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EGG PRODUCTION and MARKETING PRACTICES in ALABAMA

A Study of 914 Rural Households, 1947-1948

AGRICULTURAL EXPERIMENT STATION
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CONTENTS

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EGG PRODUCTION and MARKETING PRACTICES in ALABAMA[1]

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INTRODUCTION

MOST FARMERS IN ALABAMA keep chickens. According to the Census reports, 90 per cent of Alabama's farmers in 1945 kept chickens, as compared with 84 per cent for the United States, and 90 per cent for the nation's leading poultry State – Iowa. The average number of chickens kept per farm reporting chickens in 1945 was only 37 in Alabama compared with the United States average of 87 and Iowa's average of 173. The most striking feature of Alabama's poultry industry is the small number of chickens per flock. Census data indicate that 95 per cent of the farms that reported poultry had flocks of less than 100 birds in 1945. The rate of lay per layer on hand January 1, 1948 was reported as 94 in Alabama as compared with 129 for the United States and 136 for Iowa.[2]

Whether the high percentage of Alabama farms with poultry is the result of the popularity of poultry and eggs as foods, or of the income from chicken and eggs to the rural family, poultry and eggs are an important enterprise in the State's agricultural economy. Egg sales by Alabama farmers averaged $14,660,000 for the period 1947-48.[2] Cash income from the sale of chickens and broilers averaged $10,708,000 for the 2 years. Combined, the cash income from the sale of poultry and eggs, excluding turkeys, averaged $25,368,000. In addition to cash sales, about 15 million dollars worth of poultry and eggs were used in the home by farm families in each of these years.

Only the cash income from cotton, from cattle and calves, and from hogs exceeded the cash income from poultry and eggs in 1947, while income from peanuts was added to this list in 1948. Enterprises that

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

[2] "From Production, Disposition, Cash Receipts and Gross Income, Chickens and Eggs, 1947-48." Bureau of Agricultural Economics, United States Department of Agriculture. April 1949.

exceeded poultry in cash income were largely commercial enterprises, while income from poultry and eggs in many cases represented the sale of surpluses of products produced primarily for home use. The laying flock of the individual rural family is usually small and receives little or no attention. For example, most farm flocks are given free range and little feed other than scraps and other waste products. As a result of this lack of attention, an average of many thousands of dollars worth of poultry and eggs are imported into Alabama monthly.

Purpose of Study

This study is part of a regional egg marketing research project in which nine southern states and the United States Department of Agriculture are cooperating.[3] The main objective of this phase of the over-all study was to determine the egg marketing methods and related production practices used by rural families. The over-all study represents an attempt to determine both the strong and weak points of present production and marketing practices as related to producers' needs, and to relate these findings to improved marketing methods, techniques, and procedures. This particular report deals only with production and marketing practices found to exist among rural households in Alabama in 1947 and 1948. Other economic reports will deal with the findings of additional studies of egg-buying practices of selected buyers for the same years.

Method of Study

For purposes of this study, families from which information was obtained were divided into two groups. One group, classified as egg sellers, consisted of those families who expected to sell as many as 2 dozen eggs during any one of the months, January through June, 1948. A second group, classified as non-sellers, consisted of those families who did not expect to sell eggs as specified for the seller group.

A total of 914 families were contacted by personal interview. Of this number, 637 were non-sellers and 277 were sellers. Data pertaining only to tenure, color, and primary source of income of operators, and size of family, size of farm, and flock inventory were obtained from non-sellers. Additional information relative to production and marketing of eggs was collected from seller households. The questionnaire used for the State study was designed by a regional committee.

[3] The nine southern states cooperating in the regional poultry and egg marketing project are: Alabama, Arkansas, Georgia, Louisiana, Mississippi, South Carolina, Tennessee, Texas, and Virginia.

Schedules of information were obtained by representatives of the Department of Agricultural Economics.

The Bureau of Agricultural Economics, United States Department of Agriculture, in cooperation with the Statistical Laboratory at Ames, Iowa, provided the plan for sampling. Using the area sample design, segments in 23 counties were sampled in all areas of Alabama. Detailed maps were used showing geographic segments within each county to be sampled. The segments were confined to open country. The sample included less than 1 per cent of the estimated number of households producing eggs in Alabama. Sampling was done on a household basis, that is, each household within a segment was a sampling unit. The 136 segments used in the 23 counties of Alabama were drawn so as to obtain a representative cross-section of egg production and marketing practices of families in the open country throughout the State.

CHARACTERISTICS of FAMILIES INTERVIEWED

Only 82 per cent of the rural households included in this study had poultry, compared with Census estimates of 90 per cent for all farms. Each occupied household within a segment was used as a sampling unit without regard to its classification as farm or non-farm by the Census. According to the Census, only 92 per cent of the rural occupied dwellings were classified as farms. This particular study of poultry practices deals with rural occupied dwellings, and, therefore, it would be expected to show a lower percentage of households with poultry than would be found on Census farms.

Of all the households studied, 70 per cent were classified as non-sellers and 30 per cent as sellers. Comparisons of data pertaining to tenure, color, size of family, acres of cropland operated, primary source of income, size of laying flock, and proportion of pullets in the laying flock for seller, non-seller, and all households are shown in Appendix Tables 1 through 7. Poultry was the main source of cash income for less than one-half of 1 per cent of these families in 1947.

Non-Seller Families

While 7 in 10 of the rural occupied households were classified as non-sellers, 74 per cent of this group had laying flocks. These were usually small and averaged only 17 hens per flock. While this group of families did not qualify as sellers under the definition set up for this study, those families that had poultry would normally produce and sell some eggs. The importance of these families is not brought out by the volume of egg production and sales they had individually but by the fact that 5 out of every 7 of these non-sellers had poultry. Based on total egg production for the State, flocks owned by this group would normally produce approximately 40 per cent of all eggs produced in the State, and sales would constitute about 30 per cent of the State's total sales from State production.[4] About half of this production would occur in the 4 months February through May, while about 60 per cent of all sales would be made in this same period. The large volume of eggs being sold in a relatively short period by this group of "non-sellers" is apparently one of the major factors causing the State's spring surplus problem.

Of the non-seller families, 67 per cent were white and the remainder colored. Forty-five per cent were owners and 34 per cent were renters. The remaining families were part-owners, sharecroppers, wage hands, or managers. Approximately 37 per cent of these families had no cropland. Altogether, 56 per cent of these families obtained their income principally from non-farm sources.

Seller Families

Three in 10 households visited were classified as sellers under the definition used in this study. Based on total egg production for the State, flocks owned by this group produced approximately 60 per cent of all eggs produced in 1947. Seventy per cent of all eggs sold were produced and sold by families in this group.

Approximately 88 per cent of all seller families were white. Sixty-six per cent of the seller families were owners; 20 per cent were renters. The remaining families were part-owners, sharecroppers, or wage hands. Sixty-one per cent of all sellers were white owners; 5 per cent were colored owners. Only 16 per cent of the sellers had no cropland; a high percentage of sellers were cotton farmers. As a whole, most sellers were white farm families who owned their farms. The remainder of this report deals largely with the differences in production and marketing practices found to exist among sellers.

[4] Egg production and sales of the "non-seller" group with poultry were assumed to be similar to those of the seller group with less than 25 hens and pullets.

PRODUCTION and MARKETING PRACTICES of SELLER HOUSEHOLDS

From the group of seller families, detailed information was obtained relating to production and marketing practices in 1947 and monthly production and sales for 1948. Although many professional agricultural workers and others connected directly with the poultry industry have advocated improved egg production and marketing practices for many years, little has been known of the exact extent to which these recommendations have been adopted. Most of the practices that will be discussed in this report have some effect on egg production per hen, seasonality of egg production, quality of eggs produced, marketing methods and prices, and/or profits or losses from poultry enterprises.

GENERAL MANAGEMENT PRACTICES

Seller households averaged 51 laying hens per flock. Thirty per cent of these families had flocks of less than 25 layers. Seventy-five per cent had flocks of less than 50 layers. Only 8 per cent had flocks of 100 layers or more, yet this group produced 38 per cent of all eggs produced by seller families in 1947, Table 1. Only 3 per cent had flocks of 200 or more layers. All flocks of 100 or more layers were owned by white families. Ninety-five per cent of these large flocks was on farms of owners or part-owners, while the remaining 5 per cent was at the homes of white renter families.

Practically all sharecroppers and farm wage hand families had flocks of less than 50 layers. Approximately 91 per cent of all sellers had roosters with their laying flocks. However, only 55 per cent of

TABLE 1. AVERAGE NUMBER OF LAYERS AND PERCENTAGE OF TOTAL PRODUCTION AND SALES, BY SIZE OF FLOCK, 277 RURAL HOUSEHOLDS IN ALABAMA, 1947[1]

Range in size of laying flock	Average No. of layers per household	Percentage of		
		All households	Total egg production	Total egg sales
	Number	*Per cent*	*Per cent*	*Per cent*
Less than 25 layers	17	30	12	7
25-49 layers	33	45	31	24
50-99 layers	60	17	19	18
100 or more layers	253	8	38	51
TOTAL OR AVERAGE	51	100	100	100

[1] Layers include hens and mature pullets.

the flocks with 100 or more layers had roosters. Ninety-five per cent of the flocks of 100 or more layers was at the homes of families consisting of two to five people.

Only a small percentage of the households with less than 50 layers carried out approved management practices. As size of flock increased, however, the percentage of households carrying out such practices as securing baby chicks early, keeping a high percentage of pullets, feeding mash all year, and other approved management practices increased, Table 2.

Most households with flocks of 200 or more layers had obtained their baby chicks by early March. Practically all families with flocks of 100 or more layers preferred to buy baby chicks. Some families were either buying baby chicks or setting eggs in practically every month of the year.

Seventy-four per cent of all seller households had some pullets in their laying flocks. The percentage of pullets varied from 0 to 100 per cent of all layers. Only a tenth of the sellers had all-pullet flocks. Some all-pullet flocks and some all-hen flocks were found in practically all size ranges studied.

TABLE 2. PROPORTION OF FAMILIES SELLING EGGS THAT USED SPECIFIED MANAGEMENT PRACTICES BY SIZE OF FLOCK, 277 RURAL HOUSEHOLDS IN ALABAMA, 1947

Practice used	Range in size of laying flock				
	Less than 25	25-49	50-99	100 or more	Average of all
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Had no cropland	23	14	6	18	16
Had 200 or more layers	0	0	0	41	3
Had roosters with flock	92	94	96	55	91
Laying flock made up of hens only	30	26	27	14	26
Laying flock made up of 60 per cent or more of pullets	28	29	23	45	29
Started chicks by April 1	23	22	21	55	25
Started chicks by May 1	76	75	77	68	75
Fed no laying mash	73	65	38	14	59
Fed laying mash part of the year	17	14	37	14	19
Fed laying mash all year	10	21	25	72	22
Confined flock when ground was wet or muddy	1	8	8	36	8
Kept records of some type	1	7	15	36	9
NUMBER OF FAMILIES	82	125	48	22	277

Fifty-nine per cent of the sellers fed no mash to their laying flocks. Sixteen per cent fed mash only for periods of from 1 to 6 months. Three per cent fed mash from 7 to 10 months, and 22 per cent fed mash all year. All flocks of 200 or more layers were fed mash all year. Of the flocks of 100 to 199 layers, 23 per cent were fed no mash, 23 per cent were fed mash only part of the year, and 54 per cent were fed mash all year. Only flocks of 200 or more layers were managed as commercial enterprises.

Use of Houses and Equipment

A total of 64 per cent of the seller families did not have laying houses. However, most of these families used part of some shed or a roosting house as a place for poultry to get out of bad weather. In a few cases, the only roosting place available for poultry was a nearby tree. The percentage of families with laying houses increased as flocks increased in size, Table 3.

Only 3 per cent of the sellers did not provide nests for their laying flocks. These families were about equally divided between flocks of less than 25 and those of 25 to 49 layers. A few families provided only one nest for every 10 to 25 layers. Ten per cent of the families used

Table 3. Proportion of Families Selling Eggs that Used Laying Houses and Equipment, by Size of Flock, 277 Rural Households in Alabama, 1947

Practice used	Range in size of laying flock				
	Less than 25	25-49	50-99	100 or more	Average of all
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Provided a laying house	26	34	38	82	36
Laying house had no facilities	18	25	21	27	22
Used dropping pits or boards	2	6	4	36	7
Enclosed pits or boards with screen wire	1	5	4	32	6
Used litter in laying house	6	7	17	50	12
Provided one nest for 4 layers or less	82	73	44	27	67
Provided one nest for 5 layers or more	12	24	56	73	30
No nests provided	6	3	0	0	3
Used electric lights in laying house	0	2	4	32	4
Used straw, hay or grass as nesting material	85	87	96	77	87
Number of Families	82	125	48	22	277

such miscellaneous nesting materials as shavings, excelsior, leaves, ground corn cobs, paper, cloth sacks, sawdust, and corn shucks. Two out of the 4 families with 400 or more layers used lights in the laying house.

PREPARATION OF EGGS FOR MARKET

The most common practice was to gather eggs once daily during the entire year. This practice was followed by 82 per cent of the families, Table 4. A few families gathered eggs two or more times

TABLE 4. PROPORTION OF FAMILIES SELLING EGGS THAT USED SPECIFIED PRACTICES IN PREPARATION OF EGGS FOR MARKET AND IN MARKETING EGGS, 277 RURAL HOUSEHOLDS IN ALABAMA, 1947

Practice used	Range in size of laying flock				
	Less than 25	25-49	50-99	100 or more	Average of all
	Pct.	*Pct.*	*Pct.*	*Pct.*	*Pct.*
Gathered eggs two or more times daily	11	7	10	50	11
Gathered eggs once daily	82	89	83	45	82
Gathered eggs less than once daily	7	4	7	5	7
Used a wire basket in gathering eggs	1	4	2	23	4
Used a metal pail in gathering eggs	56	69	69	68	65
Used other miscellaneous containers in gathering eggs	43	27	29	9	31
Cleaned stained or dirty eggs by buffing	0	2	0	5	1
Cooled eggs before packing	32	34	42	64	37
Stored eggs in a cool moist place	13	18	19	5	16
Sorted eggs for sale on a color basis	16	14	17	45	17
Packed eggs in cases or cartons for market	4	8	17	64	13
Sold eggs on a quality (graded) basis	4	2	0	9	3
Marketed eggs at least twice per week	10	21	17	41	18
Marketed eggs once per week	46	46	56	45	48
Marketed eggs at irregular intervals	44	33	27	14	34
Received market information at various times	84	90	94	95	89
Always knew local price of eggs before selling	17	17	23	36	19
Never knew local price of eggs before selling	34	33	23	19	31
Sometimes knew local price of eggs before selling	49	50	54	45	50
Sold cracked and/or small eggs	24	18	27	27	23
Had difficulty in selling eggs at some season of the year	18	19	15	23	18
NUMBER OF FAMILIES	82	125	48	22	277

daily, while another small group gathered them less than once per day.

Numerous objects such as aprons, bowls, boxes, hats, and paper sacks, were used as containers for gathering eggs. Four-fifths of the families gathered eggs once a day, and nearly two-thirds stored their eggs in some type of storage container immediately after gathering rather than waiting for them to cool before storage. Any dirty eggs that were cleaned were usually washed in water or with a damp cloth. The usual place of storing eggs until sold or used was the family kitchen.

Eggs were packed for market in many different types of containers. Only 11 per cent of the families used egg cases and 2 per cent used cartons. Twenty-seven per cent used boxes; 23 per cent used paper sacks; 22 per cent used buckets or pails; and the remaining 15 per cent used other types of containers.

Marketing of Eggs

Ninety-seven per cent of the families sold their eggs as "current receipts" throughout the year. The remaining 3 per cent sold eggs on some type of a graded basis, either for part or all of the year, Table 4. Size of flock had no effect on whether eggs were sold as "current receipts" or graded. Fourteen per cent of the families sold eggs biweekly or less frequently.

Eighty-nine per cent of the families received egg market news through the following sources: radio and/or newspaper, 39 per cent; local stores, 35 per cent; word of mouth, 14 per cent; and other sources, 1 per cent. Eleven per cent stated that they never received any market news. Receiving egg market news at one time or another did not mean that a family always knew the local price of eggs before making a sale. Actually, only a fifth of the families indicated that they always knew the price of eggs before making a sale.

Eighty-two per cent of all seller families reported that they had no trouble selling eggs at some price. Nine per cent reported having difficulty in finding a market during spring months, while 6 per cent reported having difficulty during the summer. An additional 3 per cent reported difficulty in finding a market during both the spring and summer months.

Ninety-two per cent of all seller households had less than 100 layers, and these averaged only 33 layers per flock. This group of seller families with "home flocks" seems to have adopted relatively few recommended production and marketing practices. Only those flocks of 200 or more layers were treated by their owners as commercial enterprises. Families with flocks that were essentially commercial followed more of the approved practices in the production and marketing of eggs. However, on a state basis, this group apparently sold less than a fourth of the eggs produced and sold in 1947. Considering sellers and non-sellers as one group, slightly more than half of the total eggs sold by Alabama producers were from flocks of less than 50 layers, while more than 75 per cent of all Alabama eggs sold were produced by "home flocks" of all sizes.

PRODUCTION and DISPOSITION of EGGS, 1947-48

For 1948, seller families submitted monthly reports on production and disposition of eggs. Of the 277 families, 207 submitted reports for the entire year. Thus, there was an over-all reduction of 25 per cent in the number of families reporting. Since the percentage of families dropping out was almost identical in each flock-size group, this smaller number of 1948 records was used in the same manner as the 1947 records.

Of the total annual egg production, 68 per cent was sold, 30 per cent was used in the home, and the remainder was used as hatching eggs or was wasted during the period 1947-48. The percentage of total production that was sold varied by size of flock, Table 5.

Most seller households were able to obtain some egg production in every month of the year regardless of flock size. However, smaller flocks tended to produce a higher percentage of eggs in the spring and summer months than did flocks of 100 or more layers. Percentage of eggs produced, percentage sold, and percentage of families report-

TABLE 5. DISPOSITION OF EGGS BY SIZE OF FLOCK, RURAL HOUSEHOLDS IN ALABAMA, 1947 AND 1948[1]

Range in size of laying flock	Disposition by use				
	Sales	Home use	Hatching	Wasted	Total production
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Less than 25 layers	42	55	3	[2]	100
25-49 layers	52	46	2	[2]	100
50-99 layers	65	33	1	1	100
100 or more layers	92	8	[2]	[2]	100
TOTAL OR AVERAGE	68	30	2	[2]	100

[1] Based on 277 flocks in 1947 and 207 in 1948.
[2] Less than 1 per cent.

ing sales by months and by size of flock are shown in Appendix Tables 8, 9, and 10. All flocks produced slightly more than a fourth of all eggs laid in 1948 in the months of March and April, Table 6.

TABLE 6. PERCENTAGE OF ALL EGGS PRODUCED AND SOLD, AND PERCENTAGE OF FAMILIES REPORTING SALES BY MONTHS, 207 RURAL HOUSEHOLDS IN ALABAMA, 1948

Month	Average of all flocks		
	Eggs produced	Eggs sold	Families reporting sales
	Per cent	*Per cent*	*Per cent*
January	8	8	63
February	10	11	81
March	14	15	93
April	14	14	88
May	11	11	83
June	9	9	71
July	7	6	57
August	6	5	51
September	5	5	43
October	5	5	37
November	5	5	40
December	6	6	39
TOTAL	100	100	—

While seasonality of production indicated something of the surplus problem, the real problem was best shown by sales. As an average of all flocks, about half of all eggs sold were marketed in the 4 months, February through May. Families with less than 100 layers made approximately 60 per cent of all their egg sales in these 4 months, with March and April being the high months.

Of all eggs produced and sold in the State by both sellers and non-sellers, approximately 57 per cent were sold in this 4-month period. Regardless of flock size, a higher percentage of eggs were sold in the months of March and April than in any other 2 months of the year. Basically, the problem of uneven distribution of sales was created by a higher percentage of eggs being produced in this period. In addition, a higher percentage of all families were making sales in these months. For instance, 93 per cent of all families sold eggs in March, while only 37 per cent reported sales in October. In addition, a higher percentage of all eggs produced were sold in the spring months than at any other season of the year, Table 7.

Some families sell eggs for "cash;" others "trade" all or part of their eggs to a store for other merchandise. Some 82 per cent of the sellers reported that they did not or would not receive a premium on their

TABLE 7. DISPOSITION OF EGGS BY MONTHS, 207 RURAL HOUSEHOLDS IN ALABAMA, 1948

Month	Percentage disposition of eggs by use				
	Sales	Home use	Hatching	Wasted	Total production
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
January	68	31	1	[1]	100
February	70	29	1	[1]	100
March	72	24	4	[1]	100
April	68	26	5	1	100
May	68	30	2	[1]	100
June	65	33	2	[1]	100
July	59	39	1	1	100
August	59	39	1	1	100
September	61	38	1	[1]	100
October	62	38	[1]	[1]	100
November	64	35	[1]	1	100
December	66	34	[1]	[1]	100
TOTAL OR AVERAGE	66	31	2	1	100

[1] Less than 1 per cent.

eggs when taken in trade. Of the remaining 18 per cent, 15 per cent reported receiving a premium when they "traded" their eggs. Three per cent did not answer the question. Premiums were reported as varying from 1 to 10 cents per dozen. Five cents per dozen was most commonly reported.

Some seller families sold eggs to only one buyer, while others sold to two or more buyers. Buyers were classed as main, secondary, and third types of buyers depending on their importance to each seller. Country stores were the main buyer for 22 per cent of the families, secondary buyer for 9 per cent, and third type buyer for 1 per cent. In all, 32 per cent of the families made sales to country stores.

Ninety-four per cent of the seller families made sales to main-type buyers, while 6 per cent made no sales in 1947. Thirty-four per cent of the families made sales to a secondary buyer in addition to a main-type buyer, and 4 per cent made sales to a third-type buyer in addition to making sales to main- and secondary-type buyers. Of all eggs sold by seller families, 89 per cent were sold to main-type buyers, 10 per cent to secondary buyers, and 1 per cent to third-type buyers.

Half of the seller families sold eggs to main-type buyers who picked the eggs up at the sellers' homes; a third delivered them a distance of less than 6 miles; and a sixth delivered eggs 6 or more miles to a buyer. The distance that eggs were delivered to buyers varied from less than 1 to more than 18 miles. In the case of sales to secondary buyers, the location of place of sale was about the same as that of main buyers except that only 45 per cent of the families were able to sell to a buyer who picked up the eggs at the sellers' homes.

Families with less than 100 layers made most of their egg sales in 1947 and 1948 to country stores, rolling stores, and consumers. Con-

TABLE 8. PERCENTAGE OF ALL EGGS SOLD BY SIZE OF FLOCK TO DIFFERENT KINDS OF BUYERS, RURAL HOUSEHOLDS IN ALABAMA, 1947 AND 1948 [1]

Kind of buyer	Range in size of laying flock				
	Less than 25	25-49	50-99	100 or more	Average of all
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Consumer	20	33	17	19	22
Feed and seed store	4	3	6	34	20
Country store	32	27	24	6	16
Rolling store	37	22	34	1	15
City store	3	6	3	15	10
Local produce dealer	2	4	8	9	7
Huckster	1	3	1	11	6
Cooperative	1	1	6	4	3
Miscellaneous	[2]	1	1	1	1
TOTAL	100	100	100	100	100

[1] Based on 277 flocks in 1947 and 207 in 1948.
[2] Less than 1 per cent.

TABLE 9. PERCENTAGE OF ALL EGGS SOLD BY MONTHS TO DIFFERENT KINDS OF BUYERS, 207 RURAL HOUSEHOLDS IN ALABAMA, 1948

Month	Kind of buyer								
	Consumer	Feed and seed store	Country store	City store	Rolling store	Cooperative [1]	Local produce dealer	Huckster	Miscellaneous	Average of all
	Pct.	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
January	6	11	6	8	9	6	22	9	5	8
February	9	14	10	9	11	6	25	9	18	11
March	13	15	17	18	17	7	15	16	25	15
April	14	12	16	16	15	3	15	15	34	14
May	12	11	12	13	12	6	12	14	12	11
June	11	7	10	8	8	5	8	11	5	9
July	7	7	6	4	7	11	1	6	0	6
August	5	5	6	3	6	13	0	6	0	5
September	5	3	6	4	4	13	0	4	1	5
October	6	3	3	5	3	11	2	2	0	5
November	6	5	4	5	4	9	0	4	0	5
December	6	7	4	7	4	10	0	4	0	6
TOTAL	100	100	100	100	100	100	100	100	100	100
Percentage of all sales	25	19	15	14	12	6	4	4	1	100

[1] Cooperatives included not only egg cooperatives but other purchasing cooperatives which handled eggs.

sumers and feed and seed stores bought most of the eggs sold by families with 100 or more layers. Consumers bought almost a fourth of all eggs sold by seller families, Table 8.

Buying practices were affected by seasonality of sales. Country stores bought nearly six times as many eggs in the month of March as in October, 1948. Consumers bought only twice as many eggs in March as in October. As an average of all sales, three times as many eggs were sold by seller families in March as in October, Table 9.

Some differences in prices received for eggs sold by seller households existed between various size-of-flock groups and by kind of buyers. Families with less than 100 layers received a lower average price for eggs during the year than did families with 100 layers or more, Table 10. Families with larger laying flocks tended to sell more of their eggs in the months of higher prices. Volume of sales, kind of buyer, time of year when eggs were sold, and quality of eggs all played a part in determining the over-all yearly price received for eggs.

TABLE 10. WEIGHTED AVERAGE PRICES RECEIVED PER DOZEN FOR EGGS SOLD BY SIZE OF FLOCK BY MONTH AND AVERAGE OF ALL, 207 RURAL HOUSEHOLDS IN ALABAMA, 1948

Month	Range in size of laying flock				
	Less than 25	25-49	50-99	100 or more	Average of all
	Cents	*Cents*	*Cents*	*Cents*	*Cents*
January	61.3	57.4	60.0	65.5	62.8
February	53.4	50.2	51.8	53.0	52.2
March	40.5	40.6	41.9	41.9	41.4
April	39.8	40.4	44.1	45.4	43.4
May	39.4	41.0	41.5	45.0	42.9
June	40.7	42.2	42.9	48.1	44.9
July	42.8	43.3	43.7	54.1	49.1
August	46.6	44.3	47.5	55.4	51.5
September	53.3	50.0	52.8	55.8	54.1
October	57.1	54.0	56.4	60.0	58.5
November	60.2	59.3	61.5	64.1	63.1
December	66.6	61.6	62.0	65.0	64.4
AVERAGE	47.7	45.4	47.9	53.5	50.3
NUMBER OF FAMILIES	59	94	37	17	207

Prices that sellers received for eggs sold each month in 1948 varied by kind of buyers. Some of these variations were probably due to volume of sales, time of year in which sales were made, and quality of eggs sold. For the year as a whole, sellers received less from country stores and rolling stores than from cooperatives and consumers, Table 11. Consumers usually paid producers the local retail price for eggs.

TABLE 11. WEIGHTED AVERAGE PRICES RECEIVED BY SELLERS PER DOZEN FOR EGGS FROM SELECTED KINDS OF BUYERS, BY MONTHS AND AVERAGE OF ALL, 207 RURAL HOUSEHOLDS IN ALABAMA, 1948

Month	Kind of buyer							
	Cooperative	Consumer	Feed & seed store	City store	Huckster	Country store	Rolling store	Average of all[1]
	Cents	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
January	59.4	66.4	60.2	70.4	55.5	57.3	58.5	62.8
February	51.2	57.3	49.3	54.0	50.7	48.9	49.5	52.2
March	41.8	47.4	41.7	41.2	42.6	38.3	36.3	41.4
April	49.8	50.9	41.8	41.5	42.9	38.2	36.8	43.4
May	49.7	45.7	45.8	43.9	43.8	37.8	36.4	42.9
June	53.7	48.2	47.0	48.1	45.4	38.6	38.1	44.9
July	62.6	53.9	51.8	49.3	47.7	39.7	37.9	49.1
August	59.2	56.3	54.5	49.8	51.0	43.1	41.1	51.5
September	59.5	60.6	56.5	44.2	52.0	48.5	46.7	54.1
October	61.3	62.7	58.4	55.4	53.7	50.8	53.4	58.5
November	61.5	69.9	59.1	61.0	55.4	59.4	58.3	63.1
December	60.0	70.3	62.0	64.9	55.5	61.6	62.4	64.4
WEIGHTED AVERAGE	57.0	56.0	50.7	49.5	47.4	44.2	43.0	50.3
SIMPLE AV.	55.8	57.5	52.3	52.0	49.7	46.8	46.3	52.4

[1] This column includes local produce dealers and miscellaneous buyers in addition to the ones shown.

Reports of the Federal-State Crop Reporting Service show that Alabama egg prices decrease as production increases. Conversely, egg prices increase as production decreases. Even though a somewhat rapid decline in egg production occurs in the summer months, prices tend to rise slowly. This slow rise in prices may be partly accounted for by eggs moving out of storage and by the poor quality of eggs sold during this season of the year. Even though most buyers do not grade the eggs they buy, they seem to expect a low quality product during the summer. This low quality is apparently brought about by production and marketing practices of rural families rather than by initial quality of new-laid eggs.

A comparison of prices received for eggs by farmers in the United States in 1948 with those received by seller families in Alabama shows that prices in the State were above the United States average in every month except March. During April, May, and June, Alabama prices were only slightly above the United States average. For all remaining months, Alabama prices were much higher than the United States average, with the greatest spread occurring in December, January, and February. Price differences between Alabama and the United States as a whole point to the State's surplus egg problem during the spring months and its deficit of egg production during the remaining months of the year. While most families can find a market for the eggs they produce during the spring months, they can do so only at a greatly reduced price.

SUMMARY

For purposes of this study, families from which information was obtained were divided into two groups. One group, classified as egg sellers, consisted of those families who expected to sell as many as 2 dozen eggs during any one of the months of January through June, 1948. A second group, classified as non-sellers, consisted of those families who did not expect to sell eggs as specified for sellers.

Families that were classed as non-sellers comprised 70 per cent of all households surveyed; a fourth of these had no laying flocks. The average flock size owned by non-sellers with layers was 17. While non-sellers did not sell enough eggs to be classified as sellers, they accounted for about 40 per cent of the production and about 30 per cent of the sales of eggs produced in Alabama.

Seller families made up only 30 per cent of all households. Flocks of these families average 51 layers. The most common flock sizes ranged from 25 to 49 layers. The seller group accounted for about 60 per cent of the production and 70 per cent of the sales of eggs produced in Alabama.

Seller households with less than 50 layers carried out few approved management practices. As size of flock increased, however, the percentage of households carrying out such practices increased. Only a fourth of all seller households obtained baby chicks by April 1. About a fourth of all seller flocks were made up of hens only. Less than a fourth of all seller flocks were fed mash throughout the year.

Two-thirds of the seller families did not have laying houses. A fourth had laying houses but no facilities, while 14 per cent had laying houses with some type of facilities. Two-thirds of the sellers provided one or more nests for every four layers.

Eighty-two per cent of all sellers gathered eggs once daily during the entire year. Two-thirds used a metal pail or bucket for gathering eggs. A third of the families sold dirty eggs without cleaning them. The usual place of storing eggs until sold or used was the family kitchen. Eighty-three per cent of all families reported selling eggs without sorting by color. Most eggs were sold as "current receipts."

Eggs were packaged for market in all types of containers; however, few used cases or cartons. Half of all sellers sold eggs only once a week, while a fifth sold twice per week. Only a fifth of the sellers always knew the local price of eggs before making a sale. Only 15 per cent of the families reported receiving a premium when they "traded" their eggs. A fifth of the sellers reported having difficulty finding a market for their eggs.

Of the total production in 1947 and 1948, 68 per cent was sold, 30 per cent went to home use, and the remainder was used for hatching or was wasted. Families with small flocks made most of their egg sales to country stores, rolling stores, and consumers. Families with 100 or more layers made most of their sales to feed and seed stores and to consumers.

Small flocks tended to produce a higher percentage of eggs in the spring than did flocks of 100 or more layers. All flocks produced about a fourth of all eggs laid in 1948 in the months of March and April. Regardless of flock size, a higher percentage of eggs were sold in March and April than in any other 2 months of the year. Ninety-three per cent of all seller households sold eggs in March, while only 37 per cent reported sales in October. Seller families sold 72 per cent of all eggs produced in the month of March but only 59 per cent of those produced in July and August. Country stores bought approximately six times as many eggs in March as in October. Consumers, however, bought only twice as many eggs in March as in October.

Families with less than 100 layers received a lower price during the year for eggs than did families with 100 layers or more. Volume of sales, kind of buyer, time of year that eggs were sold, and quality of eggs played a part in determining the over-all yearly price received for eggs. For the year as a whole, country stores and rolling stores paid less for eggs than did cooperatives and consumers.

CONCLUSIONS

This study indicates that some of the major factors causing Alabama's spring surplus egg problem are:

1. Half of the eggs produced in the State are produced in the 4 months, February through May.
2. Not only is egg production disproportionately high in the spring but a higher percentage of total production is sold during that season than in any other of the year. For the year as a whole, approximately 60 per cent of all eggs produced in the State are sold.

3. Three-fifths of the sales of Alabama-produced eggs occur in the 4 spring months, February through May.
4. Practically all families having poultry sell some eggs during the spring months, while only a third sell eggs in the fall months.
5. Most rural families keep flocks of chickens that are too large for home use and too small for commercial enterprises.

Producers who sell eggs regularly throughout the year are widely scattered over the State. Individual sales by most producers account for a small fraction of the total market supply. This creates a difficult problem of assembling a sufficient volume of eggs for more uniform and economical marketing.

Since most eggs are sold in the spring, low egg prices prevail for all producers during this season and it is difficult for some producers to find a market.

On a state basis, more than three-fourths of the eggs produced and sold come from flocks of less than 200 layers. Only a small percentage of the families with flocks of this size carry out enough approved egg production and marketing practices to assure profitable poultry enterprises.

Families with less than 100 layers sell most of their eggs to retail and to rolling stores. These buyers and special buyers, many of whom enter the market for only short periods in the spring, handle much of the seasonal surplus of eggs.

Most producers sell eggs as "current receipts." Since the current volume of the State's egg production per flock is small and scattered, it is often difficult to justify expanding present marketing facilities. Unless such facilities are expanded, there is little chance of developing a year-round market for Alabama eggs.

Over the year as a whole, too few eggs are produced to satisfy the demand for eggs within the State. There appears to be an opportunity for an expansion of egg production provided it can be accomplished within the limits of available resources and will yield an economic advantage to producers.

There is considerable need for an expanded educational program designed especially to reemphasize a better distribution of egg production and marketing throughout the year, improvement of the quality of eggs marketed, and a shift toward either home-sized flocks with no sales or large flocks as commercial enterprises.

There is a need for economic studies dealing with efficiency, effectiveness, and profitableness of egg marketing practices of buyers.

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APPENDIX

APPENDIX TABLE 1. NUMBER AND PERCENTAGE DISTRIBUTION OF SELLER AND NON-SELLER HOUSEHOLDS BY TENURE OF OPERATOR, 914 RURAL HOUSEHOLDS IN ALABAMA, 1947

Tenure	Seller households		Non-seller households		All households	
	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total
	Number	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*
Owner	182	66	286	45	468	51
Part-owner	12	4	24	4	36	4
Renter	54	20	214	34	268	29
Sharecropper	28	10	102	16	130	14
Other	1	[1]	11	1	12	2
TOTAL	277	100	637	100	914	100

[1] Less than 1 per cent.

APPENDIX TABLE 2. NUMBER AND PERCENTAGE DISTRIBUTION OF SELLER AND NON-SELLER HOUSEHOLDS BY COLOR OF OPERATOR, 914 RURAL HOUSEHOLDS IN ALABAMA, 1947

Color	Seller households		Non-seller households		All households	
	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total
	Number	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*
White	245	88	427	67	672	74
Colored	32	12	210	33	242	26
TOTAL	277	100	637	100	914	100

APPENDIX TABLE 3. NUMBER AND PERCENTAGE DISTRIBUTION OF SELLER AND NON-SELLER HOUSEHOLDS BY SIZE OF FAMILY, 914 RURAL HOUSEHOLDS IN ALABAMA, 1947

Number of people in family	Seller households		Non-seller households		All households	
	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total
	Number	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*
One	6	2	25	4	31	3
Two	65	24	120	19	185	20
Three	61	22	122	19	183	20
Four	44	16	128	20	172	19
Five	53	19	81	13	134	15
Six to nine	36	13	112	17	148	16
Nine or more	12	4	49	8	61	7
TOTAL	277	100	637	100	914	100

APPENDIX TABLE 4. NUMBER AND PERCENTAGE DISTRIBUTION OF SELLER AND NON-SELLER HOUSEHOLDS BY ACRES OF CROPLAND OPERATED, 914 RURAL HOUSEHOLDS IN ALABAMA, 1947

Acres of cropland	Seller households		Non-seller households		All households	
	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total
	Number	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*
None	43	15	234	37	277	30
Under 3	6	2	38	6	44	5
3-29	80	29	188	30	268	29
30-49	73	26	96	15	169	19
50-69	32	12	40	6	72	8
70-99	22	8	16	2	38	4
100-139	10	4	4	1	14	2
140 or more	10	4	9	1	19	2
Not ascertained	1	[1]	12	2	13	1
TOTAL	277	100	637	100	914	100

[1] Less than 1 per cent.

APPENDIX TABLE 5. NUMBER AND PERCENTAGE DISTRIBUTION OF SELLER AND NON-SELLER HOUSEHOLDS BY PRIMARY SOURCE OF INCOME, 914 RURAL HOUSEHOLDS IN ALABAMA, 1947

Primary source of income	Seller households		Non-seller households		All households	
	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total
	Number	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*
Non-farm	69	25	303	48	372	41
Farm-off-farm	8	3	54	8	62	7
Cotton	115	41	141	22	256	28
Peanuts	29	11	72	11	101	11
General farm	29	11	24	4	53	6
Fruit, vegetable, or truck	10	4	22	3	32	4
Grain	4	1	10	2	14	2
Beef cattle, hogs, or sheep	6	2	6	1	12	1
Poultry	4	1	0	0	4	[1]
Dairy	0	0	2	[1]	2	[1]
Other	3	1	0	0	3	[1]
Not ascertained	0	0	3	1	3	[1]
TOTAL	277	100	637	100	914	100

[1] Less than 1 per cent.

APPENDIX TABLE 6. NUMBER AND PERCENTAGE DISTRIBUTION OF SELLER AND NON-SELLER HOUSEHOLDS BY SIZE OF LAYING FLOCK, 914 RURAL HOUSEHOLDS IN ALABAMA, JANUARY, 1948

Range in size of laying flock	Seller households		Non-seller households		All households	
	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total
	Number	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*
No layers	0	0	163	26	163	18
Less than 25 layers	82	30	386	61	468	51
25-49 layers	125	45	69	11	194	21
50-99 layers	48	17	15	2	63	7
100 or more layers	22	8	3	[1]	25	3
Not ascertained	0	0	1	[1]	1	[1]
TOTAL	277	100	637	100	914	100

[1] Less than 1 per cent.

APPENDIX TABLE 7. NUMBER AND PERCENTAGE DISTRIBUTION OF SELLER AND NON-SELLER HOUSEHOLDS BY PROPORTION OF PULLETS IN LAYING FLOCKS, 914 RURAL HOUSEHOLDS IN ALABAMA, 1947

Kind of flock management	Seller households		Non-seller households		All households	
	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total
	Number	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*
All pullets	27	10	42	7	69	8
80-99% pullets	15	5	12	2	27	3
60-79% pullets	38	14	37	6	75	8
40-59% pullets	64	23	66	10	130	14
20-39% pulles	50	18	60	9	110	12
1-19% pullets	10	4	16	2	26	3
All hens	73	26	240	38	313	34
No layers	0	0	163	26	163	18
Not ascertained	0	0	1	[1]	1	[1]
TOTAL	277	100	637	100	914	100

[1] Less than 1 per cent.

APPENDIX TABLE 8. PERCENTAGE OF EGGS PRODUCED BY MONTHS BY SIZE OF FLOCK, 207 RURAL HOUSEHOLDS IN ALABAMA, 1948

Month	Range in size of laying flock				
	Less than 25	25-49	50-99	100 or more	Average of all
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
January	8	7	8	9	8
February	10	10	11	10	10
March	14	15	16	12	14
April	13	15	14	12	14
May	10	12	11	11	11
June	9	10	10	8	9
July	8	7	7	6	7
August	7	6	6	6	6
September	6	5	4	6	5
October	5	5	3	6	5
November	4	4	5	7	5
December	6	4	5	7	6
TOTAL	100	100	100	100	100

APPENDIX TABLE 9. PERCENTAGE OF ALL EGGS SOLD BY MONTHS BY SIZE OF FLOCK, 207 RURAL HOUSEHOLDS IN ALABAMA, 1948

Month	Range in size of laying flock				
	Less than 25	25-49	50-99	100 or more	Average of all
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
January	10	7	9	9	8
February	12	11	12	10	11
March	18	18	18	12	15
April	15	16	15	12	14
May	12	12	12	11	11
June	8	10	9	8	9
July	6	6	6	6	6
August	4	6	5	6	5
September	4	5	3	6	5
October	2	4	2	6	5
November	3	3	4	7	5
December	6	2	5	7	6
TOTAL	100	100	100	100	100

APPENDIX TABLE 10. PERCENTAGE OF FAMILIES REPORTING SALES BY MONTHS BY SIZE OF FLOCK, AND AVERAGE OF ALL, 207 RURAL HOUSEHOLDS IN ALABAMA, 1948

Month	Range in size of laying flock				
	Less than 25	25-49	50-99	100 or more	Average of all
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
January	59	61	68	82	63
February	73	82	81	100	81
March	92	91	97	94	93
April	81	89	95	94	88
May	75	83	92	94	83
June	66	69	78	88	71
July	44	55	65	88	57
August	36	52	54	88	51
September	32	43	43	82	43
October	20	40	35	82	37
November	25	40	46	71	40
December	24	38	49	76	39