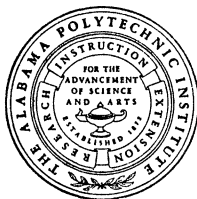


Alabama's **EGG INDUSTRY**

**An Analysis of Egg Production and Consumption,
and of Marketing Practices That Affect Alabama's
Egg Industry**



AGRICULTURAL EXPERIMENT STATION
of the **ALABAMA POLYTECHNIC INSTITUTE**

E. V. Smith, *Director*

Auburn, Alabama

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Alabama's **EGG INDUSTRY***

J. HOMER BLACKSTONE, *Associate Agricultural Economist***

INTRODUCTION

MARKETING of shell eggs differs from the marketing of many agricultural products in that most eggs require little or no processing before reaching the final consumer. This method of marketing explains to some extent the fact that many eggs are sold direct to retailers and consumers by producers. Since little or no processing equipment is required to sell shell eggs at wholesale or retail, there is a large number of relatively small firms that handle eggs. Because of the large number of agencies handling eggs and the wide variety of marketing channels through which eggs move from producer to consumer, the task of assembling accurate statistics on the volume of eggs handled is difficult. However, there is a need for such data as a basis for an appraisal, evaluation, and understanding of the marketing channels through which eggs move and the marketing functions performed by various types of buyers.

PURPOSE OF STUDY

Prior to 1948, little information was available as to how Alabama farmers disposed of their eggs or to whom sales were made. Nor was much information available as to how buyers purchased eggs, how often they collected them, or how they assembled, graded, and stored them. Two previous studies provide answers

* This study was supported by funds provided by the Agricultural Research and Marketing Act of 1946 and by State research funds.

** The author acknowledges the assistance and cooperation given in this study from the wholesale and retail dealers surveyed, the Regional Poultry and Poultry Products Marketing Technical Committee, the project leaders of the other states cooperating in this regional sub-project, and to personnel of the Extension Service of the Alabama Polytechnic Institute. Acknowledgment is also due C. F. Stephens for collecting the data; to E. E. Mansfield for supervising the tabulation of the data; and to staff members of the Poultry and Agricultural Economics Departments for helpful suggestions throughout the study.

to many of these questions.^{1,2} Previous studies, however, left many egg marketing questions unanswered. Also unanswered, was the question, "How large is the spring surplus of eggs in Alabama and what can be done to reduce this problem?" The study upon which this report is based deals with these questions and egg marketing practices and problems of egg buyers in Alabama from the producer to the final consumer.

The main objectives of this study³ were:

- (1) To determine and evaluate the marketing practices and problems involved in the movement of eggs from producers through all buyers except the final consumer.
- (2) To determine the methods of handling, losses, periods of storage, and/or movements of eggs from local areas to final areas of consumption.
- (3) To determine both strong and weak points of present practices used by wholesalers and retailers as related to these buyers' needs.
- (4) To relate these findings to improved marketing practices, techniques, and procedures.

This particular report deals with egg marketing practices and problems found among selected wholesale and retail buyers in Alabama for the fiscal year, September 1, 1949, through August 31, 1950. It presents data that show production and disposition of Alabama-produced eggs, volume and disposition of in-shipped eggs, movement of eggs between markets within the State, out-of-State movements, and practices followed by various types of buyers.

METHOD OF STUDY

For purposes of this study, wholesale buyers of eggs were designated as those who bought eggs from various sources for resale largely in their original form to retail outlets. Retail buyers of

¹ Blackstone, J. H. "Egg Production and Marketing Practices in Alabama." A.P.I. Agricultural Experiment Station Bulletin No. 275. June 1950.

² Blackstone, J. H. "Marketing Practices and Facilities of Selected Buyers of Eggs in Alabama, 1947-1948." A.P.I. Agricultural Experiment Station Bulletin No. 278. November 1950.

³ This study is a part of an over-all regional poultry and egg marketing research project in which nine southern states and the United States Department of Agriculture cooperated. The nine southern states are: Alabama, Arkansas, Georgia, Louisiana, Mississippi, South Carolina, Tennessee, Texas, and Virginia. Only Alabama, Mississippi, and Tennessee cooperated on this particular sub-project.

eggs were designated as those who bought eggs from producers and/or wholesale agencies for resale largely to consumers.

The Bureau of Agricultural Economics, United States Department of Agriculture, provided the plan for sampling. The questionnaire used for the study was designed by a regional committee. Operators of all types of wholesale and retail agencies were interviewed in person. The retail agencies studied were selected at random within each of the 27 counties in which the study was conducted. The size of sample varied from approximately 3 per cent of the food stores to 50 per cent of the hatcheries in Alabama. A census of wholesalers handling eggs was made in each county studied. In tabulating and analyzing the data collected, statistical adjustments were necessary to weight properly the different types of buyers studied. All data were expanded to State totals.

NUMBER AND TYPE OF BUYERS

A total of 168 wholesale and 964 retail agencies was included in the study, Appendix Table 1. They were located in 27 Alabama counties, and were well scattered over the State. Wholesale and retail agencies located in both urban⁴ and rural⁵ areas of the State were included. Most wholesalers, however, were located in urban areas. Some wholesalers did a small volume of retail business. Only chicken eggs handled by wholesalers and retailers are covered in this report. Eggs of other types handled by these agencies were of little importance.

VOLUME RECEIVED AND DISPOSITION OF EGGS IN ALABAMA

Eggs are produced in Alabama by both farm and non-farm families. In addition, shell eggs for both market and hatching purposes are shipped into the State. Liquid, frozen, and dried eggs are also shipped into the State. Although many products, such as candy, cake mixes, ice cream, noodles, mayonnaise, and commercial bakery products, contain eggs as an ingredient, no

⁴ Urban areas include (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, towns, and villages; (b) the densely settled urban fringe, including both incorporated and unincorporated areas, around cities of 50,000 or more; and (c) unincorporated places of 2,500 inhabitants or more outside any urban fringe.

⁵ Rural areas include all of the State except urban areas.

attempt was made to determine the egg equivalents that may have come into the State in such products during the year of this study. Only shell market eggs, hatching eggs, and liquid, frozen, and dried eggs were considered.

PRODUCTION AND DISPOSITION OF ALABAMA EGGS

This report covers the period September 1, 1949, through August 31, 1950. Farm production of eggs during this period in Alabama amounted to 1,722,000 cases,⁶ Figure 1. Non-farm production was estimated at approximately 10 per cent of farm production. Total production, therefore, amounted to 1,895,000 cases of eggs.

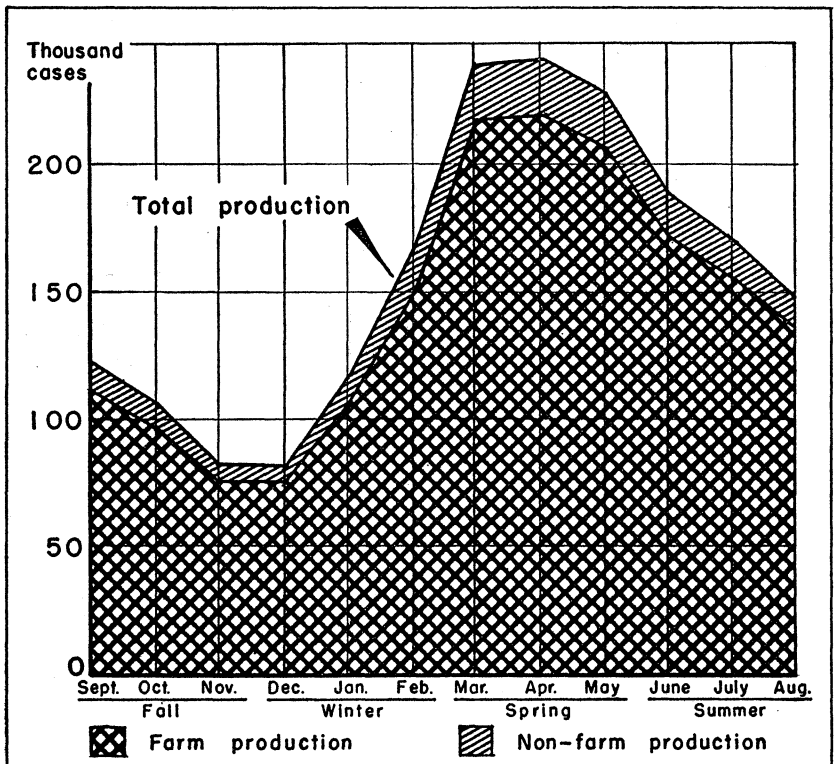


FIGURE 1. Farm and non-farm production of eggs by months, Alabama, September 1, 1949-August 31, 1950. (Non-farm production was that of families living in rural or urban areas classed as non-farm.)

⁶Source: Alabama Cooperative Crop and Livestock Reporting Service.

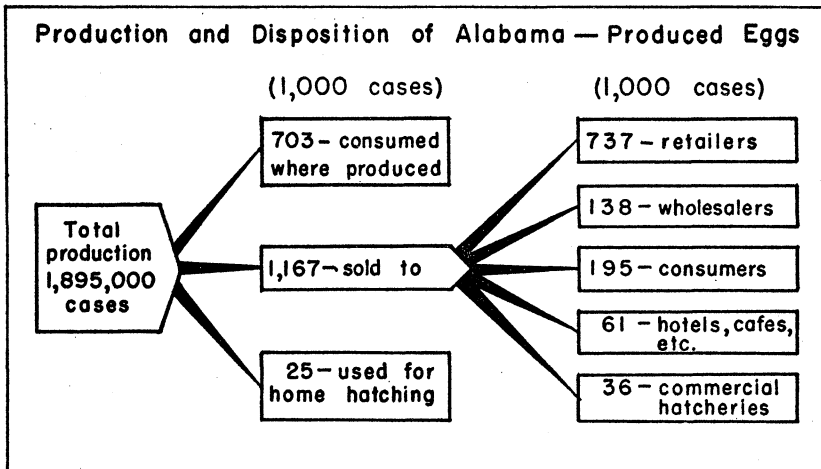


FIGURE 2. Production, use, and sale of eggs by producers to first buyers, Alabama, September 1, 1949-August 31, 1950.

The seasonality of Alabama's egg production continues to stand out when the months are grouped by quarters. Production in the fall quarter (September, October, and November) amounted to only 16 per cent of all eggs produced during the year. Nineteen per cent of all eggs were produced in the winter quarter, 38 per cent in the spring, and 27 per cent in the summer. Combined production during the spring and summer quarters (March through August), amounted to 65 per cent of all eggs produced during the year.

The 1,895,000 cases of eggs produced in Alabama during the year of this study were disposed of as shown in Figure 2.

The seasonal pattern of egg sales followed very closely the seasonal pattern of egg production. Approximately 62 per cent of all eggs produced during the year were sold. The percentage of total production that was sold monthly varied from 55 per cent in July and August to 68 per cent of total production in March, Table 1.

Of the eggs produced and sold in Alabama, 15 per cent were sold in the fall quarter (September, October, and November). Twenty per cent were sold in the winter, 40 per cent in the spring, and 25 per cent during the summer quarter. Combined, 65 per cent of all sales occurred during the spring and summer quarters.

TABLE 1. TOTAL EGG PRODUCTION, PERCENTAGE SOLD, TOTAL SALES, AND PERCENTAGE OF TOTAL SALES OF EGGS PRODUCED BY MONTHS, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Season and month	Total production	Percentage of total production sold	Total sales	Percentage of annual sales by months
	<i>1,000 cases</i>	<i>Per cent</i>	<i>1,000 cases</i>	<i>Per cent</i>
FALL:				
September	122	57	69	6
October	107	58	62	5
November	82	60	49	4
WINTER:				
December	82	61	50	4
January	117	63	74	7
February	165	66	109	9
SPRING:				
March	239	68	163	14
April	241	64	154	13
May	229	64	146	13
SUMMER:				
June	189	61	115	10
July	172	55	94	8
August	150	55	82	7
TOTAL OR AVERAGE	1,895	62	1,167	100

PURCHASE AND DISPOSITION OF SHIPPED-IN EGGS

More eggs were shipped into Alabama than were produced for sale in the State during the period of this study. Only 62 per cent or 1,167,000 cases of the eggs produced in the State were sold. Total inshipments amounted to the equivalent of 1,600,000 cases. Of the inshipments, the equivalent of 87,000 cases were liquid, frozen, and dried eggs. Total inshipments by kind and disposition were as follows:

<i>Shipped-in as:</i>	<i>Disposition by kind of buyers:</i>	<i>Thousand cases</i>
Market shell eggs	Wholesalers	1,296
Market shell eggs	Retailers	197
Hatching eggs	Hatcheries	20
Other ¹	Wholesalers	87
Total inshipments		1,600

¹ Shell egg equivalent of liquid, frozen, and dried eggs.

TOTAL EGGS AVAILABLE IN ALABAMA AND DISPOSITION

Total eggs available in Alabama for the period September 1, 1949 through August 31, 1950 and their source were as follows:

<i>Kind and source</i>	<i>Thousand cases</i>
Shell eggs produced in Alabama	1,895
Market eggs shipped into Alabama	1,493
Hatching eggs shipped into Alabama	20
Shell egg equivalent of frozen eggs, etc., shipped into Alabama	87
Total eggs available	3,495

In order to determine the number of cases of eggs used for consumption in Alabama the following deductions were necessary:

<i>Source and disposition</i>	<i>Thousand cases</i>
Alabama-produced eggs:	
Used for home hatching	25
Sold for commercial hatching	36
Shipped out of Alabama	86
Shipped-in eggs:	
Sold for commercial hatching	20
Shipped out of Alabama	92
Total not used in Alabama for market eggs	259

TABLE 2. DISPOSITION OF ALL EGGS AVAILABLE IN THE STATE BY ORIGIN, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Method of disposition	Source of eggs			
	Produced in Alabama	Shipped into Alabama	Total available	Average disposition per capita
	1,000 cases	1,000 cases	1,000 cases	Number of eggs
Retail sales to consumers	740	1,157	1,897	223
Producer sales direct to consumers	195	0	195	23
Wholesale sales to consumers	18	4	22	2
TOTAL SALES TO CONSUMERS	953	1,161	2,114	248
Consumed where produced	703	0	703	83
Sold as meals, etc.	86	176	262	31
Sold to institutions and mfgs.	2	34	36	4
Net losses	4	26	30	3
TOTAL SHELL EGGS DISPOSED OF IN ALABAMA	1,748	1,397	3,145	369
Sold as liquid, frozen, or dried eggs	¹	91	91	11
TOTAL MARKET EGGS DISPOSED OF IN THE STATE	1,748	1,488	3,236	380
Used for home hatching	25	0	25	
Used for commercial hatching	36	20	56	
Shipped out of Alabama	86	92	178	
TOTAL AVAILABLE	1,895	1,600	3,495	

¹ There was an equivalent of 4,000 cases of frozen eggs processed in Alabama but these were obtained almost entirely from shipped-in eggs.

Total eggs available in Alabama less those not used in the State for market eggs left 3,236,000 cases for use as market eggs (including eggs used by families that produced them) within the State. Based on the "1950 Census of Population" for the State, the market eggs available per capita amounted to 380 eggs. When market eggs were adjusted to shell eggs by deducting frozen and dried eggs, the number of shell eggs available per capita amounted to 369. Wholesale and retail store losses of market eggs not salvaged (net losses) were equal to 3 eggs per capita. Actual consumption of market eggs was equivalent to 377 per capita and shell egg consumption to 366 per capita when adjusted for known losses. Eggs lost by producers were not deducted from consumption. The bulk of all eggs available in the State were used by consumer households, Table 2.

DISPOSITION OF EGGS IN ALABAMA BY LOCATION

Of the 3,495,000 cases of eggs available in Alabama, only 3,236,000 were disposed of within the State as market eggs. Of those disposed of within the State, 1,748,000 cases were produced in Alabama and 1,488,000 were shipped in. This section of this report deals only with the distribution of the 3,236,000 cases of market eggs disposed of within the State, Table 3.

The "1950 Census of Population" classified approximately 44 per cent of Alabama's population as urban and 56 per cent as rural. The distribution of eggs sold, however, was approximately 60 per cent in urban areas and 40 per cent in rural areas. This does not mean, however, that eggs were always consumed in urban areas where sold. Many urban areas served as trade centers for local city population and for a large part of the surrounding rural population. Consequently, the volume of eggs handled in a given city indicated only the size of its egg market. It did not indicate the per capita consumption of eggs of people living in the city. For example, the number of eggs disposed of in Birmingham, Alabama, during the year of this study amounted to 539,000 cases or 595 eggs per capita, Table 3. An earlier study showed that family consumption of eggs in homes in Birmingham, Alabama, amounted to approximately 397 eggs per capita

TABLE 3. DISPOSITION OF MARKET EGGS BY ORIGIN, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Place of disposition	Population ¹ (Apr. 1, 1950)	Origin and disposition of market eggs			Average disposition per capita
		Produced in Alabama	Shipped into Alabama	Total dis- position	
	<i>Number</i>	<i>1,000 cases</i>	<i>1,000 cases</i>	<i>1,000 cases</i>	<i>Number of eggs</i>
URBAN:					
Birmingham	326,037	131	408	539	595
Mobile	129,009	36	171	207	578
Montgomery	106,525	55	115	170	575
Gadsden	55,725	29	61	90	581
Tuscaloosa	46,396	19	56	75	582
Anniston	31,066	23	26	49	568
Bessemer	28,445	19	27	46	582
All cities of 10,000- 25,000 people	222,211	157	191	348	564
All cities of 5,000- 9,999 people	184,345	98	102	200	391
All cities of 2,500- 4,999 people	131,906	60	56	116	317
Urban fringe	79,272	21	81	102	463
TOTAL URBAN	1,340,937	648	1,294	1,942	521
RURAL:					
TOTAL RURAL	1,720,806	1,100	194	1,294	271
TOTAL STATE	3,061,743	1,748	1,488	3,236	380

¹ Source: "1950 Census of Population." Bureau of the Census, U. S. Department of Commerce. October 4, 1951.

in 1948.⁷ This would indicate that approximately 198 eggs per capita were used for purposes other than local city family consumption in the homes in 1950.

Of the 539,000 cases of eggs disposed of to final consumers through the Birmingham market during the year of this study, approximately 133,000 cases, or 147 eggs per capita, were used by cafes, hotels, institutions, manufacturers, etc. Using 397 eggs as the per capita family home consumption rate, the population within the city limits of Birmingham used approximately 360,000 cases of eggs. The remaining 46,000 cases, or 51 eggs per capita, were sold by retailers to consumers who lived outside the city but who used Birmingham as their trade center.

⁷ 1948 Food Consumption Survey Preliminary Report No. 8 (FE751). "Family Food Consumption for Three Seasons in Birmingham, Alabama,—1948." Bureau of Human Nutrition and Home Economics, Agricultural Research Administration, U. S. Department of Agriculture. August 15, 1949.

Many of the eggs sold through cafes, hotels, and drug stores as part of meals were consumed by people who lived outside of cities. Likewise, many of the eggs used by manufacturers went into production of products that were sold to people who lived within cities and to some who lived outside cities.

Of all eggs disposed of through urban areas, approximately 33 per cent were produced in Alabama and 67 per cent were shipped into the State. In some of the larger markets, a higher percentage of the eggs disposed of were shipped in. Relatively more Alabama-produced eggs were consumed in rural areas and small towns because of the high percentage of eggs consumed where produced, the nearness of small towns to egg production areas, and the egg buying practices of many small town and rural egg dealers. However, of the 1,131,000 cases of Alabama-produced eggs sold as market eggs, 648,000 cases were disposed of through urban areas and only 483,000 cases through rural areas.

Egg production in the counties that did not have large cities was usually greater than consumption during the year of this study. Conversely, counties with large cities produced few of

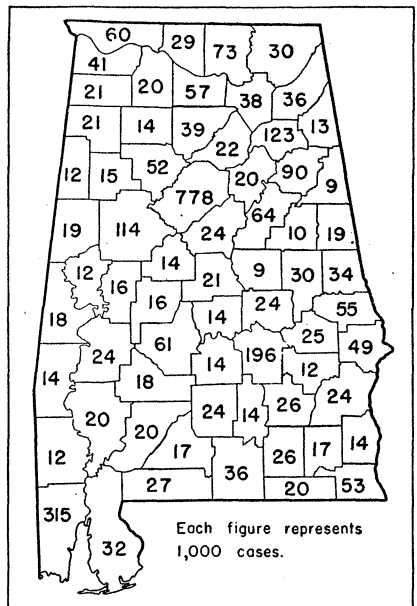
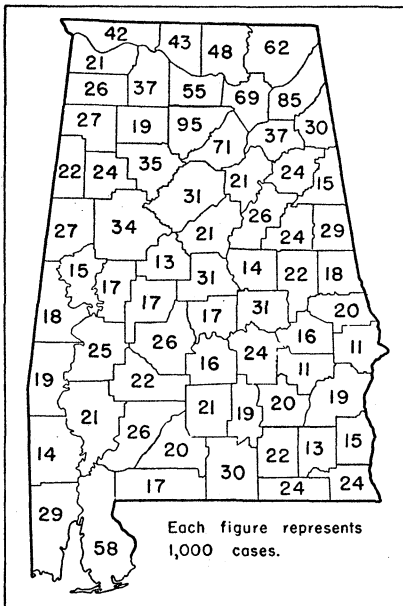


FIGURE 3. Estimated egg production by counties, Alabama, September 1, 1949-August 31, 1950.

FIGURE 4. Estimated market eggs used by counties, Alabama, September 1, 1949-August 31, 1950.

the eggs used. For example, egg production in Jefferson County amounted to 31,000 cases, while 778,000 cases of market eggs were used, Figures 3 and 4. In most counties where egg production equaled or slightly exceeded the use of market eggs, there was a surplus of eggs during the spring and summer months and a deficit during the fall and winter months.

ALABAMA'S SURPLUS EGG PROBLEM

The surplus egg problem in Alabama involves high seasonal production and sales of State-produced eggs, low prices received by producers during certain seasons of the year, and the difficulties experienced by some producers in selling eggs at any price during certain seasons. Seasonality of production and sales is perhaps the underlying cause of the entire problem. The bulk of the State's egg production and sales of State-produced eggs occurs during a relatively short period of the year as compared to inshipments and total eggs available, Figure 5. Solution of this problem would aid in solving many of the problems that are called "surplus egg problems." Egg production in 38 of the State's 67 counties was equal to or in excess of the volume of market eggs used for all purposes. Only in a few counties, however, was there a surplus of eggs produced during each month of the year. Most counties of the State had spring surpluses but deficits of varying size during other seasons of the year.

The total supply of eggs available for sale from all sources in the State during the year of this study was maintained at a relatively constant level by seasons. Inshipments of eggs varied seasonally in relation to the number of eggs produced and sold in the State. As the number of eggs produced and sold in the State decreased, imports increased. Some 16 per cent of the agencies that made direct inshipments of eggs during the year made no inshipments during the period when sales of Alabama-produced eggs were high. Only 22 per cent of the agencies that made direct inshipments made no adjustments in inshipments due to variations in volume of eggs produced and sold in the State by seasons. The remaining 62 per cent of the agencies that made direct inshipments, made large reductions from the winter level in the volume of eggs shipped into the State during the spring months; they then increased somewhat during the summer months and attained a still higher level of inshipments in the fall. Con-

sumption of eggs in the State was highest during the spring months when prices were low and lowest during the summer months when many market eggs were of questionable quality.

Imports of eggs were necessary to supply the demand in the State. Outshipments of Alabama-produced eggs amounted to only 86,000 cases. Even if all of these outshipments had remained in the State, inshipments would have been necessary. Most of the eggs shipped out of Alabama were sold to year-round markets which formed part of the State's market area except during the spring months, Table 4.

About 20,000 cases of eggs were sold to egg drying plants outside the State. Both the supply and quality of available eggs were factors influencing the degree of diversion to drying plants. Except for short periods of the year and in certain production areas, there was no surplus of eggs produced in the State in 1949-50.

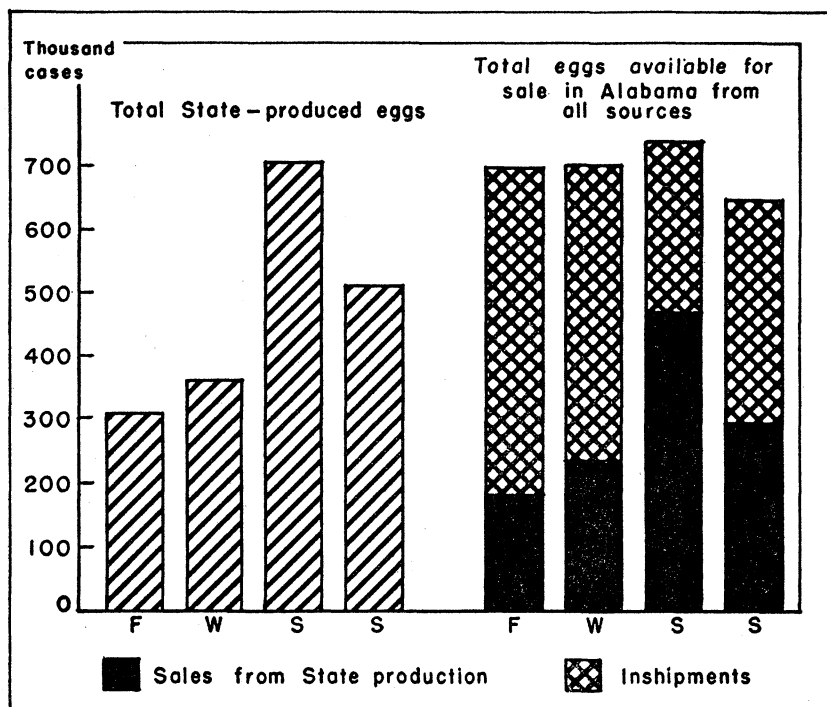


FIGURE 5. Production, sales of State-produced eggs, imports, and total eggs available for sale, Alabama, September 1, 1949-August 31, 1950.

TABLE 4. TOTAL EGGS AVAILABLE FOR SALE AND DISPOSITION, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Season	Total eggs available for sale	Used as commercial hatching eggs	Shipped out-of-State ¹	Sold in State as market eggs	Percentage of total sales
	<i>1,000 cases</i>	<i>1,000 cases</i>	<i>1,000 cases</i>	<i>1,000 cases</i>	<i>Per cent</i>
Fall	692	12	45	635	25
Winter	697	14	46	637	25
Spring	735	19	49	667	26
Summer	643	11	38	594	24
TOTAL	2,767	56	178	2,533	100

¹ Outshipments consisted of 86,000 cases of State-produced and 92,000 cases of imported eggs.

Over the past few years some producers have had difficulties in selling eggs. This problem was usually associated with production of low quality eggs and temporary over-supplies in small local markets. During the time that these surplus problems were most serious in some areas of the State, there were large quantities of eggs being shipped into other areas of the State. Changes in production and marketing practices to insure high quality products for sale and an orderly movement of eggs between surplus and deficit markets would normally alleviate this problem. Unless the costs of producing eggs are extremely low during the spring months, Alabama producers should shift more of their egg production to other seasons of the year.

There was a wide variation in the price paid per dozen to egg producers between the winter and spring seasons. Over the past 8 years, the highest monthly price paid producers averaged 71 per cent above the lowest average monthly price. Over this 8-year period, the range in this seasonal spread was from 42 to 115 per cent. In 7 of the 8 years, the highest monthly average price occurred in December. Also, in 7 of the 8 years, the lowest monthly average price occurred in April, Appendix Table 2.

In most years, the prices received by Alabama egg producers during the 5-month period, March through July, were the lowest of the year. Approximately 60 per cent of all Alabama-produced eggs that were marketed were sold during this period. Consequently, the prices received by Alabama producers during this period were low. They were generally below the average price received by all United States egg producers, but averaged slightly above the average price received by West North Central pro-

ducers who ship most of their eggs, Appendix Table 3. In all other months of the year, prices received by Alabama producers were above the United States average and considerably above prices received by West North Central producers.

The prices received by Alabama producers for eggs during the months of August through February were characteristic of a deficit-producing area. During these months, the prices received by Alabama producers were above the United States average. However, the prices received from March through July indicated a surplus condition whereas actually no over-all State surplus of eggs was produced. The prices received by West North Central producers were below the United States average in all months of the year. This area produced a year-round surplus and shipped eggs each month to the eastern part of the United States and to the South.

A comparison of prices received by Alabama producers with those received by West North Central producers, shows that Alabama prices were considerably higher and, at times, ranged from 5 cents to 17 cents per dozen higher, Appendix Table 3. During the 4 months, March through June, there were only slight differences in prices between these two areas.

Weighted average prices received for eggs by producers in Alabama, the West North Central States, and the United States average are shown by years in Appendix Table 4. In 5 of the 9 years (1942 through 1950), Alabama prices were equal to or above the United States average. In 8 of the 9 years, Alabama prices were above the prices of the West North Central area. In all 9 years, United States prices exceeded prices in the West North Central States.

If Alabama producers would produce more eggs in the 7 or 8 months of higher prices, their over-all yearly average price would be increased. A smaller volume of eggs sold in the spring months would likely move at a higher price. Shifting production, storing eggs, freezing eggs, producing and marketing eggs of good quality, and larger movements of eggs between markets within the State all offer possibilities of reducing the seasonal price problem.

Using both past production and consumption data as a guide, the "seasonal surplus problem" in Alabama is not one of general over-supply of eggs. At times, however, small local markets may have an over-supply problem.

Producers in this State with small flocks maintained primarily

for home use may find the spring market with its low selling price for eggs the most profitable one for them because their spring eggs are produced at little or no out-of-pocket costs. Commercial producers of eggs, however, should give serious consideration to alternatives other than high egg production during the spring months. They might emphasize egg production during the late summer, fall, and winter months thus getting a higher price for the bulk of their eggs and leaving the spring months somewhat more to owners of small flocks. Individual commercial producers can concentrate egg production over an 8-month period but they must continue sufficient production during the other 4 months to insure their having a market for eggs when needed.

WHOLESALE MARKETING OF EGGS

Wholesalers included in this study were those agencies that purchased shell eggs from one or more sources and made sales largely to retail agencies. There are large numbers of different types of wholesale agencies in the State. A census was taken of all wholesalers handling eggs in the 27 counties studied. Schedules were taken for the types of agencies that normally handle eggs. A total of 168 wholesalers of this type were interviewed and schedules were completed on them. Most of these agencies were located in large urban areas. Only 58 per cent of the wholesalers interviewed handled eggs during the year of this study, Appendix Table 5.

VOLUME HANDLED BY WHOLESALERS

Wholesalers in Alabama handled slightly more than 2 million cases of shell eggs during the year of this study, Table 5. The bulk of these were shipped-in eggs. There was a large duplication of egg sales (sale of eggs by one wholesaler to another wholesaler) by wholesalers. Certain types of wholesalers specialized in bringing out-of-state eggs into Alabama and selling them to other wholesalers. Only a small percentage of all wholesalers made direct inshipments of eggs.

In terms of volume of eggs handled, 7 per cent of the wholesale agencies handled 62 per cent of all eggs, Appendix Table 6. On the other hand, 54 per cent of the agencies handled only 4 per cent of the volume of eggs. Many dealers that handled over 50,000 cases of eggs made most of their sales to other wholesalers;

TABLE 5. SOURCE OF PURCHASES AND VOLUME OF SHELL EGGS HANDLED BY WHOLESALE AGENCIES, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Kind of wholesale agencies	Source of purchases				Total	Per-centage of total volume
	Alabama sources			Direct		
	Pro-ducers	Retail stores	Whole-salers	inship-ments	1,000 cases	Per cent
Egg, poultry and produce dealers	108	84	403	454	1,049	50
Jobbers	0	0	0	702	702	34
Packers and meat dealers	7	6	97	140	250	12
Peddlers, hucksters, etc.	12	40	16	¹	68	3
Cooperatives	10	1	0	¹	11	1
Locker plants, cold storage, etc.	1	0	0	¹	1	²
TOTAL	138	131	516	1,296	2,081	100

¹ Less than 1,000 cases.² Less than 1 per cent.

wholesalers handling under 5,000 cases of eggs made most of their sales to retail stores.

SOURCES OF EGGS HANDLED

Of the 2 million cases of eggs handled by wholesalers, only 1,565,000 cases were involved as original purchases. The remaining 516,000 cases were duplications of sales. Of the original cases of eggs handled by wholesalers, only 17 per cent were Alabama-produced eggs, while 83 per cent were out-of-state eggs. Most of the out-of-state eggs handled by wholesalers originated in the West North Central States. The exact state of origin of many eggs shipped into Alabama was not known.

Some wholesalers bought eggs direct from Alabama producers. The volume purchased was small, however, because of the relatively small number of commercial egg producers in the State and the wide distribution of these producers over the State. The volume of eggs obtained from individual producers was rather small and often the costs of assembling eggs from such producers were high. In most cases where wholesalers purchased and collected eggs directly from producers, they worked with producers in establishing production areas and maintained other business relations with producers, such as supplying them with feed. In other cases, producers delivered eggs to wholesalers.

The purchase of eggs by wholesalers from retailers often was done as a tie-in with other business dealings or as a service. Some

retailers bought all eggs offered them by producers; those not sold to retailers' customers were later sold to wholesale agencies. Wholesalers often made purchases of eggs at the time other goods were delivered to retailers. In certain seasons of the year, some wholesalers purchased eggs from retailers even though they were not making sales to retailers at the time.

SEASONALITY OF EGGS HANDLED

Most of the eggs purchased by wholesalers direct from producers were purchased during the spring months. This was also true of eggs purchased by wholesalers from retailers. More than 60 per cent of the direct inshipments of eggs made by wholesalers occurred during the fall and winter months, Table 6.

Wholesale agencies served an important function in moving surplus Alabama-produced eggs in the spring months from one market to another. Approximately 68 per cent of all direct purchases from producers occurred during this period. During the same season, 78 per cent of all purchases from retail stores occurred. At the same time, wholesalers made a large reduction in direct inshipments of eggs. This change in method of purchasing by wholesalers promoted and assisted the movement of eggs from surplus areas to deficit areas in the State or to out-of-state markets.

TABLE 6. SEASONALITY OF EGG PURCHASES BY WHOLESALE AGENCIES BY SOURCE, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Season	Percentage of eggs purchased by seasons by source					
	Direct from Alabama producers	From retail stores, Alabama	Direct inshipments	Total of original purchases	From Ala. wholesalers (Duplicate purchases)	Total eggs handled
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Fall	8	4	32	28	31	28
Winter	10	5	29	25	30	27
Spring	68	78	17	27	16	24
Summer	14	13	22	20	23	21
TOTAL	100	100	100	100	100	100
Total number of cases of eggs purchased from each source, (1,000 cases)	138	131	1,296	1,565	516	2,081

EGG LOSSES

Wholesalers in handling over 2 million cases of eggs had losses of 46,000 cases. Of these losses, 2,000 cases were Alabama-produced eggs and 44,000 cases were shipped-in eggs. Often no candling was done when eggs were purchased by one wholesaler from another wholesaler. This was particularly true if the first wholesaler had candled the eggs. While there were some broken eggs due to handling between wholesalers, most of the loss on shipped-in eggs occurred in connection with the 1,296,000 cases of direct inshipments. The percentage loss of Alabama-produced eggs was apparently lower than that of shipped-in eggs. However, most of the Alabama-produced eggs were handled by small wholesalers and these eggs often were not candled. Losses due to spoiled eggs, therefore, may have been passed on to other buyers. However, most wholesalers followed a policy of making good any bad eggs that retailers or other wholesalers may have purchased from them. The over-all losses based on first purchases of 1,565,000 cases were approximately 3 per cent. Losses amounted to only 1 per cent on Alabama eggs and slightly over 3 per cent on shipped-in eggs. Total losses were slightly above 2 per cent when based on total handling of over 2 million cases. The major cause of losses was breakage, Table 7.

Of the 35,580 cases of eggs reported as lost due to breakage, 21,000 cases were salvaged. Eggs that were salvaged were sold as cracks, broken outs, or frozen. While salvaging of eggs reduced the total loss from 46,000 cases to a net loss of 25,000 cases, there was still some loss on salvaged eggs. These eggs had to be given special care, extra equipment was needed to handle them, and in most cases they were sold at a price approximately one-third to one-half the value of normal eggs.

Egg losses varied between agencies and by kinds of agencies. While jobbers handled only a third of the eggs handled by whole-

TABLE 7. CAUSE OF EGG LOSSES BY ORIGIN OF EGGS, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Cause of loss	Alabama-produced eggs		Shipped-in eggs		Total losses	
	Cases	Per cent	Cases	Per cent	Cases	Per cent
Breakage	1,700	85	33,880	77	35,580	77
Rots, blood spots, etc.	300	15	10,120	23	10,420	23
TOTAL	2,000	100	44,000	100	46,000	100

salers they had more than half of all losses, Table 8. Since these agencies made more than half of all direct inshipments of out-of-state eggs, this was expected. Losses of some individual plants ran approximately three times as high as the average of all plants.

Egg losses varied by size of egg business. As the volume of eggs handled increased, losses increased. Wholesale dealers who had small- and medium-sized egg volumes made more attempts to salvage broken eggs than did large-sized egg dealers as a whole, Table 9.

TABLE 8. EGG LOSSES BY KIND OF WHOLESALE AGENCIES, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950¹

Kind of agency	Percentage of all egg business handled by each kind of agency	Percentage of total losses by kind of agency	Percentage total loss was of cases handled by each kind of agency
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Egg, poultry and produce dealers	50	31	1.37
Jobbers	34	57	3.72
Packers and meat dealers	12	12	2.11
Peddlers, hucksters, etc.	3	²	0.16
Cooperatives	1	²	0.50
Locker plants, cold storage, etc.	²	0	0.00
TOTAL OR AVERAGE	100	100	2.21

¹ Based on 2,081,000 cases of eggs handled.

² Less than 1 per cent.

TABLE 9. VOLUME OF EGGS HANDLED AND LOSSES BY SIZE OF EGG BUSINESS, WHOLESALE DEALERS, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Range in size of egg business	Total no. of cases of eggs handled	Per- centage of total egg business	Percentage of losses and salvaged eggs by size of business:			Percentage loss was of total eggs handled	
			Gross losses ¹	Sal- vaged ²	Net losses ³	Gross losses	Net losses
	<i>1,000 cases</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Under 5,000 cases	83	4	1	2	1	0.67	0.17
5,000-24,999 cases	458	22	11	16	7	1.14	0.41
25,000-49,999 cases	250	12	13	16	10	2.31	0.97
50,000 cases or more	1,290	62	75	66	82	2.67	1.60
TOTAL OR AVERAGE	2,081	100	100	100	100	2.21	1.20

¹ Gross egg losses amounted to 46,000 cases.

² Eggs salvaged amounted to 21,000 cases.

³ Net egg losses amounted to 25,000 cases.

METHODS AND FACILITIES FOR HANDLING EGGS

COLLECTING EGGS. Approximately 15 per cent of the wholesalers who handled eggs in the State operated egg-collecting routes for assembling eggs from producers or retailers. Most of these routes were operated in connection with other pickups or the delivery of products such as feeds or produce. Very few routes were operated solely for the purpose of collecting eggs.

Some wholesalers operated fleets of trucks or leased trucks for the purpose of bringing in out-of-state eggs. Practically all eggs, both for within and out-of-state movement, were hauled by truck. Refrigerated trucks were usually used for transporting out-of-state eggs into the State. Usually, non-refrigerated, covered trucks were used on local collecting routes. Both wood and fiber cases were used in the collection of eggs. However, wood cases were preferred by most wholesalers.

Most wholesalers operated delivery routes for distributing eggs to customers. However, only about 20 per cent of the wholesalers who handled eggs operated routes solely for the purpose of delivering eggs. The number of trucks used in delivering eggs varied by wholesalers from 1 to 20. Some delivery routes were operated only when there was a call for eggs, while others operated on a route basis with deliveries varying from one to six times a week.

Of the wholesalers who handled eggs, 93 per cent handled them on a year-round basis. The remaining 7 per cent either handled eggs only during the spring and summer months, or handled them only during the fall and winter months. This latter group dealt largely with rural stores and handled eggs only when there was a rural consumer demand for outside eggs.

PROCESSING AND DISPLAY OF EGGS. Wholesale dealers usually did not display their eggs. Usually this was not necessary because the purchasers of wholesale eggs did not wish to inspect them before making a purchase. Many wholesalers who handled small volumes of eggs did not refrigerate them. However, most wholesalers who handled large volumes of eggs did refrigerate them. On the basis of total volume, 87 per cent of all eggs handled by wholesalers were held under refrigeration. Refrigeration was most common in the larger cities.

Eggs were held by wholesalers from 1 to 7 days or more before being sold. Since most eggs were held under refrigeration there was probably little difference in the quality of the eggs held 7

days as compared to those held only 1 day. There was little difference in the length of time that eggs were held whether in or out of refrigeration, Table 10.

Based on all eggs handled by wholesalers, 83 per cent were held 3 days or less and 17 per cent were held 4 days or more. Approximately 25 per cent of all eggs handled by wholesalers were duplicate sales. These eggs were often held 2 to 3 days by the first wholesaler and approximately the same length of time by the second wholesaler. After adjusting for duplicate sales, approximately 55 per cent of all eggs handled by wholesalers were held 3 days or less and 45 per cent 4 days or more. Approximately 3 per cent of the eggs handled were reported held in cold storage in the State for a period of 30 days or longer. Some of these eggs were cold-storage eggs when brought into the State. Information was not secured on the percentage of inshipped eggs that were cold-storage eggs.

Only 10 per cent of the wholesalers advertised eggs. Of the wholesalers who did advertise, a brand name was often used to advertise their eggs. Often the brand name and the grade of eggs or the brand name and the size of eggs were both used in advertisements. Most of the advertising was done by wholesalers located in the larger cities of the State.

In handling eggs, wholesalers often performed a number of functions which were designed to better serve their customers. These functions or treatments consisted of cleaning dirty eggs, sizing and repacking, grading, candling, and cartoning. Based on total volume of eggs handled by wholesalers, approximately 1 per cent were cleaned, 11 per cent were sized and repacked, 24

TABLE 10. LENGTH OF TIME EGGS WERE HELD BY WHOLESALERS, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Length of time eggs were held	Percentage of unrefrigerated eggs held	Percentage of refrigerated eggs held	Percentage of all eggs held		
			Unrefrig- erated	Refrig- erated	Total
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
1 day	4	12	¹	11	11
2 days	20	7	3	6	9
3 days	50	65	6	57	63
4 days	20	5	3	4	7
5 days	6	2	1	1	2
6 days	0	0	0	0	0
7 days or more	0	9	0	8	8
TOTAL	100	100	13	87	100

¹ Less than 1 per cent.

per cent were graded, 48 per cent were candled, and 16 per cent were cartoned. Grading by some wholesalers was actually sizing. Grading in almost all cases was done on the basis of "dealer grades." Most inshipped eggs, however, were originally purchased on the basis of official USDA grades.

While approximately half of the eggs handled by wholesalers were candled, most of the others were simply inspected by eye for cracks. In candling eggs, most wholesalers looked for rots, cracks, blood rings or spots, floats, and shrinkage. Wholesalers reported from 17 to 35 cases of eggs candled per day per candler. The most frequent number of cases candled per day was 30. Usually about 20 cases were handled per candler per day when eggs were candled and packed into cartons.

Wholesalers who handled both shipped-in eggs and Alabama-produced eggs were asked to compare them as to quality, uniformity, profitableness, loss, and local demand. Answers ranged from shipped-in eggs being superior in all respects to Alabama eggs being superior in all respects. The consensus of opinions, however, was that shipped-in eggs were superior to Alabama eggs in quality and uniformity, and that they were about equal in terms of profitableness, loss, and local demand. Shipped-in eggs were usually bought on a grade basis. Most Alabama-produced eggs were purchased as current receipts and the bulk of them were purchased during the spring and summer months. This probably accounted for shipped-in eggs being rated superior to Alabama eggs in quality and uniformity.

WHOLESALE DISTRIBUTION OF EGGS. In addition to performing the functions or treatments described above, wholesalers performed several services in the distribution of eggs. These included clerical services, credit, and broken lot deliveries. Approximately two-thirds of the wholesalers extended weekly or monthly credit to their customers. On the basis of volume of eggs handled by wholesalers, 3 per cent were sold in lots of less than one case, one-half case being the most frequent size of broken lot purchases. Approximately 44 per cent were sold in lots of 1 to 5 cases, 18 per cent in lots of 6 to 10 cases, and 35 per cent in lots of more than 10 cases. Most of the sales of wholesalers to wholesalers were in the larger group. Most of the retail agencies made purchases of less than 10 cases at each purchase.

Most of the sales of shell eggs made by wholesale egg handlers were to retail agencies in the State, Figure 6. Approximately 115,-

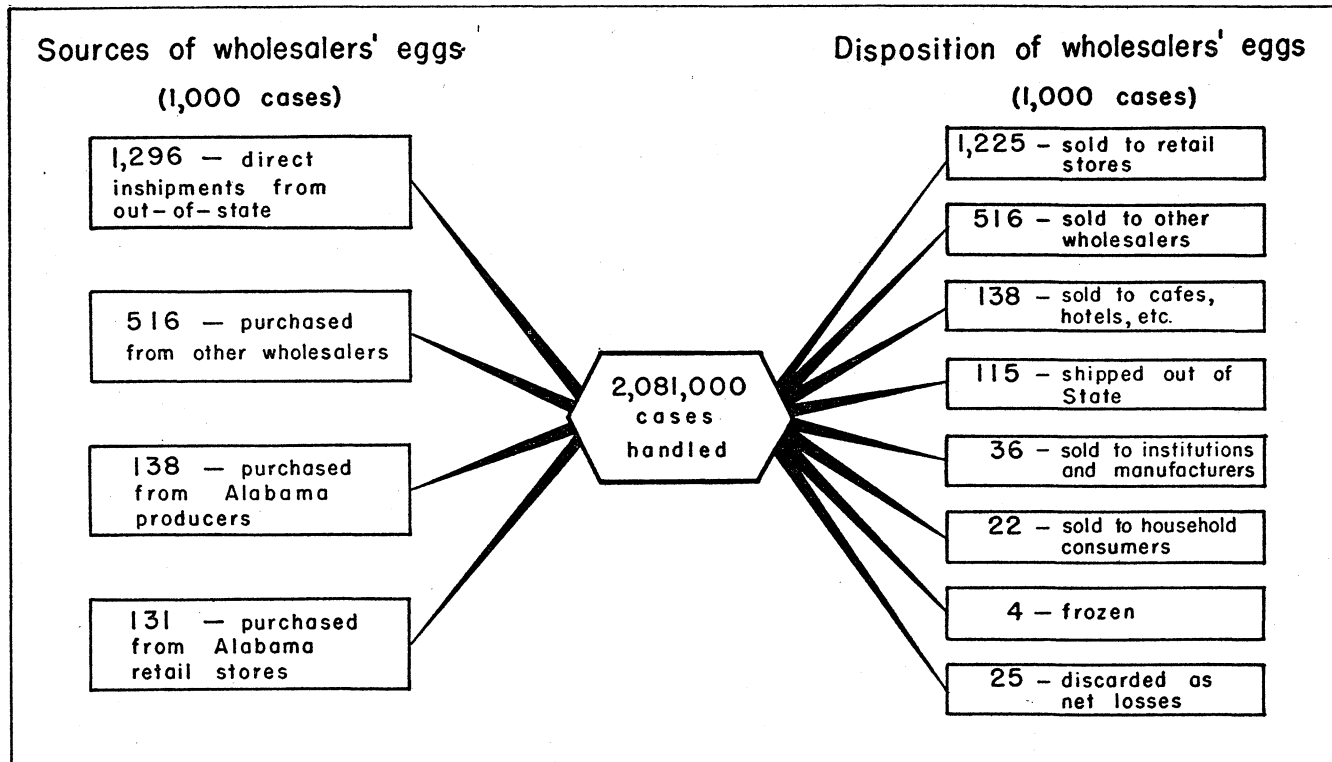


FIGURE 6. Sources and disposition of shell eggs handled by wholesalers, Alabama, September 1, 1949-August 31, 1950.

000 cases were shipped out-of-state; a total of 25,000 cases was a complete loss. Some wholesalers made limited sales to consumers. Packers, jobbers, and produce dealers made most of the out-of-state sales. These sales were largely made to out-of-state customers that made up part of the regular trade areas of these agencies.

PRICE DETERMINATION, MARGINS, AND MARKET NEWS

PRICE DETERMINATION. Wholesale dealers were asked: "How do you determine prices to pay for eggs purchased?" Answers varied by dealers, but were classified into four major groups, Table 11. Local competition was the major factor determining prices paid to producers. Wholesale or central market quotations were the major factors determining prices paid to other sources from which wholesalers bought eggs. These included both Alabama and out-of-state purchases of eggs.

TABLE 11. BASIS OF DETERMINING PRICES WHOLESALERS PAID FOR EGGS BY PERCENTAGE OF ALL EGGS PURCHASED AND BY SOURCE, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Basis	Prices paid to:		
	Producers	Other sources	Average
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Wholesale or central market quotations	36	47	45
Local prices or competitors' prices	62	19	25
Discounted from expected selling price	1	1	1
Other ¹	1	33	29
TOTAL	100	100	100

¹ Other included: Discounted from buyers guaranteed price; government price reports; radio or newspaper price reports; prices from Board of Exchange; and similar guides.

Although several factors entered into the determination of prices that wholesalers paid for eggs, such was not the case for prices received for eggs. Almost without exception, dealers listed local prices or competition as the factors which determined the price for which eggs were sold.

MARGINS. The wholesalers' margin or spread in selling eggs varied widely depending on the functions performed by wholesalers. When sales were made by one wholesaler to another wholesaler, and involving no grading, candling, packaging, etc.,

the margin was small. In cases where such functions as assembling, supplying cases, candling, grading, cartoning, cooling, transporting to buyer, and other functions were performed, spreads varied from 1 to 10 cents per dozen based on the number of functions performed. Wholesalers purchased eggs at an average price of 42.5 cents per dozen and sold them for an average price of 45.9 cents per dozen. This resulted in an average gross spread of 3.4 cents per dozen for all eggs sold as market eggs. Of this amount, 0.8 cent per dozen was to cover losses not salvaged. This left an average margin of 2.6 cents per dozen to cover all other costs of wholesalers.

Although this margin was small, it should be remembered that approximately 25 per cent of all wholesale sales were duplicate sales, and that the number of functions performed by most wholesalers was relatively small. It is also to be remembered that the handling of most eggs in the State was tied in with other types of businesses. Few wholesalers operated either collection or delivery routes for eggs only. Many wholesalers operated on narrow margins and handled small volumes of eggs. However, egg businesses in connection with other businesses usually gave the total business volume needed for reasonable profits. Other studies indicate that handling costs of wholesalers in this State were well in line with similar costs in other states.

MARKET NEWS. Approximately 53 per cent of the wholesale dealers in the State reported that they received no egg market news. Of the 47 per cent who did receive egg market news, 21 per cent received market news with respect to markets on which they bought eggs, 26 per cent received market news with respect to markets on which they sold eggs, and 53 per cent received market news with respect to markets other than the ones on which they bought or sold eggs. For instance, a Mobile dealer might buy eggs from a mid-western market, sell them in the Mobile trade area, and receive egg market news from Birmingham or Atlanta.

There were a number of sources from which wholesalers received egg market news. These included newspapers, radio, trade papers, telephones, and other sources. Newspapers were the most frequently reported source of news dealing with markets on which dealers bought or sold eggs, Table 12.

TABLE 12. SOURCE OF EGG MARKET NEWS, WHOLESALE DEALERS, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Source of egg market news	Market news applied to market on which dealer		
	Bought eggs	Sold eggs	Other markets ¹
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Newspaper	48	44	32
Radio	17	14	7
Trade paper	4	3	1
Telephone	0	3	0
Other ²	31	36	60
TOTAL	100	100	100

¹ Other markets were those from which wholesalers received market news but on which they did not buy or sell eggs.

² Other pertained largely to printed PMA egg price report releases.

PROBLEMS OF WHOLESALE EGG DEALERS

More than half of the wholesale dealers in the State had difficulties securing enough Alabama-produced eggs to meet their needs. Practically all large volume dealers had difficulties securing adequate supplies of Alabama-produced eggs. At the same time, wholesalers had very few difficulties in buying out-of-state eggs in the volume needed during any month of the year. Wholesalers had some difficulties in selling eggs during several months of the year, Appendix Table 7. Most of these difficulties occurred during the spring and summer months.

The difficulties that wholesalers had in selling eggs were caused primarily by surplus eggs and hot weather, Appendix Table 8. Competition from peddlers making wholesale and retail sales of eggs was listed as a difficulty by only 1 per cent of the wholesalers.

Wholesale dealers reported a number of problems in their handling and marketing of eggs. Most of these were related to their inability to secure adequate supplies of Alabama-produced eggs when needed, the quality of eggs available, and the kinds of competition they faced in doing business. These problems were inter-related with producers, retailers, consumers, and other wholesalers.

Some of the problems that wholesalers listed as being caused by Alabama producers were:

1. Inadequacy of State production.
2. Surplus of eggs during the spring months.
3. Deterioration from eggs being held too long by producers, often without refrigeration.
4. Improper packaging of State-produced eggs.
5. Difficulty of assembling State eggs from scattered production areas.
6. Dirty eggs sold by producers.
7. Low quality eggs, particularly in the spring and summer months.
8. Unwillingness of many producers to sell eggs on a graded basis.

The suggestion given by wholesalers for correcting these problems consisted mainly of a request for further educating the farmers as to the proper methods of producing and marketing high quality eggs. They also suggested that production should be expanded and that producers should develop more adequate farm storage facilities for holding eggs, including refrigeration.

Wholesalers listed their principal problem caused by retailers as a lack of understanding on the part of many retailers as to the proper handling of a perishable product like eggs. Many retailers did not refrigerate, properly display, nor do a good job of merchandising eggs. Wholesalers felt that these omissions reduced sales of eggs in these stores. Some wholesalers felt that the kind of advertising that retailers used was harmful to both consumers and to the wholesale trade. In most states that have strict enforcement of egg grading laws, the use of such terms as "fresh eggs," "strictly fresh eggs," "hennery eggs," "new-laid eggs," "country eggs," or other descriptions of similar nature are prohibited on any eggs which do not meet minimum requirements for USDA consumer Grade A, or any eggs which have been held in cold storage for more than 30 days. This is not true in Alabama. As a result many of the eggs sold in Alabama, while below Grade A standards, are advertised using terms such as those listed above. Although this advertising is not in violation of any enforced regulations in the State, it is probable that many consumers interpret this kind of advertising to mean the same in Alabama as it does in those states where advertising of eggs is more strictly regulated.

Wholesalers reported a number of problems that were peculiar to wholesalers as a group. Among these were:

1. Unethical competition by some peddlers or hucksters.
2. Need for a more satisfactory method of disposing of cracked and low grade eggs.
3. Need of reducing breakage.
4. Cooperation in solving the spring surplus problem.
5. Need for experimental work with different size egg cases and cartons.
6. Lack of Alabama regulations relative to handling cold storage eggs.
7. Lack of Alabama regulations relative to egg grades.
8. Lack of local egg market news.
9. Lack of refrigeration on the part of some wholesalers.
10. Lack of adequate market facilities, especially on some of the large markets.

Some of the problems reported by wholesalers can be solved by strict enforcement of present laws and/or by passing new laws in some cities. In some cases, the enforcement of Alabama laws or the passing of new ones would be required. To solve some of the problems listed, additional or new types of research work are needed to study specific problems as a basis for developing methods of solving them.

Some cities do not require a license of producers who peddle farm products from door to door or to stores. The failure to enforce this regulation has led to its abuse, and the obtainance of so-called "unfair" advantages by some peddlers or hucksters. Some wholesalers felt that all egg peddlers should buy licenses regardless of the source of the eggs sold.

Some wholesalers indicated that they had no problems worthy of mention in handling and marketing eggs. In other cases, no replies were received as to problems and suggested solutions. Approximately 35 per cent of all wholesalers indicated that there was a need for a strictly enforced egg grading law in the State. All of the remaining 65 per cent were not necessarily opposed to such a law, however. While 35 per cent favored the law, the opinions of many dealers were not received. Of those who expressed a desire for a State egg grading law, there were differences of opinion expressed as to the kind of law needed, how it should operate, and to whom it should apply. Most of the wholesalers who replied indicated that the egg grading law now set

up in the Alabama Code should be changed. Some wholesalers felt that such a law should be applied to all handlers, from producers through retailers; others thought producers should be exempted.

Of the wholesalers visited, approximately 10 per cent indicated that they were thinking of expanding their egg handling operations. Some of these were in the process of making such adjustments at the time of the study, while others had such plans for the future. Only 1 per cent expressed a definite opinion that they planned to reduce their egg handling operations.

RETAIL MARKETING OF EGGS

A large number of various kinds of retail agencies handle eggs in Alabama. Some of these agencies sell shell eggs to consumers; others dispose of eggs only as meals, in prepared foods, or in drinks. A few retail agencies serve as assemblers of eggs from producers and make sales to both consumers and to other types of buyers including other retail agencies and/or wholesale agencies. Retail agencies purchased 798,000 cases or 68 per cent of all eggs sold by Alabama producers during the year of this study and also made direct inshipments of 197,000 cases of eggs. Most of these inshipments were made by chain organizations. In addition, retail agencies purchased both State-produced and imported eggs from wholesale agencies.

NUMBER AND KIND OF RETAIL AGENCIES

The "1948 Census of Business"⁸ reported more than 29,000 retail establishments in the State. All of these businesses were not the types of businesses that normally handle eggs. However, many were dealing with food products and did handle eggs. The number of food stores was reported as 11,848, Table 13.

Almost all urban food stores handled eggs, while only 81 per cent of the rural and open country food stores handled eggs. Most eating places handled eggs. Some 93 per cent of the rural general stores handled eggs, while only 74 per cent of those located in urban areas handled eggs. All urban filling or service stations were highly specialized and consequently did not handle eggs. Some, however, had eating places that were included under that specific heading. Approximately 10 per cent of the rural

⁸ "1948 Census of Business." Bureau of the Census, U. S. Department of Commerce. May 1950.

TABLE 13. KIND, NUMBER, AND PERCENTAGE OF RETAIL AGENCIES HANDLING EGGS, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Kind of agency	Number of establishments	Number of each included in study	Percentage of each in sample	Estimated number in each group handling eggs	
	<i>Number</i>	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>
Food stores	11,848	523	4.4	10,419	88
Eating places	3,970	83	2.1	3,879	98
General merchandise	2,368	60	2.5	2,080	88
Service stations	2,891	60	2.1	175	6
Drug stores	866	48	5.5	205	24
All other retail stores ¹	928	133	14.3	396	43
Hotels	207	35	16.9	64	31
Tourist courts	170	22	12.9	54	32
TOTAL OR AVERAGE²	23,248	964	4.1	17,272	74

¹ The 1948 *Census of Business* listed 1,960 establishments as "All Other Retail Stores." Only those establishments that handled food or dealt with agricultural products were included in this study.

² Types of retailers not included in this study were apparel stores, furniture stores, automotive stores, and lumber and hardware stores.

service stations sold some food products including eggs. Some 28 per cent of the urban drug stores handled eggs, while only 11 per cent of those located in rural areas handled eggs. Most eggs handled by drug stores were served as prepared foods or mixed with fountain drinks or shakes. While there were 928 other retail stores that dealt with food or farm products, only 43 per cent handled eggs. These were about equally divided between urban and rural areas. Many hotels and tourist courts did not serve meals and therefore did not handle eggs.

Of all retail agencies and hotels and tourist courts, (29,046), some 23,248 or 80 per cent were the types of agencies that could be expected to sell eggs or to serve them as meals. Of the 23,248 possible egg handlers in the State, approximately 17,272 or about 74 per cent actually handled eggs during the period of this study.

VOLUME HANDLED BY RETAILERS

These 17,272 retail places handled a total of 2,507,000 cases of eggs during the year of this study. This amounted to an average of 145 cases of eggs per retail establishment. Food stores were the largest handlers of eggs of any type of retail agency, Table 14.

Of the out-of-state eggs brought in directly by food stores, most were brought in by national or local chain organizations. A

TABLE 14. SOURCES OF PURCHASE AND VOLUME OF EGGS HANDLED BY RETAIL STORES, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Kind of agency	Sources of purchase				Total purchases 1,000 cases
	Alabama producers 1,000 cases	Direct in-shipments 1,000 cases	Wholesale agencies 1,000 cases	Retail agencies 1,000 cases	
FOOD HANDLERS:					
Food stores	380	179	1,042	74	1,675
Gen. merchandise	262	17	145	10	434
Service stations	4	0	13	0	17
All other retail	91	¹	25	3	119
Sub-total	737	196	1,225	87	2,245
EATING PLACES:					
Cafes, etc.	52	1	126	61	240
Drug stores	1	0	1	1	3
Hotels	6	¹	10	¹	16
Tourist courts	2	¹	1	¹	3
Sub-total	61	1	138	62	262
GRAND TOTAL	798	197	1,363	149	2,507

¹ Less than 1,000 cases.

few retailers located near the State boundary used regular out-of-state sources of supply as a part of their regular business.

Approximately 32 per cent of the eggs handled by all types of retail stores were purchased direct from producers. The remaining 68 per cent were purchased from several types of sellers, referred to in this study as *primary sellers*. Urban, rural, and open country food stores combined handled 67 per cent of all the eggs handled by all types of retail stores. Of all the eggs sold by producers direct to retail stores, 48 per cent were sold to food stores. On the other hand, 76 per cent of all the eggs sold by primary sellers to retailers were sold to food stores.

The volume of eggs handled per retailer varied by kind of agency and location. The average food store in the State handled approximately three cases of eggs per week. The average urban food store handled nearly seven cases of eggs per week, while the average rural food store handled an average of only one case per week. Sales of eggs varied greatly among food stores, ranging from less than 1 case per week to more than 20 cases per week. The average urban retail store handled 155 cases of eggs per year, while the average rural retail store handled 61 cases per year, Table 15.

TABLE 15. AVERAGE NUMBER OF CASES OF EGGS PURCHASED BY KIND OF RETAIL STORES AND BY LOCATION, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Kind of retail agency	Number of retail establishments	Average number of cases of eggs purchased by type of agency and by location		
		Urban stores	Rural stores	Average
	<i>Number</i>	<i>Cases</i>	<i>Cases</i>	<i>Cases</i>
Food stores	11,848	345	55	141
Gen. mdse. stores	2,368	151	199	183
Eating places	3,970	68	37	60
Service stations	2,891	0	10	6
Drug stores	866	4	1	3
Other retailers	928	116	187	128
Hotels	207	88	16	77
Tourist courts	170	9	22	18
TOTAL OR AVERAGE	23,248	155	61	108

SEASONALITY OF EGGS HANDLED

Seasonally, there was little variation in the volume of eggs handled by all retail stores. However, there were wide variations between different kinds of stores. Some rural stores handled eggs only when locally-produced eggs were available. Approximately 60 per cent of the shipped-in eggs that retail stores handled were purchased in the fall and winter months, whereas more than 60 per cent of the Alabama-produced eggs were handled by retailers during the spring and summer months, Table 16.

TABLE 16. PERCENTAGE OF SHELL EGGS HANDLED BY RETAIL STORES BY SEASONS AND ORIGIN, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Season	Shipped-in eggs	Alabama-produced eggs	Average
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Fall	31	15	25
Winter	28	21	26
Spring	19	37	27
Summer	22	27	22
TOTAL	100	100	100

EGG LOSSES

Egg losses by retailers amounted to 7,000 cases, of which 2,000 cases were salvaged, leaving net losses of 5,000 cases. Of the losses that occurred, 57 per cent were Alabama-produced eggs and 43 per cent were shipped-in eggs. On a percentage basis, losses by retail stores amounted to less than 0.3 per cent. This low percentage was due largely to the methods used by retailers of

passing known losses back to the original seller, or by selling eggs as they received them. In the latter case, losses were passed from the first buyer on to the second buyer, who was often the final consumer.

The losses that were taken by retailers were due largely to breakage and spoilage. Breakage accounted for 75 per cent, and spoilage for the remaining 25 per cent of the losses. Breakage and spoilage occurred in both shipped-in and State-produced eggs.

METHODS AND FACILITIES FOR HANDLING EGGS

Both the methods of handling eggs and the facilities used for handling them varied by location. Of the food stores in the State, 80 per cent handled all types of foods, 14 per cent handled groceries only, 1 per cent handled meats only, and 5 per cent handled food products and other types of merchandise such as clothing, gasoline, auto supplies, etc.

At the time of this study none of the food stores had complete self-service in all departments. However, approximately 5 per cent of the food stores had self-service except in the meat department. In the remaining 95 per cent, customers were served by a clerk. In all other types of retail stores studied, customers were served by a clerk except for a few eating places.

Of all the food stores studied, 70 per cent extended credit. This practice varied by location; only 54 per cent of the urban food stores extended credit, while 79 per cent of the rural food stores and 89 per cent of the open country food stores extended credit. Credit extension practices of other types of retailers varied widely. Only a few eating places extended credit, while most general merchandise stores extended credit to customers.

Retail stores used a number of different ways of displaying eggs both with and without refrigeration. On the basis of volume of eggs handled, approximately 46 per cent of all eggs were displayed and held under refrigeration, Appendix Table 9. Retail stores in urban areas used refrigeration to a greater extent than did stores in rural and open country areas.

Approximately 54 per cent of the eggs handled by all types of retail stores were held at room temperature and the remainder was held under refrigeration. Eggs that were held at room temperature were moved at a faster rate than were eggs that were held under refrigeration. Of the eggs held at room temperature,

approximately 92 per cent were sold within 3 days. The remaining 8 per cent were held for 4 days or more. Of the eggs held under refrigeration, only 75 per cent were sold within 3 days. The remaining 25 per cent were held 4 days or more. Apparently many stores that did not have refrigeration facilities bought eggs in smaller quantities and more frequently than did stores that had refrigeration. The length of time that eggs were held before being sold or used varied by kinds of retail stores, Appendix Table 10. Rural and open country food stores held eggs at room temperature for longer periods of time than did urban food stores.

Advertising eggs was not a common practice of retail stores. Only about 15 per cent of the general merchandise stores, 14 per cent of the food stores, and 2 per cent of all other retail stores advertised eggs at some time during the year. Approximately 20 per cent of the urban food stores advertised eggs, while only 9 per cent of the rural and open country food stores followed this practice. Brand name, size, freshness, grade, and color were the types of descriptions used to advertise eggs. Freshness was the term most frequently used.

Consumers used different terms in buying eggs from retail stores. Buying eggs by color was the most frequent way in which eggs were requested. However, almost half of the eggs purchased by consumers were called for by the expression, "A dozen eggs," Table 17.

TABLE 17. TERMS USED BY CONSUMERS IN PURCHASING EGGS, RETAIL STORES, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950¹

Terms used by consumers in purchasing eggs	Percentage of total volume of eggs handled by:				
	Urban food stores	Rural and open country food stores	Average of all food stores	Remaining retail stores	Average of all retail stores
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
White eggs	36.8	20.9	33.2	17.0	29.1
Brown eggs	13.2	7.2	11.9	34.4	17.6
Mixed color	1.3	3.5	1.8	13.2	4.7
Fresh eggs	6.8	5.0	6.4	3.7	5.7
Other terms	0.5	1.6	0.8	0.0	0.6
Just eggs ("A dozen eggs")	42.1	64.8	47.2	32.0	43.3
TOTAL ²	100.7	103.0	101.3	100.3	101.0

¹ Based on volume of eggs sold by retail stores as shell eggs.

² Total adds to more than 100 per cent because some consumers used more than one term in purchasing eggs.

TABLE 18. EGG SALES MADE BY RETAIL STORES BY LOT SIZE AS PERCENTAGES OF TOTAL SHELL-EGG SALES, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Size of sale	Food stores located in			Remaining retail stores	Average of all retail stores
	Urban areas	Rural and open country areas	All food stores		
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Less than ½ dozen	0.2	0.2	0.2	0.1	0.2
½ dozen	2.5	0.8	2.1	2.0	2.1
1 dozen	54.7	72.0	58.7	35.7	52.8
2 dozen	23.1	16.6	21.6	16.4	20.3
3 dozen	14.0	5.8	12.1	2.7	9.7
4 dozen	0.2	0.2	0.2	0.2	0.2
5 dozen	0.0	0.0	0.0	0.2	0.1
6-10 dozen	0.0	0.0	0.0	0.4	0.1
11-15 dozen	0.1	0.1	0.1	2.0	0.6
16-29 dozen	0.0	0.0	0.0	1.3	0.3
1-5 cases	2.9	4.2	3.2	39.0	12.3
6 or more cases	2.3	0.1	1.8	0.0	1.3
TOTAL	100.0	100.0	100.0	100.0	100.0

Few consumers asked for eggs at retail stores in cartons. However, in many cases, consumers were making egg purchases at stores where they knew they would be able to purchase eggs in cartons and often of given brand names. Had the stores not sold eggs in cartons, the requests of consumers may have been different.

Retail stores made sales of eggs in almost any quantity desired by customers. Volume of sales per customer varied from less than one-half dozen to several cases. The most frequent sales were in lots of 1 dozen, Table 18. Many of the sales to out-of-state customers, to wholesalers, to other retailers, and to some eating places were made in case lots.

Some retail stores operated egg routes either for collecting eggs or delivering them. Some retail feed stores operated egg collection routes in connection with feed deliveries. Most of these stores sold the bulk of the eggs collected in wholesale lots. Some retail stores operated rolling stores as a part of their businesses. These stores often collected eggs. Most of these collections were in small lots, often only 1 or 2 dozen eggs from a seller. Rolling stores were included in the food store group.

Of the 2,245,000 cases of eggs handled by retail stores other than eating places, approximately 12 per cent were candled by retailers. Most of the candling by retailers was with eggs pur-

chased direct from producers, and often this practice was followed only during the spring and summer months. Thirty-four per cent of all eggs purchased by retail stores direct from producers were candled.

In some cases retailers who made most of their sales in case lots to other retailers or wholesalers sized and repacked eggs. Usually, these storekeepers candled only a part of the eggs handled. Where a retailer acted as an assembler of eggs, he occasionally transported these eggs from his place of business to some larger market, usually one of the four larger cities in the State.

Retail stores other than eating places, drug stores, etc., cartoned approximately 18 per cent of the eggs they handled. Many other retail stores purchased eggs in cartons from wholesalers. Approximately 40 per cent of all the retail and wholesale sales of eggs to household consumers were in cartons. Rural and open country stores usually did not handle eggs in cartons. Approximately 70 per cent of all the eggs sold by retailers to household consumers in towns of 10,000 or more population were in cartons. Some of these were cartoned by retailers, while others were purchased from wholesalers in cartons. Some of the smaller and outlying stores of the larger cities did not use cartons when making consumer sales. As a whole, urban food stores handled the bulk of the eggs sold in cartons. Many of these stores were able to make attractive displays of eggs in cartons and give emphasis in merchandising eggs equal to that of other food products.

Of the 2,507,000 cases of eggs handled by retail stores of all types, some 1,897,000 cases, or 76 per cent were sold to household consumers, Figure 7. Approximately 3 per cent of the sales made by retail stores were to out-of-state customers. Some of these sales were to regular customers located along the State border. Other sales were made by retailers who acted as assemblers for out-of-state truckers, especially during the spring months. Some retailers who did wholesaling of eggs handled some out-of-state trade as a part of their regular business. Some of the chain organizations that were included in this study as retailers served some out-of-state stores from their within-state warehouses. Approximately 10 per cent of all the eggs handled by retailers were served as meals or used in preparing foods by eating places, drug stores, hotels, and tourist courts.

Retail stores that handled both locally-produced and shipped-in eggs were asked to compare eggs received from different sources.

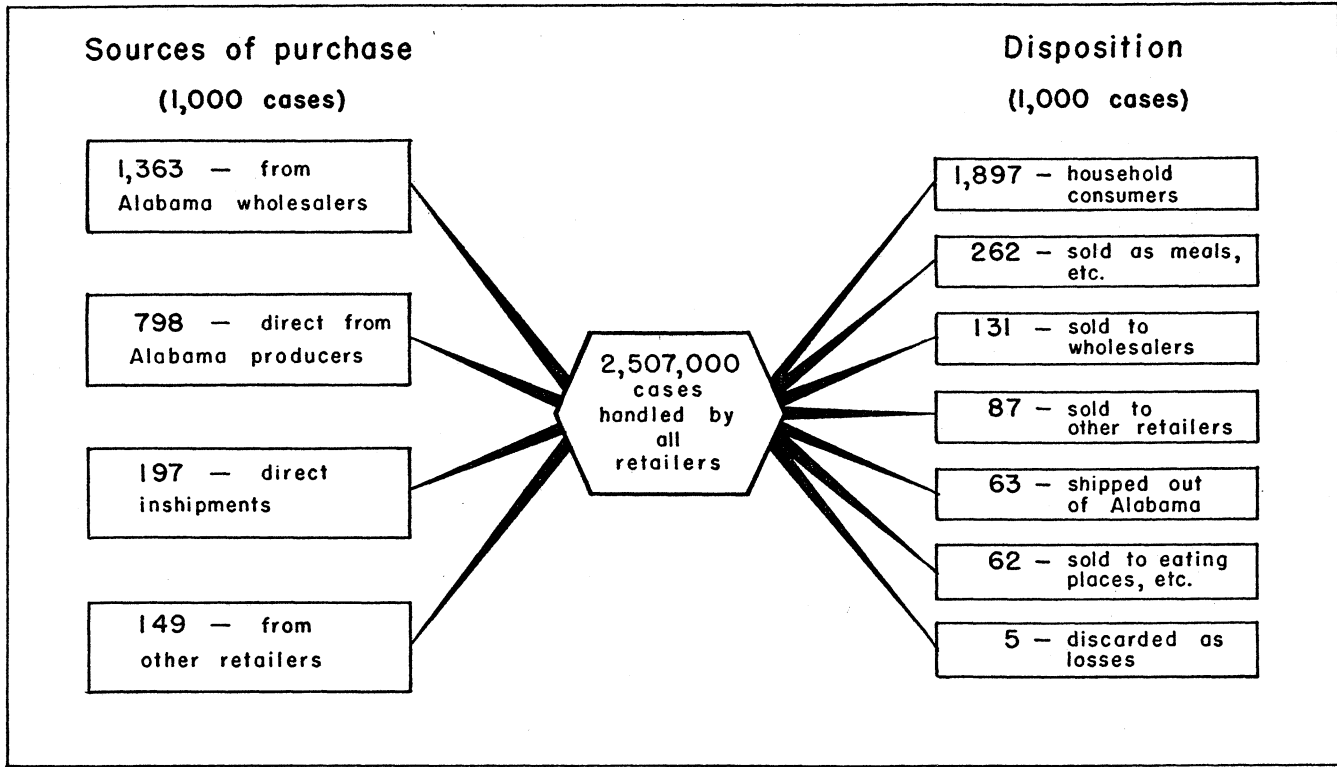


FIGURE 7. Sources and disposition of eggs handled by retail agencies, Alabama, September 1, 1949-August 31, 1950.

In terms of quality, a few dealers classified shipped-in eggs as superior, a little larger number classified them as equal, while almost two out of three classified shipped-in eggs as inferior. On the basis of uniformity, three out of every four dealers classified shipped-in eggs as superior. One out of every four classified eggs from the two sources as equal in uniformity, while none rated shipped-in eggs as inferior on this point. Approximately 95 per cent of the dealers who handled both local and shipped-in eggs classified them as about equal in terms of profitableness and in complete loss from rots, breakage, etc. The remaining 5 per cent were about equally divided in rating shipped eggs as superior or inferior. A very low percentage of the dealers rated shipped-in eggs as superior in local demand, one out of four rated them equal, while three out of four rated shipped eggs as inferior in local demand.

Classification of eggs by retailers may not be a good indication of the true merits of eggs from various sources. However, they do point out that many retailers have definite opinions on eggs coming from different sources. These opinions in turn influence retailers as to the amount of time and space they are willing to devote to displaying and merchandising eggs, particularly locally-produced eggs.

PRICE DETERMINATIONS, MARGINS, AND MARKET NEWS

PRICE DETERMINATION. Methods of determining prices paid by retail stores to Alabama producers for eggs varied by types of stores and by outlets used by these stores. Food stores, who sold most of their eggs to household consumers, based the price they paid local producers largely on local competition for eggs. Other retail stores, in rural and open country, who sold most of their eggs in case lots to wholesalers and retailers, based the price they paid local producers largely on wholesale or central market quotations, Table 19.

Retail store dealers based the price paid to primary sellers for eggs on several different things. Primary sellers consisted of wholesale agencies, other retail stores, and all other sources of egg purchases except direct from producers. Primary sellers may have handled either Alabama-produced eggs or shipped-in eggs or both. On the basis of total cases of eggs purchased from primary sellers, 80 per cent were paid for at a price based on local competition, Table 20.

TABLE 19. METHODS OF DETERMINING PRICES PAID ALABAMA PRODUCERS FOR EGGS BASED ON PERCENTAGE OF TOTAL PURCHASES BY TYPES OF RETAIL STORES, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Kind of retail store	Method of determining prices paid producer for eggs					Total
	Wholesale quotation	Local competition	Discounted from expected selling price	Based on government price report	Other ¹	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Urban food stores	1.0	99.0	0.0	0.0	0.0	100.0
Rural and open country food stores	1.4	95.1	1.0	0.5	2.0	100.0
Average food stores	1.2	97.4	0.4	0.2	0.8	100.0
Urban gen. mdse.	0.0	100.0	0.0	0.0	0.0	100.0
Rural and open country gen. mdse.	0.0	100.0	0.0	0.0	0.0	100.0
Average gen. mdse.	0.0	100.0	0.0	0.0	0.0	100.0
Rural filling stations	0.0	100.0	0.0	0.0	0.0	100.0
Urban other retail stores	0.0	72.8	7.4	18.2	1.6	100.0
Rural and open country other retail	95.0	5.0	0.0	0.0	0.0	100.0
Average other retail	45.0	40.7	3.9	9.6	0.8	100.0
Eating places, drug stores, hotels, etc.	0.0	100.0	0.0	0.0	0.0	100.0
TOTAL OR AVERAGE	5.1	92.7	0.6	1.1	0.5	100.0

¹ Other included: discounted from buyers' guaranteed price, radio or newspaper price reports, or other similar methods.

MARGINS. Retail store dealers varied the amount of markup used for eggs by seasons, source of eggs, practices followed, method of sale, and for other reasons. Most food stores sold eggs to household consumers. In these cases, the amount of markup was based on the size of purchase and the amount of such services and facilities as refrigeration, cartoning, credit, etc., that was used.

Markups were higher for individual family sales than for case-lot sales at wholesale rates. Food stores used an average markup of 8.1 cents per dozen to cover all costs including losses from breakage or spoilage, Table 21. Margins at some stores varied from zero on some eggs taken in on a trade basis to 12 cents per dozen.

The average retail store had an average markup of 7.5 cents per dozen for all eggs sold. This markup covered all costs in-

TABLE 20. METHOD OF DETERMINING PRICES PAID PRIMARY SELLERS (ALL SELLERS EXCEPT PRODUCERS) FOR EGGS BASED ON PERCENTAGE OF TOTAL PURCHASES BY TYPE OF RETAILER, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Kind of retail agency	Method of determining price paid primary sellers for eggs					Total
	Wholesale quotation	Local competition	Dis-counted from expected selling price	Based on government price reports	Based on radio price reports	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Urban food stores	2.7	74.8	1.7	9.1	11.7	100.0
Rural and open country food stores	3.3	91.6	3.4	1.7	0.0	100.0
Average of all food stores	2.8	77.5	2.0	7.9	9.8	100.0
Urban gen. mdse.	58.0	42.0	0.0	0.0	0.0	100.0
Rural and open country gen. mdse.	10.3	89.7	0.0	0.0	0.0	100.0
Average of all gen. mdse.	27.3	72.7	0.0	0.0	0.0	100.0
Rural filling stations	1.4	98.6	0.0	0.0	0.0	100.0
Urban other retail	0.0	100.0	0.0	0.0	0.0	100.0
Rural and open country other retail	3.1	89.6	4.2	2.1	1.0	100.0
Average of all other retail	1.7	94.4	2.3	1.1	0.5	100.0
Eating places, drug stores, hotels, etc.	0.9	99.1	0.0	0.0	0.0	100.0
TOTAL OR AVERAGE	5.3	80.1	1.5	5.9	7.2	100.0

TABLE 21. MARGINS USED BY RETAIL DEALERS FOR EGGS BY SOURCE, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950¹

Kind of retail agency	Margin in cents per dozen on		
	Alabama-produced eggs	Shipped-in eggs	All eggs
	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Urban food stores	9.4	7.8	8.0
Rural and open country food stores	7.2	8.9	8.1
All food stores	8.5	7.9	8.1
Urban general merchandise	7.2	8.4	8.1
Rural and open country general merchandise	4.2	9.2	6.1
All general merchandise	4.5	9.0	6.4
All service stations	10.3	9.8	9.9
Urban other retail	5.2	2.7	4.5
Rural and open country other retail	2.4	6.1	3.7
All other retail	3.8	4.6	4.0
Average of all retailers	6.7	8.0	7.5
AVERAGE OF ALL RETAILERS ABOVE BREAKAGE AND SPOILAGE COSTS	6.6	7.8	7.4

¹ Includes only retail dealers who were selling eggs in shell form, and excludes eating places, drug stores, hotels, and tourist courts.

cluding breakage and spoilage. Breakage and spoilage costs averaged 0.1 cent per dozen eggs handled.

General merchandise stores and "other" retailers used the lowest markups of any retail stores. General merchandise stores sold 35 per cent of the eggs they handled at wholesale prices. Other retail stores sold approximately 66 per cent of their eggs on a wholesale basis, Table 22. Lower markups for these agencies were possible because of lower handling costs.

The margin used by some retail stores on eggs purchased from producers varied on the basis of the way eggs were paid for. Some stores paid producers in cash for eggs, some took them only on a "trade-in" basis, and some used a combination of both methods. Most stores made no difference in the price paid for eggs by either method. However, a few stores allowed a premium for eggs taken in trade. This premium varied from 1 to 5 cents per dozen.

Approximately 21 per cent of all eggs purchased by retail stores from producers were taken in trade. This practice varied by type of store and location. Approximately 16 per cent of the eggs sold by producers to urban food stores were taken in as trade. Some 34 per cent of the eggs sold by producers to rural and open country food stores were taken in as trade. In all food stores, 23 per cent of all the eggs purchased from producers were taken in as trade. In urban general merchandise stores, trade-ins amounted to 12 per cent, and in rural and open country general merchandise stores to 22 per cent. The average for all general merchandise stores was 21 per cent. Trade-ins amounted to 6

TABLE 22. PERCENTAGE DISPOSITION OF EGGS BY OUTLETS BY TYPE OF RETAILERS, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950¹

Kind of retail stores	Sold at retail to household consumers	Sold at wholesale to			Total sales
		Wholesale agencies	Retail stores	Out-of-state customers	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
All food stores	93	2	2	3	100
All general mdse. stores	65	13	21	1	100
All service stations	100	0	0	0	100
All other retail stores	34	36	22	8	100
AVERAGE OF ALL	84	6	7	3	100

¹ Based on the sale of 2,245,000 cases of shell eggs and does not include sales of eating places, drug stores, hotels, etc.

per cent of all purchases from producers by urban, rural, and average of all other retailers.

MARKET NEWS. Only 36 per cent of the retail store dealers reported that they received any type of egg market news. The practice of following egg market news varied by types of retailers. Some 55 per cent of the general merchandise stores, 50 per cent of the food stores, 22 per cent of other retail stores, and 8 per cent of the eating places, drug stores, hotels, etc., received egg marketing news. A higher percentage of the rural and open country retail stores received egg marketing news than did urban retail stores.

Newspapers were the most important source of egg market news to retailers. Radio was the second most important source. Other sources included telephone, trade papers, government reports, and other miscellaneous sources. In most cases, the market news received by retailers dealt with markets other than the ones on which retailers bought or sold eggs.

PROBLEMS OF RETAIL EGG DEALERS

Approximately 18 per cent of all the retailers who handled eggs reported that they had difficulties securing locally-produced eggs in sufficient quantities to meet their demands. Many retailers had year-round sources of eggs from wholesalers and did not attempt to buy local eggs. Had these retailers attempted to buy local eggs, the percentage reporting difficulties would have been much higher. The percentage of retailers that reported difficulties in purchasing local eggs varied from 13 per cent in the spring months to 22 per cent in the fall and winter months. Only a very low percentage of the retailers reported having difficulties in buying eggs to meet their needs regardless of source. The difficulties that did occur were during the late summer and fall months.

Most retailers reported few difficulties in selling eggs. In most cases, purchases were restricted to what retailers expected to sell based on past experience. The difficulties that did occur were encountered by about 4 per cent of the retailers. Difficulties in selling eggs were reported largely in April, May, and June, with smaller amounts reported during July, August, and September. The difficulties reported during the spring months were believed by retailers to be caused by local surpluses of eggs and those during the summer months by hot weather.

A number of retailers pointed out problems or practices they felt could be changed to improve the egg situation in the State. Some of these were:

1. Inadequate year-round Alabama production.
2. Spring surplus of eggs.
3. No advance information as to season and quantity of pullet eggs to be placed on the market.
4. Practice of some producers selling eggs at one place during fall and winter months and at another during spring and summer.
5. Failure of producers to grade eggs.
6. Poor quality of many local eggs offered for sale.
7. Failure of producers to hold eggs under refrigeration.
8. Inadequate means of moving eggs between surplus and deficit areas during spring and summer months.
9. Careless handling of eggs by customers.
10. Inadequate egg grading laws.
11. Insufficient education of both producers and consumers in proper handling of eggs.
12. Insufficient knowledge of market needs and insufficient effort to meet these needs on the part of producers.
13. Poor or inaccurate labeling of eggs.
14. Inadequate or poorly designed refrigeration space for eggs in stores.

Some retailers, especially open country stores, handled very small volumes of eggs and often handled eggs for only short periods of the year. In these stores, the owners felt that they handled eggs only as a convenience to their customers. In most retail stores, eggs were handled as a regular commodity in the same way that other food products were handled. As a whole, egg sales made up little, perhaps 2 to 3 per cent, of total sales of all retail stores, but 3 to 5 per cent of the sales of food stores. Collectively, egg sales were big business for all retail stores. Based on retail prices during the year of this study, egg sales of all retail stores in Alabama amounted to approximately 40 million dollars. Many retailers pointed out that eggs were purchased by a high percentage of all customers. Thus, in holding customers it is considered important to be able to supply them with the kind and quality of eggs desired. While egg sales were made at a very high rate per capita, some retail agencies felt that they could be increased still more. Some were making plans for expansion.

FROZEN AND DRIED EGGS USED IN ALABAMA

Wholesale dealers in Alabama handled the equivalent of 91,000 cases of frozen and dried eggs during the year of this study. Of these, 87,000 cases were shipped into the State and 4,000 cases were processed within the State. Eggs frozen in this State were largely shipped-in eggs. Frozen egg products shipped into the State included albumens, yolks, and whole eggs. Some of the products were treated with sugar and some with salt. Both dried egg albumens and yolks were shipped into the State. Sales of frozen and dried eggs were made by wholesalers to candy companies, noodle plants, mayonnaise plants, bakeries, ice cream plants, and to some of the larger eating places. Many of these agencies also used shell eggs.

The actual use of frozen and dried eggs may have been much greater than was shown by this study. Only wholesale places that handled shell and/or frozen eggs were included. The volume given represents the handling by these agencies. Some of the larger bakeries, candy manufacturers, etc., may have purchased their supplies of frozen or dried eggs direct from out-of-state production areas rather than from wholesale agencies within the State. To the extent that this was true, the volume shown in this study is low. On a national basis, per capita consumption was greater than that shown for this State. Part of this difference may have been caused by an underestimation of the volume used within the State. On the other hand, many products were shipped into the State, such as noodles, mayonnaise, cakes, candy, etc., which contained frozen or dried eggs. While these products were used within the State, it was impossible to include them in this study.

The economic advantages of using frozen eggs have caused a very rapid expansion in egg-breaking operations in recent years. Cracked, dirty, or weak eggs constitute one source of supply for freezing at all wholesale markets. Surplus egg production, either seasonal or year-round, also constitutes a source of supply. In some sections of the country, freezing plants have become large users of eggs from regular market supplies. These plants purchase eggs in direct competition with buyers of shell eggs for current use or for storage purposes. Commercial demand is good for frozen eggs but generally poor for dried eggs. The frozen egg industry could render a useful economic service in providing an

outlet for the seasonal surplus of eggs in some areas of Alabama. Because of the nature of egg production in this State, large scale freezing operations are not expected. However, freezing operations may be used as supplementary operations for many locker plants in the State.

USE OF COLD STORAGE FACILITIES IN EGG MARKETING

Alabama has more than a hundred locker plants, plus several cold storage plants and frozen food dealers. Some cold storage plants also operate a locker service as a part of their over-all business. Many wholesale dealers who handle eggs have their own refrigerated storage facilities. Some 39 of the locker plants, cold storage plants, and frozen food dealers were interviewed to determine the part they play in egg marketing in Alabama.

Approximately 16 per cent of the locker plants visited bought and sold eggs but the volume of eggs handled by these plants was very small. None of the cold storage plants bought and sold eggs on their accounts. The frozen food plants did not handle shell eggs but did handle frozen egg products.

Both locker plants and cold storage plants stored some eggs on a rental or fee basis for different types of egg dealers. Some 28 per cent of the locker plants stored eggs commercially, but the total volume of eggs stored amounted to less than 1,000 cases. In most instances, eggs were stored for local farmers, hucksters, or retail stores. The charge for storage ranged from a fixed fee of 15 cents per case for a short storage period to from 20 to 30 cents per case per month. Frozen food dealers did no commercial storage of eggs. Some of these dealers utilized some rented space from commercial storage plants.

Of the commercial cold storage plants interviewed, approximately 45 per cent did some storage of eggs. On a total volume basis, these plants handled the equivalent of less than 50,000 cases of shell, frozen, and dried eggs. Most of these products were handled for wholesale dealers. The period of storage ranged from a few days to 5 months. However, most of the eggs were handled for short periods. The eggs that were stored long enough to become cold storage eggs (more than 30 days) were out-of-state eggs. Charges for commercial storage varied by kind of egg product, size of lot stored, and length of storage period.

Indications were that fewer eggs were stored during the year of this study than had been the case in the past. Three things

accounted for this. More wholesalers had their own refrigeration; fewer wholesalers were buying up eggs during the spring months and holding them until the slack production period; and egg production has become more even through the year. This trend away from storing shell eggs has been nationwide. It has been a development closely associated with shifts in egg production and the increased use of frozen and dried egg products. Several wholesalers expressed the opinion that holding eggs from the spring months until fall and winter was too risky. Part of this risk was due to the competition of fresh shipped-in eggs.

As a whole, very little available cold storage space was used for egg marketing. Such space is available in the State and is under the supervision of people who have had training and experience in handling eggs. While cold storage agencies seem to be less important to the egg industry than formerly, they are still essential.

CHICK HATCHING EGG INDUSTRY IN ALABAMA

During the year of this study, 109 chick hatcheries were reported within the State. Of these, 54 were interviewed. According to the data of the State Agricultural Statistician, some 15,665,000 baby chicks of all breeds were hatched by all hatcheries in the State for the year beginning September 1, 1949 and ending August 31, 1950. Of all the baby chicks hatched, 21 per cent were hatched in the fall months, 22 per cent in winter months, 38 per cent in the spring months, and 19 per cent in the summer months. Due to broiler production, hatching eggs was a year-round business for many hatcheries.

Of the 15.7 million baby chicks hatched, 62 per cent were sold or placed in Alabama and 38 per cent were shipped out of the State. About as many baby chicks are shipped into Alabama each year as are shipped out.

To produce the number of baby chicks shown, more than 56,000 cases of hatching eggs were purchased, produced by hatcheries, or hatched on a fee basis. Of the hatching eggs set in the State, 64 per cent were produced in Alabama and 36 per cent were brought in from out-of-state. In round numbers, 20,000 cases of hatching eggs were shipped into the State during the year of this study. Hatching eggs were shipped in from nearby states and from states as far away as Missouri and New Jersey.

Of the 56,000 cases of hatching eggs obtained by hatcheries, some were lost in handling before being set and others did not hatch. Combined, the two sources accounted for a loss of nearly 12,500 cases of hatching eggs. Some of this loss was salvaged, but not nearly all. About a fifth of the hatcheries reported losses before eggs were set.

Approximately 78 per cent of all eggs set hatched. There was a wide variation in the percentage hatched by individual hatcheries, ranging from 70 to 89 per cent. Twenty-five per cent of the hatcheries surveyed were below average in hatch, 47 per cent were approximately average, and 28 per cent were above average. Experimental evidence indicates that the average and below average plants could do much to improve their rate of hatch. The removal of infertile eggs from the incubator within 15 hours of the time set would enable many eggs to be salvaged and sold.⁹

Approximately 70 per cent of the hatcheries surveyed were operated in connection with some other business. Using hatchery operations as a "side-line" or "tie-in" enterprise may have been a factor in the success of some of these businesses. Less than 15 per cent of the hatcheries hatched two-thirds of the baby chicks hatched in the State. The number of times that full capacity was used by the various hatcheries varied from less than one to an occasional eight or nine times during the year. The average number was approximately five.

More than a third of the hatching eggs used by commercial hatcheries were imported. Some 44 per cent of the plants studied reported that they had difficulty securing enough locally-produced hatching eggs to meet their demands either all year or at some-time during the year. One reason why some hatcheries were importing hatching eggs was to get a particular strain of chicks. Many hatchery owners, however, imported eggs because they were not available locally. The difficulty of securing locally-produced hatching eggs may have been closely associated with some of the practices followed by hatcheries. Among these were the following:

- (1) Seventy-three per cent did not handle any eggs other than hatching eggs. Producers for these plants needed a second market for any non-hatching eggs produced. The

⁹ King, D. F. "The Detection of Infertile Eggs and Its Application to Hatchery Management." A.P.I. Agricultural Experiment Station Circular 82. November 1939.

- problem of finding two markets may have discouraged some producers.
- (2) Twenty-two per cent of the plants handled hatching eggs for only a part of the year. Producers for these plants had the problem of disposing of all of their eggs to a different market outlet for a part of the year.
 - (3) Only 20 per cent of the plants operated egg collection routes. The absence of this service may have discouraged hatching egg production.
 - (4) Several different methods were used for the payment of hatching eggs.
 - A. Sixty-nine per cent of the plants paid a set price for eggs.
 - B. Fifteen per cent used a sliding scale method of payment based on chick prices.
 - C. Seven per cent paid on the basis of local competition.
 - D. Seven per cent paid a margin over prices of local market eggs.
 - E. Two per cent used a sliding scale method of payment based on the percentage of chicks hatched.

All methods of payment may have been both fair and equitable to both producers and plants. However, where several methods were used in the same area by different hatcherymen it may have been confusing to producers. Where different methods of payment resulted in much spread in price, it may have discouraged production or it may have led to producers shifting sales from plant to plant.

Of all the hatcherymen surveyed, 54 per cent reported that they did not receive any egg market news. Of those who did receive market news, 89 per cent reported that the news received dealt with some market other than the one on which they bought eggs or sold baby chicks. Newspaper reports, radio market news, and Production and Marketing Administration reports were the most common sources of egg market news.

Most of the problems listed by the hatcheries surveyed dealt in one way or another with the difficulties of getting local hatching eggs. Joint cooperation may be a partial answer to this problem. Close cooperation with state and federal services; the use of technical field men, in some cases, jointly employed by several hatcheries; the joint operation of egg routes; assisting producers with their rooster problems; and in some cases financial assistance

to farmers as well as supplying producers year-round markets for their eggs, seem to be some of the things that hatcherymen could work together on in order to strengthen the industry. Certainly it would seem that there is a need for more hatching eggs produced in the State and more baby chicks hatched commercially. In addition to the hatching eggs and baby chicks being shipped into this State, approximately 9 million eggs (25,000 cases) are being used for home-hatching, mostly with hens. It is possible that much of this market could be secured by the hatching industry of the State.

SUMMARY

Wholesale and retail handlers of eggs at both urban and rural locations were included in this study. All types of dealers that handled eggs between producers and final consumers were included. The period covered was September 1, 1949 through August 31, 1950. In all, 1,132 agencies were contacted by personal interview to obtain the data on which this study was based.

Total egg production in Alabama during the year of this study amounted to 1,895,000 cases. Some 65 per cent of this production occurred during the six spring and summer months, March through August. Of the total production in the State, 703,000 cases were consumed where produced, 25,000 cases were used for home-hatching, and 1,167,000 cases were sold. Of the sales, 63 per cent were to retail stores, 17 per cent to household consumers, 12 per cent to wholesale agencies, 5 per cent to eating establishments of various kinds, and 3 per cent to commercial hatcheries. Some 65 per cent of the sales of State-produced eggs occurred during the spring and summer months. All but 86,000 cases of the eggs that were produced in the State, remained in the State.

The equivalent of 1,600,000 cases of eggs were imported into the State during the year of this study. These inshipments consisted of 1,493,000 cases of shell market eggs, the equivalent of 87,000 cases of frozen and dried eggs, and 20,000 cases of hatching eggs. All of these eggs were used within the State except 92,000 cases of market eggs which were sold outside the State.

A total of 3,236,000 cases of market eggs was used in the State during the year of this study. This amounted to the equivalent of

380 eggs per capita. Of the eggs disposed of within the State, approximately 60 per cent were disposed of through urban areas and 40 per cent in rural areas. Cities of 5,000 or more in population provided the major markets for all eggs sold.

Wholesale dealers handled slightly more than 2 million cases of shell eggs during the year of this study. The bulk of these were shipped-in eggs. Of the eggs handled by wholesalers, 1,296,000 cases were direct inshipments, 269,000 cases were Alabama eggs purchased from producers and retail stores, and 516,000 cases were duplicate sales of eggs by one type of wholesaler to another. In terms of volume of eggs handled, 7 per cent of the wholesale agencies handled 62 per cent of all eggs. On the other hand, 54 per cent of the agencies handled only 4 per cent. Of the eggs handled by wholesalers, excluding duplicate sales, 17 per cent were Alabama-produced eggs and 83 per cent were out-of-state eggs. More than 60 per cent of the inshipments occurred during the fall and winter months. Most of the Alabama eggs handled by wholesalers were purchased during the spring months of March, April, and May.

Egg losses of wholesalers amounted to 46,000 cases. The major cause of losses was breakage, amounting to almost 36,000 cases. Of the breakage, about 21,000 cases were salvaged.

Approximately 15 per cent of the wholesalers who handled eggs in the State operated collecting routes for assembling eggs from producers and/or retailers. Most routes were operated in connection with other pickups or deliveries. On a volume basis, 87 per cent of the eggs handled by wholesalers were held under refrigeration until sold. Only 10 per cent of the wholesalers advertised eggs. Approximately 55 per cent of all eggs handled by wholesalers were held 3 days or less. Some 3 per cent of the eggs handled were held in cold storage in the State for a period of 30 days or longer. Of all the eggs handled by wholesalers, approximately 1 per cent were cleaned, 11 per cent were sized and repacked, 16 per cent were cartoned, 24 per cent were graded, and 48 per cent were candled. Approximately two-thirds of the wholesalers extended weekly or monthly credit to their customers. Egg deliveries were made by most wholesalers. Three per cent of all egg sales were made in lots of less than 1 case, 44 per cent were sold in lots of 1 to 5 cases, 18 per cent in lots of 6 to 10 cases, and 35 per cent in lots of 10 cases or more. The bulk of all sales made by wholesalers was to retail stores.

Local prices or competition and wholesale or central market quotations were the two major factors determining prices that wholesalers paid for eggs. The gross spread or markup used by wholesalers amounted to 3.4 cents per dozen. Only 47 per cent of the wholesale dealers received egg market news. The bulk of the news received by wholesalers dealt with markets other than the ones on which they bought or sold eggs. Newspapers were the major sources of egg market news.

More than half of the wholesale dealers had difficulties securing enough Alabama-produced eggs to meet their needs. In most seasons of the year, Alabama eggs were not available. Wholesalers reported few difficulties in buying out-of-state eggs in the volume needed during any month of the year. Wholesalers reported the most difficulty in selling eggs during the spring and summer months.

Of the wholesalers visited, approximately 10 per cent were thinking of expanding their egg handling operations. Some dealers were in the process of making such adjustments, while others had such plans for the future. Only 1 per cent planned to reduce their egg handling operations.

Of some 29,000 retail establishments in the State, 74 per cent were handling eggs. The total volume of eggs handled by these agencies amounted to 2,507,000 cases. Approximately 32 per cent of the eggs handled by retail stores were purchased direct from producers. Food stores handled 67 per cent of the eggs handled by all retail stores. Urban food stores handled an average of seven cases of eggs per week, while rural food stores handled an average of only one case per week. Sales between food stores varied from 1 to 20 cases per week.

Approximately 60 per cent of the shipped-in eggs handled by retail stores were purchased during the fall and winter months. More than 60 per cent of the Alabama-produced eggs handled by retailers were handled during the spring and summer months.

Of the food stores in the State, approximately 70 per cent extended credit to customers. Approximately 54 per cent of the eggs handled by retail stores were held or displayed without the use of refrigeration. Most of the eggs handled by retail stores were sold within 3 days of their original purchase. Rural and open country food stores held eggs at room temperature for longer periods than did urban food stores. Some 15 per cent of the general merchandise stores, 14 per cent of the food stores, and 2

per cent of other retail stores advertised eggs. More than half of the eggs handled by retail stores were sold in lots of 1 dozen or less. Few retail stores operated egg-collecting routes. Of all the eggs handled by retail stores, approximately 12 per cent were candled by retailers. Retailers did their own cartoning of some 18 per cent of the eggs handled. Of all eggs sold to household consumers in towns of 10,000 or more population, approximately 70 per cent were in cartons. Of all sales by retailers, most were to household consumers.

Most retailers based the price they paid local producers for eggs on local competition. The average spread or markup used by retail stores was 7.5 cents per dozen. This markup varied from zero on a few eggs taken on a trade basis to 12 cents per dozen by some stores. Approximately 21 per cent of all eggs sold by producers to retail stores were taken in as trade. Some 64 per cent of the retail stores that handled eggs did not receive egg market news. A higher percentage of rural and open country retail stores received egg market news than did urban retail stores.

Many retail stores reported that they had difficulties securing locally-produced eggs in sufficient quantity to meet their demands. Only a very low percentage of the retailers reported having difficulties buying eggs to meet their needs regardless of source. Most retailers reported few difficulties in selling eggs, except during the spring months.

Wholesale dealers in Alabama handled the equivalent of 91,000 cases of frozen and dried eggs during the year of this study. Of these, 87,000 cases were shipped into the State and 4,000 cases were processed within the State. Sales of frozen and dried eggs were made to candy companies, noodle plants, mayonnaise plants, bakeries, ice cream plants, and to some of the larger eating places. Many of these same places also used shell eggs. Some of the agencies that used frozen and dried eggs may have made purchases from out-of-state sources which were not included in these amounts.

Some 28 per cent of the locker plants in the State did commercial storage of eggs. The total volume of such storage amounted to less than 1,000 cases. In most cases, locker plants stored eggs for local farmers, hucksters, or retail stores. Approximately 45 per cent of the commercial cold storage plants did some storage of eggs. On a total volume basis, these plants handled the equivalent of less than 50,000 cases of shell, frozen, and dried eggs.

Most of these were stored for wholesale dealers. The period of storage ranged from only a few days to 5 months.

Some 15,665,000 baby chicks were hatched by commercial hatcheries in the State during the year of this study. Twenty-one per cent were hatched in the fall months, 22 per cent in the winter months, 38 per cent in the spring months, and 19 per cent in the summer months. More than 56,000 cases of hatching eggs were used in hatching these chicks. Some 36,000 cases of these eggs were produced in Alabama and 20,000 were shipped in. Of the hatching eggs set, some 12,500 cases failed to hatch. The rate of hatch varied from 70 to 89 per cent. Approximately 70 per cent of the hatcheries were operated in connection with other businesses. Less than 15 per cent of the hatcheries in the State hatched 67 per cent of the baby chicks. Some 44 per cent of the hatcheries reported they were unable to secure sufficient locally-produced hatching eggs to meet their needs throughout the year.

CONCLUSIONS AND RECOMMENDATIONS

1. Egg production in Alabama reached a peak in 1945 and has been downward since that date. Not enough shell market eggs, frozen eggs, or hatching eggs are produced in Alabama to meet the State's needs. The demand for eggs has expanded in Alabama with population growth, higher incomes, and the expanded broiler industry. Demand for eggs in Alabama in the future will depend on future changes in total population, consumer incomes, marketing charges and practices as they influence prices, developments in the frozen egg and broiler industries, supplies of other foods, and government programs.

2. The supply of eggs produced in the State will be affected by changes in technology of production and the supply of farm resources available for egg production. Feeding of better-balanced rations would do much to increase the rate of lay per bird, especially in small flocks. Increased egg production in Alabama for the future can come about to meet changes in population, shifts in population from rural to urban areas, or to make the State self-sufficient in egg production. Only small increases in production would be needed to meet changes or shifts in population. Large increases in egg production would be needed to make the State self-sufficient in egg production — almost double present farm production.

3. An increase in egg production in Alabama for the sole purpose of making the State self-sufficient should never be a goal. Such a shift should come about only if it is profitable to egg producers, handlers, and consumers. Indications are that a gradual shift to more egg production in Alabama can be profitable to all groups. Many small farms in the State have a surplus of labor and of other resources. By using improved technology in the production of grain crops and with poultry, many of these farms could add egg production as a supplementary and/or complementary enterprise. As more eggs are produced in the State, prices received by producers for eggs would be expected to be lower in relation to the national average than in the past except as quantity is offset by quality. The prices received would be more characteristic of a surplus state than a deficit one. However, commercial egg production in Alabama could be profitable even at lower prices if efficient production and marketing practices were followed. Handlers of eggs could benefit through more adequate supplies of local eggs, lower assembling and transportation costs, and a better quality product. Most eggs imported into Alabama are purchased as Grade A or B eggs. However, indications are that the average egg sold to consumers in Alabama is at best no better than a Grade B egg. With more State production, eggs of higher quality should be available to consumers.

4. Both wholesale and retail dealers expressed an interest in securing more local eggs. However, their needs can only be serviced by the production of a large volume of eggs at the right seasons and of the quality needed. The surplus egg production in this State is confined largely to local areas and exists only for short periods of the year. Much could be done to alleviate this condition by proper marketing, shifts in production patterns, and through storage and freezing of eggs. Largely, this problem has been brought about by the failure of producers to properly plan for egg production. If attempts are made to expand egg production, proper planning should be done to take into consideration the needs of the various markets in the State and to cooperate with established egg handlers in these markets. Due to low State production and large egg imports, many different agencies are involved in handling eggs at present. With an increase in State production, some of these agencies can and should be by-passed. On the other hand, some of the agencies that now exist could and should take the lead in developing increased egg production.

5. Birmingham is the largest egg market in the State. This is true because of the large consuming population within the city and the surrounding area and because eggs are assembled in Birmingham and are moved by wholesalers to many other cities and towns in the State. In the past, most handlers on the Birmingham market have developed their own interests without regard to the needs of the city as a trade area. Dealers are scattered throughout the city and egg handling facilities vary by dealers. There may be a need in the future for this market to be developed in a more coordinated way with proper planning for the inclusion of proper market facilities. This development might include some type of a farmers egg market or auction market.

6. Egg consumption can be increased in the State. A larger volume of State-produced eggs of a high quality would do much to promote a higher consumer demand for eggs. Better jobs of egg merchandising on the part of many retail stores would help to sell more eggs. Proper types of egg refrigeration are needed at the producer, wholesale, and retail levels. Both research and educational work is needed in the proper production and handling of eggs by producers, handlers, and consumers. Means of reducing egg losses should be considered by all egg handlers. More cracked eggs should be salvaged. Lowering of costs when possible, and passing some of these savings on to consumers through lower egg prices would aid in securing a higher per capita egg consumption in the State.

7. An interest has been expressed by some producers, wholesalers, and retailers in having an enforced egg grading law in Alabama. Data available indicate that grades and/or standards for eggs are compulsory in 25 states, and are voluntary in 15 states. Only eight states, one of which is Alabama, have not established grades and/or standards for eggs. The fact that most states have an egg grading program probably accounts in part for the interest expressed in this State. Some of the major provisions of egg laws in other states are shown in Appendix A.

8. While there is an opportunity for the expansion of egg sales in the State, this expansion should not come about by producers simply doing more of the same practices followed in the past. Most rural families keep flocks of chickens that are too large for home use and too small for commercial enterprises. Future expansion of egg production in the State should come from large flocks with the use of better production and marketing practices.

To be most successful, expansion should be developed on an area basis and not on widely scattered individual farms. So long as the State's egg production remains small and scattered, few of the major egg handlers of the State will feel justified in expanding their present egg marketing facilities to include the purchase of Alabama-produced eggs. However, unless such egg dealers do expand their facilities to include Alabama-produced eggs, there is little chance of developing a year-round market for an increased volume of Alabama-produced eggs. There is considerable need for an expanded educational program designed especially to re-emphasize a better distribution of egg production and marketing throughout the year, improvement in the quality of eggs marketed, and a shift toward either home-sized flocks with no sales or large flocks as commercial enterprises. Producers, egg dealers at both the wholesale and retail levels, credit institutions, research and educational institutions, governmental agencies, and consumers, all need to work together in planning, developing, and executing long-range programs of expanded egg production that will be of lasting benefit to the State's entire economy.

APPENDIX

Appendix A

GENERAL PROVISIONS OF EGG GRADING LAWS IN SELECTED STATES¹

A detailed analysis of the existing egg grading laws in selected states indicates that most egg grading laws provide the following:

1. All egg containers are labeled with applicable grade and size designations and, in some cases, they are dated to show when that grade was determined.
2. Specifications set up for eggs by the United States Department of Agriculture usually are followed in individual state specifications.
3. Individual plants may do their own grading; they are not required to have eggs graded by official government graders. Eggs, however, must meet minimum requirements for quality and size or weight specifications as set forth in U. S. specifications.
4. Ungraded eggs sold are labeled as "unclassified eggs."
5. The terms, "Fresh," "Strictly Fresh," or other similar words cannot be used to advertise eggs that fail to meet minimum requirements for U. S. Consumer Grade A eggs or better.
6. No distinction is usually made between state-produced and shipped-in eggs. Some states do make such a distinction, however. States that do not make a distinction between places of production assume that producers, handlers, and consumers will be amply protected by grade designations, which truly reflect quality.
7. Producers selling their own eggs are exempt from provisions of such regulations, but are allowed to come under these regulations by choice.
8. The sale at retail of inedible eggs is prohibited and soundness of eggs is determined by candling.
9. Shell-treated and storage eggs are not discriminated against.
10. An extensive educational program is conducted prior to the initiation and enforcement of statutory regulations.

¹ For detailed information relative to specific objectives, provisions, administration, and enforcement of egg grading laws in individual states, consult the statutes pertaining to such laws of the following selected states: Connecticut, Indiana, New York, Ohio, Tennessee, and Virginia. Copies of these individual state regulations may be obtained from respective State Departments of Agriculture.

Appendix B

APPENDIX TABLE 1. DISTRIBUTION OF EGG BUYERS BY KINDS OF AGENCIES AND LOCATION, 1,132 BUYERS, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Kind of agency ¹	Location		Total
	Urban	Rural	
	Number	Number	Number
RETAIL:			
Independent food stores	140	150	290
Chain food stores	233	0	233 ²
General merchandise stores	19	41	60
Eating places	63	20	83
Filling stations	29	31	60
Drug stores	39	9	48
Hotels	30	5	35
Tourist courts	10	12	22
Hatcheries ³	36	14	50
Cooperatives	12	4	16
Other retail stores	51	16	67
TOTAL RETAIL	662	302	964
WHOLESALE AND OTHER:			
Locker plants, quick freeze, cold storage, etc.	32	7	39
Cooperatives	1	1	2
Egg, poultry, and produce dealers	68	0	68
Packers and meat dealers	43	1	44
Peddlers, hucksters, etc.	2	10	12
Jobbers	3	0	3
TOTAL WHOLESALE	149	19	168
TOTAL RETAIL AND WHOLESALE	811	321	1,132

¹ Terminology on kinds of agencies used for retail stores is that used by the Bureau of the Census, United States Department of Commerce. For details see *1948 Census of Business*, "Retail, Wholesale and Service Trades." Terminology on kinds of agencies used for wholesalers is that used by the trade.

² The 233 chain food stores were covered by six records taken from respective chain store headquarters and/or from warehouses which served these stores. The actual number of retail store records secured was 737.

³ In addition to the 50 hatcheries shown here, 4 organizations that were classed under some other term also operated hatcheries.

APPENDIX TABLE 2. MID-MONTH PRICES RECEIVED BY FARMERS FOR EGGS BY MONTHS AND YEARS, ALABAMA, 1942-1950¹

Month	Cents per dozen by years								
	1942- 1943	1943- 1944	1944- 1945	1945- 1946	1946- 1947	1947- 1948	1948- 1949	1949- 1950	Un- weighted average
	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
FALL:									
September	34.0	40.6	38.4	46.6	48.8	55.6	53.5	53.0	46.3
October	36.0	46.0	44.5	49.8	55.0	61.6	57.2	57.0	50.9
November	39.7	50.0	48.7	53.0	56.0	63.2	60.1	57.8	53.5
WINTER:									
December	42.3	52.0	52.0	57.0	56.0	67.3	64.5	56.0	55.9
January	40.5	45.3	48.4	54.0	50.0	58.6	57.6	41.7	49.5
February	32.3	32.9	39.5	37.2	45.2	52.1	45.0	32.3	39.5
SPRING:									
March	31.0	27.4	30.3	30.3	39.9	40.8	39.6	31.6	33.9
April	29.8	24.2	30.5	29.7	38.1	38.6	39.0	31.4	32.7
May	30.4	25.2	32.8	32.7	39.3	40.3	41.4	31.4	34.2
SUMMER:									
June	31.1	26.6	35.8	35.4	40.8	43.1	42.5	32.4	36.0
July	32.3	29.3	38.4	41.3	44.5	45.5	44.1	36.0	38.9
August	34.9	31.9	42.9	45.2	47.9	48.6	48.0	42.0	42.7
UNWEIGHTED AVERAGE	34.5	35.9	40.2	42.7	46.8	51.3	49.4	41.9	42.8

¹ Source: Alabama Cooperative Crop and Livestock Reporting Service.

APPENDIX TABLE 3. MID-MONTH PRICES RECEIVED BY PRODUCERS FOR EGGS PER DOZEN IN ALABAMA, U. S., AND WEST NORTH CENTRAL STATES, 8-YEAR UNWEIGHTED AVERAGE, SEPTEMBER, 1942-AUGUST, 1950¹

Month	Average prices received by Ala. producers 1942-50	Average prices received by U.S. producers 1942-50	Percentage Alabama prices were of U. S. prices 1942-50	Average prices received by West North Central producers 1942-50 ²	Percentage Ala. prices were of West North Central prices 1942-50 ²
	Cents	Cents	Per cent	Cents	Per cent
FALL:					
September	46.3	44.1	105	35.8	129
October	50.9	47.1	108	38.6	132
November	53.5	47.9	112	39.4	136
WINTER:					
December	55.9	47.0	119	38.8	144
January	49.5	40.5	122	33.3	149
February	39.5	36.2	109	31.9	124
SPRING:					
March	33.9	35.6	95	32.5	104
April	32.7	35.2	93	32.5	101
May	34.2	35.4	97	32.5	105
SUMMER:					
June	36.0	36.5	99	32.7	110
July	38.9	39.2	99	33.6	116
August	42.7	41.9	102	34.4	124
UNWEIGHTED AVERAGE	42.8	40.6	105	34.7	123

¹ Data from "Crops and Markets". Bureau of Agric. Economics, U. S. D. A. 1943-1951.

² The West North Central States consist of Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas.

APPENDIX TABLE 4. WEIGHTED AVERAGE YEARLY PRICES RECEIVED BY PRODUCERS FOR EGGS IN ALABAMA, U. S., AND WEST NORTH CENTRAL STATES, 1942-1950

Year	Average price received by producers in cents per dozen			Percentage that Ala. prices were of	
	Alabama	U. S.	West North Central States	U.S. average	West North Central average
	Cents	Cents	Cents	Per Cent	Per Cent
1942	27.1	30.0	27.3	90	99
1943	34.8	37.1	34.2	94	102
1944	32.0	32.5	29.6	98	108
1945	39.1	37.7	32.9	104	119
1946	39.7	37.5	32.3	106	123
1947	46.0	45.3	38.1	102	121
1948	47.2	47.2	39.1	100	121
1949	46.0	45.1	38.3	102	120
1950	38.0	36.2	29.1	105	131

APPENDIX TABLE 5. NUMBER AND KIND OF WHOLESALERS INTERVIEWED AND PERCENTAGE HANDLING EGGS, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Kind of agency	Number interviewed	Number handling eggs	Percentage handling eggs
	<i>Number</i>	<i>Number</i>	<i>Per cent</i>
Egg, poultry, and produce dealers	68	48	71
Packers and meat dealers	44	28	64
Locker plants, cold storage, etc.	39	4	10
Peddlers, hucksters, etc.	12	12	100
Jobbers	3	3	100
Cooperatives	2	2	100
TOTAL OR AVERAGE	168	97	58

APPENDIX TABLE 6. PERCENTAGE OF EGGS HANDLED BY KIND OF WHOLESALERS AND BY SIZE OF BUSINESS, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Kind of wholesale agency	Range in number of cases of eggs handled								Total	
	Under 5,000		5,000-24,999		25,000-49,999		50,000 or more			
	Percentage of		Percentage of		Percentage of		Percentage of		Percentage of	
	Agencies	Vol.	Agencies	Vol.	Agencies	Vol.	Agencies	Vol.	Agencies	Vol.
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Egg, poultry, and produce dealers	44	6	40	32	10	25	6	37	100	100
Packers and meat dealers	53	8	39	58	4	11	4	23	100	100
Locker plants, cold storage, etc.	100	100	0	0	0	0	0	0	100	100
Peddlers, hucksters, etc.	100	100	0	0	0	0	0	0	100	100
Jobbers	0	0	0	0	0	0	100	100	100	100
Cooperatives	0	0	100	100	0	0	0	0	100	100
TOTAL OR AVERAGE	54	4	33	22	6	12	7	62	100	100

APPENDIX TABLE 7. TIME OF YEAR WHEN WHOLESALE DEALERS REPORTED DIFFICULTY IN BUYING ALABAMA AND OUT-OF-STATE EGGS, AND IN SELLING EGGS, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Time of year	Percentage of wholesale dealers having difficulty		
	Buying Alabama-produced eggs	Buying out-of-state eggs	Selling eggs
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
FALL:			
September	54	1	10
October	57	4	0
November	57	4	1
WINTER:			
December	57	4	1
January	55	1	1
February	55	1	3
SPRING:			
March	54	2	11
April	43	0	31
May	44	0	29
SUMMER:			
June	46	0	25
July	54	0	13
August	54	1	12

APPENDIX TABLE 8. PERCENTAGE OF WHOLESALERS HAVING DIFFICULTY SELLING EGGS BY CAUSE BY MONTHS, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950¹

Season and month of year	Percentage of wholesalers having difficulty selling eggs because of				
	Surplus eggs	Competition from peddlers	Competition from storage eggs	Hot weather	Excessive rots
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
FALL:					
September	9	1	1	4	1
October	0	0	0	0	0
November	1	1	1	0	0
WINTER:					
December	1	1	1	0	0
January	1	0	0	0	0
February	3	0	0	0	0
SPRING:					
March	11	1	1	0	0
April	30	1	1	4	0
May	27	1	1	5	0
SUMMER:					
June	22	1	0	6	0
July	9	1	0	7	1
August	9	1	0	6	1

¹ The percentage of wholesalers having difficulty selling eggs in this table will not check with those listed as having difficulty in Appendix Table 7, because some wholesalers listed more than one cause for the difficulty encountered.

APPENDIX TABLE 9. PERCENTAGE OF EGGS DISPLAYED OR HELD BY VARIOUS METHODS BY KIND OF RETAIL STORES AND BY LOCATION, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Kind of agency and location	Eggs displayed without refrigeration on			Eggs displayed under refrigeration	Total
	Floor	Counter	Other		
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
FOOD STORES:					
Urban	35	2	5	58	100
Rural and open country	73	2	1	24	100
All food stores	44	2	4	50	100
GENERAL MERCHANDISE STORES:					
Urban	59	1	1	41	100
Rural and open country	90	1	1	10	100
All general merchandise stores	83	1	1	17	100
SERVICE STATIONS:					
Rural and open country	100	0	0	0	100
ALL OTHER RETAIL STORES:					
Urban	90	1	1	9	100
Rural and open country	97	1	1	3	100
All other retail stores	92	1	1	7	100
EATING PLACES:					
Urban	11	0	1	88	100
Rural and open country	16	0	0	84	100
All eating places	12	0	1	87	100
DRUG STORES:					
Urban	0	0	0	100	100
Rural	0	0	0	100	100
All drug stores	0	0	0	100	100
HOTELS:					
Urban	2	0	0	98	100
Rural	62	0	0	38	100
All hotels	4	0	0	96	100
TOURIST COURTS:					
Urban	0	0	0	100	100
Rural and open country	0	0	0	100	100
All tourist courts	0	0	0	100	100
ALL RETAIL STORES	50	1	3	46	100

¹ Less than 1 per cent.

APPENDIX TABLE 10. LENGTH OF TIME EGGS WERE HELD WITH OR WITHOUT REFRIGERATION BY TYPES OF RETAIL STORES, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Item	Percentage of eggs that were held a given length of time					
	1 day	2 days	3 days	4 days	5 days or more	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
EGGS HELD AT ROOM TEMPERATURE BY:						
Urban food stores	4.5	19.1	66.7	0.5	9.2	100.0
Rural and open country food stores	6.5	12.7	64.6	3.9	12.3	100.0
Average of all food stores	5.2	16.9	66.0	1.7	10.2	100.0
Urban eating places, drug stores, etc.	0.0	14.2	71.6	0.0	14.2	100.0
Rural and open country eating places, etc.	0.0	60.8	39.2	0.0	0.0	100.0
Average of all eating places, etc.	0.0	25.4	63.8	0.0	10.8	100.0
Remaining urban retail stores	0.0	21.0	78.0	0.0	1.0	100.0
Remaining rural and open country retail stores	0.5	8.7	88.8	0.3	1.7	100.0
Average of all remaining retail stores	0.4	11.5	86.4	0.2	1.5	100.0
Average of all retail stores	3.3	15.1	73.3	1.1	7.2	100.0
Percentage of all eggs that were held at room temperature by days	1.8	8.2	39.6	0.6	3.8	54.0
EGGS HELD BELOW ROOM TEMPERATURE BY:						
Urban food stores	0.0	17.2	54.2	10.0	18.6	100.0
Rural and open country food stores	6.2	1.2	67.0	1.4	24.2	100.0
Average of all food stores	0.7	15.5	55.5	9.1	19.2	100.0
Urban eating places, drug stores, etc.	13.3	17.3	55.2	0.9	13.3	100.0
Rural and open country eating places, etc.	8.3	16.2	58.0	0.0	17.5	100.0
Average of all eating places, etc.	12.6	17.1	55.6	0.8	13.9	100.0
Remaining urban retail stores	0.0	10.1	69.0	0.0	20.9	100.0
Remaining rural and open country retail stores	0.0	8.5	84.5	0.0	7.0	100.0
Average of all remaining retail stores	0.0	9.4	76.0	0.0	14.6	100.0
Average of all retail stores	3.0	15.4	56.9	6.8	17.9	100.0
Percentage of all eggs that were held below room temperature by days	1.4	7.1	26.2	3.1	8.2	46.0

(Continued)

APPENDIX TABLE 10 (Continued). LENGTH OF TIME EGGS WERE HELD WITH OR WITHOUT REFRIGERATION BY TYPES OF RETAIL STORES, ALABAMA, SEPTEMBER 1, 1949-AUGUST 31, 1950

Item	Percentage of eggs that were held a given length of time					Total
	1 day	2 days	3 days	4 days	5 days or more	
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
AVERAGE OF ALL EGGS						
HELD BY:						
Urban food stores	1.8	17.9	59.2	6.3	14.8	100.0
Rural and open country food stores	6.4	9.8	65.1	3.2	15.5	100.0
Average of all food stores	2.8	16.1	60.5	5.6	15.0	100.0
Urban eating places, drug stores, etc.	11.8	17.0	57.0	0.8	13.4	100.0
Rural and open country eating places, etc.	6.7	25.0	54.3	0.0	14.0	100.0
Average of all eating places, etc.	11.0	18.2	56.6	0.7	13.5	100.0
Remaining urban retail stores	0.0	17.9	75.4	0.0	6.7	100.0
Remaining rural and open country retail stores	0.5	8.7	88.4	0.3	2.1	100.0
Average of all remaining retail stores	0.3	11.2	84.9	0.2	3.4	100.0
Percentage of all eggs held by retail stores by days	3.2	15.3	65.8	3.7	12.0	100.0

