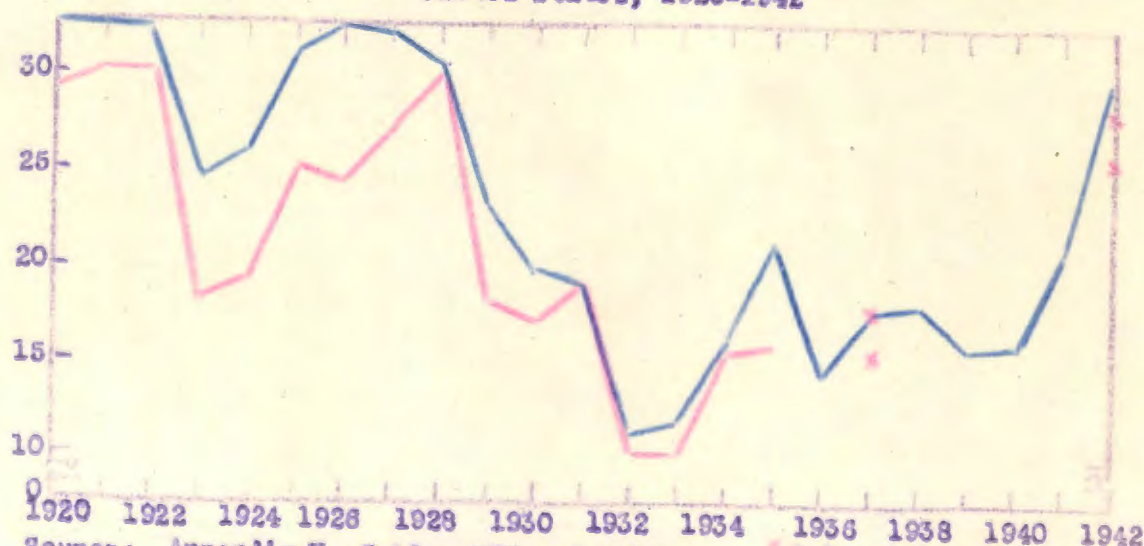
Figure 149. Average yearly farm prices for turkeys, Knoxville area, 1920 - 1936



Source: Appendix H, Tables XIX and XXIV.

* Only other available price data.

Figure 150. Movement of farm turkey prices in Knoxville Area and United States, 1920-1942



Source: Appendix H, Tables XIX and XXIV.

* Only other available price data.

Figure 151. December farm turkey prices, Knoxville Area and United States, 1920-1942.

U. S. average December 15 prices although the Knoxville area prices have always been considerably lower. In some years the Knoxville price has been as much as 8 cents below and in others it differed by only a fraction of a cent (Figure 151).

TABLE CX. AVERAGE MONTHLY NEW YORK WHOLESALE LIVE TURKEY FREIGHT PRICE AND FARM PRICES IN THE KNOXVILLE AREA, NOVEMBER AND DECEMBER OF 1942 *

	Price Per Pound			
	November		December	
	Hens	Toms	Hens	Toms
1942 New York wholesale freight price for turkeys (1)	37.4	33.7	39.0	36.8
Knoxville average farm price (2)	28.0	24.0	28.8	25.6
Difference	9.4	9.7	10.2	11.2

* Source: (1) American Egg and Poultry Review, December 1942 and January 1943.

(2) Appendix H, Table XIX.

During November of 1942 the average price paid farmers for turkeys in the Knoxville area was 9.4 cents below the New York wholesale freight price for hen turkeys and 9.7 cents below for tom turkeys, and in December it was 10.2 cents below the New York price for hens.

During December the New York price increased 2.4 cents for hen turkeys and 3.1 cents for toms, but the price paid to the farmers in the Knoxville area only increased 0.8 cents for hen turkeys and 1.6 cents per pound for tom turkeys.

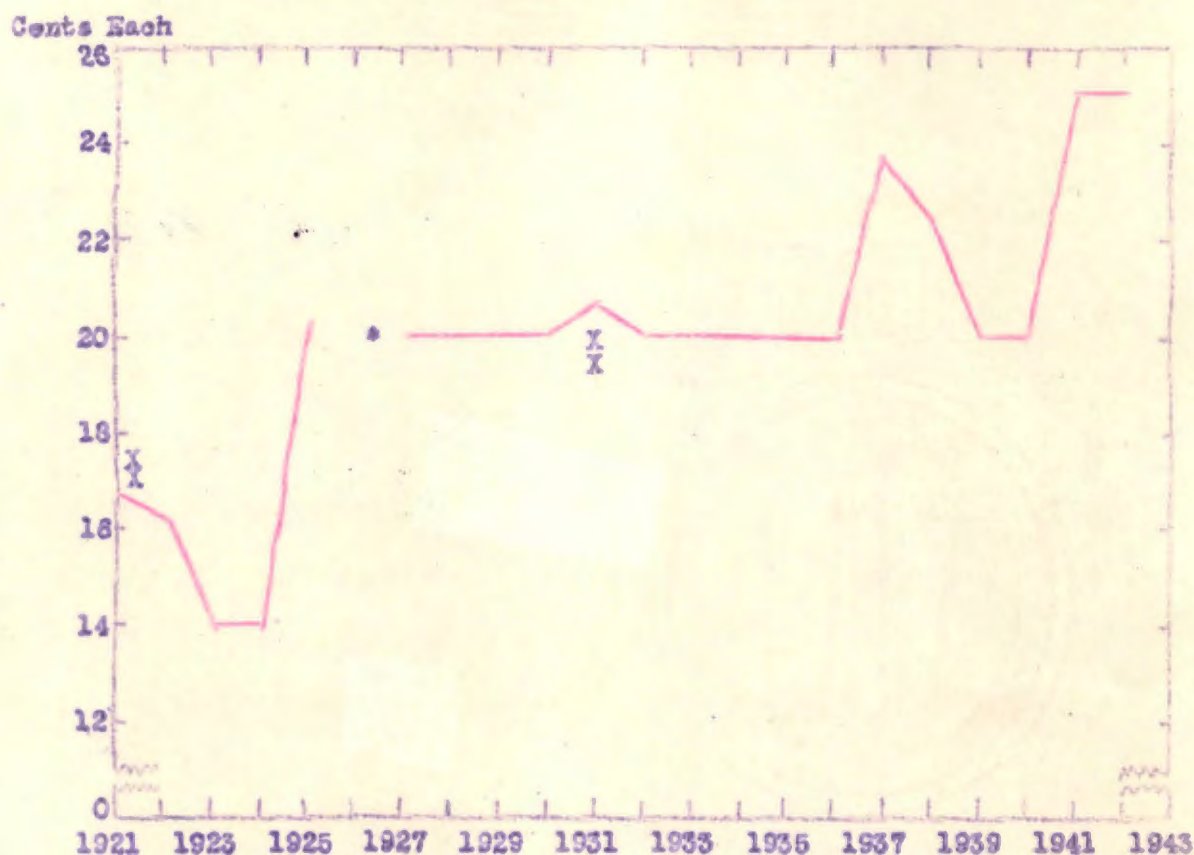
Yearly average farm prices for guineas in the Knoxville area.

The yearly average prices paid from 1921 to 1943 are shown in Figure 152. Prices from 1921 to 1931 were quoted in pounds but have been converted to cents per bird at 2 pounds per bird. Figure 152 shows a very unnatural price pattern. It does not seem likely that under normal conditions of supply and demand that the average yearly price paid for guineas would remain at 20 cents each from 1927 to 1936. In fact, the average price quoted each month from January 1927 to December 1936 was 20 cents each, except for the month of December 1931 when the average price was 28 cents each.¹⁶ In 1937 the average price rose to 23.7 but returned to 20 cents each in 1939 and 1940. By 1941 and 1942 the average price paid farmers for guineas in the Knoxville area had risen to 25 cents per bird, which still hardly seems conducive to production.

One Knoxville produce dealer stated that the reason why there are so few guineas on the market and so few raised is the static price situation which has existed for so many years.

In November of 1942 when the investigator visited the New York Live Poultry Terminal, guineas were selling for about \$1.10 a pair, considered a good price, and farmers in the Knoxville area were receiving 25 cents each or 50 cents a pair. One of the New York commission merchants said that there was a market for some guineas the year round and an especially good market during the holiday season. This commission

16. See Appendix H, Table XXII.



* Insufficient data available.

X Price per pound converted to price @ 2 pounds per bird.

Sources: Appendix H, Table XXII.

Figure 152. Guineas: average yearly farm price per bird in the Knoxville Area, 1921 - 1942

merchant stated that Tennessee could ship many more guineas to New York and still not flood the market.

TABLE CXI. GUINEAS: RANGE OF NEW YORK WHOLESALE MARKET
AVERAGE MONTHLY PRICE PER PAIR AND RANGE OF
KNOXVILLE AVERAGE MONTHLY FARM PRICE
EACH, 1936-1938 *

Month	Knoxville (2) Price each	New York (1) Price per pair
January	\$0.20 - 0.25	\$1.05 - 1.60
February	.20 - .25	1.00 - 1.45
March	.20 - .25	.95 - 1.35
April	.20 - .25	1.05 - 1.25
May	.20 - .25	1.00 - 1.30
June	.20 - .25	1.00 - 1.30
July	.20 - .25	.95 - 1.15
August	.20 - .25	.85 - 1.15
September	.20 - .25	.85 - 1.35
October	.20 - .25	.85 - 1.35
November	.20 - .25	1.00 - 1.40
December	.20 - .25	1.00 - 1.40

* Source: (1) Lee, Alfred R., The Guinea Fowl, United States Division of Agriculture, Farmers' Bulletin No. 1391, Washington, D. C., May 1940, p. 11.

(2) Appendix H, Table XXII.

It does not appear from Table CXI as though changes in the New York wholesale price had any effect on Knoxville guinea prices, although many of the few guineas purchased were finally shipped to New York.

In November and December of 1942 when dressed guineas were selling in the Knoxville market house at \$0.55 to \$1.53 each Knoxville produce houses were paying 25 cents each for guineas.

One Knoxville produce dealer claimed that many more guineas could

be sold on the Knoxville market under normal conditions if they were available. However, it is doubtful if farmers will raise more guineas in the future as guineas only lay 20 to 30 eggs before becoming broody. If kept laying they will lay from 40 to 60 additional eggs. There is a limited market for guinea eggs as such, but they should never be marketed with chicken eggs. Guinea hens begin to lay in April and continue laying through the summer providing a supplementary egg supply for the farm family. Farm women interviewed in the Knoxville market house were divided as to their preference for guineas; some thought them difficult to raise; others claimed they had no trouble; some claimed guineas were good watch birds because they were so noisy and others thought guineas were too noisy; some claimed that guineas wandered off.

CHAPTER XIV
CONSUMPTION OF EGGS AND POULTRY AND CONSUMER PREFERENCE
IN KNOXVILLE AREA

Two studies made of consumption and consumer preference in the Knoxville area have been the basis of most of the material presented in this chapter; one by J. C. Powell of consumption of eggs in the rural areas of Tennessee¹; the other by Samuel L. Hansard, a study of Consumers' Preference and Practices in Buying and Using Eggs and Meat in Knoxville, Tennessee.²

Rural consumption determines in part the amount to be marketed and so will be considered first.

Rural Area

Per capita consumption of eggs. The annual per capita consumption of eggs in the state of Tennessee was 14.1 dozen in 1929. The per capita consumption of eggs was 13.0 dozen in the area included here as the Knoxville area.³ The annual average consumption in the United States was 27.8 dozen per capita.⁴

1. Powell, J. C., Milk and Egg Study (attached to Meat Production and Consumption in Different Areas of Tennessee), typed report University of Tennessee Agricultural Library, December 1928.

2. Hansard, Samuel L., A Study of Consumers' Preference and Practices in Buying and Using Eggs and Meat in Knoxville, Tennessee, University of Tennessee, Knoxville, 1938, pp. 117.

3. Powell, Milk and Egg Study, p. 2.

4. Agricultural Statistics, 1942, p. 529.

Per capita consumption of poultry. The consumption of dressed poultry was found to be 16.3 pounds per capita in Tennessee during 1928. The per capita consumption for the district included in the Knoxville area was 14.87 dressed pounds.⁵ The United States annual average consumption of chickens alone was 20.1 dressed pounds per capita in 1928.⁶

Percent sold of eggs produced.

The percentage of eggs that are sold takes a rather uniform course as we cross the State. The habit of going to the country store and small towns, and trading eggs for household necessities is rather fixed with the rural people of Tennessee.⁷

For the state as a whole it was found that 78.0 percent of the eggs produced were sold. For District I, or the Knoxville area, 76.5 percent of those produced were sold.⁸

Percent sold of poultry raised. It was found by J. C. Powell that 16.0 percent of the poultry slaughtered by farmers, for the state as a whole, was sold. It was also found that in the Knoxville trade area farmers sold 16.6 percent of the poultry slaughtered.⁹ This larger percent of dressed poultry sold in this area was said to be due to the proximity of local markets in Knoxville and Chattanooga and also to the nearness of the hotels and resorts located in or near the Great Smoky Mountains.

5. Powell, Meat Production and Consumption in Different Areas of Tennessee, p. 11.

6. Agricultural Statistics, 1942, p. 506.

7. Powell, Milk and Egg Study, p. 5.

8. Ibid., page 5.

9. Powell, Meat Production and Consumption in Different Areas of Tennessee, page 12.

The farmers, as a whole, sell very little dressed poultry and when they do sell they are usually near the larger cities or have access to special demands coming from hotels and mineral springs summer resorts. As a general rule the poultry that is sold on the farm is sold as live weight and there were not very many reports on this item. 10.

Analysis of consumption of eggs. The per capita consumption of eggs in the United States was 27.8 dozen in 1929.¹¹ The per capita consumption in the rural districts of Tennessee was 13.7 dozen below average. Consumption of eggs should be larger than this in rural districts and probably is when eggs are not selling at prices as favorable as those in 1929.

Analysis of consumption of poultry. The per capita consumption of poultry in the rural districts of Tennessee was 16.3 dressed pounds in 1928. The United States consumption of chickens alone averaged 20.1 dressed pounds per capita for the same year.¹² Considering the amount of fat pork found to be consumed by persons in the rural districts¹³ of Tennessee the consumption of animal protein, products of chickens and eggs, is probably low.

Knoxville

Samuel L. Hansard's Study of Consumers' Preferences and Practices in Buying and Using Eggs and Meat in Knoxville, Tennessee, broke the city

10. Ibid., p. 12.

11. Agricultural Statistics, 1942, p. 529.

12. Ibid.

13. Ibid., Table XI, p. 83.

down into four districts, but for the purpose of this study it is better to include the figures of only the city as a whole.¹⁴

Per capita consumption of eggs. The per capita consumption of eggs was found to be 23.6 dozen¹⁵ in 1938; 2.8 dozen more than the average 1938 consumption per capita for the United States.¹⁶

Consumer egg preference. Thirty eight and five tenths percent of the families expressed no preference as to shell color while 33.5 percent preferred brown shell eggs. Clean shell eggs were preferred by 95.25 percent of the families. A deep orange yolk was preferred by 50.75 percent of the families. A thick egg white was preferred by 56.5 percent and a large egg by 65.0 percent. When buying eggs 86.5 percent of the housewives accepted the grocer's statement as to quality. Appearance, shape, size, cleanliness and color were important in choosing eggs, in the order mentioned. Although 92.75 percent expressed satisfaction with the then present egg quality, 41.25 percent were paying a premium for fresh eggs.

Although 82.75 percent of the families reported using eggs for breakfast, 24.68 percent served them fried only. Scrambled eggs were served by 18.43 percent, boiled eggs by 9.83 percent, and poached eggs by 8.78 percent. Eggs were used in cooking by 40.23 percent.¹⁷

Consumption and use seemed to be determined by income rather than by fancy.

14. Mansard, loc. cit.

15. Ibid., Table XI, p. 83.

16. Agricultural Statistics, 1942, p. 529.

17. Table XI, Ibid., p. 83.

Additional consumer preference information was made available in this study. The number of stores having customers preferring brown as against white eggs were about the same. Twenty stores reported that their customers expressed a preference for large eggs. Thirty four stores said their customers desired fresh eggs and 43 stated that their customers wanted just eggs.¹⁸

Per capita consumption of poultry. The four hundred families contacted by Samuel L. Hansard reported consuming an average of 23.24 dressed pounds of poultry per capita in 1938.¹⁹ The United States average consumption of dressed chickens was 17.7 pounds per capita in 1938.²⁰

Lamb and poultry were decidedly a good for the wealthy. The highest consumption of poultry was in West Knoxville, 32.85 dressed pounds per capita, and the lowest in the Mill Section, 6.8 dressed pounds per capita.

Consumer preference in buying poultry. Price and size were considered the most important factors in choosing poultry by the customers of the grocery stores interviewed in this survey. Appearance was next in importance.²¹

Of the 55 grocery stores contacted in this survey which sold poultry, 36 sold hens ranging from three to four dressed pounds in size.²² Forty eight stores sold friers averaging from 1.6 to 2.5 dressed pounds in size.²³ Of the 32 stores selling turkeys, 27 reported

18. See Table LXXIII, p. 277.

19. Hansard, *op. cit.*, p. 98.

20. Agricultural Statistics, 1942, p. 506.

21. See page 293.

22. See Table LXXIII, p. 289.

23. See Table LXXIV, p. 289.

selling turkeys averaging from nine to 12 pounds in size.²⁴

It would seem that although poultry and eggs are nutritionally valuable and their consumption is desired by the peoples of all income groups, that their consumption is limited by income rather than by taste, both in the rural and urban districts of the Knoxville area.

24. See Table LXXXV, page 290.

CHAPTER XV

MARKETING PROGRAMS

Poultry and egg marketing programs attempted in Tennessee and the Knoxville area have met with varying degrees of success. Two programs concerned with poultry marketing have been quite successful, while two other concerned with egg marketing have met with little success. The most recently attempted program was the government sponsored surplus egg marketing program. The two egg programs will be discussed first, followed by consideration of the two poultry marketing programs.

Southern Egg Marketing Program

Need for the program. The Southern Egg Marketing Program, sponsored by the government, was started in February of 1942 to help move eggs to market from the South's areas of marginal and submarginal egg production.¹ The program was to provide a medium by which price support could be brought to egg producers in the South. George F. Snell, in an article, "Egg Markets for the South", cites the following marketing situations as hindrance to expansion of war essential egg production:

Areas of marginal and submarginal egg production offered little in the way of well established market outlets for eggs -- barter markets could absorb a fair amount of eggs, but were not

1. Snell, George F., "Egg Markets for the South", Agricultural Situation, July 1943, Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C., Vol. 27, No. 7, pp. 16-17.

equipped to handle large quantities in the period of heavy production. At best, the storage facilities were inadequate and these markets had practically no means of grading eggs -- they afforded little means of avoiding wide fluctuations in price. ²

Provisions of the program. This program contained provisions for purchase of eggs at established prices, in keeping with price support levels for the Nation; purchase of eggs in lots of 10 cases or more at buying stations operated by agents under contract to the Food Distribution Administration; candling and grading by Federal-State graders of all shell eggs purchased. It also provided opportunity for Southern farmers, cooperatives, dealers, and others to market their eggs throughout the season of heaviest production. ³

Aims of the program. Immediate aim of the program was to encourage production of eggs in the areas of small production and to provide a market for the eggs. It also demonstrated to farmers and business men of the South the advantages of well established local markets that could operate at price levels in keeping with those at large terminal markets throughout the country --- after the war, the existence of well established markets will be even more necessary than now, if egg and poultry production is to be more than a casual activity, incidental to other agriculture. ⁴

Program progress, 1942. During 1942 seven states - Virginia, West Virginia, North Carolina, South Carolina, Georgia, Louisiana, and Florida, took part. According to George F. Snell, the program

2. Snell, loc. cit.

3. Snell, loc. cit.

4. Snell, loc. cit.

made real advances. Although Snell did not mention Tennessee as entering the program in 1942, attempts were made to interest Knoxville and other Tennessee produce dealers in the program during January of 1942.⁵ Nineteen contracts were signed with dealers in Tennessee but none of these purchased any eggs.

Application of the program to Knoxville produce dealers. At the time the program was launched produce dealers had ready outlets for all the eggs they could purchase and even better outlets in sight, due to demands arising out of the war. Dealers were not faced with an unmarketable surplus. With the population of Knoxville increasing the situation has become one of increasing scarcity rather than surplus. Therefore, we see that the situation was not one where such a program would meet with favor.

It is true, as shown by preceding chapters, that Knoxville is an urban center surrounded by barter markets. However, the produce dealers operating in Knoxville do not engage in barter operations.

Knoxville prices are already in line with terminal market prices, as they have been determined by terminal market prices for at least 40 years.

The facilities provided by Knoxville produce dealers for handling eggs are not the best, but the Southern Egg Marketing Program did not offer them sufficient profit to encourage improvement in such facilities.

The two Knoxville produce dealers who have shipped eggs from

5. Knoxville News Sentinel, "Plans Egg Buying Program for Area", Monday, January 1, 1942.

Knoxville for many years have well established market outlets for them. The other Knoxville produce dealers have well established local outlets that will take all the eggs they can sell, especially at present. It is also necessary for these produce dealers to continue to supply these local outlets if they desire their business when eggs are again plentiful.

There is only one period of the year when eggs appear in surplus on the local market, the peak production period during the spring of the year. Consumption increases slightly during those periods among those income classes which usually cannot afford all the eggs they would like to eat. It is during this period that if egg prices fall sufficiently, and fall and winter demand prospects appear high, Knoxville produce dealers store eggs. Storage facilities in Knoxville are sufficient in size, although proper storage conditions may not be the case. There is a freezing plant in Knoxville which is not only prepared to freeze eggs but has actually frozen eggs for sale to local bakeries.

Knoxville produce dealers have not met the government program with enthusiasm, not only because of the situations explained here, but because they could not see any profit in cooperating with the program. As agents for the program they would have purchased eggs in lots as small as one dozen (it is customary for such small lots to be sold to country stores but not produce dealers). "As agents they would pay the producers not less than the established prices applicable to each grade and assemble the purchased eggs in 10 case lots, if they were to be delivered to the Food Distribution Administration."⁶ Nine of the Knoxville produce houses

6. Snell, loc. cit.

only purchased direct from farmers 37.8 percent of the eggs they handled.⁷ It is literally impossible to pay for each egg in a dozen by grade, at a price not less than that established as applicable to each grade. Such procedure would mean that all eggs would have to be graded before or at the time of purchase. This is not the customary practice in the Knoxville market. Payment on a loss off basis after grading would entail extra bookkeeping, which would make additional work for the produce dealer. Only one of the nine Knoxville produce houses has a full time secretary. To compensate the produce dealers for their trouble in assembling, grading, and casing these eggs they were offered 4 cents per dozen. This amount was to cover the cost of grading, assembling, and the case, filler and flats which they were to furnish. Even if it had been possible for the Knoxville produce dealers to obtain cases for this purpose, it did not appear profitable to them to engage in these operations.

In the opinion of the marketing specialists at the University this program was not applicable to the situation in Knoxville, and it therefore was not adopted by Knoxville produce dealers.

Knoxville Egg Auction

The Knoxville Egg Auction was started in October of 1938 under the direction of the Tennessee Agricultural Extension Service at the University of Tennessee. The auction was incorporated by leading farmers

7. See Table XLIII, p. 159.

of Knox and nearby counties, who hoped to receive a higher price for their product and a wider market.⁸ The history, organization, and operation of the auction have been well covered in Chapter VI of Farmers' Business Cooperation in Knox County, Tennessee.

Although the auction is an important type of marketing agency in other states it has not proven important in the Knoxville area. There have been many reasons advanced as to why the auction was not successful in Knoxville. Professor B. J. McSpadden has stated that he believed the total volume of eggs marketed was sufficient to warrant grading and the operation of an egg auction, but that the volume marketed per producer did not warrant such arrangements. Three dozens of eggs are not a life and death matter. They may be marketed over a period of days, even weeks, or at least that is the popular belief. Professor McSpadden also believed that producers having sufficient volume to profit from an auction already had fair markets and were not inclined to change, especially if it cost them more.

The more complete presentation of the difficulties encountered has been taken from Allred and Schmidt, and is presented below.

The auction had to suspend operations in December due to the following difficulties:

1. Lack of volume was caused by farmers who promised to sell through the auction, failing to do so. Only 75 to 80 cases of eggs were sold in the auction each week.
2. Overhead expenses were too heavy due to the lack of volume.

8. Allred, C. E. Schmidt, A. K., "Knoxville Egg Auction", Farmers' Business Cooperation in Knox County, Tennessee, Agricultural Experiment Station, University of Tennessee, Knoxville, Tennessee, August 1941, Chapter VI, p. 60-63.

3. Management was inexperienced, and bookkeeping inadequate.

4. Finances were insufficient to carry some of the policies into effect. The only financial contributions were the 75 cents per case charge for handling eggs, and a small sum contributed by the directors.

5. Storekeepers, hotel people, and other buyers did not cooperate by buying on the auction, especially when the supply on the open market was plentiful.

6. Many farmers did not realize the value of graded eggs, and brought about competition with the auction by selling directly to consumers and retail stores in Knoxville.

7. Due to lack of an educational program, local consumers did not appreciate the value of graded eggs.

8. There was a ready market in Knoxville for all eggs grading U. S. trade, or third grade eggs.

9. Sometimes the market radius exceeded 50 miles, which increased the cost of hauling by producers, and also decreased the quality of eggs.

10. In most cases the farm flocks were small, which made it difficult to teach farmers to grade eggs, which if done would have reduced the expense of grading at the auction.

11. Due to the individualistic attitude of farmers they often preferred to bargain for a price themselves, especially as they only had a small quantity.

12. As a result of small farm flocks farmers were not in position to obtain proper facilities for producing good eggs, and their volume was so small that the increase in profits from cooperation was not great.

Suggestions

The above difficulties might have been overcome if the following had been accomplished:

1. Consumer education as to the value of high quality and graded eggs before the auction was organized.

2. Education of producers as to methods of producing and maintaining high quality eggs, and the reasons for doing so.

3. Educating producers on methods of increasing production, and stabilizing it throughout the year, which is desirable because many eggs from outside markets are shipped into Knoxville.

4. Have most of the farmers organized before starting the cooperative, and have each one make a financial contribution to obtain sufficient reserves, and to keep producers from leaving the cooperative and causing competition with others selling cooperatively. Many producers did not feel responsible for the success of the organization.

5. Use of a carton from the beginning might have remedied the problem of a local outlet for good eggs. It has been noticed that different chain stores are successful in buying eggs in cases and selling them in cartons under their own trade name. Auction officials had completed an attractive design with a trade mark and sales slogan, but the cooperative closed before the carton was used. Plans for use of cartons were based on a long time sales program.

Weather conditions, building materials, cheap labor, accessible markets, and other economic factors appear to justify an expansion of the poultry industry in Knox County. To serve the producers some form of cooperative organization meeting the needs of the small producers, and not those producing on a commercial scale only, is needed in the area. 9

4-H Club 50 Chick Projects

10

History. The 4-H Club poultry projects in Tennessee have an important relationship to the field of marketing. The roaster sales, really a by-product of the program, are of major interest. However, the main object is to get the pullets on the farms, the sponsoring clubs do not buy back pullets at any time. The spreading of good stocks of chickens and educating the people in the care, feeding, and

9. Ibid., pp. 61-63.

10. Information for this section was obtained from Mr. J. C. Powell, Assistant Marketing Specialist, and Mr. A. J. Chadwell, Poultry Specialist, Agricultural Extension Service, University of Tennessee.

marketing of poultry are also important objectives.

The first program was started in Lawrence County with only a few boys and girls in 1932. In 1943, 16,951 club members received approximately 1,579,044 chicks. In 1943 19 of the 20 counties of the Knoxville area (excluding Hancock County) boasted 2,846 participants.

Participants. Only boys and girls of 4-H Club age and membership participate in the program in most counties. Maury and Dyer counties have extended their program to include adults.

Breed of chickens used. The program is now carried on with Barred Plymouth Rocks and a few White Rocks. White Plymouth Rocks are included because of the difficulty in obtaining a sufficient number of Barred Rocks in the early spring. The chicks are straight run pullorum tested chickens obtained from reputable hatcheries. In Lawrence County the project was started with four breeds, the Barred and White Plymouth Rock, the New Hampshire, and the White Wyandotte. The latter two have been dropped.

Finances. The program is a business proposition, not charity. It is made possible by the cooperation of businessmen and their business organizations, Kiwanis Club, Rotary Club, Chamber of Commerce, etc., and by local Farm Bureaus and banks. The sponsor, the businessman or organization, makes possible the finances in the form of a loan. The loan covers the purchase cost of 50 chicks and 50 pounds of starting mash. In most cities the sponsor borrows from the bank on a joint note or on individual notes by members of the club. When the 4-H Club boy or girl receives the chicks and feed they then sign a note with their

parents to turn back 12 roasters at the time of the roaster sale or to pay the amount of the note if they do not sell the roasters. All notes are usually deposited with the bank. If the roasters do not sell for enough to pay the note the 4-H Club member makes up the difference.

In some counties there is an extra charge of 50 cents to cover losses. The participants have proven good risks with about 2 losses for every 200 participants.

When adults enter the plan there is usually a different plan of financing. The local bank loans money to a farmer for the purchase of up to 200 chicks.

During the last couple of years the participants have been allowed 100 pounds of feed in return for 12 roasters.

Purchase of chickens. Fifty pullorum tested chicks of a good breed are purchased for each boy or girl participating. The chicks are purchased by a purchasing committee and distributed, all on the same day. On the day the chicks are distributed the program participants gather for a meeting. Both the chicks and the feed are purchased in large quantities and in this way the purchasing committee is able to obtain a better price than the individual participant could obtain.

Educational meeting. When the chicks are distributed the sponsors and participants meet together with the county agents and poultry specialists. These meetings have had a two-fold purpose. Both the sponsors and the participants have a chance to realize the scope and importance of the program. Participants are given elementary instructions on how to feed and otherwise care for their chicks. Due to the

diversity in type of brooders and other equipment these meetings are kept on a very practical basis and practical suggestions are given in answer to queries from the participants.

Roaster sales. In some counties 4-H Club roaster sales are held and in others the cockerels are sold as friers to consumers or local produce dealers and dressing plants. The roasters are marketed at regular sales held in late September and October. The local committee in the area where a sale is to be held determines the number of roasters to be sold and the approximate date at which they may be sold. The local committee obtains local bids. This information is given to J. C. Powell, Agricultural Extension Service Assistant Marketing Specialist, University of Tennessee. He contacts wholesale buyers, i.e., packing companies, carlot shippers, wholesale receivers in New York, and others, and informs them as to what chickens will be available at a certain time and place. Mr. Powell accepts their bids, and when he has the price desired he sells to the best bidder who in turn arranges to have his truck at a certain town or towns on certain specified dates. Mr. Powell informs the local group of their date of sale. When the 4-H Club members market their roasters a fair or contest has often been held. This also increases interest in the raising of better flocks and roasters.

The roasters are usually sold at from four to five pounds.

Each member participating in a roaster sale has contracted to bring in 12 roasters but may sell more if he so desires.

Usually the buyers appear with trucks, but a few sales have been made where the buyers have purchased a carload of roasters. Some shipments of live poultry have been made by the club sponsoring the program. The following is an editorial which appeared in the American Egg and Poultry Review about such a shipment.

A short time ago a straight carload of pullet and cockerel broilers were shipped from Tennessee to the New York Central Live Poultry Terminal at Sixtieth Street and Twelfth Avenue. These birds were the result of an experiment by the Union City, Tennessee, Kiwanis Club.

Last March and April the club gave fifty young, pure-bred chickens and fifty pounds of feed to each of 280 pre-teen age boys and girls of Obion County, Tennessee. The children, members of the 4-H Clubs and agricultural schools, raised the chickens and each recently turned fifteen birds over to the club for sale.

The Chelsea Live Poultry Company, 44 Bloomfield Street, sold the car, which Pat Hogan of the Union City Kiwanis Club cared for on the way to New York, assisted by J. B. Massengill, also of Union City. 11

These roaster sales are similar in nature to the cooperative carlot sales of poultry which were started in South Carolina in 1923.¹²

Difficulties encountered. One of the greatest difficulties is in securing a sufficient number of chicks in the spring.

The general opinion in the South is that it is more profitable to sell friers than roasters; so many of the participants sell friers that it is impossible to have a roaster sale in some areas. Selling

11. American Egg and Poultry Review, "Market 4-H Poultry", Vol. 1, p. 472, November 1940.

12. Prince, George E., Cooperative Sales of Poultry in South Carolina, address at Nashville, Tennessee, February 3rd to 5th, 1937-Files of Department of Agricultural Economics and Rural Sociology, University of Tennessee, Knoxville, Tennessee.

chickens as friers cut down the amount of meat produced. Intermittent selling makes collection difficult.

Some of the people have never raised chickens and want to eat them rather than sell them.

There is no assurance that the chickens will pay off. (However, if the 4-H Club member does not think 12 roasters will pay off it is easy enough to sell 15.)

In some areas where 12 roasters were given in payment of the loan they sold for more than the value of the loan and the excess was returned.

One of the most difficult problems in the marketing is the determination of the number of roasters to be sold.

Roasters should be marketed when weighing between four and five pounds. If kept for a longer period they reach a point of diminishing returns. (It takes about 25 weeks to raise a roaster to 5 pound weight.)

Results of the program. The program has had especially good results in West Tennessee. Many children of share croppers have participated and thus put chicks on cotton farms where there had never been any chickens. Not only have produce dealers and others in the counties of early participation expressed their approval and thanks as well as interest, but produce dealers in Knoxville have noticed the difference in quality. Knoxville produce dealers have remarked to this investigator that poultry from Middle Tennessee has decidedly improved in quality as a result of these programs. They felt that such a program would

certainly be helpful in Knox and the surrounding counties as they had found the poultry purchased in this area to be of inferior quality as a result of scrub stock.

The largest increase in 4-H Club enrollment has come through the desire of boys and girls to participate in this program.

The program was started as a peace time project, but is even more important now as a means of increasing production.

Production of roasters rather than friers increased the amount of meat produced. Many of the roasters have been sold to dressing plants which have in turn sold them to the army.

Since 1932 the 4-H Club boys and girls have been shipping capons, part of their original number of 50 chicks, at the time their parents and other farmers were shipping poultry with the Tennessee Poultry Producers' Association. In some counties 4-H Club boys and girls had been raising some capons before participating in the present program. The shipment of capons from Tennessee to New York is becoming a matter of major importance.

The 4-H Club poultry projects seem to be the most promising way of improving the quality of chickens marketed from Tennessee and also of increasing interest in cooperative marketing of poultry.

Cooperative Turkey Marketing

History. A complete history of the development and operation of the present Tennessee Poultry Producers' Association has been presented

in Marketing Livestock Cooperatively in Tennessee.¹³ From 1926 to 1931 local Farm Bureaus, county agents, State marketing specialists and other persons sponsored independent carlot pools of poultry. This was followed by the organization of the Tennessee Turkey Producers' Association in 1931. In 1933 the Tennessee Poultry Producers' Association, Inc., was organized with headquarters in Greeneville, Tennessee.

Trend in volume of business.¹⁴ The number of cars of poultry shipped by the Association has decreased since 1938. In 1942 the Association shipped 13 1/2 cars or 189,443 pounds of turkeys and capons combined. It had shipped 17 cars in 1941, 20 cars in 1940, 31 cars in 1939, and 33 cars in 1938. Savings in 1939 amounted to \$10,815.56 while savings in 1942 amounted to \$4,010.00. The number of counties cooperating increased from 2 in 1932 to 12 in 1942. In 1935 and 1936 16 counties participated in the Thanksgiving shipments.

Importance in the Knoxville area. The 1942 shipments were made three shipping points serving 12 East Tennessee counties. Greene, Hawkins, Hamblen, Grainger, Jefferson, Union, Claiborne, Campbell, and Cooke county farmers have all contributed to the Thanksgiving and Christmas shipments. Actual loading operations as carried on at Greeneville and Jonesboro during November of 1942 have been shown in Figures 122 to 131.

The Tennessee Poultry Producers' Association is important in the

13. Allred, C. E., Atkins, S. W., Butterfield, J. P., Marketing Livestock Cooperatively in Tennessee, Department of Agricultural Economics and Rural Sociology, Agricultural Experiment Station, University of Tennessee, August 1936, Chapter V, pp. 74-91.

14. Annual report, Marketing Department (SRS Project No. 11). Report of Extension Marketing Economist Jordan and Assistant Extension Marketing Economist Powell, December 31, 1942.

Knoxville area not only because it serves counties in that area but it increases the prices paid to farmers. Produce dealers operating in the same areas as the Association must bid up their prices to meet the competition of the Association, thus all farmers benefit. When these produce dealers in turn operate in other areas they bid up the prices paid by local produce dealers in those areas.

Difficulties encountered in cooperative marketing.¹⁵ There are many minor matters which may occur in marketing that loom large in the mind of the member of the cooperative. The association either has to pamper the members or lose their patronage to the local produce dealers. There are other psychological factors which enter the decisions of marketing. Some of the difficulties encountered are listed below.

1. The patrons desire to swap birds for breeding stock and this causes much delay in the loading procedure, as trading and weighing of the birds traded takes quite a bit of time. If there is a difference in weight of birds traded the association takes care of the difficulty by crediting one member's weight slip and debiting the other member's slip.

2. Bookkeeping errors of only a few cents can cause quite a few tempests.

3. Farmers are just not cooperative by nature.

4. Farmers prefer to do their own trading, even though they desire the premium prices paid by the association.

5. Farmers patronize the cooperative when they figure it is their only salvation. If they have receives less than the cooperative paid

15. Information furnished by Mr. Chadwell and Mr. Powell.

they will market through the cooperative the following year.

6. Farmers do not inform the county agents on how much poultry they are bringing to market.

7. It is necessary to have a car man from some county other than that in which the car is being loaded, as it is up to the car man to see that only good birds are accepted. He is most likely to reject poor quality in some county other than his own. (Two of the directors of the Association are car men.)

8. It has been felt that some member of the association should make the price in New York. The marketing specialists, acting with the association, have tried to train someone for this post but have been unsuccessful.

9. Mixed cars of poultry are most acceptable in New York. Cars with 2,500 to 3,000 pounds of capons are about right. Unless the members of the association cooperate fully in letting the county agents know what kind of poultry they are going to market, and in what quantities, the cars cannot be planned in advance. It sometimes happens that they have too many of one kind of poultry in a car when loaded haphazardly.

Accomplishments of the Association. One of the main accomplishments of the Association is the raising of prices in the areas it serves, just through its presence as a competitive organization. During the first years that the Association functioned it was able to return farmers a premium price above that paid by local produce dealers.¹⁶

16. In 1939 the Association paid \$10,815.56 in premium.
In 1942 the Association paid \$ 4,010.00 in premium.

In recent years the spread between the Association's price and that of the local produce dealer's price has not been so great. This has not been due to any inefficiency on the part of the Association but the desire of the local produce dealers to meet this outside form of competition. The Association deducts one half of one percent of the price paid them for the poultry in New York before paying the farmer. The marketing costs, such as freight, etc., already having been deducted from the price paid them in New York.¹⁷ The one half of one percent is to cover the cost of the Secretary, the expenses of the marketing specialist who sold the turkeys, etc. The Association provides the farmer with a market outlet and guarantees him a fair price but naturally cannot pay him more than the price paid in New York minus necessary marketing expenses. Although no survey was made of the cost of marketing through a local produce dealer it seems that the prices they paid must have been unnecessarily low in order for them to be able to raise them to meet competition for so many years and still remain in business. The overhead of the two types of marketing agency is different. The Association does not need to maintain a place of business the year round and has available the services, remunerated and not remunerated, of members of the state extension service. Local dealers must maintain a place of business available to farmers during slack seasons as well as peak periods.

There is little doubt that the marketing of poultry through the Tennessee Poultry Producers' Association has helped improve quality insofar as poor quality birds are rejected at loading points, the swapping of

17. See page 397.

birds for breeding purposes is allowed and the holding of birds until they reach the proper marketing weight is encouraged.

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CHAPTER XVI

SUMMARY AND CONCLUSIONS

Poultry and egg production is more important to the average farmer in the Knoxville area than for the state as a whole. Ninety and four tenths percent of the farms in the Knoxville area reported having poultry in 1940, while only 88.6 percent of the farms in Tennessee so reported. In the Knoxville area 80.9 percent of the farms reporting poultry sold poultry and eggs. In Tennessee only 74.4 percent of such farms sold poultry or eggs in 1939. The sale, trade, or use of these products contributed 6.5 percent of the Knoxville area farm income as compared to 4.8 percent of the Tennessee farm income.

Poultry and egg production in the Knoxville area is more intensive than in the state as a whole. In 1939 25.8 percent of Tennessee's commercial poultry farms were located in the Knoxville area. Chicken flocks in the area averaged 41.0 birds on hand April 1, 1940, or 4.5 more birds than reported by the average Tennessee farm having chickens. Egg production per farm was 260 dozens or 38.5 dozens more than for the state as a whole in 1939. Thirty eight and three tenths percent of the 1939 Tennessee turkey crop was raised in the Knoxville area on farms averaging 24.3 turkeys each, or 3.5 more turkeys per farm

than were raised by the average farm reporting turkeys raised in Tennessee. However, farmers in the Knoxville area raised only 22.1 percent of the ducks, 7.7 percent of the geese, and 17.4 percent of the guineas raised in Tennessee during 1939.

Importance of Knoxville as a market for Tennessee eggs.¹

The number of Tennessee eggs marketed in Knoxville during 1942 equalled 10.7 percent of the 1939 Tennessee egg crop. However, the total number marketed from Tennessee and other states combined equalled 54.8 percent of the 1939 Knoxville area egg crop or 13.7 percent of the 1939 Tennessee egg crop, as actually only about 6.3 percent (400,740 dozens) was imported from other states (24.0 car equivalents by rail and 9.4 by truck).

Knoxville's population consumed 82.7 percent (5,271,666.4 dozens) of these eggs while 5.4 percent (346,526.2 dozens) were shipped to New York and eastern terminal markets and 11.9 percent (756,081.0 dozens) was sold outside of Knoxville by meat packing companies.

Importance of Knoxville as a market for Tennessee poultry.²

The amount of Tennessee chickens estimated as marketed in Knoxville during 1942 equalled 17.2 percent of the chickens sold alive or dressed in Tennessee (1939 census data). Approximately 5,254,780.2 dressed pounds of poultry were estimated as marketed in Knoxville in 1942. Of

1. See summary table, Appendix I, Table XXV, for figures quoted in this paragraph.

2. See summary Tables XXVI and XXVII, Appendix I, for figures given in following paragraphs. All percents in terms of dressed pounds. Dressed pounds mean dressed but not drawn fowl. The amount marketed is probably greater than shown here.

this amount 6.6 percent, 280,928.9 dressed pounds, was imported by produce houses and packing companies from other states, the remainder being purchased in Tennessee. The total amount of poultry marketed equalled 25.7 percent of the chickens sold and other poultry raised combined, in Tennessee in 1939; for the Knoxville area it equalled 110.7 percent. Knoxville residents consumed 73.8 percent of the poultry marketed; produce dealers shipped 20.5 percent to eastern terminal markets; packing companies sold 5.7 percent in their trade territories outside of Knoxville.

The amount of chickens estimated as marketed in Knoxville in 1942 equalled 18.2 percent of the chickens sold alive or dressed in Tennessee or 82.6 percent in the Knoxville area in 1939. Five and five tenths percent of these chickens was imported from other states. Of the chickens marketed in Knoxville 31.1 percent was shipped to eastern terminal markets by produce dealers; 8.1 percent was sold in packing company trade territories outside of Knoxville; 60.8 percent was consumed in the city.

Turkeys marketed in Knoxville in 1942 equalled approximately 114.6 percent of the turkeys raised in Tennessee in 1939. Actually 3.3 percent of this amount was imported from other states; 0.6 percent was shipped to eastern terminal markets; 1.1 percent was sold in packing company trade territories outside of Knoxville; 98.4 percent was consumed in the city.

The total estimated amount of ducks marketed in Knoxville during 1942 equalled 98.5 percent of the ducks raised in Tennessee in 1939. Of the ducks marketed in Knoxville 28.7 percent were imported from other states; 2.2 percent shipped to eastern terminal markets; 5.2 percent sold in packing company trade territories outside of Knoxville; 92.6 percent consumed in the city.

The total amount of geese and guineas estimated as marketed in Knoxville during 1942 equalled 4.7 percent of such fowl raised in Tennessee or 38.1 percent of the amount raised in the Knoxville area in 1939. All these guineas had been raised in Tennessee. Only 8.8 percent of the amount marketed in Knoxville was shipped to eastern terminal markets and 91.2 percent was consumed in the city.

Knoxville a consumer's market. Consumers purchased an estimated 82.7 percent of the eggs and 73.8 percent of the poultry marketed in Knoxville during 1942. Only 5.4 percent of the eggs and 20.4 percent of the poultry was shipped to eastern terminal markets. The remaining 11.9 percent of the eggs and 5.7 percent of the poultry was sold outside of Knoxville in the trade territories of the packing companies.

Enlarging Knoxville market outlets. Knoxville consumers are already purchasing more eggs and poultry than the average United States citizen. Any material increase in per capita consumption would probably have to take place among lower income groups.

Knoxville can increase that part of its poultry and egg business

(including processing operations) having to do with shipments to terminal markets, by drawing on a greater proportion of the farm production of the area. Much produce passes through Knoxville from the west to competitors located in trade centers to the east such as Greenville. Although some of these competitors may be better equipped to handle large quantities of produce, Knoxville is ideally situated for the location of a poultry dressing plant. Such a plant could draw on the production of the poultry areas in both East and Middle Tennessee (Figure 7). Knoxville lies between the two main poultry producing areas and its freight rates to eastern terminal markets are the same as those from competitive East Tennessee shipping points such as Greenville. The cost of trucking poultry into and from either city should be about the same. The cost of dressing poultry in Knoxville is said to have proven to be relatively low.

Sources of supply. The farmer direct, the country store and the selling store comprise the most important sources of poultry and eggs sold in Knoxville.

Forty six percent of the eggs consumed in Knoxville during 1942 were purchased by consumers from the farmer direct (38.5 percent house to house sales), the remainder through the various marketing agencies. Produce houses purchased 57.8 percent of their eggs and 8.9 percent of their poultry directly from farmers in 1942. Meat packing companies purchased 9.6 percent of their egg supply, but no poultry,

from farmers in 1942. Egg dealers purchased all of their eggs from farmers, country stores and rolling stores. Milk plants purchased all of the eggs they sold to consumers in 1942 from farmers and the University of Tennessee Experiment Station Farm. Grocery stores purchased 40.7 percent of their eggs from farmers; 20.2 percent of their chickens; and 27.6 percent of their turkeys in 1942.

Country stores and rolling stores were usually the second most important source of supply for Knoxville marketing agencies. Produce houses obtained 29.7 percent of their egg purchases and 59.3 percent of their poultry purchases from country and rolling stores. Meat packing companies purchased 47.8 percent of their eggs but no poultry from country and rolling stores. Of the egg purchased by grocery stores, 5.1 percent were obtained from country and rolling stores, but only 0.6 percent of the chickens were purchased from this source.

Country produce dealers furnished 21.5 percent of the eggs and 21.2 percent of all poultry handled by Knoxville produce houses; 38.7 percent of the eggs, but none of the poultry handled by Knoxville meat packing companies; and 1.4 percent of the eggs sold by Knoxville grocery stores.

Produce houses imported from other states 4.8 percent of their eggs and 2.5 percent of their poultry during 1942. Meat packing companies also imported 25.9 percent of their egg supply; 24.5 percent of their chicken supply; and 100 percent of their turkey supply from other states or, sometimes, other branches in Tennessee.

Produce houses bought and sold a varying amount of poultry and

eggs between themselves, depending on the seasons and prices. Packing companies, however, regularly purchased 3.9 percent of their egg supply, and 75.5 percent of their chicken supply from produce houses.

The buying trade area. Ninety-six and three tenths percent of the poultry and 93.7 percent of the eggs marketed in Knoxville during 1942 originated in Tennessee, the remainder being imported from other states. Eggs were imported from Chicago, St. Louis, and the middle-west by produce dealers and meat packing companies. Dressed poultry was brought into Knoxville from dressing plants in Tennessee areas not shipping live poultry to Knoxville and from dressing plants in other states. Practically all live poultry marketed in Knoxville and the Knoxville area originated in Tennessee with the exception of a few fliers received early in the spring from North Carolina and Georgia.

The various marketing agencies serving Knoxville draw their supplies of Tennessee poultry and eggs largely from the same rural districts. Produce dealers draw their supplies from all counties in East Tennessee, especially those counties north of Marion, Hamilton, Bradley, and Polk counties. The produce from these latter counties is probably marketed in Chattanooga. Only a very small volume of eggs or poultry from Washington, Johnson, Unicoi, Carter, and Sullivan counties is marketed as far south as Knoxville. Most of the produce of these counties is marketed in Rogersville, Greeneville, or Morristown for shipment to eastern markets. Some Knoxville produce dealers branch out further than others. The two largest receivers of poultry and eggs in Knoxville

draw the better part of their supplies from west of the area just described. Their supplies may come from as far west as Warren, Coffee, Bedford, Marshall, and Giles counties (Figure 55).

Farmers selling poultry and eggs direct to Knoxville marketing agencies of consumers usually are from farms in Knox and surrounding counties.

The selling trade area. Poultry and eggs marketed in Knoxville are consumed there, or shipped to eastern markets, or sold by packing company in their trade territory outside of Knoxville. There is only one Knoxville marketing agency, the meat packing company, which sells eggs and poultry beyond the suburbs of the city itself. Packing companies estimated that 68.7 percent of the eggs, 67.1 percent of the chickens, and 67.8 percent of the turkeys they handled were sold outside of Knoxville, in their selling territories which extended beyond Tennessee state boundaries as shown in Figure 79. The only other agency selling poultry or eggs outside of Knoxville was the Knoxville wholesale receiver. Two such wholesale receivers, or carlot shippers, shipped both poultry and eggs to New York and other eastern terminal markets. One produce dealer claimed to have sold some dressed poultry to the resorts and hotels between Knoxville and the Smoky Mountains. There is not much poultry or eggs, except fancy packs or graded, delivered to grocery stores, restaurants and hotels in the Knoxville area because of the practice of marketing eggs and poultry at the country store. Farmers use these surplus farm products as a medium

of exchange and so there is normally a good supply of either one in country stores. People living in small towns in the Knoxville area often keep their own chickens.

Factors affecting marketing practices. Some important factors affecting marketing practices are:

(1) Small size poultry enterprises are typical of Tennessee poultry production. On account of the small size of the poultry flocks movement to market of both eggs and poultry is slow. The weekly amount of these products marketed is usually less than 5 dozen eggs and fewer chickens even in the Knoxville area. The farmer does not provide proper holding conditions for eggs and is not interested in providing balanced ration for only a few chickens. There is nothing urgent about disposing of a few dozens of eggs or chickens, consequently these products remain on the farm beyond their best marketing age.

(2) Proximity of farmers to consumers increases the amount of produce marketed direct from farmer to consumer. Consumers in rural areas not raising their own poultry purchase poultry and eggs from their neighboring farmers. Farmers located near Knoxville have a distinct selling advantage in being able to dispose of their poultry and eggs directly to consumers at prices equal to or higher than those prevailing in local grocery stores. This means that the established marketing agencies cannot depend upon the farmer as a source of supply except during periods of the year when he does not have sufficient produce to warrant selling it to consumers direct or when he has more than consumer will purchase direct.

(3) Consumer preference in Knoxville means "country produce". Farmers selling poultry and eggs direct move them from the farm faster and sometimes under better conditions than when these products are marketed through the more circuitous regular market channels. Knoxville consumers pay premium prices for so-called "country produce", which often may have suffered as much deterioration as produce marketed through the regular channels. This consumer belief places produce not branded as "country produce" at an unfair price disadvantage.

(4) The lack of knowledge of what constitutes proper preparation and care in the marketing of poultry and eggs is evident from producer to consumer. Farmers sell all the eggs they collect in a week regardless of where they were collected and therefore receive a price reflecting the quality they have marketed. The marketing agencies provide only inadequate facilities for holding eggs and they do little to remove low quality produce from the market channels. Consumers on the other hand are not fully acquainted with the different quality or grades of poultry and eggs, and have come to accept the appearance of a rotten egg in a dozen as a common occurrence.

Price. Poultry and egg production is seasonal, therefore marketing is seasonal. In addition to the influence of seasonality of production on price the New York wholesale market quotations have influenced Knoxville area paying prices. Although Knoxville is a consumer's market it is the price of the last unit shipped that determines the paying price in the area. Prices paid for eggs in the market

house and by local produce houses followed a pattern inversely related to the quantity marketed.

Knoxville area farm prices for eggs have been more nearly equal to the average prices paid farmers in the United States from 1925 to 1942 than have Tennessee farm prices for eggs. The index of seasonal variation in egg prices for the Knoxville area and the United States have been nearly the same (Figure 137) although Knoxville prices make their seasonal changes somewhat in advance of changes in United States seasonal prices. March through July are the low price months while August through February the high price months.

The movement of eggs into cold storage in Knoxville occurs during the low price and heavy production months of March, April, and May but not during the even lower price month of June because of the quality of eggs on the local market during that month.

In general the Knoxville area egg quotations are about three to four cents below the New York wholesale quotations for fresh medium mixed color eggs. Knoxville prices lag behind New York prices by about a month.

The yearly average farm price paid for chickens in the United States has been higher (1921-1943) than the average price paid in the Knoxville area for any of the market groups of chickens for which prices have been quoted, except during 1925 to 1929 when the Knoxville area spring chicken prices were higher. The seasonal variation in colored hen and Leghorn hen prices for 1925 to 1942 is similar. Both are highest during February through June and lowest from July through December. The Knoxville area prices for colored hens, in normal times,

averaged five to six cents below the New York wholesale truck and express quotation for colored fowl. During 1942 there was five to nine cents difference between the two quotations. The Knoxville area price paid farmers was not quickly adjusted to changes in the New York price, but usually assumed the same direction of change within a month.

Spring chicken prices for 1941 were highest in February, March, and April. They declined every month through December. Prices are highest during the early spring months and decline as marketings increase. During the period studied the number of fliers sold in the market house steadily declined from October 1942 through March 1943 with a slight increase occurring during late February and early March. The price situation on that market remained practically the same, except for the holiday season increase, regardless of the quantity marketed. This was probably an unnatural phenomena resulting from the war price situation. During 1942 the price of roosters was relatively high during March and April and during September through December, and relatively low the remaining months. Marketings responded to price in April but not during the holiday season. Prices paid for roosters varied less radically than did other prices.

Turkeys are purchased by most Knoxville produce houses only during September, October, November, December, and January. A few are purchased the year round as disposed of by farmers. The local price situation reflects the seasonality of marketings. Prices are

highest during November, December, and January. Farm women sell turkeys in the market house only during the holiday season and on special order when they are assured of a premium price.

An even greater spread exists between a New York wholesale (freight) price for turkeys and the Knoxville price paid farmers during November and December of 1942 and other New York poultry quotations as compared to Knoxville quotations. A spread of from approximately nine to eleven cents existed between the two prices.

Duck prices in the area during 1942 remained stationary during the months of January through July. They dropped during August and September but soared in November and December. Ducks were reported as sold in the market house from October 1942 through March 1943 with the largest numbers being sold during the weeks preceding Thanksgiving and Christmas. The farm women did not usually market ducks except on Saturdays or during the holiday season when they were fairly certain of a good price.

Produce houses reported purchasing geese whenever marketed by farmers, which seemed to be the months of July through December. In 1942 prices paid for geese remained the same January through October rising only during November and December.

The average monthly price paid for guineas in the Knoxville area was the same during every month of 1942 and the quantity marketed with local produce houses was small except during October, November, and December. The greatest number of guineas sold in the market house

were also sold during the holiday season.

New York and Knoxville guinea prices are even further apart than other poultry price even though New York is a good guinea market. During the period 1936 to 1938 Knoxville area guinea prices only varied from 40 to 50 cents a pair while New York prices varied from 85 cents to \$1.60 a pair.

The margins between the New York and Knoxville prices have been warranted in some cases by excessive marketing costs. In other instances the margin has resulted from the fact that only one earlot shipper has made the "local quotations" for over 40 years. A large enough amount of Tennessee's poultry and eggs are marketed in Knoxville to warrant a better job of price reporting by local newspapers.

Regulations. The enforcement of Tennessee's egg law has been practically an impossibility due to its lack of applicability to established marketing practices. An egg law and a poultry law setting up elementary grading standards by which basis purchases could be made from farmers are the first requisites for improving the quality of eggs and poultry marketed from Tennessee farms. To attempt to enforce any laws including grading standards as advanced as those used by the United States Department of Agriculture would throw the present marketing system into chaos and accomplish little. A simple law well enforced would benefit not only farmers with high prices but the marketing agencies supplying consumers with poultry and eggs.

Suggestions for Further Research in Poultry and Egg
Marketing in the Knoxville Area

Certain aspects of the subject poultry and egg marketing in the Knoxville area were beyond the scope of this study but would merit additional investigation.

A survey is required of poultry and egg marketing practices on farms.

A survey of marketing practices of country stores and rolling stores with emphasis on a study of all sales outlets.

The problems of the transportation of poultry and eggs needs special study.

A cost analysis study of the cost of marketing poultry and eggs through the various marketing agencies included in this study.

A detailed analysis of the comparative costs of marketing dressed, frozen, and iced poultry from Knoxville area farmers to eastern consumers, i.e., after Knoxville dressing plants have been in operation long enough to be able to provide accurate cost analysis data.

A study of the produce houses and dressing plants located east of Knoxville, their sources of supply, selling markets, cost of operation, etc.

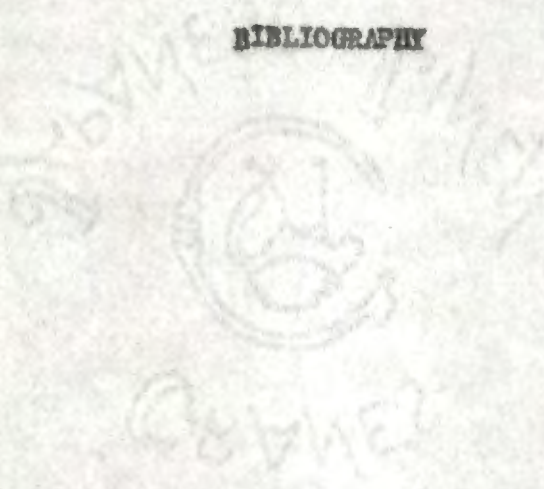
A study of the hatcheries operating in and serving the Knoxville area. Their importance in influencing time and quality of eggs and

poultry marketed, their source of hatching eggs, their educational work, etc.

A survey of important consuming outlets in Knoxville such as hotels, bakeries, and restaurants to determine their special demands and sources of supply for poultry and eggs.

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ATLAS BOND

APPENDIX A

ATLAS BOND

POULTRY AND EGG MARKETING SURVEY

Wholesale Dealers

University of Tennessee
Name of Firm _____

Dept. of Agr. Economics
Date _____
Enumerator _____

I. EGGS:

Usual Amount Purchased

1.

	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Eggs, cases													

2. What are your peak periods in purchase of eggs? _____

Why? _____

3. Changes in peak buying periods in last two years _____

4.

Source

Seller	Percent	Mo.	Name &/or Co.	Reason
Farmer on contract				
" without contract				
Country store				
Rolling store				
Local wholesaler				
Out of town "				
Trucker				
Cold storage co. local				
Cold storage co.				
Broker				
Jobber				
Creameries				
Hatcheries				
Others _____				

5. Destination

Buyer	Percent of Total Sales	Name and Location of Buyer	Final Market
Grocer			
Consumer direct			
Hotels and restaurants			
Bakeries			
Trucker shipper			
Local wholesalers			
Other wholesalers			
Egg drying plant			
Egg freezing plant			
Export company			
Armed forces			
Commission man			
Jobber			
Other			

6. Indicate (in order of importance) factors determining to whom you sell eggs:

Truck rate	_____	Price offered	_____
Type of product	_____	Location of buyer	_____
Freight rate	_____	Your location	_____
Day and	_____	Credit arrangements	_____
Season	_____	Other	_____

7. To what outlet do you prefer to sell? _____

Why? _____

8. Percent you:

Percent

Buy at your place of business?	_____
Send your truck to country stores to buy?	_____
Send your trucks to farmers to buy?	_____
Sell at your place of business?	_____
Truck out of Knoxville?	_____

9. What percentage of eggs do you buy on basis of:

Farmer's reputation	_____
Grade	_____
Current receipts	_____

10. Do you offer less for cases which obviously contain many cracks and dirties? Yes _____ No. _____ How much less? _____

11. In what quantities do you usually buy eggs? _____

12. What percentage of the eggs that you buy are a total loss due to poor quality? _____

13. Do you prefer to contract with the farmer and other sellers for eggs, or to buy as they appear? _____

14. On which days of the week do you usually purchase the greater number of eggs? _____ Why? _____

15. How many days elapse between the time you buy eggs and resell them? _____ How? _____

16. What is your best grade of egg? _____

17. Do you have candling facilities (even if not now in use)? Yes ___ No ___

18. Do you candle eggs before resale? Yes ___ No. ___

19. What is your grading basis? _____

20. How closely are you able to adhere to grades? _____

21. What percentage of eggs do you sell as follows:

a. Current receipts _____

e. Canded No. 2's _____

b. Cracks _____

f. Cold storage eggs _____

c. Dirties _____

g. _____

d. Canded No. 1's _____

22. On which days of the week do you usually sell most eggs? _____ Why? _____

23. In what quantities do you sell eggs? _____

24. While awaiting sale or shipment eggs are stored in which of the following places:

Main sales room _____

Basement _____

Cold storage house _____

Anti-room to store _____

Cold storage room _____

Adjoining building _____

25. During what months do you store eggs, and in what volume?
 Month _____ Volume _____

26. What improvements could be made by farmers in handling eggs? _____

27. What improvements could be made by country stores and other collecting agencies in handling eggs? _____

II. POULTRY:

Commodity	Total	Usual Amount Purchased											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Chickens, no.													
Turkeys, no.													
Ducks, no.													
Geese, no.													
Guineas, no.													

2. Chickens		Source			
Chicken seller	Percent	Mo.	Name and/or County	Reason	
Farmer on contract					
" without contract					
Country store					
Rolling store					
Local wholesaler					
Out of town wholesaler					
Trucker					
Cold storage co. local					
Cold storage co.					
Broker					
Jobber					
Creameries					
Hatcheries					
Other					

3. Turkeys

Source

Turkey Seller	Percent	No.	Name and/or County	Reason
Farmer on contract				
" without contract				
Country store				
Rolling store				
Local wholesaler				
Out of town "				
Trucker				
Cold storage co. local				
Cold storage co.				
Broker				
Jobber				
Creameries				
Hatcheries				
Others				

4. Ducks

Farmer on contract				
" without contract				
Country store				
Rolling store				
Local wholesaler				
Out of town "				
Trucker				
Cold storage co. local				
Cold storage co.				
Broker				
Jobber				
Creameries				
Hatcheries				
Others				

5. Geese

Farmer on contract				
" without contract				
Country store				
Rolling store				
Local wholesaler				
Out of town "				
Trucker				
Cold storage co. local				
Cold storage co.				
Broker				
Jobber				
Creameries				
Hatcheries				
Others				

6. Guineas

Source

Seller	Percent	No.	Name and/or County	Reason
Farmer on contract				
" without contract				
Country store				
Rolling store				
Local wholesaler				
Out of town wholesaler				
Trucker				
Cold storage co. local				
Cold storage co.				
Broker				
Jobber				
Creameries				
Hatcheries				
Others				

7.

Destination of Live Poultry

Buyer	Percent of Total Sales	Name and Location of Buyer	Final Market
Chickens:			
Grocer			
Consumer direct			
Hotel and restaurant			
Trucker shipper			
Local wholesaler			
Other wholesaler			
Armed forces			
Commission man			
Dressing plant			
Jobber			
Turkeys:			
Grocer			
Consumer direct			
Hotel and restaurant			
Trucker shipper			
Local wholesaler			
Other wholesaler			
Armed forces			
Commission man			
Dressing plant			
Jobber			

Destination of Live Poultry

Buyer	Percent of Total Sales	Name and Location of Buyer	Final Market
Ducks, Geese, and Guineas (u)			
Grocer			
Consumer direct			
Hotel and restaurant			
Trucker shipper			
Local wholesaler			
Other wholesaler			
Armed forces			
Commission man			
Dressing plant			
Jobber			

8.

Destination of Dressed Poultry

Buyer	Percent of Total Sales	Name and Location of Buyer	Final Market
Chickens:			
Grocer			
Consumer direct			
Hotel and restaurant			
Trucker shipper			
Local wholesaler			
Other wholesaler			
Armed forces			
Commission man			
Dressing plant			
Jobber			

Turkeys:

Grocer			
Consumer direct			
Hotel and restaurant			
Trucker shipper			
Local wholesaler			
Other wholesaler			
Armed forces			
Commission man			
Dressing plant			
Jobber			

Destination of Dressed Poultry

Buyer	Percent of Total Sales	Name and Location of Buyer	Final Market
Ducks, Geese, and Guineas (u):			
Grocer			
Consumer direct			
Hotel and restaurant			
Trucker shipper			
Local wholesaler			
Other wholesaler			
Armed forces			
Commission man			
Dressing plant			
Jobber			

9. What percentage of poultry sales is fresh killed? _____

10. What percentage of live poultry do you sell according to:
type of bird _____ grade _____

11. Do you dress any poultry? Yes _____ No _____

12. Indicate percentage dressed for:
local consumption _____
for shipment to other markets _____

13.

Kind	Number of Pounds Dressed												
	To- tal	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Chickens													
Turkeys													
Ducks													
Geese													
Guineas													

14. How many people do you employ in your dressing plant?

Jan.	_____	May	_____	Sept.	_____
Feb.	_____	June	_____	Oct.	_____
Mar.	_____	July	_____	Nov.	_____
Apr.	_____	Aug.	_____	Dec.	_____

15. For how many years have you been dressing poultry? _____

16. Indicate (in order of importance) factors determining whether you sell live or dressed poultry.

Your location	_____	Volume from farms	_____
Your facilities	_____	Local price of dressed	_____
Local demand	_____	poultry	_____
Other market demand	_____	New York price of live	_____
Freight rate on	_____	poultry	_____
live birds	_____	New York price of dressed	_____
Freight rate on	_____	poultry	_____
dressed birds	_____	Labor costs	_____

17. Do you engage in hedging operations to cover your costs? _____

18. Do you prefer to sell dressed poultry or live poultry? _____
Why? _____

19. What improvement could be made by farmers in the quality and quantity of birds marketed? _____

POULTRY AND EGG MARKETING SURVEY

Retail Stores

University of Tennessee

Dept. of Agricultural Economics

Name of Firm _____ Date _____ Enum. _____
 Chain _____ Independent _____ No. of stores in chain _____
 Class of store A _____ B _____ C _____ % of trade colored _____

I. Eggs:

1. Usual Amount Purchased

Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.

2. What are your peak egg sales periods? _____

3. Source

Seller	Percent	No.	Name or County	Reason
Farmer on contract				
" without contract				
Country store				
Rolling store				
Local wholesaler				
Out of town "				
Trucker				
Cold storage co.				
Broker				
Jobber				
Other				

4. Do you buy eggs on a basis of:

1. Case count _____
2. Grade _____
3. Farmers reputation _____

5. Do you regrade eggs before selling? Yes _____ No _____

6. Is there any price differential between dirty and clean eggs? Yes _____ No _____ How much? _____ Should there be? _____ Yes _____ No _____

7. Do you sell any cracks or checks? Yes _____ No _____
Do they sell for less? _____

8. Indicate in order of importance egg qualities considered important by the consumer

Color	_____	Brown	_____	White	_____	Mixed	_____
Size	_____	Large	_____	Med.	_____	Small	_____
Cleanliness	_____						
Uniformity	_____						
Freshness	_____						
Interior qualities	_____						
Price	_____						

9. Do you sell eggs:

1. By brand name _____
2. As "country eggs" _____
3. As just "eggs" _____
4. As "cold storage eggs" _____

10. Please name the brands or grades of eggs sold by you at any time during the year.

Brand	Months	Price variation	Brand	Months	Price variation
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

11. How long do you keep eggs before selling? _____

12. Do you keep extra eggs:

- | | |
|-------------------------|------------------------|
| 1. In a cold room _____ | 4. Under counter _____ |
| 2. Back room _____ | 5. Refrigerator _____ |
| 3. Basement _____ | 6. _____ |

13. Do you keep eggs on display? Yes _____ No _____

Front of store _____	On meat counter _____
Back of store _____	On counter _____
	Under counter _____
	Vegetable bin _____

14. Do you sell eggs from:

Wire baskets _____
 Large wooden or _____
 paper boxes _____

Carton _____
 Cases _____

15. Do customers carry eggs home in paper sacks? _____ cartons? _____

16. What improvements could be made by farmers in handling eggs, to increase their sales appeal? _____

17. What improvements would you suggest in the marketing of eggs (handling in stores by wholesalers, etc.) _____

II. Poultry:

Usual Amount Purchased

	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Chickens, no.													
Turkeys, no.													
Ducks, no.													
Geese, no.													
Guineas, no.													

2. Chickens

Source

Seller	Percent	Mo.	Name or County	Reason
Farmer on contract				
" without contract				
Country store				
Rolling store				
Local wholesaler				
Out of town "				
Trucker				
Cold storage co.				
Broker				
Jobber				
Other				

Turkeys

Source

Seller	Percent	Mo.	Name or County	Reason
Farmer on contract				
" without contract				
Country store				
Rolling store				
Local wholesaler				
Out of town "				
Trucker				
Cold storage co.				
Broker				
Jobber				
Other				

Ducks

Seller	Percent	Mo.	Name or County	Reason
Farmer on contract				
" without contract				
Country store				
Rolling store				
Local wholesaler				
Out of town "				
Trucker				
Cold storage co.				
Broker				
Jobber				
Other				

Geese

Seller	Percent	Mo.	Name or County	Reason
Farmer on contract				
" without contract				
Country store				
Rolling store				
Local wholesaler				
Out of town "				
Trucker				
Cold storage co.				
Broker				
Jobber				
Other				

Guineas	Source			
	Seller	Percent	No.	Name or County
	Farmer on contract			
	" without contract			
	Country store			
	Rolling store			
	Local wholesaler			
	Out of town "			
	Trucker			
	Cold storage co.			
	Broker			
	Jobber			
	Other			

3. During what periods do you sell the most:

Chickens _____ Geese _____
 Turkeys _____ Guineas _____
 Ducks _____

4. What size of poultry do you sell most?

Fowls or hens 5 _____ 4 _____ 6 _____ 3 1/2 _____
 Chickens or young 3 _____ 4 _____ 2 1/2 _____
 Capons 6 _____ 7 _____ 8 _____ 9 _____
 Turkeys 9 _____ 12 _____ 14 _____
 Ducks 4 _____ 6 _____
 Geese 9 _____ 12 _____
 Guineas 1 1/2 _____ 2 _____

5. What percentage of your poultry do you sell as follows:

1. Dressed _____ 4. Live weight _____
 2. Dressed and drawn _____ 5. None at all _____
 3. Cut-up _____

6. Why? _____

7. What percentage of poultry is sold fresh killed? _____

8. What percentage of poultry is drawn from cold storage supplies? _____

9. Could you sell selected cuts of poultry? Yes _____ No _____

Why? _____

10. What percentage of your customers ask to have their chickens cut up for them? _____

11. In what way would you prefer to sell poultry, if the customers would buy that way? _____

12. Where do you keep poultry while awaiting sale?

Coops _____ Meat refrigeration unit _____
Refrigerator _____ Hung-up in butcher shop _____

13. What factors are considered important by customers in choosing poultry:

Appearance of flesh _____ Age of bird _____
Amount of fat _____ Size _____
Color of skin _____ Price _____

14. What improvements in marketing methods would help you sell more poultry?



APPENDIX B

MADE IN U.S.A.



METHOD OF ESTIMATING TOTAL WEEKLY AND MONTHLY AMOUNTS
OF FIVE KINDS OF FARM PRODUCTS SOLD BY VENDORS
IN THE KNOXVILLE MARKET HOUSE - OCTOBER 5,
1942 - MARCH 27, 1943

Each week, beginning October 5, 1942, a count was made on each of three days of the number of dozen eggs, number of all chickens (hens, friers, roosters), the number of pounds of butter, and number of packages of cottage cheese brought to the market that day and the prices charged by each farm woman selling the farm products counted.¹ The total amounts of each product and the total number of women interviewed was tabulated each day. The average price charged for any item was obtained by multiplying the amount marketed by each woman by the price she estimated to be her average price for the day, adding all the value figures thus obtained and dividing by the total amount of that item reported as marketed that day.

To estimate the amount marketed during a full week on the basis of a total of three days marketing, market data were obtained for two full test weeks. As shown in Appendix Table I the distribution of marketings by days of the week were so similar for the two weeks that further data for other test weeks was unnecessary.

1. See Appendix A for form used.

APPENDIX TABLE I. DATA OBTAINED FROM TWO FULL TEST WEEKS
AND ESTIMATING PERCENTAGES USED IN THE KNOXVILLE
MARKET HOUSE SURVEY - OCTOBER 1942 THROUGH
MARCH 1943

Week	No. of Women	No. of Dozen Eggs	No. of Hens	No. of Friers	No. of Roost- ers	No. of Chick- ens	No. of Pounds Butter	No. of Pack- ages Cheese
Feb. 20-25	224	1,708.7	385	315	29	727	996.3	510
May 3-8	247	1,743.3	322	744	33	1,099	1,069.5	651
Total Wed., Friday, and Sat. Feb. 20-25	176	1,394.8	338	275	26	639	797.8	356
May 3-8	191	1,386.3	292	664	25	981	868.5	468
Wednesday, Friday, and Sat- urday as Percent of Week Total								
Feb. 20-25	78.6	81.6	87.8	87.9	89.7	87.9	80.0	69.8
May 3-8	77.3	79.5	90.7	89.2	75.8	89.3	81.2	71.9
Percent used in estimate	78.0	80.0	88.0	88.0	88.0	88.0	80.0	70.0

* These not used except where absolutely necessary as they varied more than the others. The percentage composition of the total number varied with the season of the year and changes in demand for different kinds of chickens.

To obtain an estimate for the total amount marketed during any one week the total figure for the amount marketed on Wednesday, Friday, and Saturday was computed. This total, for example total number of eggs, was

was divided by .80 in order to determine the total amount marketed for that week, as the total for the three days was known to be 80 percent of the week's total marketings based on the test week data. The total week's marketings for all the other products were determined in the same manner, but different percentages were used in each case.

To determine the amount marketed in any one month the estimated amounts for the full weeks in the month were added and to that was added the estimated amounts marketed for the extra days not included in any full week.

APPENDIX TABLE II. ESTIMATED TOTAL NUMBER OF UNITS AND ESTIMATED TOTAL
VALUE PER MONTH OF FARM PRODUCE IN THE KNOXVILLE MARKET HOUSE,
OCTOBER 1, 1942, THROUGH MARCH 31, 1943 *

Item	October 27 Market Days	November 26 Market Days	December 25 Market Days	January 26 Market Days	February 24 Market Days	March 27 Market Days	Total 164 Market Days
Chickens:							
Number	4,537.6	3,522.7	3,743.3	2,781.9	2,672.6	3,044.3	20,312.4
Value	\$3,992.92	\$3,686.11	\$4,721.04	\$3,116.79	\$3,185.16	\$3,692.80	\$22,395.81
Hens:							
Number	962.0	1,444.3	2,105.8	1,468.6	1,513.0	1,528.2	
Price	\$1.20	\$1.27	\$1.47	\$1.29	\$1.37	\$1.50	
Value	\$1,154.40	\$1,834.26	\$3,092.59	\$1,894.37	\$2,079.66	\$2,292.30	\$12,347.58
Filers:							
Number	3,385.0	1,884.6	1,463.6	1,189.8	1,045.05	1,409.5	
Price	\$0.78	\$0.85	\$0.96	\$0.88	\$0.91	\$0.89	
Value	\$2,640.30	\$1,601.91	\$1,405.06	\$1,029.42	\$950.95	\$1,259.46	\$8,882.10
Roosters:							
No.	130.6	193.8	175.9	153.6	109.6	106.8	
Price	\$1.04	\$1.30	\$1.27	\$1.25	\$1.41	\$1.37	
Value	\$198.22	\$251.94	\$223.39	\$192.00	\$154.54	\$146.04	\$1,166.15
Eggs:							
Number	5,194.4	3,637.6	3,247.5	5,841.2	6,357.3	7,536.5	31,814.5
Price	\$0.49	\$0.49	\$0.54	\$0.49	\$0.37	\$0.35	
Value	\$2,545.26	\$1,782.42	\$1,753.65	\$2,862.19	\$2,352.20	\$2,637.78	\$13,933.50
Turkeys:							
Number	-	41.0	109.0	-	-	-	150.0
Price	-	43¢ lb.	54¢ lb.	-	-	-	
Value	-	\$176.30	\$588.60	-	-	-	\$764.90
Ducks:							
Number	11.0	86.0	130.0	30.0	23.0	14.0	294.0
Price	\$1.11	\$1.59	\$1.63	\$1.29	\$1.20	\$1.27	
Value	\$12.21	\$119.64	\$211.90	\$38.70	\$27.60	\$17.78	\$427.73

(continued)

APPENDIX TABLE II (continued). ESTIMATED TOTAL NUMBER OF UNITS AND ESTIMATED TOTAL VALUE PER MONTH OF FARM PRODUCE IN THE KNOXVILLE MARKET HOUSE, OCTOBER 1, 1942, THROUGH MARCH 31, 1943 *

Item	October 27 Market Days	November 25 Market Days	December 25 Market Days	January 26 Market Days	February 24 Market Days	March 27 Market Days	Total 154 Market Days
Geese: Number	-	15.0	17.0	-	-	-	32.0
Price	-	\$2.73	\$2.82	-	-	-	
Value	-	\$40.95	\$47.94	-	-	-	\$88.89
Guineas: Number	3.0	47.0	26.0	40.0	11.0	8.0	135.0
Price	\$0.78	\$0.79	\$1.26	\$0.88	\$0.96	\$1.02	
Value	\$2.34	\$37.13	\$32.76	\$35.20	\$10.56	\$8.16	\$126.15
Butter: Number	6,072.4	4,301.4	4,434.4	4,703.9	3,900.1	3,699.2	27,111.4
Price	\$0.44	\$0.47	\$0.50	\$0.50	\$0.53	\$0.56	
Value	\$2,671.86	\$2,021.66	\$2,217.20	\$2,351.95	\$2,067.05	\$2,071.55	\$13,401.27
Cheese: Number	2,764.4	1,934.8	1,894.7	1,797.2	2,494.3	2,397.3	13,282.7
Price	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05	
Value	\$138.22	\$96.74	\$94.74	\$89.86	\$124.72	\$119.87	\$664.15
Total month: Value	\$9,352.81	\$7,962.85	\$9,657.53	\$8,495.69	\$7,767.28	\$8,547.94	\$51,802.40

* Knoxville Poultry and Egg Market Survey, 1942-1943.

** Estimate 10 pounds each

TABLE III. ESTIMATED AVERAGE AMOUNT OF EGGS, CHICKENS, BUTTER AND CHEESE MARKETING PER AVERAGE WEEKLY MARKET DAY AND AVERAGE AMOUNT MARKETING PER WOMAN PER MARKET DAY IN KNOXVILLE MARKET HOUSE, OCTOBER 5, 1942-MARCH 27, 1943 *

Market Week	Ave.No. of Women per Market Day	Average Amount Marketed per Market Day				Average Amount per Woman per Market Day			
		Eggs	Chick-ens	But-ter	Cheese	Eggs	Chick-ens	But-ter	Cheese
		Doz.	Each	Lbs.	Pkg.	Doz.	Each	Lbs.	Pkg.
Oct.5-10	38.2	173.1	163.6	228.6	98.1	4.5	4.3	6.0	2.6
12-17	38.5	187.4	156.4	211.5	106.9	4.9	4.1	5.5	2.8
19-24	36.7	191.9	158.3	189.5	86.9	5.2	4.3	5.2	2.4
26-31	34.0	172.6	137.9	194.3	85.3	5.1	4.1	5.7	2.5
Nov.2-7	33.5	161.5	141.8	201.1	72.4	4.8	4.2	6.0	2.2
9-14	35.9	146.2	134.6	166.5	62.8	4.1	3.7	4.6	1.7
16-21	29.5	139.6	114.0	175.4	90.2	4.7	3.9	5.9	3.1
23-28*	44.6	180.2	232.7	186.9	105.1	4.0	5.2	4.4	2.4
Nov. 30-									
Dec. 5	25.2	127.3	84.1	138.2	51.9	5.1	3.3	5.5	2.1
Dec.7-12	37.8	137.1	132.0	199.9	89.4	3.6	3.5	5.3	2.4
Dec.14-19	31.8	112.2	109.3	184.1	83.9	3.5	3.4	5.8	2.6
Dec.21-26*	65.1	182.2	412.8	214.9	51.1	2.8	6.5	3.3	0.8
Dec.28-									
Jan. 2	29.5	173.0	90.7	188.1	67.5	5.9	3.1	6.4	2.3
Jan.4-9	33.3	206.2	90.9	177.7	71.9	6.2	2.7	5.3	2.2
Jan.11-16	36.1	205.1	105.7	176.8	71.7	5.7	2.9	4.9	2.0
Jan.18-24	32.7	214.2	96.0	167.9	78.8	6.5	2.9	5.1	2.4
Jan.26-30	32.9	246.2	98.3	157.5	74.8	7.5	3.0	4.8	2.3
Feb. 1-6	31.8	239.6	100.2	164.9	101.4	7.5	3.2	5.2	3.2
Feb. 8-13	35.0	270.3	109.3	165.2	105.9	7.7	3.1	4.7	3.0
Feb.15-20	33.1	259.1	115.1	153.7	123.6	7.8	3.5	4.6	3.7
Feb.22-27	37.6	290.6	121.0	166.2	84.8	7.7	3.2	4.4	2.3
Mar. 1-6	34.2	320.5	116.7	157.8	80.9	9.4	3.4	4.6	2.4
Mar. 8-13	36.7	307.4	143.0	171.9	107.0	8.4	3.9	4.7	2.9
Mar.15-20	35.7	316.4	128.8	166.8	116.4	8.9	3.6	4.7	3.3
Mar. 22-27*	37.6	286.0	111.1	114.0	86.2	7.6	3.0	3.0	2.3

* All market weeks had six market days except the week of November 23-28 which had five and December 21-26 which had four. An abnormal situation existed during the week of March 22-27 due to the issuance of new price orders by the government.

APPENDIX TABLE IV. ESTIMATED TOTAL MONTHLY MARKETING, AMOUNT
PER MARKET DAY, AND PRICE CHARGED PER UNIT FOR FARM
PRODUCE, KNOXVILLE MARKET HOUSE, OCTOBER 5, 1942-
MARCH 27, 1943

Items	Number of Units per Month and Per Market Day						
	October 27 Days	November 25 Days	December 25 Days	January 26 Days	February 24 Days	March 27 Days	Total Period
Total no. of chickens ¹	4,537.6	3,522.7	3,743.3	2,791.9	2,672.6	3,044.3	20,312.4
No. of chickens per day	168.1	140.9	149.7	107.4	111.4	112.5	
Total no. of turkeys	-	41.0 ³	109.0 ⁴	-	-	-	150.0
No. of turkeys per day ²	-	2.7	4.4	-	-	-	
Total no. of ducks ⁵	11.0	86.0	130.0	30.0	23.0	14.0	294.0
No. of ducks per day	0.4	3.4	5.2	1.2	1.0	0.5	
Total no. of guineas ⁶	3.0	47.0	26.0	40.0	11.0	8.0	135.0
No. of guineas per day	0.1	1.9	1.0	1.5	0.6	0.3	
Total no. of geese ⁷	-	15.0	17.0	-	-	-	32.0
No. of geese per day	-	0.6	0.7	-	-	-	
Total no. of capons ⁸	-	4.0	11.0	-	1.0	-	16.0
No. of capons per day	-	0.2	0.4	-	.04	-	

(continued)

APPENDIX TABLE IV (continued). ESTIMATED TOTAL MONTHLY MARKETING,
AMOUNT PER MARKET DAY, AND PRICE CHARGED PER UNIT FOR FARM
PRODUCE, KNOXVILLE MARKET HOUSE, OCTOBER 5, 1942 -
MARCH 27, 1943

Items	Number of Units per Month and Per Market Day						
	October 27 Days	November 25 Days	December 25 Days	January 26 Days	February 24 Days	March 27 Days	Total Period
Total no. of doz. eggs	5,194.4	3,837.6	3,247.5	5,841.2	6,357.3	7,536.5	31,814.5
Dozen eggs per day	192.4	145.5	129.9	224.7	264.9	279.1	
Total no. of pounds butter	6,072.4	4,301.4	4,434.4	4,703.9	3,900.1	3,699.2	27,111.4
No. of lbs. per day	224.9	172.1	177.4	180.9	162.5	137.0 ⁹	
Total no. of pack- 10 ages cheese	2,764.4	1,934.8	1,894.7	1,797.2	2,494.3	2,397.3	
No. of packages per day	102.3	77.4	75.8	69.1	103.9	88.8	

1. Total number of chickens includes hens, friers (broilers), and roosters.

2. Total number of turkeys includes both hens and toms.

3. The investigator reporting the market the day before Thanksgiving recorded only 41 turkeys, the number may have been greater.

4. The 109 turkeys reported were only those sold the two days due to lack of comparable periods. Turkeys may have been sold two or three days before Thanksgiving and Christmas. A few may have been brought in on special order on other days not recorded during the holiday season.

5. Only the actual number of ducks recorded as sold on Wednesday, Friday, or Saturday are counted here. No attempt was made to estimate sale of ducks throughout the week as there were not enough marketed to make such percentage calculations accurate and because as far as the investigators could ascertain ducks were usually only marketed on Fridays

and Saturdays except during the weeks preceding Thanksgiving and Christmas when ducks were sold on all days.

6. Guineas were observed to be marketed only on Fridays and Saturdays and the market days immediately preceding Thanksgiving and Christmas.

7. Geese were observed to be marketed only on those days immediately preceding Thanksgiving and Christmas.

8. More capons than shown may have been marketed in November. Capons were marketed most often on the days preceding holidays.

9. If the study had been continued after April 1, the amount of butter would have continued to decrease due to the inability of the consumer to purchase his usual amount of butter on the market under the point rationing system. Part of the drop in March was due to a misunderstanding of government orders as to whether or not the producers were to bring butter to market.

10. About 16 packs, packages, or pats of cheese equalled a gallon. However the number of packs per gallon varied with the change in size of packs. Price remained constant but the size of the packs was changed to allow for changes in value.

APPENDIX TABLE V. ESTIMATED TOTAL WEEKLY MARKETING OF EGGS,
HENS, PRIERS, AND ROOSTERS, AND PRICE CHARGED PER
UNIT IN THE KNOXVILLE MARKET HOUSE, OCTOBER 5,
1942 - MARCH 27, 1943

Market Week	Amount Marketed and Average Price							
	Eggs		Hens		Friers		Roosters	
	Amount Dozen	Cents Per Doz.	Amount No.	Dol- lars Each	Amount No.	Dol- lars Each	Amount No.	Dol- lars Each
Oct. 5-10	1,038.5	0.47	152.3	1.11	767.0	0.77	62.5	1.09
Oct. 12-17	1,124.3	0.48	185.2	1.27	706.8	0.75	46.6	.97
Oct. 19-24	1,151.5	0.46	215.9	1.21	697.7	0.78	36.4	1.02
Oct. 26-31	1,034.9	0.59	228.4	1.18	587.5	0.84	11.4	1.14
Nov. 2-7	968.9	0.48	282.5	1.23	523.9	0.83	44.3	1.24
Nov. 9-14	877.1	0.49	300.0	1.22	489.3	0.85	38.6	1.28
Nov. 16-21*	837.5	0.50	244.3	1.22	419.3	0.83	20.5	1.24
Nov. 23-28*	901.0	0.50	579.5	1.34	493.2	0.89	90.9	1.36
Nov. 30-								
Dec. 5	763.8	0.50	161.4	1.19	314.8	0.85	28.4	1.40
Dec. 7-12	822.3	0.52	333.0	1.21	419.3	0.78	39.8	1.15
Dec. 14-19	673.1	0.53	308.0	1.24	326.1	0.83	21.6	1.28
Dec. 21-26*	728.8	0.58	1222.7	1.63	350.0	1.39	78.4	1.29
Dec. 28-								
Jan. 2	1058.0	0.57	252.3	1.23	273.9	0.75	18.2	1.33
Jan. 4-9	1231.1	0.54	248.9	1.20	258.0	0.69	38.6	1.25
Jan. 11-16	1230.6	0.48	303.4	1.30	290.9	0.96	39.3	1.18
Jan. 18-24	1285.1	0.48	378.4	1.37	177.3	0.97	20.5	1.30
Jan. 26-30	1476.9	0.42	330.7	1.32	220.5	0.91	38.6	1.29
Feb. 1-6	1437.8	0.39	387.5	1.36	183.0	0.94	30.7	1.32
Feb. 8-13	1621.8	0.38	388.6	1.36	239.8	0.89	27.3	1.33
Feb. 15-20	1554.3	0.37	358.0	1.38	310.2	0.91	22.7	1.37
Feb. 22-27	1743.4	0.36	384.1	1.40	312.5	0.91	29.6	1.43
March 1-6	1923.1	0.37	348.9	1.48	333.0	0.89	18.2	1.26
Mar. 8-13	1844.4	0.38	429.5	1.48	395.5	0.94	33.0	1.38
Mar. 15-20	1898.1	0.35	393.2	1.47	346.6	0.85	33.0	1.46
Mar. 22-27	1715.9	0.36	338.6	1.62	317.4	0.89	20.5	1.32

* During the weeks November 16-21, November 23-28, another investigator gathered the market data. The weeks November 23-28 and December 21-26 had only five and four market days respectively while all the others had six.

APPENDIX TABLE VI. ESTIMATED TOTAL WEEKLY MARKETINGS OF DUCKS,
 GESE, GUINEAS, CAPONS, AND TURKEYS, AND AVERAGE PRICE
 PER BIRD CHARGED IN THE KNOXVILLE MARKET HOUSE,
 OCTOBER 5, 1942 - MARCH 27, 1943

Week	Amount Marketed and Average Price									
	Ducks		Geese		Guineas		Capons		Turkeys	
	Amt.	Price	Amt.	Price	Amt.	Price	Amt.	Price	Amt.	Price
Oct.5-10	-	-	-	-	-	-	-	-	-	-
Oct.12-17	-	-	-	-	-	-	-	-	-	-
Oct.19-24	5	\$1.12	-	-	1	\$0.85	-	-	-	-
Oct.26-31	6	1.11	-	-	2	0.75	-	-	-	-
Nov. 2-7	6	.92	-	-	4	0.55	-	-	-	-
Nov. 9-14	5	1.02	-	-	8	0.80	-	-	-	-
Nov.16-21	12	1.17	-	-	7	0.79	4	1.65	-	-
Nov.23-28	63	1.49	15	2.75	23	0.82	-	-	41	\$4.30
Nov.30-										
Dec. 5	2	1.00	-	-	-	-	-	-	-	-
Dec. 7-12	10	1.43	-	-	6	0.78	-	-	-	-
Dec.14-19	4	1.13	-	-	4	0.93	-	-	-	-
Dec.21-26*	130	1.47	17	2.82	16	1.53	11	2.07	109	54¢ per lb.
Dec. 28-										
Jan. 2	4	1.19	-	-	12	0.91	-	-	-	-
Jan. 4-9	14	1.03	-	-	10	0.90	-	-	-	-
Jan. 11-16	1	1.00	-	-	2	0.80	-	-	-	-
Jan. 18-24	6	1.46	-	-	12	0.85	-	-	-	-
Jan. 26-30	5	1.25	-	-	4	0.91	-	-	-	-
Feb. 1-6	7	1.38	-	-	2	0.70	1	2.50	-	-
Feb. 8-13	7	1.09	-	-	5	1.01	-	-	-	-
Feb.15-20	5	1.28	-	-	2	1.05	-	-	-	-
Feb.22-27	4	1.00	-	-	2	1.00	-	-	-	-
March 1-6	10	1.35	-	-	5	1.04	-	-	-	-
Mar. 8-13	2	1.13	-	-	1	1.00	-	-	-	-
Mar.15-20	2	1.00	-	-	2	1.00	-	-	-	-
Mar.22-27	-	-	-	-	-	-	-	-	-	-

*During the weeks November 16-21 and November 23-28 another investigator gathered the market data. The weeks November 25-28 and December 21-26 had only five and four market days respectively while all others had six.

APPENDIX TABLE VII. ESTIMATED TOTAL WEEKLY MARKETING OF BUTTER
AND CHEESE AND AVERAGE PRICE CHARGED PER UNIT IN
THE KNOXVILLE MARKET HOUSE, OCTOBER 5, 1942 -
MARCH 27, 1943

Market Week	Butter		Cheese	
	Amount Pounds	Cents per Pound	Amount Packages	Cents per Package
Oct. 5-10	1,371.9	0.43	588.6	5¢ or 3/10¢
Oct. 12-17	1,268.8	0.43	641.4	" "
Oct. 19-24	1,136.9	0.45	521.4	" "
Oct. 26-31	1,165.6	0.48	512.1	" "
Nov. 2-7	1,206.9	0.41	434.3	" "
Nov. 9-14	998.8	0.50	377.1	" "
Nov. 16-21*	1,040.4	0.49	541.4	" "
Nov. 23-28*	984.4	0.48	525.7	" "
Nov. 30 -				
Dec. 5	829.1	0.48	311.6	" "
Dec. 7-12	1,199.4	0.50	536.4	" "
Dec. 14-19	1,104.4	0.50	503.6	" "
Dec. 21-26*	859.4	0.50	204.3	" "
Dec. 28 -				
Jan. 2	1,128.6	0.50	405.0	" "
Jan. 4-9	1,066.0	0.49	431.4	" "
Jan. 11-16	1,060.9	0.50	430.0	" "
Jan. 18-24	1,007.5	0.50	472.8	" "
Jan. 26-30	945.0	0.49	448.6	" "
Feb. 1-6	989.4	0.50	608.6	" "
Feb. 8-13	991.0	0.51	635.7	" "
Feb. 15-20	922.4	0.52	741.4	" "
Feb. 22-27	997.3	0.57	508.6	" "
March 1-6	946.9	0.55	485.6	" "
Mar. 8-13	1,031.3	0.56	640.0	" "
Mar. 15-20	1,001.0	0.58	698.6	" "
Mar. 22-27	684.0*	0.60	517.1	" "

* During the weeks November 16-21, November 23-28, another investigator gathered the market data. The weeks November 23-28 and December 21-26 had only five and four market days respectively while all the others had six.

APPENDIX C



April 28, 1943

County Court Clerk,
Bledsoe County,
Court House,
Pikeville, Tennessee.

Dear Sir:

In connection with a survey being made of "Poultry and Egg Marketing in the Knoxville Trade Area" we would like to know the number of vehicles which were operated as rolling stores (grocery stores on wheels) in your county in 1942.

It will be sincerely appreciated if you will indicate this information in the space provided below and return this letter at your earliest possible convenience.

Thank you.

Sincerely yours,

MARGARET M. GUILFORD,
Research Assistant,
Dept. of Agr. Economics
and Rural Sociology.

mg.c

_____ Number of vehicles operated in _____ County
as rolling stores during 1942

APPENDIX TABLE VIII. CHRONOLOGICAL RECORD OF BUSINESS
 OPERATION ON ONE ROUND TRIP OF ROLLING
 STORE - SEPTEMBER 19, 1942

Stop No.	No. of Sales	Cash Sales	Number Eggs *	Number Chickens	Value of Eggs 34¢ Doz.
1.	None				
2.	2		5½ dozen 3 eggs		\$1.87 .09
3.	1		3 dozen		1.02
4.	1	1			
5.	3		3 dozen 2 dozen 9 eggs		1.02 .68 .27
6.	4	1	4½ dozen 5 eggs 6 dozen - 1	2 6	1.53 .15 2.07
7.	1	1			
8.	1	1			
9.	1		4 dozen		1.36
10.	3	2	3½ dozen		1.19
11.	2			4	
12.	5	1	3½ dozen 2 dozen 2 dozen 5½ dozen	3 1	1.19 .68 .68 1.87
13.	1			1	
14.				1	
15.	1		4 dozen		1.36
16.	1		1 dozen		.54
17.	2		7 dozen 2 dozen		2.38 .68
18.	2	1		4	
19.	4		8 dozen 4 dozen - 7 4½ dozen 5 eggs	12 2	2.72 1.58 1.53 .15
20.	2		9 dozen		3.06
21.	4		4 dozen - 10 3 dozen - 3 10 dozen 3 dozen - 2 8 dozen		1.65 1.11 3.40 1.08 2.72

(continued)

APPENDIX TABLE VIII (continued). CHRONOLOGICAL RECORD
OF BUSINESS OPERATION ON ONE ROUND TRIP OF ROLLING
STORE - SEPTEMBER 19, 1942

Stop No.	No. of Sales	Cash Sales	Number Eggs *	Number Chickens	Value of Eggs 34¢ Doz.
22.	2		1 dozen - 3		\$.45
23.	1	1	4½ dozen		1.53
24.	2	1		7	
25.	1	1			
26.	2		4½ dozen	3	1.53
27.	4	1	4 dozen - 1		1.39
			2 dozen - 11		.99
			2 dozen		.68
28.	1		1 dozen		.34
29.	7	1	8 eggs	1	.24
			9 dozen	4	3.06
			3 dozen		1.02
			5 dozen - 10		1.99
			5 dozen		1.70
			2 dozen - 3		.77
30.	1		3 dozen - 4		1.14
31.	3		7 dozen		2.38
			5 dozen	1	1.70
			4 dozen - 3		1.45
One o'clock			1 dozen - 9		.60
32.	1		9 dozen - 3		3.15
33.	2	1	8½ dozen		2.89
34.	1	1			
35.	1		1½ dozen	3	.51
36.	1	1			
37.	1		½ dozen		.17
38.	4		4 dozen		1.36
			1 dozen - 1		.37
39.	1		3 dozen	3	1.02
40.	5	2	6½ dozen		2.21
			4 dozen - 7		1.56
			1 dozen	6	.34
			1 dozen		.34
41.	1		1 dozen		.34

(continued)

APPENDIX TABLE VIII (continued). CHRONOLOGICAL RECORD
OF BUSINESS OPERATION ON ONE ROUND TRIP OF ROLLING
STORE - SEPTEMBER 19, 1942

Stop No.	No. of Sales	Cash Sales	Number Eggs	Number Chickens	Value of Eggs 34¢ Doz.
42.	2	1	1 dozen - 11		\$.66
43.	3		9 eggs		.27
			5 dozen		1.70
			6 dozen		2.04
44.	2		3 dozen - 10		1.51
			6½ dozen		2.21
45.	1		4½ dozen		1.53
46.	1		2½ dozen		.85
47.	1	1			
48.	1	1			
49.	1		11 eggs	2	.32
50.	1		3 dozen - 9		1.28
51.	1	1			
52.	2	1	1½ dozen		.51
53.	2		1 dozen - 2		.40
			6 dozen		2.04
54.	2		1 dozen - 8		.57
			2 dozen		.68
55.	3	1	10 eggs		.29
			1 dozen		.34
56.	1	1			
57.	2	1	3½ dozen		1.19
58.	1		2 dozen - 10	2	.97
59.	1		4 dozen - 3	1	1.45
60.	1		6½ dozen		2.21
61.	2		5 dozen	2	1.70
62.	5	1	2 dozen		.68
			3 dozen		1.02
				4	
			2½ dozen		.85
			7 dozen - 7		2.58
63.	1		2 dozen - 11	1	1.00
64.	1		1 dozen - 1		.37
65.	2	1	2½ dozen		.85
66.	2		1 dozen - 4		.46
			5 dozen		1.70
67.	1			5	
	<u>126</u>	<u>28</u>	<u>324 dozen - 10**</u>	<u>85</u>	<u>\$110.64</u>

* Eggs in numbers less than a full or half dozen are designated by the actual numbers.

** The difference of 5 dozen and 2 eggs was due to the fact that the driver estimated the loose count in paper cartons at the end of the day.

**APPENDIX TABLE VIII (continued). CHRONOLOGICAL RECORD OF
BUSINESS OPERATION ON ONE ROUND TRIP OF ROLLING
STORE - SEPTEMBER 19, 1942**

Summary

Number of stops	67
Number of sales	126
Number of cash sales	28
Value of eggs exchanged	\$112.20
Value of chickens exchanged	\$ 59.75

Account for the day:

Produce purchases:

Eggs: 330 dozen @ 34 cents	\$112.20
Chickens: 399 pounds	\$ 59.75
Total	\$171.95

Merchandise purchases:

Butter: 29.1 lbs. @ 12 cents	\$ 3.50
Corn: shelled	2.05
Onions	1.25
Total	\$ 6.80

Produce purchased	\$171.95
Merchandise purchased	6.80
Cash taken in	42.94
Total sales or business transacted	\$221.59

77.6 percent of the business was transacted in chickens and eggs
50.6 percent of the business was transacted in eggs alone
80.7 percent of the business was transacted on all types of farm produce
98.1 percent of the exchange business was exchange of groceries for chickens and eggs

- * 19.3 percent of all the business was cash
- * 22.2 percent of all the sales transactions were cash sales

\$1.76 was the average amount sold per person on a basis of a mathematical average.

3.6 dozen was the mathematical average number of eggs exchanged per egg exchange sale

(continued)

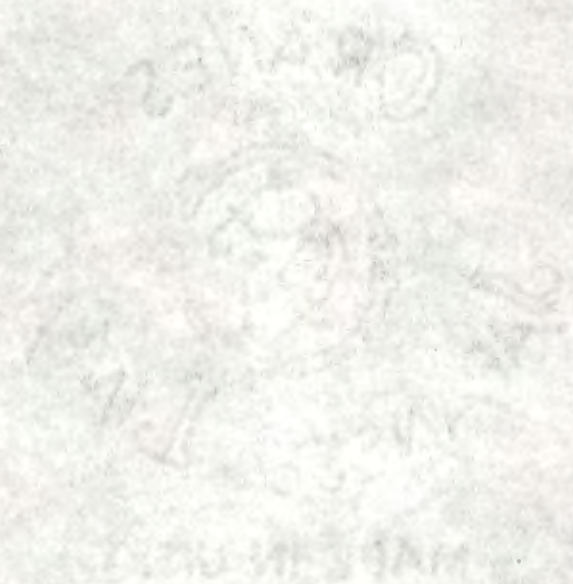
APPENDIX TABLE VIII (continued). CHRONOLOGICAL RECORD OF
BUSINESS OPERATION ON ONE ROUED TRIP OF ROLLING
STORE - SEPTEMBER 19, 1942

3.1 was the mathematical average number of chickens traded per chicken exchange sale.

6 feed sales were made totaling nearly fifteen hundred pounds of chicken feed.

* Nearly the same percent of the business was in cash as in percent of sales transaction were were cash sales. This indicated the proof for the observation that the farm woman did not usually purchase more than an amount equal to or less than the farm products which she had to give in trade, or exchange.

APPENDIX D



APPENDIX TABLE IX. TOTAL MONTHLY PURCHASES
OF EGGS BY KNOXVILLE PRODUCE HOUSES
A AND B, 1942

Month	Number Cases	
	A	B
January	933.7	164.0
February	943.5	180.0
March	1,709.7	283.0
April	2,426.0	360.0
May	2,132.3	361.0
June	1,587.9	213.0
July	1,652.1	190.0
August	1,596.8	175.0
September	746.5	161.0
October	605.2	112.0
November	2,283.1	90.0
December	2,390.4	79.0
Total	19,007.1	2,283.0

Source: Knoxville Poultry and Egg Marketing Survey,
1942-1943.

APPENDIX TABLE IXA. TOTAL MONTHLY PURCHASES OF CHICKENS, TURKEYS, GESE, DUCKS, AND GUINEAS BY KNOXVILLE PRODUCE HOUSES A AND B, 1942

Month	Chickens, Lbs.		Live Hens, Lbs.***		Friers, Lbs.		Roosters, Lbs.	
	A		A		A		A	
					Leghorns	Friers**		
Jan.	35,411.3	21,599	20,550.8	15,000	3,256.5	9,734.5	5,333	1,869.3
Feb.	40,471.5	23,724	25,765.0	16,230	2,727.0	10,723.0	6,042	1,256.5
Mar.	74,319.5	23,678	56,162.8	17,076	5,331.0	12,598.0	5,032	2,227.8
Apr.	103,403.3	24,378	82,038.5	17,066	4,191.0	11,724.0	5,460	4,509.8
May	56,055.5	23,456	36,420.5	18,245	3,083.0	13,657.0	4,072	2,895.0
June	58,364.5	22,713	23,039.5	15,102	2,707.0	30,846.0	6,348	1,772.0
July	56,586.5	22,885	22,889.8	13,231	6,239.5	24,869.3	8,247	2,568.0
Aug.	43,886.8	24,383	13,446.0	13,640	5,719.0	22,454.3	9,396	2,218.5
Sept.	31,572.5	27,534	10,113.3	15,441	2,950.5	16,842.8	10,642	1,417.0
Oct.	41,508.8	27,772	17,169.3	17,640	4,466.0	17,823.5	6,814	1,994.0
Nov.	27,427.8	26,392	17,234.8	18,671	2,918.0	5,028.0	6,138	1,685.0
Dec.	45,874.0	21,761	35,783.3	20,357	4,479.5	3,432.0	3,721	2,099.8
Total	614,941.8	289,983	360,613.3	198,296	47,058.0	179,762.4	79,035	26,512.7
								16,373
Month	Turkeys, Lbs.		Geese, Lbs.		Ducks, lbs.		Guineas, Lbs.	
	A		A		A		A	
Jan.	249				42	112	6	7
Feb.	30				217.5	42	10	
Mar.	127				115.0		8	
Apr.	70				381.0		8	
May	100				520.0		2	
June	52				250.0			4
July					169.0	69	4	
Aug.	30		38		289.0		4	
Sept.	50		8		145.0		2	
Oct.	726	115			211.0	141	10	
Nov.	2,260	2,261	173	65	146.0	220	38	5
Dec.		3,069	157	115	182.5	248	24	6
Total	3,705	5,465	356	178	2,661.8	832	116	22

Source: Knoxville Poultry and Egg Marketing Survey, 1942-1943.

** Should read spring chickens.

*** Should read just hens.

APPENDIX B



APPENDIX TABLE X. RETAIL STORE SURVEY SUMMARY, BY DISTRICTS

Section A.

Items	Knoxville			District I			District II			District III			District IV		
	Chain	Ind.	Total	Chain	Ind.	Total	Chain	Ind.	Total	Chain	Ind.	Total	Chain	Ind.	Total
Eggs:															
Total number of stores	41	237	328	4	27	31	2	4	6	6	77	83	6	28	34
Number of stores interviewed	30	70	100	3	8	11	1	1	2	4	19	23	4	7	11
Number of Class A stores interviewed	18	18	36	2	-	2	1	1	2	4	4	8	2	-	2
Number of Class B stores interviewed	10	27	37	1	4	5	-	-	-	-	7	7	2	3	5
Number of Class C stores interviewed	2	25	27	-	4	4	-	-	-	-	8	8	-	4	4
Total number of cases of eggs sold per week	214	250	464	8.0	21.5	29.5	3.5	4	7.5	11.3	66.4	77.7	30	18.8	48.8
Average number of cases sold per week	7.1	3.6	4.6	2.7	2.7	2.7	3.5	4	3.8	2.8	4.5	3.4	7.5	2.7	4.4
Source of eggs:															
Farmer direct	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.
Knoxville produce dealers and packing companies	40.3	41.0	188.8	53.1	47.5	14.5	-	99.0	4.0	75.8	36.3	32.7	75.0	25.0	27.1
Country and rolling store	57.3	46.4	238.8	46.9	52.5	15.0	100.0	0.1	3.5	19.8	50.1	35.5	25.0	34.0	14.1
Trucker	0.7	8.9	23.7	-	-	-	-	-	-	4.4	10.5	7.5	-	41.0	7.6
Other Knoxville grocery stores *	-	0.9	2.5	-	-	-	-	-	-	-	0.5	0.3	-	-	-
Huckster, country produce dealer	1.7	3.7	6.7	-	-	-	-	-	-	-	-	-	-	-	-

Items	District V			District VI			District VII			District VIII		
	Chain	Ind.	Total	Chain	Ind.	Total	Chain	Ind.	Total	Chain	Ind.	Total
Eggs:												
Total number of stores	8	40	48	3	38	41	7	34	41	5	39	44
Number of stores interviewed	6	10	16	2	9	11	5	7	12	5	9	14
Number of Class A stores interviewed	2	1	3	1	6	7	2	3	5	4	3	7
Number of Class B stores interviewed	3	4	7	1	3	4	2	3	5	1	3	4
Number of Class C stores interviewed	1	5	6	-	-	-	1	1	2	-	3	3
Total number of cases of eggs sold per week	59.5	41.5	101.0	36.0	26.9	62.9	27	48.5	75.5	38.5	22.5	61.0
Average number of cases sold per week	9.9	4.2	6.3	18.0	3.0	5.7	5.4	6.9	6.3	7.7	2.5	4.4
Source of eggs:												
Farmer direct	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.	Pot.
Knoxville produce dealers and packing companies	23.9	22.2	23.4	21.7	38.7	18.2	23.0	70.6	40.4	58.7	26.2	28.5
Country and rolling store	76.1	65.3	72.4	78.3	50.2	41.7	62.9	25.4	29.3	59.0	54.2	27.2
Trucker	-	7.7	3.2	-	-	-	0.3	-	0.1	2.3	19.6	5.3
Other Knoxville grocery stores *	-	-	-	-	-	-	-	4.0	2.0	-	-	-
Huckster, country produce dealer	-	-	-	-	-	-	13.7	-	3.7	-	-	-

* One chain store purchased all the eggs certain farmers brought in, selling the surplus to two other chain stores in the same district.

APPENDIX TABLE 1. RETAIL STORE SURVEY SUMMARY, BY DISTRICTS
(continued)

Section B.

Items	Knoxville			District Totals							
	Chain	Ind.	Total	I	II	III	IV	V	VI	VII	VIII
Percent of trade colored:											
None	3	22	25	7	-	7	5	-	-	2	4
Less than 1 percent	13	12	25	3	-	5	4	5	-	5	3
1 - 25 percent	9	23	32	1	2	6	2	9	2	5	5
26 - 50 percent	4	7	11	-	-	3	-	1	5	-	2
51 - 75 percent	1	-	1	-	-	-	-	1	-	-	2
76 - 100 percent	-	6	6	-	-	2	-	-	4	-	-
Peak sales periods:											
None, sales about same	9	29	38	4	-	7	2	7	3	9	6
Winter months	13	17	30	3	2	7	5	5	3	3	2
Spring months	8	7	13	-	-	5	1	1	3	-	3
Winter and spring months	-	3	3	1	-	-	-	1	-	-	1
Easter and holidays	2	13	15	3	-	4	3	2	1	-	2
Summer	-	1	1	-	-	-	-	-	1	-	-
Months of purchase:											
Farmers, spring	2	9	11	1	-	5	-	2	2	-	1
All months	23	41	64	7	1	14	9	8	7	10	8
Produce dealers and packing cos., all	16	45	61	7	1	13	6	12	6	6	10
To fill in	4	5	9	1	-	1	3	-	1	2	1
Winter months	4	6	10	1	1	5	-	-	1	-	1
Summer months	2	-	2	-	-	1	-	1	-	-	-
Origin of egg purchased, farmers and city stores:											
Knox	17	32	49	5	2	12	6	6	5	8	5
Sevier	9	15	24	6	-	5	-	4	2	4	3
Blount	4	10	14	4	-	3	1	-	1	5	-
Jefferson	9	7	16	-	-	4	1	-	1	2	6
Anderson	1	3	4	-	-	2	-	1	1	1	-
Union	4	14	18	-	-	3	6	6	-	-	-
Grainger	7	7	14	-	-	2	3	3	1	-	4
Campbell	1	-	1	-	-	-	-	1	-	-	-
Roane	1	1	2	-	-	-	-	1	-	-	-
Washington	1	-	1	-	-	-	-	-	-	-	-
Claiborne	1	-	1	-	-	-	-	-	-	-	-

APPENDIX TABLE X. RETAIL STORE SURVEY SUMMARY, BY DISTRICTS
(continued)

Section C.

Items	Knoxville		Total	District Totals							
	Chain	Ind.		I	II	III	IV	V	VI	VII	VIII
Buying basis from farmers:											
Case count	20	28	48	5	-	14	6	10	4	4	5
Grade	3	12	15	-	-	3	1	-	5	4	2
Farmer's reputation	2	10	12	3	1	2	2	-	-	2	2
Buying basis, produce dealers:											
Case count	9	15	24	-	-	6	5	4	4	5	-
Grade	17	41	58	9	2	1	4	10	4	3	12
Regrade: Yes	5	10	15	2	-	2	4	2	-	2	3
No	25	60	85	9	2	21	4	14	11	10	11
Price difference, dirty and clean: Did not buy dirty eggs	1	14	15	-	2	-	-	-	-	-	2
Yes	4	8	12	-	-	1	1	3	1	2	4
No	25	58	83	11	-	22	10	13	9	10	8
Sell crax or checks:											
Yes	2	8	10	-	-	-	1	4	1	-	-
No	23	62*	90	11	2	23	10	12	10	12	4
Sell for less	-	1	1	-	-	-	-	1	1	-	10

(continued)

* 6 of these store operators ate them or threw them away.

APPENDIX TABLE I. RETAIL STORE SURVEY SUMMARY, BY DISTRICTS
 (continued)

Section C (cont.)

Items	Knorrville			District Totals							
	Chain	Ind.	Total	I	II	III	IV	V	VI	VII	VIII
Egg qualities demanded by consumers:											
Color: Brown	11	8	19	2	1	4	3	4	-	2	3
White	11	10	21	1	1	5	3	5	-	4	2
Size: Large	9	12	21	1	1	3	-	6	2	3	5
Medium	-	4	4	1	1	-	-	1	1	1	1
Clean shells	-	3	3	-	-	1	-	-	-	1	1
Freshness	10	24	34	5	2	5	2	5	2	7	6
Price	-	1	1	-	-	1	-	-	-	-	-
Uniformity	1	-	1	1	-	-	-	-	-	-	-
Infertile	-	-	-	-	-	-	-	-	-	-	-
"Eggs"	13	30	43	4	-	12	8	9	7	2	1
Eggs sold											
Just "eggs"	7	22	29	2	-	8	3	1	7	2	5
Country eggs	15	35	50	7	-	12	8	10	3	6	4
Strictly fresh or fresh eggs	7	7	14	-	-	2	1	4	1	3	3
Mixed	-	1	1	-	-	-	-	1	-	-	-
Cold storage eggs	1	1	2	-	-	-	-	-	-	-	-
Day old infertile	1	3	4	1	-	1	1	-	-	1	1
Graded or brand name	5	4	9	1	2	-	1	2	-	2	-
Produce eggs	-	1	1	-	-	1	-	-	-	-	-

(continued)

APPENDIX TABLE X. RETAIL STORE SURVEY SUMMARY, BY DISTRICTS
(continued)

Section C (cont.)

Items	Knorrville			District Totals							
	Chain	Ind.	Total	I	II	III	IV	V	VI	VII	VIII
One grade or price for eggs	22	56	78	9	1	22	7	12	10	6	11
Two or more grades or prices	8	14	22	2	1	1	4	4	1	6	3
Number of days eggs held:											
1	6	11	17	-	-	5	2	6	2	8	-
2	17	24	41	1	1	11	5	5	4	1	6
3	4	12	16	4	1	1	-	2	1	1	6
4	2	14	16	2	-	5	3	1	3	-	2
5	1	2	3	1	-	1	-	1	-	-	-
6	-	7	7	3	-	-	1	1	1	1	-
Eggs not kept on display (extra eggs)											
Back room	9	16	25	3	-	5	4	7	3	1	2
Under counter	1	11	12	3	2	3	-	2	-	2	-
Refrigerator	-	7	7	-	-	1	2	1	-	1	-
Cooler outside	-	1	1	-	-	-	-	-	-	-	-
Ice box	-	3	3	-	-	-	-	-	-	-	-
Basement	1	-	1	-	-	-	1	-	1	-	-
Case on floor	1	4	5	-	-	-	-	-	-	-	-
Cooler inside	1	-	1	-	-	-	1	-	-	-	5

(continued)

APPENDIX TABLE X. RETAIL STORE SURVEY SUMMARY, BY DISTRICTS
(continued)

Section C (cont.)

Items	Knoxville			District Totals							
	Chain	Ind.	Total	I	II	III	IV	V	VI	VII	VIII
Eggs kept on display:											
Yes	29	54	83	9	2	18	10	14	8	11	11
No	1	16	17	2	-	5	1	2	3	1	3
Front of store	20	47	67	7	2	13	5	13	8	9	10
Back of store	9	7	16	2	-	5	2	1	2	2	1
On meat counter	2	1	3	-	-	-	2	1	-	-	-
On counter	11	9	20	3	1	2	2	4	1	3	4
On floor	11	18	29	2	-	4	4	4	4	7	4
Vegetable bin	-	8	8	1	-	4	-	-	2	1	-
Wire baskets	3	8	11	2	-	3	-	4	1	-	-
Bushel baskets	2	5	7	-	-	4	-	1	-	-	-
Front window	-	3	3	1	-	1	-	-	-	-	-
Next to frozen foods	-	1	1	-	1	-	-	-	-	-	-
Refrigerator	-	1	1	-	-	-	-	-	-	-	-
Eggs sold from:											
Wire baskets	5	14	19	1	-	3	2	6	2	2	2
Wooden or paper boxes	8	15	23	4	-	2	5	3	3	3	3
Cartons	4	6	10	1	2	-	1	-	-	4	2
Cases	10	24	34	3	-	7	3	5	5	7	4
Bushel baskets	4	6	10	-	-	5	-	2	-	-	3
Vegetable bins	-	6	6	1	-	4	-	-	1	-	-
Window	1	1	2	-	-	1	-	-	-	-	-
Refrigerator	-	2	2	-	-	1	-	-	-	-	-
Ice chest	-	1	1	-	-	1	1	-	-	-	-

(continued)

APPENDIX TABLE X. RETAIL STORE SURVEY SUMMARY, BY DISTRICTS

(continued)

Section C (cont.)

Items	Knoxville								District Totals							
	Chain	Ind.	Total	I	II	III	IV	V	VI	VII	VIII					
Egg packages:	24	64	78	10	-	19	10	12	11	6	10					
Bags	4	7	11	1	2	1	-	-	-	6	2					
Cartons	2	8	11	-	-	3	1	4	-	1	2					
Bags and cartons	2	8	11	-	2	3	1	4	-	1	2					
Improvements to be made by farmers:	13	10	23	3	-	3	3	3	2	5	4					
Grade (size)	3	13	16	3	-	3	2	1	2	2	3					
Candle (rots)	1	2	3	2	-	-	-	-	-	-	-					
Eliminate dishonesty	3	3	6	3	-	-	-	-	-	-	-					
Does not trade with farmers	1	3	4	1	-	-	-	-	-	-	-					
Clean eggs	9	7	16	3	-	4	2	4	1	3	1					
Gather eggs more often	1	6	7	1	-	2	1	-	1	1	1					
Provide nests	2	-	2	-	-	-	-	-	-	-	-					
Farmers' eggs o.k.	4	16	20	2	1	6	2	2	3	2	2					
Farmers not depend-able (should market more often)	2	4	6	1	-	-	-	-	2	2	1					
Should sell flocks	-	3	3	-	-	3	-	-	-	-	-					
Farmers do not come around	-	1	1	-	-	-	-	-	-	-	-					
People pose as farmers	-	1	1	-	-	-	-	-	-	-	-					
Improve stock of chickens	-	1	1	-	-	-	-	-	-	-	-					
Keep eggs cool	-	1	1	-	-	-	-	-	-	-	-					
No opinion	1	1	2	-	-	-	-	-	-	-	-					
Improvements to be made by farmers:	21	23	44	5	2	11	6	4	4	4	8					
Eggs o.k.	1	23	24	1	2	11	6	4	4	4	8					
Grade	1	8	9	1	-	2	1	1	-	1	-					
Candle	1	5	6	1	-	2	1	1	-	-	-					
Clean eggs	1	1	2	-	-	-	-	-	-	-	-					
Improve quality	1	3	4	-	-	-	1	2	-	-	-					
Move faster	1	1	2	-	-	-	-	-	-	-	-					
Can't depend on quality	-	2	2	-	-	-	-	-	1	-	-					
Bad eggs in summer	-	1	1	-	-	-	-	-	-	-	-					
Gold storage eggs	-	2	2	-	-	-	-	-	-	-	-					
Interior quality and size	1	3	4	-	-	-	-	-	-	-	-					

APPENDIX TABLE X. RETAIL STORE SURVEY SUMMARY, BY DISTRICTS
(continued)

Section D.

Items	Knoxville			District I			District II			District III			District IV		
	Chain	Independent	Total	Chain	Independent	Total	Chain	Independent	Total	Chain	Independent	Total	Chain	Independent	Total
Poultry:															
Total number of stores interviewed	30	70	100	3	8	11	1	1	2	4	19	23	4	7	11
Number of stores selling poultry	15	40	55	1	5	6	1	1	2	-	8	8	3	3	6
Number selling chickens	15	40	55	1	5	6	1	1	2	-	8	8	3	3	6
Number selling turkeys	11	21	32	1	2	3	1	1	2	-	3	3	1	2	3
Number selling ducks	3	6	9	-	-	-	1	1	1	-	1	1	-	1	1
Total number of chickens per year	37,320	60,939.5	98,259.5	416	5,634	6,050	2,030	6,500	8,580	-	6,916	6,916	304	1,231.5	6,535.5
Average number of chickens per yr.	2,488	1,823.5	1,786.5	416	1,126.8	1,008.3	2,030	6,500	4,290	-	864.5	864.5	768	410.6	1,089.2
Total number of turkeys per year	479	811.5	1,290.5	10	67	77	26	50	76	-	23.5	23.5	15	37	52
Average number of turkeys per yr.	44	38.6	40.3	10	33.5	26.6	26	50	58	-	7.83	7.83	15	18.5	17.3
Total number of ducks per year	7,100	208	7,308	-	-	-	-	12	12	-	4	4	-	10	10
Average number of ducks	2,333	33	812	-	-	-	-	12	12	-	4	4	-	10	10
Chickens:															
Percent purchased alive	0.1	Pet.	Number	Pet.	Pet.	Number	Pet.	Pet.	Number	Pet.	Pet.	Number	Pet.	Pet.	Number
Percent purchased dressed	99.9	6.2	3,350.4	-	6.0	338	-	-	-	-	17.7	1,222	-	28.3	572
Source of chickens:															
Percent from farmers	Pot.	93.8	94,429.1	100	94.0	5,712	100.0	100.0	8,580	-	82.3	5,694	-	71.7	5,963.5
Percent from country stores and rolling stores	16.7	Pet.	19,819.1	-	52.0	2,927.5	31.3	****27.0	1,766	-	39.1	2,704	100	Pet.	1,274
Percent from produce houses & packing co	-	0.9	576.0	-	-	-	-	-	-	-	-	-	-	48.4	572
Percent from battery feeding stations	64.0	76.5	70,436.5	-	48.0	2,708.5	88.7	83.0	6,824	-	58.3	4,080	-	51.8	1,267.6
Source of turkeys:															
Percent from other	18.2	-	6,812	-	-	-	-	-	-	-	-	-	-	-	-
Percent from farmers	1.1	0.3	619.9	100*	-	416.0	-	-	-	-	-	-	63.8	**** 1.8	5,380.0
Percent from produce house	Pot.	Pet.	Number	Pet.	Pet.	Number	Pet.	Pet.	Number	Pet.	Pet.	Number	Pet.	Pet.	Number
Percent from packing company	13.0	36.3	356.5	-	92.5	62	-	***50.0	25	-	2.6	182	-	1.8	21.9
Percent from other	64.3	63.7	825.0	-	7.5	5	100.0	50.0	51	-	100.0	23.5	-	-	37
Source of ducks:															
Percent from other	10.2	-	49.0	100	-	10	-	-	-	-	-	-	100.0	-	15
Percent from farmers	12.5	-	60.0	-	-	-	-	-	-	-	-	-	-	-	-
Percent from produce house and packing company	Pot.	Pet.	Number	Pet.	Pet.	Number	Pet.	Pet.	Number	Pet.	Pet.	Number	Pet.	Pet.	Number
Percent from frozen food dist. and branch office of A. & P.	0.2	62.6	145	-	-	-	-	-	-	-	-	-	-	-	-
	27.5	31.7	2,016	-	-	-	-	-	-	-	-	-	-	-	-
	72.3	5.8	5,147	-	-	-	-	****100.0	12	-	-	-	-	100.0	10

* Chain store general meat department.

** Other meat markets.

*** Riverside Hatchery and Beverly Farms.

**** Frozen Food Dist.

***** Beverly Farms.

APPENDIX TABLE I. RETAIL STORE SURVEY SUMMARY, BY DISTRICTS
(continued)

Section D (cont.)

Items	District V			District VI			District VII			District VIII		
	Chain	Independent	Total	Chain	Independent	Total	Chain	Independent	Total	Chain	Independent	Total
Poultry:												
Total number of stores interviewed	6	10	16	2	9	11	5	7	12	5	9	14
Number of stores selling poultry	1	8	9	2	5	7	3	6	9	4	4	8
Number selling chickens	1	8	9	2	5	7	3	6	9	4	4	8
Number selling turkeys	-	5	5	2	1	3	3	5	8	3	2	5
Number selling ducks	-	-	-	-	-	-	2	3	5	1	-	1
Total number of chickens per year	3,432	6,604	10,036	4,326	5,566	9,892	10,426	23,076	33,502	11,336	5,412	16,748
Average number of chickens per yr.	3,432	825.5	1,115.1	2,163	1,113.2	1,413.1	3,475.3	3,846	7,321.3	2,834	7,353	4,187
Total number of turkeys per year	-	88.0	88.0	68	18	86	240	490	730	120	38	158
Average number of turkeys per yr.	-	17.6	17.6	34	9	23.6	80	98	60.8	40	19	31.6
Total number of ducks per year	-	-	-	-	-	-	5,150*	182	5,332	1,950	-	1,950
Average number of ducks	-	-	-	-	-	-	2,575	60.6	444.3	1,950	-	1,950
Chickens:												
Percent purchased alive	Pot.	Pot.	Number	Pot.	Pot.	Number	Pot.	Pot.	Number	Pot.	Pot.	Number
Percent purchased dressed	-	-	-	-	27.7	1,541.8	-	0.1	23.1	0.7	1.0	133.5
Source of chickens:												
Percent from farmers	100.0	100.0	10,036	100.0	72.3	8,350.2	100.0	99.9	53,478.9	99.3	99.0	16,614.5
Percent from country stores and rolling stores	Pot.	Pot.	130	Pot.	8.5	475	24.1	25.7	8,447.6	15.8	5.8	2,105
Percent from produce houses & packing co.	-	-	-	-	-	-	-	-	-	-	-	-
Percent from battery feeding stations	-	-	-	-	-	-	-	-	-	-	-	-
Percent from other	100.0	-	6,474	100.0	91.5	9,417	75.9	74.3	25,054.4	94.2	94.2	14,643
Source of turkeys:												
Percent from farmers	Pot.	Pot.	Number	Pot.	Pot.	Number	Pot.	Pot.	Number	Pot.	Pot.	Number
Percent from produce house	-	-	57.5	-	-	-	25.8	** 30.6	212	-	-	-
Percent from packing company	-	-	30.5	100.0	100.0	86	74.2	69.4	519	30.0	100.0	74
Percent from other	-	-	-	-	-	-	-	-	-	20.0	-	24
Source of ducks:												
Percent from farmers	Pot.	Pot.	Number	Pot.	Pot.	Number	Pot.	Pot.	Number	Pot.	Pot.	Number
Percent from produce house and packing company	-	-	-	-	-	-	0.3	71.4	145	***50.0	-	60
Percent from frozen food dist. and branch office of A. & P.	-	-	-	-	-	-	-	28.6	52	100.0	-	1,950
	-	-	-	-	-	-	99.7	-	5,135	-	-	-

* A. & P. Branch but Long Island ducks from New York.

** Lashbrook and Beverly.

*** Country produce dealer.

APPENDIX TABLE X. RETAIL STORE SURVEY SUMMARY, BY DISTRICTS
(continued)

Section E (cont.)

Items	Knoxville			District Totals							
	Chain	Independent	Total	I	II	III	IV	V	VI	VII	VIII
Percentage of customers asking to have chickens cut up for them:	4	22	26	4	-	7	2	3	5	2	3
	5	14	19	-	1	1	2	5	2	5	3
	2	2	4	1	-	-	-	1	-	-	1
	1	-	1	1	-	-	-	-	-	-	-
	-	1	1	-	1	-	-	-	-	-	-
	1	-	1	-	-	-	-	-	-	-	-
Prefer to sell:	2	1	3	-	-	-	1	-	-	-	1
	-	9	9	1	2	7	5	9	4	9	3
Where held awaiting sale:	10	34	44	5	-	7	-	-	-	-	4
Coops	1	3	9	1	2	1	-	-	2	1	2
Meat refrig. unit	9	25	34	5	-	8	3	6	2	4	6
Meat refrig. unit plus ice	5	6	11	1	2	-	1	3	-	1	1
Refrig. or ice box	1	4	5	-	-	-	1	-	3	1	-
Frozen food com- partment	-	3	3	-	-	-	1	-	-	1	-
Factors important in choosing poultry:	8	17	25	3	1	3	2	6	2	3	5
Price	3	14	17	3	1	3	2	4	1	1	2
Size	3	3	6	1	2	-	-	-	1	1	1
Age of bird	3	8	11	1	-	2	1	2	1	3	1
Appearance of flesh	3	6	8	-	-	2	-	2	1	2	-
Amount of fat	2	6	8	-	2	-	-	-	-	-	-
Color of skin	1	3	4	-	-	-	-	-	-	-	-
Quality	1	4	5	1	-	-	-	1	1	-	2

(continued)

APPENDIX TABLE X. RETAIL STORE SURVEY SUMMARY, BY DISTRICTS

(continued)

Section E (cont.)

Items	Knoxville			District Totals							
	Chain	Independent	Totals	I	II	III	IV	V	VI	VII	VIII
Chickens: period of greatest sale: All Friday, Saturday	1	3	4	2	1	-	-	-	1	-	-
Hens in winter	3	4	7	-	-	1	5	1	-	1	5
Friers in summer	5	14	19	4	-	1	4	-	3	2	5
Winter	6	17	23	4	-	-	-	-	-	6	-
Summer	2	5	7	-	1	-	-	-	1	2	-
Holidays	5	3	8	-	-	1	-	2	-	2	-
Turkeys: period of greatest sale: Holidays	4	1	5	-	-	1	1	1	-	2	-
Year round	11	21	32	3	2	3	3	5	3	8	5
Ducks: period of greatest sale: Holidays	2	1	3	-	-	-	-	-	-	2	1
Year round	1	5	6	-	1	1	1	-	-	3	-
Could sell selected outs: Yes	2	1	3	-	-	-	-	-	-	2	1
No	3	3	6	-	1	-	-	-	-	3	-
Why: trade too small	12	37	49	6	1	1	1	9	1	2	1
too much trouble	8	12	20	-	-	2	6	2	6	7	7
	2	7	9	-	1	-	-	-	-	-	-

(continued)

APPENDIX TABLE X. RETAIL STORE SURVEY SUMMARY, BY DISTRICTS
(concluded)

Section E (concluded)

Items	Knoxville			District Totals							
	Chain	Independent	Totals	I	II	III	IV	V	VI	VII	VIII
Marketing improvements help sell more poultry:											
Better dress	5	5	5	2	1	1	-	-	1	5	3
Better quality of bird	6	9*	15	2	-	3	1	2	2	3	2
Birds on display	2	7	9	-	-	-	-	-	1	1	-
(Price)	3	4	7	1	-	1	1	-	-	-	3
O. K.	2	5	6	-	-	1	3	3	-	-	1
Milk	1	-	1	-	-	-	-	-	-	-	1
Inspection so customers know fowl is not diseased	-	1	1	-	-	-	-	-	-	1	-
Advertising	1	-	1	-	-	-	-	-	-	1	-
Special occasions	-	1	1	-	-	-	-	-	-	-	1

APPENDIX 7



TENNESSEE EGG LAW

A Bill to be entitled An Act to promote the production of better eggs in the State of Tennessee; to provide for the candling of eggs offered for sale for human consumption; to regulate the sale of or traffic in eggs; to prevent the sale of eggs which are unfit for human food and to fix penalties for the violation of the provisions of this Act.¹

Chapter 8. Offenses against Public Health

Article I. Selling Unwholesome Provisions or Drink²

Section 11161. Eggs unfit for human food not to be sold, but may be sold for commercial purposes when. - No person engaged in the buying and selling of eggs, shall sell, offer or expose for sale, or traffic in any eggs for human consumption which are unfit for human food. Such eggs, however, which are unfit for human food may be sold for commercial purposes where the same are broken in shell and denatured so that the same cannot be used for human food.

For the purpose of this act an egg shall be deemed unfit for human food if it be addle or moldy, has black rot, a white rot, or a blood ring, or if it has an adherent yolk or a bloody or green white or if it be incubated beyond the blood ring stage; or if it be composed in whole or in part, of a filthy, decomposed or putrid substance (1923. Ch. 57. Sec.)

(1) Public Acts of the State of Tennessee, Passed by the Sixty-Third General Assembly, Published by Authority, 1923 Chapter No. 57, House Bill No. 715 by Mr. Adams, page 148.

(2) Michie's Tennessee Code of 1938, General Laws of Tennessee to and Including the Third Extra Session of 1937, p. 1851.

Section 11162. Eggs to be candled in what season, provisions as to.- Between May 15 and December 31, of each and every year, no person engaged in the buying and selling of eggs shall buy or sell eggs without candling them, whether payment for the eggs be made in cash or merchandise.

No person shall in buying and selling eggs take or give a greater or less loss off for eggs unfit for human food, as defined in the preceding section, than the actual loss off resulting after careful candling of the eggs so purchased.

Eggs candled in the presence of the seller when found unfit for food, shall be returned to the seller upon his request. No purchaser shall be allowed to buy, or offer to buy eggs shown to be unfit for human food, at any price except as provided in the preceding section (Ib. Sec. 2).

Section 11163. "Candled" means what - The term "candled" as used herein shall be construed to mean the careful examination of the whole egg, in a partially dark room or place suitable for the purpose. The forms of apparatus and methods to be employed in the candling of eggs may be home-made or bought (Ib. Sec. 3).

Section 11164. Violation is a misdemeanor; fine - Any person failing to comply with the requirements, or violating any of the provisions of this statute shall be guilty of a misdemeanor, and upon conviction shall be fined not less than ten dollars nor more than fifty dollars for each offense (Ib., Sec. 4).

1941 Supplement to Michies' Tennessee Code of 1938, containing all the laws enacted at the legislative session of 1941, reports no further egg or poultry laws.³

(3) Complete annotations, A. Hewson Michie, C. W. Sublett, and B. Stedman, The Michie Company, Law Publishers.



COLD STORAGE LAW⁴

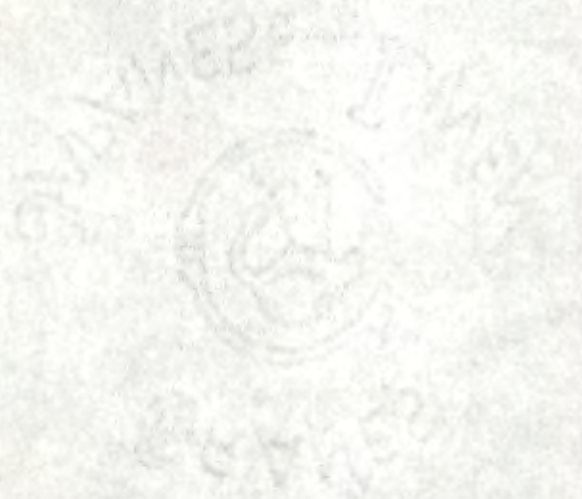
Section 1. Be it enacted by the General Assembly of the State of Tennessee, That for the purpose of this Act, cold storage shall mean the storage or keeping of articles of food at or below a temperature above zero of 45 degrees Fahrenheit in which articles of food are placed and held for thirty days or more; "articles of food" shall mean fresh meat and fresh meat products and fish, game, poultry, eggs and butter.

Section 2. Be it further enacted, That it shall be unlawful to sell or to offer for sale any article of food which has been held for a period of thirty days or over in cold storage either within or without the State, without notifying persons purchasing or intending to purchase the same that it has been so held by the display of a placard plainly and conspicuously marked "Cold Storage Goods" on the bulk, mass or articles of food and it shall be unlawful to represent or advertise as fresh any article of food which has been held in cold storage for a period of thirty days or over.

The above does not appear in "The Code of Tennessee 1932" Enacted by The General Assembly of 1931, Prepared by the Code Commission and Published by Authority of the Legislature, and so therefore is automatically repealed.

(4) Public Acts, Sixty First General Assembly, Chap. No. 116, House Bill No. 354, page 296, 1919.

APPENDIX C



EXCERPTS FROM RULES AND REGULATIONS PERTAINING TO
THE OPERATION OF THE NEW YORK LIVE POULTRY
TERMINAL

Regulation 2 - Licenses

Section 6. "Dealers" in poultry must acquire sole title to the poultry prior to its sale at the terminal.

Transactions wherein the return to the farmers, shippers or producers is based or determined wholly or in part upon the price obtained for the poultry at its sale at the terminal, or upon the market price at or about the time of its sale at the terminal, shall be deemed commission transactions, and shall not be carried out at the terminal by persons licensed as dealers.

Section 7. Persons licensed as commission merchants shall not handle poultry on their own account either directly or indirectly.

Section 8. Persons licensed as dealers shall not handle poultry on a commission basis either directly or indirectly.

Section 9. Merchants shall record in a book provided and kept by them a statement showing the following details of each transaction by which they received poultry for sale at the terminal:

(a) Name and address of the person from whom the poultry was acquired.

(b) The terms of the agreement by which the poultry was acquired, including the agreed price, together with any premiums, discounts, charges or other factors affecting the same.

(c) Date of the agreement, the date of the arrival at the terminal of the poultry, and the date of its sale.

(d) Merchants' lot number of the poultry.

(e) Net weight of poultry upon arrival and when sold.

(f) The gross sale price actually received by the merchant upon the sale, and all deductions therefrom properly itemized.

(g) Net amount actually paid to the shipper, together with the date of payment.

The above required entries must be recorded on day of sale and shall be made available for inspection by the Supervising Inspector, Live Poultry Graders and agents of the marketing news service.

Section 10. Licensees shall not buy poultry from or sell poultry to unlicensed persons doing business in the City of New York.

Section 11. No poultry shall be loaded upon nor unloaded from a truck or vehicle unless said truck or vehicle shall have affixed thereto a live poultry license plate for the current year, providing, however, that unlicensed poultry trucks may be unloaded at the terminal subject to such conditions as the Supervising Inspector may prescribe.

Regulation 3 - Hours of the Terminal

Section 1. The business hours of the terminal shall be as follows:

(a) For the inspection of poultry intended for sale at the terminal:

Mondays to Fridays, inclusive, from 7 A.M. to 5 P.M.

(b) For the inspection of poultry not intended for sale at the terminal:

Mondays to Fridays, inclusive, from 7 A.M. to 5 P.M.

(c) For the weighing of poultry:

Mondays to Fridays, inclusive, excepting Wednesday from 8:30 A.M. to 3 P.M.

On Wednesdays from 6 A.M. to 3 P.M.

(d) In addition to the regular hours hereinabove prescribed, ducks not intended for sale at the terminal may be inspected on Wednesdays and Thursdays between the hours of 11 P.M. and 2 A.M.

Section 3. Before 8 A.M. each day, all merchants shall report to the Supervising Inspector all unsold poultry remaining in his possession from previous days and all poultry to arrive that day to be handled by him.

No inspection service shall be rendered for any poultry not so reported, without written permission from the Supervising Inspector, and upon such conditions as may be prescribed by the Commissioner.

Receipts of poultry from express companies are exempt from the provisions of this section, provided the merchant to whom it is consigned had no notice of the shipment.

Regulation 4 - Inspections

Section 1. Except as provided in Section 15 hereof, no poultry shall be unloaded from railroad cars until it has been inspected and certified.

Section 2. Poultry arriving by truck must be made available for inspection in the manner determined by the Supervising Inspector.

Section 3. Requests for inspection of poultry shall be made to the Supervising Inspector on forms prescribed by the Commissioner. Inspection results shall be entered in duplicate upon a form prescribed by the Commissioner. The original shall be retained by the Inspector and a copy left with the person requesting inspection.

Section 4. Prior to inspection of poultry in railroad cars, all loose feed must be removed from the car, the car floor thereof completely cleaned and the troughs turned.

Section 5. No poultry, the plumage of which is wet or smeared with dirt or feed material, shall be inspected until the plumage has dried.

Section 6. Poultry, which, in the opinion of the Inspector, has been forcibly fed or watered, shall not be inspected that day.

Section 7. The fees for inspection for health and crop contents are hereby fixed in the following sums:

(a) Per container, not including bags, with capacity up to and including six square feet of floor space \$.02

Per container, not including bags, with capacity exceeding six square feet of floor space04

Per bag containing freshly slaughtered poultry for each eighty pounds or fraction thereof20

The foregoing fees shall be paid to the Department of Markets by the purchase of inspection labels and tags, which must be affixed to the containers or bags of poultry in the manner herein provided.

Section 8. Persons requesting inspection of poultry in railroad cars shall affix an inspection label on each container in which the poultry is placed, immediately upon the weighing of the containers and prior to their loading upon trucks or other vehicles.

Section 9. Persons requesting inspection of poultry which has arrived by truck shall place on each container thereof an appropriate inspection label prior to inspection.

Section 10. Coop inspection labels shall be firmly affixed in the center of the upper board on the end of coops. This board shall have a smooth surface.

Section 11. Basket inspection labels shall be placed on a smooth solid surface, to be provided for such label on the end of the baskets.

Section 16. Poultry that has failed to pass inspection may be reinspected after a lapse of one (1) hour.

Section 17. Poultry that has failed to pass inspection may, within one (1) hour, be subject to an appeal inspection, provided an application, in writing, on a form prescribed by the Commissioner shall be made to the Supervising Inspector within fifteen (15) minutes after the original inspection.

The Supervising Inspector shall designate for the appeal inspection two Inspectors, other than the Inspector who made the original inspection.

If both Inspectors certify the poultry, their decision shall be final. If they do not concur in their findings, or if they both fail to certify the poultry, such poultry shall be subject to no further inspection that day.

Section 18. No live poultry shall be sold or offered for sale at the terminal on any day other than the day of inspection and certification unless such poultry has been repacked in clean coops, reweighed and again inspected and certified.

Section 19. Poultry which has not been inspected and certified, and is being sold or offered for sale, or is in the possession of any person not proceeding to the terminal for inspection, may be seized by Inspectors of the department and shall upon seizure, be deemed forfeited to the City of New York. The Commissioner may dispose of such poultry by giving it to City institutions.

Section 21. Poultry with the following symptoms shall be rejects and shall not be offered for sale or sold:

(a) Birds with one or both eyes swollen and closed and showing serious or cheesy exudates or cyanotic mucous membranes.

(b) Birds that are sneezing, coughing or gaping and have ruffled or unclean feathers.

(c) Birds that have empty crops with dark combs and below normal weight, or with abnormally thin breasts, or which assume a hunched up position.

(d) Birds with yellow colorations about their beaks and that have little or no flesh on their breasts.

(e) Birds with fractures and showing extensive lacerations or hemorrhagic areas under the skin.

(f) Birds showing prolapsed rectum with necrosis or bruised and bleeding.

(g) Birds with dropped abdomen due to pressure of fluid, hernia, tumor or retained ova.

(h) Birds that do not eat but have large crops and that are poor in flesh.

(i) Birds with necrotic patches about the mouth or comb and wattles and that are thin in flesh.

(j) Birds that show a pasty gray semi-solid fecal mass adhering to feathers about the anus, or have a fetid green or brown water discharge, or ulcerated vents.

(k) Birds showing twisted necks or paralysis.

All rejects must be destroyed at the time of inspection or at any subsequent time that such symptoms are discovered.

Section 22. Crops or gullets shall not show more than one ounce for birds or broilers under $2\frac{1}{2}$ pounds, two ounces for any bird over $2\frac{1}{2}$ pounds. Turkeys or geese may have a crop content of three ounces. Crop inspection shall be made of poultry only in its own specified class.

Regulation 6 - Feeding

Section 3. Poultry shall be fed only under normal circumstances necessary to maintain its health.

Section 4. (a) No poultry at any time shall be fed with whole wheat, whole corn, bread, sand, gravel, grit, cement, spices or other substances by which poultry may gain weight, except turkeys and geese which may be fed whole corn. No licensee shall be allowed to keep or store any of the above mentioned substances on his premises, excepting whole corn.

(b) Poultry shall not be fed cracked corn during the months of June, July, August or September.

Section 5. All poultry at the terminal which has been fed at the terminal shall be kept in an area marked by a sign having two inch block letters reading: "FED POULTRY".

Section 6. Poultry which is fed after inspection shall not be sold or offered for sale at the terminal on the same day unless such poultry has been reinspected and certified.

Section 7. No licensee shall either charge, pay, give, or make any weight allowance to shippers or any other persons in lieu of feed, and the price paid for sold poultry shall be based on its actual weight at time of sale and specified on sales tickets.

Regulation 7 - Weighing

Section 1. Tickets, indicating the weight of poultry received or sold at the terminal, must be approved as to form by the Commissioner.

Section 2. Invoices and delivery tickets must be completely filled out and signed by the weighmaster at the time of weighing.

Section 3. The fees for weighing each hundred pounds of poultry or fraction thereof are fixed at the following rates:

- (a) Five cents (\$.05) for the first weighing.
- (b) Three cents (\$.03) for each subsequent weighing.

Section 5. Scales for weighing must be furnished by the merchants at the terminal, and shall be approved for condition and accuracy, by the Commissioner, before use.

Regulation 8 - Grading

Section 1. The grades of live poultry sold or offered for sale at the terminal shall be in conformance with those established by the United States Department of Agriculture, and are hereby promulgated as follows:

U.S. Grade A: Vigorous birds, well-fleshed, plump and full-feathered, with bright red comb and soft fleshy skin. Must be soft-meated for birds of that class, and free from tears, bruises and deformities. Excess abdominal fat and broken bones not permitted. Must be free from external evidence of disease. A tolerance of 24% of the birds in the lot is permitted for birds of U. S. Grade B and 1% for birds of U. S. Grade C.

U.S. Grade B: Fairly well-fleshed birds, fairly well-feathered, free from tears, bruises or deformities. Broken bones not permitted. Must be free from external evidence of disease. A tolerance of 25% of the birds in the lot is permitted for birds of U.S. Grade C.

U.S. Grade C: May be poorly feathered birds, poorly fleshed, but not emaciated. Carcass may show few scratches, tears, or bruises. Deformed birds permitted if fairly well-fleshed. Not more than one broken bone permitted. Must be free from highly infectious diseases. No tolerance is permitted for birds that are below

that of U.S. Grade C.

All cull birds must be graded as "Rejects". "Rejects" include all birds that show evidence of a sick condition, severe injury, extreme emaciation or other conditions that render them unfit for food. Birds afflicted with the following diseases are classed as "Rejects": 1. Roup (catarrhal and diphtheric). 2. Infectious Bronchitis. 3. Fowl Cholera. 4. Fowl Typhoid. 5. Limberneck. 6. Tuberculosis. 7. Crop Bound. 8. Cripples and weak birds. 9. Water belly (Ascites).

Section 2. (a) Containers of live poultry sold or offered for sale at the terminal must bear an appropriate legend indicating the grade of poultry contained therein.

Regulation 9 - General

Section 2. (a) Unnecessary handling of crates in the loading or unloading of vehicles is prohibited.

(d) All turkeys must be shipped in double compartments in poultry freight cars and must be transported by trucks in turkey containers.

Section 6. Upon the completion of the unloading of poultry from each freight car, merchants shall remove all dead poultry remaining in or about said car and place them in receptacles which they shall provide for that purpose and shall properly denature the same with a denaturant approved by the Commissioner.

Section 7. (a) Misrepresentation or withholding of any information relating to poultry for the purpose or with the effect of creating a false price market or of taking advantage of an existing price market is prohibited.

(b) Misrepresentation or withholding of any information relating to the grade, classification, price of poultry, amount en route, its expected date of arrival is prohibited.

Section 8. All invoices, sales and delivery tickets for poultry shall be retained by licensees for at least 90 days and made available for examination by the Commissioner, or his representative.

Section 9. (a) Sales tickets shall be made out by merchants at the terminal for all sales made by them. These tickets shall be made out immediately when the seller (merchant) and purchaser agree upon the terms of sale.

(b) Sales tickets shall be in triplicate and in a form approved by the Commissioner. They shall be serially numbered and used in consecutive order. Voided tickets shall be retained and not destroyed.

(c) Sales tickets shall contain the following information: the name of merchant; the name and address of buyer; the date and time of sale; the quantity, grade, classification, lot number and price of the poultry sold.

(d) All sales tickets must be signed by the buyer and no poultry shall be delivered to a buyer at the terminal unless a sales ticket has been previously made out in accordance with the provisions of this section.

(e) The original sales tickets shall be retained by the merchants. A copy shall be given to the buyer at the time of sale and the other ticket shall be given to the representative of the Federal or State government upon demand.

Section 20. Any person licensed by the Commissioner to deal in live poultry and not being a tenant of the terminal, may use the facilities of the railroad platform for the unloading, inspection, sale and loading of poultry upon payment to the Commissioner of a fee of Ten Dollars (\$10) for each and every railroad car so handled in addition to the regular inspection fee at the rate provided for car inspection.

Daniel P. Woolley
Commissioner of Public Markets

Dated:

New York, N. Y.
July 29th, 1942.

Regulation 8 - Section 6

(a) The fees for the grading service are hereby fixed as follows:

Per car	\$10.00
Per layer	.03
Per basket	.04
Per coop	.16

(b) The charge for grading shall be determined upon the basis set forth in Sec. (a) hereof and shall be applied to total amount of poultry of a similar class involved in any sales transaction.

Regulation 8 - Section 7

Certificates of inspection or memorandums shall be issued for all grading services rendered which shall be serially numbered and used

in consecutive order. A copy of each such certificate or memorandum issued by the Live Poultry Grader shall be filed with the Commissioner daily.

Daniel P. Woolley
Commissioner of Public Markets

Dated:

August 4th, 1942.

Source: Rules and Regulations Pertaining To the Live Poultry
Law, on file in Department of Agricultural Economics and
Rural Sociology, University of Tennessee, Knoxville, Tennessee.

APPENDIX II

APPENDIX TABLE XII. EGGS: MONTHLY AND YEARLY
AVERAGE PRICE PAID FARMERS IN THE KNOXVILLE
AREA, 1920-1942 *

Cents per dozen													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1942	31.0	25.7	23.0	18.4	22.3	22.8	24.4	29.8	32.0	33.7	36.0	38.2	28.1
1941	19.3	15.3	15.3	18.0	18.5	21.0	21.7	26.0	28.3	28.8	35.4	34.8	23.6
1940	21.6	20.8	13.5	14.0	13.6	13.0	15.0	16.0	20.0	21.0	26.0	27.5	18.5
1939	17.8	13.8	12.6	13.0	11.8	12.5	14.0	16.2	19.5	21.3	25.2	21.5	16.6
1938	19.3	15.8	13.6	13.9	15.8	16.6	17.5	23.0	25.0	24.8	27.0	26.5	19.9
1937	15.0	18.3	18.8	17.8	15.5	16.0	17.0	20.0	23.8	24.5	26.5	26.2	20.0
1936	24.8	24.5	15.8	15.4	16.3	16.5	18.0	22.0	23.6	25.5	28.8	30.8	21.7
1935	24.0	22.0	15.5	15.5	17.2	19.0	18.6	23.0	25.0	25.4	27.0	28.5	21.7
1934	16.8	16.0	11.8	12.3	12.0	12.8	12.5	16.6	20.5	21.6	27.0	26.0	17.2
1933	17.3	9.0	8.4	7.5	9.0	9.0	10.0	12.6	15.5	16.0	20.6	20.0	12.9
1932	14.3	10.5	8.0	8.0	8.5	10.0	8.0	11.8	16.5	19.7	25.6	26.8	14.0
1931	16.0	13.1	15.1	13.5	13.0	15.0	12.5	15.3	17.5	17.0	24.3	21.6	16.2
1930	37.5	26.8	18.5	20.4	16.5	18.0	17.6	21.5	25.4	24.0	29.5	29.0	23.7
1929	30.0	28.0	21.7	20.4	24.0	25.0	25.8	30.0	34.0	35.3	41.7	47.5	30.3
1928	38.3	23.8	22.0	21.3	22.0	22.7	25.0	27.5	34.0	33.8	35.5	36.0	28.4
1927	**28.0	20.0	19.3	17.3	15.5	15.3	23.7	25.3	31.5	32.0	36.0	35.5	24.9
1926	35.0	24.0	21.8	24.8	25.0	26.0	22.0	23.0	30.3	33.5	38.0	41.5	28.7
1925	45.0	31.0	21.3	23.3	22.5	23.7	**28.0	32.0	32.0	32.3	44.2	43.8	31.0
1924	30.0	26.0	14.8	16.0	18.5	19.7	20.0	20.0	30.6	32.5	40.0	43.8	26.0
1923	31.4	25.0	17.0	18.0	17.5	17.5	18.5	22.7	30.0	30.0	40.0	38.3	25.5
1922	26.3	22.0	15.5	16.3	16.0	16.0	15.0	17.0	24.0	29.5	37.3	39.3	22.0
1921	46.8	32.5	21.2	16.5	16.0	16.5	19.0	27.7	30.0	32.8	46.3	44.3	29.1
1920	57.0	40.0	36.0	33.0	33.3	30.0	32.3	39.7	50.0	52.0	58.8	62.5	43.7

* Source: Knoxville Journal, "Local Quotations". (Prices paid farmers not wholesale price as quotations were prices to be paid at country buying points. Knoxville wholesale prices understood to be higher.)

** Average of month preceding and month following.

Average monthly price: Quotations given on Wednesday of each week were taken. If no quotations were given on Wednesday, Thursday, or Tuesday quotations were used. The three or four quotations for each month were then averaged.

Average yearly price: The 12 average monthly prices were averaged for each year. (The same procedure was used in obtaining each of the following tables.)

APPENDIX TABLE XIII. COLORED HENS: MONTHLY AND
YEARLY AVERAGE PRICE PAID FARMERS IN THE
KNOXVILLE AREA, 1925-1942 *

Cents per pound													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1942	17.0	18.0	19.0	18.0	16.0	16.0	15.0	15.3	17.2	17.3	17.0	18.8	17.1
1941	13.7	15.0	15.4	16.0	16.0	15.7	16.0	14.2	14.3	15.0	15.0	13.6	15.0
1940	12.2	13.0	12.5	12.0	12.4	11.5	11.0	10.3	10.0	10.0	10.5	11.0	11.3
1939	13.3	13.8	13.8	13.0	11.0	10.5	11.8	10.0	11.3	10.5	9.8	9.0	11.5
1938	16.0	16.5	16.1	16.0	15.6	15.0	13.0	12.6	13.0	11.0	12.0	12.0	14.1
1937	13.0	13.0	14.6	14.3	14.0	12.2	13.0	13.8	14.0	15.0	14.3	14.0	13.7
1936	15.2	17.0	17.3	17.0	15.0	14.5	13.8	12.3	12.4	11.3	11.0	9.4	13.7
1935	11.4	13.5	13.3	15.5	16.0	14.8	12.0	12.0	13.8	13.4	14.0	14.0	13.6
1934	7.0	8.8	10.8	10.3	10.5	10.0	10.0	9.4	11.0	10.2	10.0	10.0	9.0
1933	7.0	7.0	8.3	8.0	8.0	7.0	7.8	6.4	6.0	8.0	7.2	7.0	7.3
1932	12.0	12.8	12.8	11.5	11.0	11.0	10.0	8.5	9.0	6.0	6.2	6.5	9.8
1931	12.0	15.5	16.0	16.0	13.8	13.8	14.0	14.0	14.0	13.0	11.3	11.0	13.9
1930	21.5	22.3	22.0	21.4	18.0	17.0	15.0	15.0	15.0	13.0	12.0	12.0	17.0
1929	21.0	22.0	24.6	25.0	24.8	22.5	21.0	20.0	20.0	18.0	18.0	18.0	21.2
1928	15.5	16.7	18.3	22.0	20.8	19.3	18.5	18.0	18.0	18.0	14.8	16.0	17.9
1927	20.3	24.5	17.3	16.0	18.5	16.5	16.0	17.5	19.0	18.7	18.0	18.0	18.3
1926	20.0	21.5	25.6	25.5	25.8	22.2	20.5	18.0	18.0	18.0	18.0	18.5	21.0
1925	19.5	20.4	20.0	22.0	22.0	20.7	18.0	16.5	20.0	20.0	19.0	18.0	19.7

* Source: Knoxville Journal, "Local Quotations".

(1920 - 1924 price data incomplete.)

APPENDIX TABLE XIV. LEGHORN CHICKENS: MONTHLY AND
YEARLY AVERAGE PRICE PAID FARMERS IN THE KNOX-
VILLE AREA, 1925 - 1942 *

Cents per pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	12.0	-	-	-	-	-	-	-	-	-	-	-	12.0
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	10.0	10.0	-	-	-	-	-	-	-	-	-	-	10.0
1938	-	-	-	-	-	-	10.0	10.2	11.8	9.0	10.0	10.0	10.2
1937	10.3	11.0	11.0	20.0	16.5	16.0	14.5	14.8	16.0	16.0	16.0	-	14.7
1936	-	-	-	-	-	-	12.0	12.0	10.0	10.0	10.0	8.8	10.5
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	5.0	5.0	5.0	-	-	5.0
1932	8.0	8.0	-	-	-	-	11.0	-	-	-	-	-	9.0
1931	12.0	12.0	20.0	20.0	20.0	14.8	15.0	13.5	13.0	13.0	10.7	8.4	14.2
1930	17.8	20.0	20.0	19.2	16.0	15.0	12.4	12.0	12.0	12.0	12.0	12.0	15.0
1929	19.0	20.0	30.0	-	-	27.3	18.5	18.7	20.0	15.0	15.0	15.0	19.9
1928	18.0	19.2	20.0	28.5	26.8	22.7	19.0	18.5	22.0	22.0	19.0	16.0	21.0
1927	-	-	-	-	-	15.0	15.0	15.0	15.0	15.0	15.0	16.5	15.2
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1925	-	-	-	-	-	22.0	18.0	14.0	17.4	20.0	-	-	18.3

* Source: Knoxville Journal, "Local Quotations".

(1920 - 1924 price data incomplete.)

APPENDIX TABLE IV. LEGHORN HENS: MONTHLY AND YEARLY
AVERAGE PRICE PAID FARMERS IN THE KNOXVILLE
AREA, 1927 - 1942 *

Cents per pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1942	14.8	15.3	16.0	15.6	14.0	14.0	14.0	14.0	14.0	14.0	14.5	16.0	14.7
1941	10.5	11.0	11.8	14.0	14.0	13.5	14.0	12.3	12.0	12.0	12.0	11.4	12.4
1940	8.8	9.0	10.0	10.0	9.4	8.5	8.0	8.0	8.0	8.0	8.0	8.0	8.6
1939	10.0	10.0	10.0	10.0	9.3	9.0	8.8	8.0	8.5	7.5	7.0	6.5	8.7
1938	11.8	13.8	13.5	14.0	11.4	12.6	10.0	10.0	10.0	10.0	10.0	10.0	11.4
1937	10.8	11.0	11.0	12.0	12.0	10.5	10.0	10.3	11.0	11.5	11.5	10.4	11.0
1936	11.2	12.0	12.8	15.0	14.0	12.8	11.2	10.0	10.0	8.5	9.5	8.0	11.3
1935	8.8	11.3	13.8	14.0	14.0	13.3	10.0	10.0	11.8	11.0	11.0	11.0	11.7
1934	5.0	7.0	9.8	9.0	9.0	9.0	9.0	8.2	9.0	8.2	8.0	8.0	8.3
1933	5.0	5.0	6.2	7.0	7.0	5.7	5.0	5.0	5.0	5.0	5.0	5.0	6.3
1932	9.5	11.5	11.3	9.5	8.0	8.0	8.0	5.8	6.0	5.0	5.0	5.0	7.7
1931	10.0	12.3	13.0	13.5	14.3	13.3	15.0	13.0	13.0	11.0	10.0	8.0	12.0
1930	16.3	20.0	20.0	19.2	16.0	14.5	12.4	12.0	12.0	10.5	10.0	10.0	14.3
1929	18.8	20.0	23.3	25.0	25.0	22.0	18.0	18.7	20.0	15.0	15.0	15.0	19.7
1928	13.0	16.0	18.0	18.8	18.0	17.7	15.5	14.5	18.0	18.0	18.5	15.0	16.6
1927	24.5	20.7	20.7	21.3	24.0	15.3	12.5	12.5	12.5	11.4	10.0	11.5	16.4

* Source: Knoxville Journal, "Local Quotations".

(1920 - 1926 price data incomplete.)

APPENDIX TABLE XVI. SPRING CHICKENS: MONTHLY AND YEARLY
AVERAGE PRICE PAID FARMERS IN THE KNOXVILLE AREA,
1925 - 1942 *

Cents per pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1942	-	-	-	-	-	-	17.7	16.3	17.6	16.5	16.4	17.4	17.0
1941	17.3	20.0	20.4	20.0	18.0	19.2	16.8	14.5	14.3	13.3	14.5	12.0	16.7
1940	-	-	-	-	-	-	-	13.0	13.0	11.2	11.5	12.0	12.1
1939	10.0	10.0	-	-	-	17.0	3.0	10.0	12.0	11.0	10.6	9.0	10.3
1938	14.0	16.0	17.0	17.0	16.3	14.2	12.8	12.0	12.8	10.8	12.0	11.3	13.9
1937	10.8	11.0	11.0	23.5	20.8	20.0	16.3	16.5	18.0	18.3	14.3	14.0	16.2
1936	14.2	15.0	15.0	17.5	20.0	18.8	14.2	12.5	12.4	11.3	10.0	9.4	14.2
1935	11.4	11.0	10.0	-	-	14.8	12.0	12.0	14.5	14.0	14.0	14.0	12.8
1934	-	-	-	-	20.0	16.5	11.3	10.7	11.5	10.2	10.0	10.0	12.5
1933	7.0	7.0	7.0	-	-	8.0	8.0	6.4	6.0	8.0	-	-	7.2
1932	11.0	11.0	10.8	10.0	10.0	10.0	10.0	8.5	9.0	6.0	6.2	6.2	9.1
1931	12.0	12.8	12.0	-	-	19.0	16.3	15.5	14.0	13.0	11.7	11.6	13.8
1930	18.0	-	-	-	-	-	-	16.0	16.0	13.0	12.0	12.0	14.5
1929	21.0	22.0	24.3	35.0	30.0	29.5	22.5	20.7	22.0	18.0	18.0	18.0	23.4
1928	19.5	20.0	20.0	30.0	35.0	29.0	23.0	20.5	24.0	20.8	19.0	18.0	23.2
1927	23.0	28.0	25.3	28.0	28.0	22.0	18.0	19.5	20.0	18.7	18.0	18.0	22.2
1926	20.0	21.5	25.4	57.3	27.5	27.8	24.0	20.0	20.0	19.5	18.0	16.8	24.8
1925	15.5	16.3	21.3	32.5	32.5	28.7	23.3	18.0	19.2	20.0	14.8	14.0	21.3

* Source: Knoxville Journal, "Local Quotations".

(1920 - 1924 price data incomplete.)

APPENDIX TABLE XVII. ROOSTERS: MONTHLY AND YEARLY
AVERAGE PRICE PAID FARMERS IN THE KNOXVILLE
AREA, 1921 - 1942 *

Cents per pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1942	8.0	8.7	10.0	10.0	8.0	8.0	8.0	8.5	10.0	10.0	10.0	10.0	9.1
1941	-	-	-	8.0	8.3	8.3	8.0	8.0	8.0	8.0	8.4	8.0	8.1
1940	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	-	-	-	-	6.0
1939	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.5	6.9
1938	7.0	8.8	9.0	9.0	9.0	8.6	8.0	7.6	7.0	7.0	7.0	7.0	7.9
1937	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.8
1936	6.4	8.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.2
1935	4.0	4.8	5.0	5.0	5.6	5.8	6.0	6.0	6.0	6.0	6.0	6.0	5.5
1934	4.0	4.5	5.0	5.0	4.6	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.3
1933	3.0	3.3	4.6	5.0	5.0	4.7	4.0	4.0	4.0	4.0	4.0	4.0	4.1
1932	6.0	6.0	5.8	4.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9
1931	6.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.2	7.8
1930	10.0	10.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	8.0	6.0	6.0	7.3
1929	8.0	8.0	9.3	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.6
1928	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
1927	8.5	9.0	9.0	8.7	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.3
1926	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
1925	7.0	7.0	7.0	7.0	7.0	6.7	6.3	6.0	6.4	8.0	8.0	8.0	7.0
1924	6.0	6.0	6.0	6.0	6.5	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.0
1923	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
1922	-	-	-	-	10.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.4
1921	7.0	7.0	7.0	7.0	8.8	7.0	7.0	7.0	7.0	7.0	6.5	6.0	7.9

* Source: Knoxville Journal, "Local Quotations".

(1920 price data incomplete.)

APPENDIX TABLE XVIII. STAGS: MONTHLY AND YEARLY
AVERAGE PRICE PAID FARMERS IN THE KNOXVILLE
AREA, 1927 - 1942 *

Gents per pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1942	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	14.4	10.4
1941	10.0	10.0	10.0	10.0	10.0	-	-	-	-	-	-	10.0	10.0
1940	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	8.0	9.0	7.3
1939	-	-	-	-	-	-	-	-	-	-	-	7.0	7.0
1938	-	10.0	10.0	10.0	10.0	10.0	-	-	-	-	-	-	10.0
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	10.0	-	-	-	-	-	-	-	-	10.0
1934	6.0	8.0	10.0	10.0	10.0	-	-	-	-	-	-	-	8.0
1933	-	-	-	-	-	-	-	-	-	-	6.0	6.0	6.0
1932	-	-	-	4.0	4.0	-	-	-	-	-	-	-	4.0
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	15.0	15.0	15.0	15.0	15.0	15.0	-	-	-	-	-	-	15.0
1929	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
1928	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
1927	-	-	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0

* Source: Knoxville Journal, "Local Quotations".

(1920 - 1926 price data incomplete.)

APPENDIX TABLE XIX. TURKEYS: MONTHLY AND YEARLY AVERAGE PRICE
PAID FARMERS IN THE KNOXVILLE AREA, 1920 - 1942 *

Cents per pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1938	15.0	15.0	15.0	15.0	15.0	Hens and toms							15.0
1935	16.0	16.0	16.0	16.0	11.2	8.0	8.0	8.0	8.0	11.2	18.0	15.8	12.7
1934	10.0	10.8	11.0	11.0	10.6	10.0	10.0	10.0	10.0	13.2	14.5	15.5	11.3
1933	10.0	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0	8.8	10.0	10.0	8.2
1932	15.0	15.0	13.4	12.8	12.0	12.0	12.0	10.5	10.0	10.0	10.0	10.0	11.9
1931	25.0	20.0	20.0	20.0	12.5	10.0	10.0	10.0	10.0	15.0	15.7	19.0	15.6
1930	18.0	18.0	18.0	18.0	18.0	15.0	12.0	12.0	12.0	12.0	14.0	17.0	15.3
1929	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	21.3	18.0	21.6
1928	25.0	23.8	23.0	23.0	19.4	17.0	17.0	17.0	17.0	17.0	27.5	30.0	21.5
1927	27.5	25.0	19.3	18.0	14.0	14.0	14.0	14.0	14.0	17.0	26.5	27.5	19.2
1926	25.0	25.0	25.0	25.0	25.0	15.0	15.0	15.0	15.0	16.3	23.8	24.3	20.7
1925	25.0	25.0	21.3	20.0	20.0	13.0	12.5	12.0	14.6	18.0	22.0	25.0	19.0
1924	16.0	16.0	16.5	16.0	15.0	8.7	7.0	7.0	12.8	15.0	15.0	19.0	13.7
1923	23.0	23.0	21.8	17.3	17.0	17.0	17.0	17.0	17.0	17.0	20.0	18.0	18.7
1922	27.5	25.0	25.0	25.0	19.0	18.0	18.0	6.0	6.0	10.5	22.5	30.0	19.3
1921	30.0	30.0	27.4	22.0	20.4	10.0	10.0	10.0	10.0	16.5	25.3	30.0	20.2
1920	30.0	30.0	30.0	30.0	17.7	15.0	15.0	15.3	16.3	20.0	26.8	29.0	22.9

Toms

1942	-	-	-	-	-	-	-	-	-	-	24.0	25.6	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	17.0	15.7	15.0	15.0	-	-	-	-	-	-	-	-	15.7
1937	12.0	12.0	12.0	12.0	10.0	10.0	10.0	10.0	10.0	13.0	17.3	15.2	12.0

Hens

1942	-	-	-	-	-	-	-	-	-	-	23.0	23.8	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	20.0	18.7	20.0	20.0	-	-	-	-	-	-	-	-	19.7
1937	15.0	15.0	15.0	16.0	16.0	16.0	14.0	14.0	14.0	13.5	19.5	17.6	15.5

* Source: Knoxville Journal, "Local Quotations".

APPENDIX TABLE XX. DUCKS: MONTHLY AND YEARLY AVERAGE PRICE
PAID FARMERS IN THE KNOXVILLE AREA, 1920-1942 *

Gents per pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1942	10.0	10.0	10.0	10.0	10.0	10.0	10.0	8.0	8.0	8.0	9.5	12.0	9.6
1941	7.0	-	-	-	8.0	8.0	8.0	8.0	8.0	8.0	8.0	10.0	8.1
1940	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
1939	6.8	7.0	7.0	7.0	7.0	7.0	7.0	5.0	5.0	5.0	5.0	6.0	6.2
1938	15.5	16.7	15.8	12.3	10.0	8.7	8.3	8.0	10.4	12.0	18.0	14.0	12.4
1928	15.0	18.0	20.0	20.0	14.0	10.0	10.0	10.0	10.0	10.0	12.0	18.0	13.9
1927	19.0	20.0	18.7	18.0	13.3	12.5	10.0	10.0	10.0	11.7	15.0	15.0	14.4
1926	17.0	20.0	20.0	17.5	15.0	15.0	15.0	15.0	15.0	13.8	14.3	15.0	16.1
1925	15.5	16.7	15.8	12.3	10.0	12.0	10.0	8.0	10.4	12.0	13.0	14.0	12.5
1924	10.0	10.0	10.0	10.0	10.0	10.0	9.3	7.0	8.2	11.0	11.0	11.4	9.8
1923	12.5	14.8	16.5	16.0	10.8	7.0	7.0	8.0	10.0	10.0	10.0	10.0	11.1
1922	15.0	15.0	16.0	18.0	10.0	8.7	8.0	8.0	8.0	13.8	11.5	11.8	12.0
1921	17.3	20.0	20.0	18.3	11.0	7.0	7.0	7.0	7.0	9.8	14.3	15.0	12.8
1920	21.0	22.0	22.0	23.3	17.7	12.8	11.0	11.0	11.0	14.0	16.0	15.0	16.3

* Source: Knoxville Journal, "Local Quotations".

(1929-1937 price data incomplete.)

APPENDIX TABLE XXI. GEESE: MONTHLY AND YEARLY
AVERAGE PRICE PAID FARMERS IN THE KNOXVILLE
AREA, 1926 - 1942 *

Cents per pound

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1942	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	12.0	10.2
1941	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.4	10.0	8.2
1940	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
1939	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.6
1938	7.0	7.7	8.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.5
1937	8.0	8.0	8.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0	5.8	6.6	5.9
1936	5.0	5.3	6.0	6.0	5.0	4.0	4.0	4.0	4.6	4.6	6.8	7.0	5.0
1935	4.0	5.5	6.0	6.0	7.2	3.0	3.0	3.0	3.0	3.8	5.0	5.0	4.7
1934	4.0	5.0	6.0	6.0	5.2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.5
1933	4.0	4.0	4.8	5.0	5.0	4.7	4.0	4.0	4.0	4.0	4.0	4.0	4.2
1932	6.0	6.0	6.0	5.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.6
1931	6.0	10.0	10.0	9.0	8.0	5.0	5.0	5.0	5.0	5.0	5.7	6.0	6.7
1930	10.0	10.0	10.0	10.0	10.0	9.0	6.0	6.0	6.0	6.0	6.0	6.0	7.9
1929	10.0	10.0	10.0	10.0	10.0	9.0	8.0	8.0	8.0	8.0	8.7	10.0	9.2
1928	8.0	8.0	8.0	8.0	8.0	8.0	7.0	6.0	6.0	6.0	7.0	10.0	7.5
1927	9.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1
1926	8.0	10.0	10.0	10.0	10.0	10.0	10.0	9.0	7.0	7.0	7.0	7.0	8.7

* Source: Knoxville Journal, "Local Quotations".

(1920 - 1925 price data incomplete.)

APPENDIX TABLE XXII. GUINEAS: MONTHLY AND YEARLY AVERAGE
PRICE PAID FARMERS IN THE KNOXVILLE AREA, 1927 - 1942*

Cents per pound **

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1942	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
1941	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
1940	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
1939	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
1938	25.0	25.0	25.0	25.0	25.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	22.4
1937	20.0	20.0	20.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	23.7
1936	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
1935	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
1934	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
1933	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
1932	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
1931**	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	14.0	10.3
1930	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
1929	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
1928	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
1927	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1925	11.0	11.0	11.0	11.0	11.0	25.0 ***	-	-	-	-	-	-	11.0
1924	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
1923	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
1922	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.8	11.0	11.0	11.0	8.1
1921	10.0	10.0	10.0	10.0	10.0	7.8	7.0	7.0	7.0	7.0	7.0	7.0	8.3
1920	-	-	-	-	-	-	-	-	-	-	-	-	-

* Source: Knoxville Journal, "Local Quotations".

** 1921 - 1931 price per pound.
1932 - 1942 price each

*** Price each.

APPENDIX TABLE XXIII. AVERAGE MONTHLY SEASONAL
INDEXES OF PRODUCE PRICES PAID FARMERS
IN THE KNOXVILLE AREA, 1920-1942*

Month	Eggs, 1920-1942	Leghorn Hens, 1927-1942	Colored Hens, 1925-1942	Turkeys, 1920-1935	Geese, 1926-1942
January	114.4	96.9	102.5	124.3	108.2
February	90.3	106.8	109.5	119.8	113.9
March	73.1	117.0	114.3	117.7	113.8
April	72.2	121.5	113.1	112.1	108.8
May	74.6	114.0	108.0	99.3	106.2
June	76.1	109.7	102.1	75.4	98.4
July	79.3	93.1	98.0	73.1	90.0
August	96.9	90.8	91.1	71.4	90.2
September	114.0	95.5	95.8	76.2	86.9
October	119.9	88.0	91.6	93.3	86.1
November	142.5	84.1	88.2	116.8	94.8
December	145.9	82.9	85.3	120.6	102.7

* Source: Computed by the ratio to moving averages method from average monthly price quotation computed from Knoxville Journal, "Local Quotations", 1920-1942. See Appendix Tables XII, XIII, XV, XIX, and XXI.

APPENDIX TABLE XXIV. CHICKENS AND TURKEYS:
AVERAGE PRICES PAID FARMERS IN THE
UNITED STATES, 1920 - 1942 *

Cents per pound

Year	Chickens **	Turkeys ***		Year	Chickens **	Turkeys ***	
		Nov. 15	Dec. 15			Nov. 15	Dec. 15
1942	18.9	27.0	29.7	1930	18.4	20.1	19.9
1941	15.8	20.2	20.9	1929	21.7	27.1	23.5
1940	13.3	15.5	15.9	1928	21.4	31.2	30.5
1939	13.5	16.0	15.6	1927	20.0	30.8	32.3
1938	15.4	17.1	18.4	1926	21.1	29.8	32.8
1937	15.9	17.9	18.0	1925	19.8	28.3	31.1
1936	15.8	15.0	14.3	1924	18.8	24.2	25.8
1935	14.9	19.9	21.3	1923	18.3	27.9	24.5
1934	11.3	14.6	16.0	1922	18.4	29.5	32.3
1933	9.5	11.8	11.1	1921	20.1	28.2	32.5
1932	11.8	12.9	10.9	1920	24.3	31.8	33.1
1931	15.8	18.3	19.4				

* Source:

** 1920 - 1926 Crops and Markets, February 1936, Vol. 13, No. 2, p. 46.

1927 - 1929 Agricultural Statistics, U. S. D. A., 1937, p. 328.

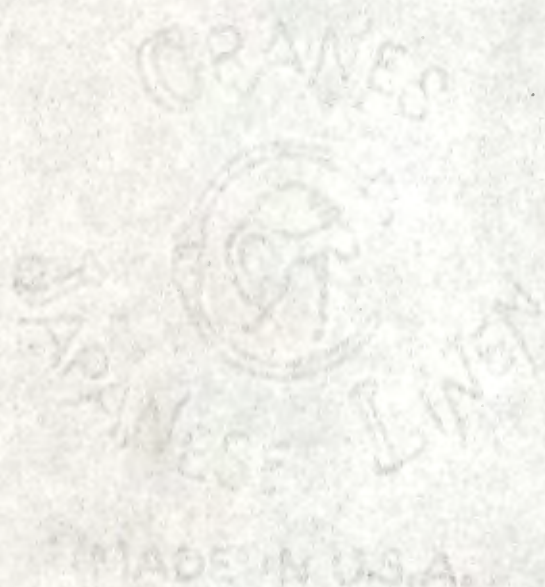
1930 - 1942 Crops and Markets, April 1943, Vol. 20, No. 2, p. 100.

*** 1930 - 1943 (November 15 and December 15 price) Crops and Markets, April 1943, Vol. 13, No. 2, p. 101.

1928 - 1929 Agricultural Statistics, U. S. D. A.

1920 - 1927 Crops and Markets, 1936, p. 375, February 1936, Vol. 13, No. 2, p. 46.

APPENDIX I



APPENDIX TABLE XXV. EGGS MARKETING AND CONSUMED IN KNOXVILLE,
1942 *

	Dozens
Estimated consumption, 1942	5,271,666.4
Eggs purchased by Knoxville produce houses ¹	1,786,218.0
Eggs received from out of state	(85,740.0)
Eggs shipped from Knoxville	(346,526.2)
Eggs sold to other Knoxville produce houses and packing companies	(482,278.8)
Eggs purchased by two Knoxville egg dealers ²	342,120.0
Eggs purchased by Knoxville meat packing companies ³	1,101,090.0
Amount received from out of state	(315,000.0)
Amount sold in trade territory	(756,081.0)
Eggs purchased by Knoxville milk plants ⁴	19,370.0
Eggs purchased by grocery stores from sources other than the above ⁴	1,192,301.7
Eggs sold by farmers in town - market house or market square or town delivery ⁴	2,415,452.7
Total number of dozens of eggs purchased by Knoxville marketing agencies and consumers	6,856,552.4
Total number of dozens purchased by Knoxville marketing agencies; resales to packing houses and other produce dealers discounted	6,374,273.6
Total number of dozens of eggs shipped from Knoxville to eastern markets	346,526.2
Total number of dozens of eggs sold in packing company trade areas outside of Knoxville	756,081.0

*Source: (1) Tables XLIII, p. 159, and XLIV, p. 170.

(2) Tables XLVI and XLVII, p. 178.

(3) Tables LIII, page 233, and LIV, page 241.

(4) Table XCIV, page 338.

APPENDIX TABLE XXVI. POULTRY MARKETING AND CONSUMED IN KNOXVILLE, 1942

	Dressed Pounds				
	Chickens	Turkeys	Ducks	Geese & Guineas	Total
Produce houses: ¹	**	***	****	*****	
Total lbs. purchased	3,297,457.3	1,647,252.7	11,246.8	4,329.6	4,980,286.4
Total lbs. shipped to eastern markets	1,060,926.9	9,881.9	2,984.9	438.6	1,074,232.3
Total lbs. imported	85,733.9	-	-	-	85,733.9
Total lbs. sold to produce houses and packing companies	716,224.7	3,980.4	1,188.2	549.1	721,942.4
Total lbs. sold to grocery stores	827,960.7	72,013.3	3,462.6	1,516.9	904,953.5
Meat packing companies: ²					
Total lbs. purchased	411,000.0	55,700.0	38,800.0	-	505,500.0
Total lbs. sold outside of Knoxville	275,781.0	17,835.4	6,970.0	-	300,686.4
Total lbs. imported	100,695.0	55,700.0	38,800.0	-	195,195.0
Total lbs. sold to grocery stores	29,477.7	7,741.7	10,185.6	-	47,405.0
Grocery stores: ³					
Total lbs. sold	1,134,441.8	46,163.9	97,440.0	-	1,278,045.7
Total lbs. not purchased from above	277,003.4	-	83,791.8	-	360,795.2
Total lbs. sold in market house ⁴	142,989.3	3,276.0	2,675.4	1,190.3	150,141.0
Total lbs. marketed in Knoxville (lbs. sold between packing houses and produce companies discounted)					
Total lbs. sold outside of Knoxville by packing companies	3,112,235.3	1,702,249.5	135,325.8	4,970.8	5,254,780.2
Total lbs. shipped to eastern terminal markets	275,781.0	17,935.4	6,970.0	-	300,686.4
Total lbs. consumed	1,060,926.9	9,881.9	2,984.9	438.6	1,074,232.3
Total lbs. imported	2,075,527.4	1,674,431.0	128,370.9	4,532.2	3,879,861.5
	186,428.9	55,700.0	38,800.0	-	280,928.9

*Sources: (1) Table XLVII, p. 185, and Table L, p. 212. (2) Table LIII, p. 233, and Table LIV, p. 241. (3) Table LXXVII, p. 282. (4) Appendix Table II.

**Chicken: live weight equals 4 lbs., dressed weight equals 88% of live weight.

***Turkey: live weight equals 12 lbs. and dressed weight equals 91% of live weight.

****Duck: live weight equals 5 lbs., dressed weight equals 91% of live weight; dressed weight equals 4 lbs. in Knoxville grocery stores.

*****Geese: live weight equals 10 lbs., dressed weight equals 91% of live weight.

Guineas: live weight equals 2 lbs., dressed weight equals 91% of live weight.

TABLE XXVII. POULTRY PRODUCTION AND SALES IN THE
KNOXVILLE AREA AND TENNESSEE, 1939 *

	Dressed Pounds	
	Knoxville Area	Tennessee
Chickens sold alive or dressed ¹	4,132,304	18,743,961
Turkeys raised ²	568,124	1,484,782
Ducks raised ³	30,289	137,333
Geese raised ⁴	4,150	53,708
Guineas raised ⁵	8,896	51,040
Total	4,743,763	20,470,824

* Source: Figures computed from following tables, using
conversion figures given in Table XXVI.

- (1) See Table IV, page 20.
- (2) See Table XI, page 31.
- (3) See Table XII, page 35.
- (4) See Table XIII, page 36.
- (5) See Table XIV, page 37.