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# Quality and Price of Maine Eggs on the Boston Market

Maine Development Commission

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Bulletin No.

June 1933

QUALITY AND PRICE OF MAINE EGGS

ON THE

BOSTON MARKET

Prepared by

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THE MAINE DEVELOPMENT COMMISSION

Cooperating with

Department of Agricultural Economics and

Farm Management, University of Maine

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## QUALITY AND PRICE OF MAINE EGGS ON THE BOSTON MARKET

### INTRODUCTION

The Maine poultryman who desires to obtain the highest possible returns from the sale of his eggs should be able to make use of the most efficient marketing practices, and to know the particular demands of those markets to which the majority of his eggs move. The object of this publication is to present an investigation on the quality of Maine eggs and the relation between quality and the prices received for Maine eggs on the Boston wholesale market. Inasmuch as the Boston wholesale market annually receives between 40 and 50 per cent of the Maine eggs entering commercial channels of sale, it is the most important single market outlet for Maine eggs.

There has been no previous investigational work done on any of the phases of the marketing of Maine eggs. In 1925, the Maine Extension Service published Bulletin No. 154, "Increasing Poultry Profits"<sup>1</sup> prepared by M. D. Jones and O. M. Wilbur. This bulletin, written from a purely managerial viewpoint, discusses the then existing conditions of the poultry industry in the State, and offers suggestions as to improving the systems of poultry management. The Maine Extension Service has from time to time published leaflets dealing with various phases of the poultry industry.

### Sources of Information

The data for this study were collected from various sources. Wholesale egg dealers in Boston were interviewed, and, while many Boston wholesale men were extremely reticent as to supplying data, much valuable

<sup>1</sup>Jones, M. D. and Wilbur, O. M. Increasing Poultry Profits. Maine Extension Service Bulletin 154, 1925.

information was secured as to current sentiment concerning Maine eggs. One firm cooperated with the author by making available their actual candling records of Maine eggs for the year January 1, 1932 to December 31, 1932.

The Boston Fruit and Produce Exchange permitted access to all their records of daily egg prices and receipts of eggs on the Boston market during the past ten years (1923-1932).

Marketing questionnaires on the systems of grading were sent to commercial poultrymen in the State. The 147 poultrymen returning the questionnaire contributed much valuable information to this study.

The records of the late Maine Poultry Producers' Association were made available, and, although this material is some six years old, the grading procedure and the marketing conditions were fundamentally the same as at present. This fact was borne out by the great degree of similarity between the records of the Association and the records of the present functioning Hancock County Cooperative Creamery at Ellsworth which handles eggs. While a large number of candling records would be desirable, the costs and length of time involved in the collection of such information would be impractical for a study of this nature.

## GRADING OF EGGS

## Quality Factors Influencing Grades of Eggs

It is well to consider just what factors of quality are to be regarded as contributive to various grades of eggs. These factors may be classified into two divisions - external and internal factors of quality.

The external factors that enter into consideration in grading are: soundness of shell, cleanliness of shell, size of egg, color of egg, and shape of egg. Broken or cracked eggs are due either to faulty packing or rough handling during transit. Eggs that are broken before reaching the market are, of course, a complete loss. Cracks or checks in the shells offer openings for the entrance of bacteria and an opportunity for excessive evaporation of the contents of the egg. Dirty eggs are not only repulsive in appearance to buyers but also odors or foreign matter may be absorbed into the egg affecting the flavor, odor, and keeping qualities of the egg. Size of egg is often the determining factor in grade placements as each grade of eggs has a specified minimum weight requirement. It is well known that certain markets prefer white colored eggs and other markets brown eggs. This is largely for psychological reasons. The New York market prefers the chalk white-shelled egg while Boston's preference is for the brown-shelled egg. The shape of the egg is not a very important factor affecting quality, although eggs of uniform shape undoubtedly have preference over ill-shaped eggs.

Internal factors are more important than external factors of quality as, in the final analysis, it is the taste, odor, and appearance of the contents of the egg that are of most interest to the consumer and hence to the wholesale egg dealer. The internal qualities of eggs, detected by the candl-

ing process are: condition of the yolks, whites, and air cells. The yolk of the fresh egg should be rounded and firm, but its color may vary as it is dependent on the feed and inherited characteristics of the hen. Often the presence of blood clots in eggs cause reduction in grade. Eggs that contain blood clots (not to be confused with "bloody eggs") are not harmful, but the average consumer often confuses clots of this type with germ development. For this reason, eggs with blood clots bring reduced prices. The white of the egg should be practically colorless with the middle portion of jelly-like consistency standing up around the yolk. Meat spots are sometimes found in the whites of the egg and lower the eggs in grade. If the egg is examined before cooking, however, the meat spot can be easily removed. The size of the air cell is a good indication of the age of an egg and greatly aids in the grading process.

The average consumer, when purchasing, notices only those factors of quality that are easily recognizable by superfluous external examination. However, when the eggs are being used in the home internal irregularities in quality are quickly detected and the consumer avoids purchase of eggs from the same source again. For this reason, wholesale dealers in the city markets, who wish to protect their own interests, follow a careful grading procedure and encourage quality production by poultrymen.

#### Grading of Eggs by Producers on the Farm

Very few poultrymen in Maine candle their eggs, as is indicated by the 147 Maine poultrymen answering the questionnaire (Table 1). Furthermore, it is not particularly desirable to candle eggs especially when they are shipped to the Boston market. Buyers have stated that they have found from

experience that it is advisable to candle all eggs received in order to maintain their own prestige. Thus, it would seem hardly worthwhile to handle these eggs over twice unless the producer wishes to check on the buyer. There are, of course, exceptions to this general rule, and a few cases of eggs may be sold without recandling where the producer is well known to the buyer. In those instances where the poultryman has built up a select local trade or desires to build up such a trade it would be advisable to make a practice of candling eggs before sale. In this way it would be possible to build up a reputation for a quality product.

About one-half (49.66 per cent) of the poultrymen graded their eggs according to shape. Shape is not a particularly important factor in a grading procedure. Earl Benjamin<sup>2</sup> says in this connection,

"The grade of an egg is not affected by the shape, unless it is extremely abnormal. .... Eggs of abnormal shapes do not fit the standard fillers and consequently present a bad appearance and are likely to become broken".

Slightly more than 80 per cent of the farmers grade their eggs as to size and cleanliness. These are the two most important factors of external quality affecting the grade of eggs. Breakage is apt to result from placing eggs of different sizes together in cases, and, too, egg grades have minimum weight specifications that must be met. Cleanliness is, of course, essential for the placing of eggs in the highest grades.

The question of internal quality, as indicated by the age of an egg, is one of supreme importance in any grading procedure. Of the 147 poultrymen answering the questionnaire, 73.48 per cent graded their eggs according to age. Boston dealers recommend that eggs be shipped at least once a week to insure the best possible returns.

<sup>2</sup>Benjamin, Earl W. Marketing Poultry Products. John Wiley & Sons, New York, p. 58, 1930.



TABLE 1  
EGG GRADING PRACTICES ON 147 MAINE FARMS

June 1, 1931 - May 31, 1932

	Yes	No	Per cent of poultrymen following practice
Candled	15	132	10.20
Graded for shape	73	74	49.66
Graded for size	119	28	80.88
Graded for color	48	99	32.66
Graded for cleanliness	119	28	80.88
Graded for age	108	39	73.48

#### Grading of Maine Eggs

In a consideration of how Maine eggs are graded, the candling records of two intra-state cooperative organizations were utilized. Records from the present non-existent Maine Poultry Producers' Association<sup>3</sup> covered the period from November 1, 1925 to October 31, 1926, and records from the Hancock County Cooperative Creamery from January 1, to December 31, 1932. The records for each organization were kept in a complete and accurate form with all grade variations given. In this study only the records of producers shipping throughout an entire year were used. This procedure automatically eliminated a large amount of information, but it was thought advisable since it permitted the ascertaining of seasonal variation on shipments made throughout a yearly period.

<sup>3</sup>The grade requirements of the Maine Poultry Producers' Association are presented in Appendix B.

Total Receipts

The records from both organizations were grouped together and in Table 2 is shown the monthly receipts of eggs by grades. The grades<sup>4</sup> listed in order of importance were Firsts, Mediums, Pullets, Seconds, Cracks, Meat and Blood Spots, and Brokens. The June receipts were the heaviest amounting to 21,359.6 dozens. May with 20,748.0 dozens was second, and April with 19,985.9 dozens was third in importance. October was the month of lightest receipts with 8,964.1 dozens, followed by November with 10,393.9 dozens. Receipts per farm averaged 318.8 dozens in June in contrast to 133.8 dozens in October.

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<sup>4</sup>The Hancock County Cooperative Creamery used as grade names corresponding to Firsts--24 ounce, to Mediums--20 ounce, and to Seconds--Maine Fresh.

TABLE 2

## TOTAL RECEIPTS OF EGGS FROM 67 MAINE POULTRY FARMS

in Dozens								
Month	Firsts <sup>5</sup>	Mediums <sup>5</sup>	Seconds <sup>5</sup>	Pullets	Cracks	Meat and blood spots	Brokens	Total
January	7,902.1	5,799.1	265.7	478.7	243.7	153.4	25.8	14,868.5
February	7,503.2	4,818.9	353.5	108.1	289.0	176.0	33.6	13,282.3
March	9,853.2	5,594.4	564.2	194.8	439.9	212.5	51.6	16,910.6
April	11,040.1	6,713.7	1,100.2	197.0	512.2	364.7	58.0	19,985.9
May	11,800.4	6,586.4	1,072.8	294.3	536.9	388.8	68.4	20,748.0
June	12,936.3	6,262.3	1,080.9	160.4	515.9	320.5	83.3	21,359.6
July	8,476.4	5,459.8	678.4	268.5	369.9	209.8	69.4	15,532.2
August	6,710.4	3,794.5	387.0	562.5	174.8	136.6	64.2	11,830.0
September	5,918.3	3,181.8	566.9	1,563.0	154.3	135.0	98.3	11,617.6
October	3,102.1	3,561.7	469.4	1,593.8	94.2	82.6	60.3	8,964.1
November	3,271.9	4,104.1	274.6	2,528.4	114.5	73.2	27.2	10,393.9
December	5,676.2	7,323.2	385.0	2,582.9	211.6	132.0	24.9	16,335.8
Total	94,190.6	63,199.9	7,198.6	10,532.4	3,656.9	2,385.1	665.0	181,828.5

<sup>5</sup>The Hancock County Cooperative Creamery used as grade names corresponding to Firsts--24 ounce, to Mediums--20 ounce, and to Seconds--Maine Fresh.

### Importance of Various Grades

The comparative monthly receipts of Maine eggs by grades are shown in Table 3. More than one-half (51.81 per cent) of the receipts were graded as Firsts. Mediums accounted for more than one-third of the total receipts or 34.76 per cent. Thus, these two high grades made up approximately five-sixths of the total receipts. Of the remaining one-sixth to be accounted for, pullets with 5.79 per cent constituted approximately one-half of this amount. The importance of the other grades was relatively insignificant from the standpoint of total receipts. For example, broken eggs amounted to only .36 per cent of the total. This was approximately one broken egg for every 300 eggs received.

While receipts of Pullet eggs were relatively unimportant on a yearly basis, in November 24.32 per cent of the total receipts were Pullet eggs. During this same month Firsts accounted for less than one-third (31.49 per cent) of the total receipts. On the other hand, in June three-fifths of the total were Firsts, and Pullet eggs accounted for only .75 per cent.

TABLE 3

## MONTHLY RECEIPTS OF EGGS ON A PERCENTAGE BASIS

Month	Firsts	Mediums	Seconds	Pullets	Cracks	Meat and blood spots	Brokens	Total
January	53.15	39.00	1.79	3.22	1.64	1.03	.17	100.00
February	56.50	36.28	2.66	.81	2.18	1.32	.25	100.00
March	58.27	33.08	3.34	1.15	2.60	1.26	.30	100.00
April	55.25	33.60	5.50	.98	2.56	1.82	.29	100.00
May	56.88	31.74	5.17	1.42	2.59	1.87	.33	100.00
June	60.56	29.32	5.06	.75	2.42	1.50	.39	100.00
July	54.57	35.15	4.37	1.73	2.38	1.35	.45	100.00
August	56.73	32.08	3.27	4.75	1.48	1.15	.54	100.00
September	50.94	27.39	4.88	13.45	1.33	1.16	.85	100.00
October	34.61	39.73	5.24	17.78	1.05	.92	.67	100.00
November	31.49	39.49	2.64	24.32	1.10	.70	.26	100.00
December	34.75	44.82	2.36	15.81	1.30	.81	.15	100.00
Average	51.81	34.76	3.96	5.79	2.01	1.31	.36	100.00

Seasonal Variation<sup>6</sup> in Egg Receipts

The seasonal variations within various grades or groups of grades will now be given consideration.

In Table 4 are shown the seasonal variations in receipts of Maine eggs. Receipts for the three months of April, May, and June were slightly more than one-third (34.15 per cent) of the total for the year. The month of lowest receipts was October with only 4.93 per cent of the total. The three months of September, October, and November accounted for only 17.04 per cent.

TABLE 4

## SEASONAL VARIATION OF EGG RECEIPTS FROM 67 MAINE POULTRY FARMS

Month	Total receipts	Per cent of total number total eggs
January	14,868.5	8.18
February	13,282.3	7.30
March	16,910.6	9.30
April	19,985.9	10.99
May	20,748.0	11.41
June	21,359.6	11.75
July	15,532.2	8.54
August	11,830.0	6.51
September	11,617.6	6.39
October	8,964.1	4.93
November	10,393.9	5.72
December	16,335.8	8.98
Total	181,828.5	100.00

<sup>6</sup>Seasonal variation as used throughout this study consists of percentage figures expressing the per cent that each month is of the total.

The graph, Seasonal Variation in Receipts of Eggs, (Figure 1) shows the annual variations in the receipts of Maine eggs from 67 poultry farms. The receipts increased from the beginning of the year up to June with a high point of 11.75 per cent of the total, and then declined rather abruptly from this month to October. From October receipts increased for the remainder of the year. Thus, a regular seasonal variation is evident with its peak during the late spring or early summer and its low point in the autumn.

PERCENT



JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.



FIGURE 1  
SEASONAL VARIATION IN RECEIPTS OF EGGS  
67 MAINE POULTRY FARMS

Seasonal Variation in Receipts of Firsts and Pullet Eggs

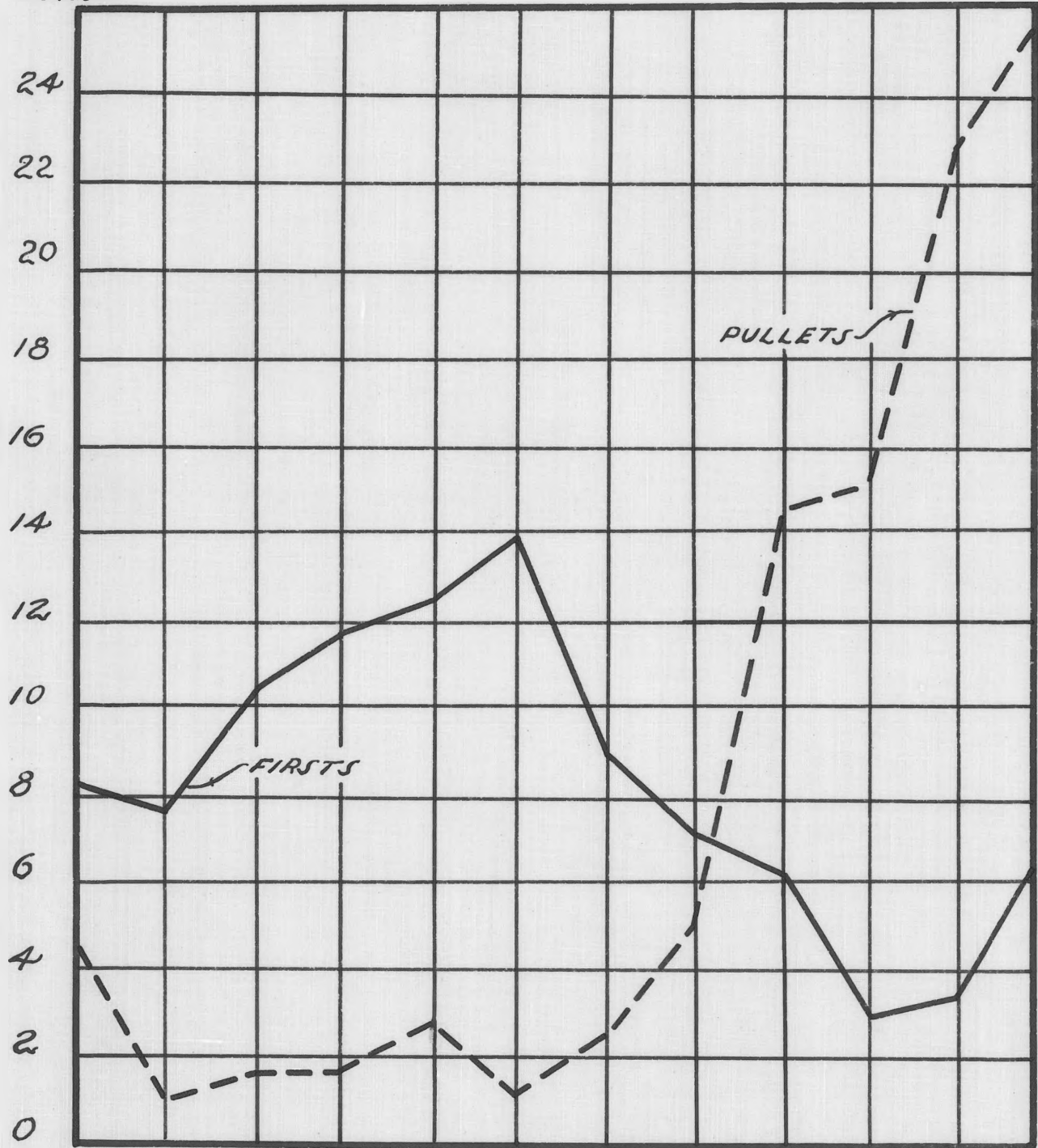
The seasonal variation in the receipts of Firsts (Table 5) correspond very closely to the seasonal variation in the receipts of total eggs. The peak receipts of Firsts were in June which accounted for 13.74 per cent of the total receipts. October showed the lowest receipts with 3.29 per cent of the total. In contrast the receipts of Pullet eggs were lowest in June with only 1.52 per cent of the total. Beginning with this month, the receipts of Pullet eggs steadily increased to reach their peak in December of 25.52 per cent.

TABLE 5  
SEASONAL VARIATION IN RECEIPTS OF FIRSTS AND PULLET  
EGGS FROM 67 MAINE POULTRY FARMS

Month	Receipts of Firsts	Per cent of total number Firsts	Receipts of Pullets	Per cent of total number Pullets
January	7,902.1	8.39	478.7	4.55
February	7,503.2	7.97	108.1	1.03
March	9,853.2	10.46	194.8	1.85
April	11,040.1	11.72	197.0	1.87
May	11,800.4	12.53	294.3	2.79
June	12,936.3	13.74	160.4	1.52
July	8,476.4	9.00	268.5	2.55
August	6,710.4	7.12	562.5	5.34
September	5,918.3	6.28	1,563.0	14.84
October	3,102.1	3.29	1,593.8	15.13
November	3,271.9	3.47	2,528.4	23.01
December	5,676.2	6.03	2,582.9	25.52
Total	94,190.6	100.00	10,532.4	100.00

The receipts of Pullet eggs showed a general upward trend throughout the entire year as is shown in Figure 2. The receipts of Firsts tended upward to June and from then downward to October. The seasonal variation of these two grades were presented together since the age of the laying bird is the determining factor on the size of the eggs.

PERCENT



JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

FIGURE 2

SEASONAL VARIATION IN PULLETS AND FIRSTS

67 MAINE FARMS

### Seasonal Variation in Receipts of Mediums and Seconds

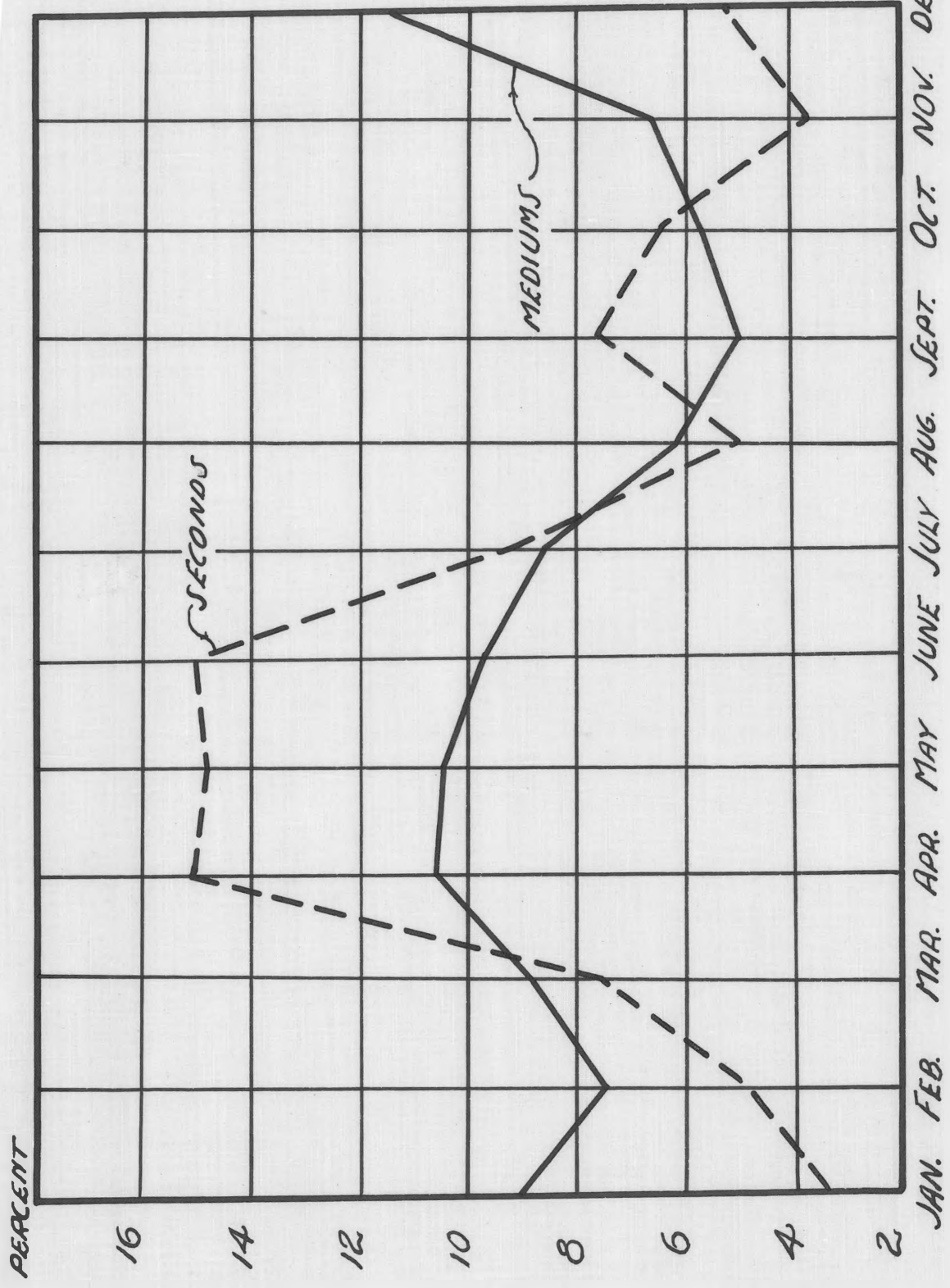
The seasonal variation in the receipts of Mediums and Seconds is presented in Table 6. The highest receipts of Mediums were in December, amounting to 11.60 per cent. This may be explained by the fact that as the pullets matured their eggs gradually increased in size causing them to fall into a higher grade division. The eggs while not large enough to be graded as Firsts qualified satisfactorily as Mediums. Mediums showed receipts of slightly more than 10 per cent during the months of April and May. In this same period Firsts showed their higher receipts.

The months of April, May, and June accounted for 45.2 per cent of the Seconds. The large percentage of Seconds during the summer months is explained by the fact that these same months showed large receipts of total eggs, and also the warm weather of these months is inducive to poor interior quality. The reduction of eggs into the grade of Seconds is due to large air cells, visible germ development, weak yolks, or runny whites. The late autumn and winter months showed lightest receipts of Seconds.

TABLE 6  
SEASONAL VARIATION IN RECEIPTS OF MEDIUMS AND SECONDS  
FROM 67 MAINE POULTRY FARMS

Month	Receipts of Mediums	Per cent of total number Mediums	Receipts of Seconds	Per cent of total number Seconds
January	5,799.1	9.18	265.7	3.69
February	4,818.9	7.62	353.5	4.91
March	5,594.4	8.85	564.2	7.84
April	6,713.7	10.62	1,100.2	15.28
May	6,586.4	10.42	1,072.8	14.90
June	6,262.3	9.91	1,080.9	15.02
July	5,459.8	8.64	678.4	9.42
August	3,794.5	6.00	387.0	5.38
September	3,181.8	5.03	566.9	7.88
October	3,561.7	5.64	469.4	6.52
November	4,104.1	6.49	274.6	3.81
December	7,323.2	11.60	385.0	5.35
Total	63,199.9	100.00	7,198.6	100.00

Seasonal variation in receipts of Mediums and Seconds is shown in Figure 3. The receipts of Seconds follow much the same general trend as do receipts of total eggs but with a wider range between the highest and lowest months. Mediums show two distinct high points; one at the time when the receipts of total eggs are highest, and the other during the winter when the pullets are nearly mature.





## FIGURE 3

SEASONAL VARIATION IN MEDIUMS AND SECONDS

67 MAINE FARMS

Seasonal Variation in Receipts of Meat and Blood Spots, Cracks, and Brokens

The seasonal variations in receipts of Meat and Blood Spots, Cracks, and Brokens are presented in Table 7. The percentage of Meat and Blood Spots was relatively constant throughout the year, excepting the months of April, May, and June when they were relatively higher. This probably can be attributed to the fact that as receipts of total eggs increased there was a corresponding increase in receipts of Meat and Blood Spots.

The months of March, April, May, June, and July accounted for approximately 65 per cent of Cracks. High receipts of Cracks came during periods of high total production. These normally high receipts, together with the fact that this is a rush time on the farm when less care is taken in packing and handling the eggs, would account for increase crackage.

Brokens showed heaviest receipts in September. In this month pullets are laying heavily and too frequently their eggs are packed in the same case with the larger eggs. This discrepancy in the size of eggs causes excessive breakage during shipment.

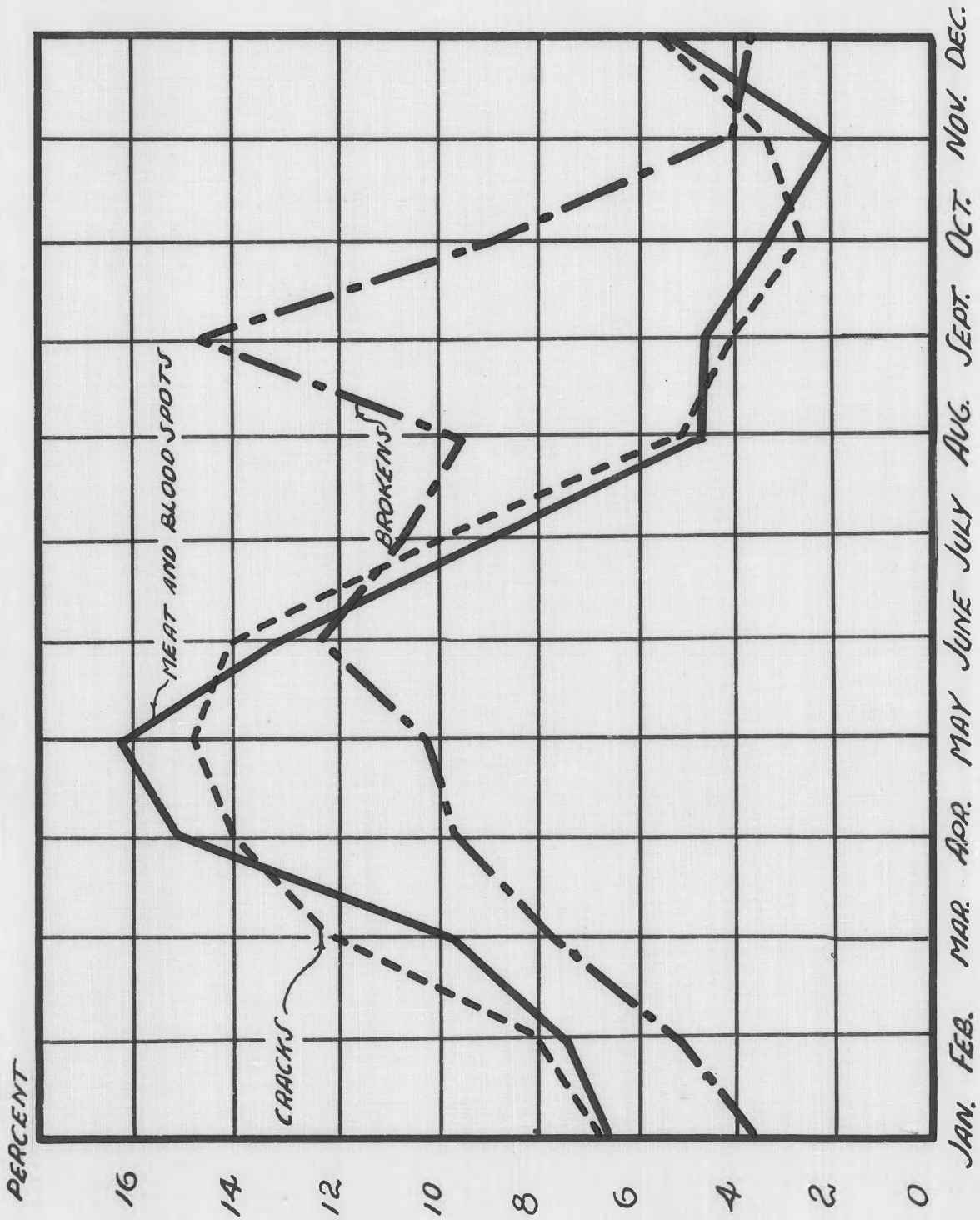
TABLE 7

## SEASONAL VARIATION IN RECEIPTS OF MEAT AND BLOOD SPOTS, CRACKS, AND BROKENS

67 MAINE POULTRY FARMS

Month	Receipts Meat and Blood Spots	Per cent of total no. Meat and Blood Spots	Receipts Cracks	Per cent of total number Cracks	Receipts Brokens	Per cent of total number Brokens
January	153.4	6.43	243.7	6.66	25.8	3.88
February	176.0	7.38	289.0	7.90	33.6	5.05
March	212.5	8.91	439.9	12.03	51.6	7.76
April	364.7	15.29	512.2	14.01	58.0	8.72
May	388.8	16.30	536.9	14.67	68.4	10.28
June	320.5	13.44	515.9	14.11	83.3	12.53
July	209.8	8.80	369.9	10.12	69.4	10.44
August	136.6	5.73	174.8	4.78	64.2	9.65
September	135.0	5.66	154.3	4.22	98.3	14.78
October	82.6	3.46	94.2	2.58	60.3	9.07
November	73.2	3.07	114.5	3.13	27.2	4.09
December	132.0	5.53	211.6	5.79	24.9	3.75
Total	2,385.1	100.00	3,656.9	100.00	665.0	100.00

The seasonal variation in the receipts of Cracks, Meat and Blood Spots, and Brokens is shown in Figure 4. It is apparent that seasonal variation in Cracks and Meat and Blood Spots was nearly the same as the seasonal variation in total eggs, thus, reflecting their dependency on the volume of receipts. The receipts of Brokens were low at the beginning of the year but tended upward to September; then receded abruptly during the remainder of the year.



## FIGURE 4

SEASONAL VARIATION IN CRACKS, MEAT AND BLOOD SPOTS, AND BROKENS

67 MAINE POULTRY FARMS

## Grading of Maine Eggs on Boston Market

### Boston Grades of Eggs

Nearly all individual egg dealers on the Boston market have particular grade names. These names have been used over long periods of time and the dealers feel that they have built up reputations for their particular grades. It is, of course, impractical to attempt to list here these many divergent classifications. The daily prices of eggs are quoted on specified grades by the Boston Fruit and Produce Exchange. Undoubtedly, the Boston egg dealers use these specifications as the ultimate working basis in their grading procedure. The grade names of native eggs on which daily price quotations are made by the Exchange are: Nearby Hennerly Brown, White, and Mixed Colors Extras, Eastern Extras, Pullets, Undergrades, Trades, Dirties, and Checks.

### Candling Records of a Boston Egg Dealer

It should be of interest to know how Maine eggs are graded on the Boston market. A Boston dealer cooperated with the author in furnishing records of Maine eggs for the year December 1, 1931 to November 30, 1932. This material did not cover the yearly shipments of any individual producer or groups of producers, but does include all eggs received by this concern from Maine. The grades used by this dealer differed somewhat from the grade specifications of the Boston Fruit and Produce Exchange.

There was a total of 62,640 (5,220 dozens) Maine eggs handled by this concern during the year, and of this number 34,666 were graded as Nearby Hennerlys. The grade, Nearby Hennerlys, included both brown and white firsts with no attempt made to separate them in this study. The receipts of Maine eggs by this concern are shown in Table 8.

The receipts of eggs by this dealer were highest in November.

This was in opposition to total receipts of Maine eggs by all dealers as compiled by the United States Department of Agriculture, Bureau of Agricultural Economics (see page 38). It can be explained, however, by the fact that a number of the larger producers shipping eggs to this dealer diverted their supply to intra-state demands during the summer months and back to the dealer again during periods of less favorable markets within the State.



TABLE 8

## RECEIPTS OF MAINE EGGS BY GRADES - BOSTON DEALER

December 1, 1931 - November 30, 1932

Month	Number of eggs							Total eggs
	Nearby Hennerys	Fresh Westerns	Pullets	Peewees	Cracks	Waste	Candled	
January	1,642	33	2,856	-	73	29	47	4,680
February	1,853	233	1,393	-	102	19	-	3,600
March	2,292	134	1,062	-	91	21	-	3,600
April	2,894	48	1,595	-	123	20	-	4,680
May	3,908	114	2,282	-	143	33	-	6,480
June	3,001	510	1,281	-	185	63	-	5,040
July	2,420	272	1,157	-	98	13	-	3,960
August	2,990	280	803	-	173	56	18	4,320
September	3,905	738	1,084	75	226	92	-	6,120
October	3,294	103	3,222	-	153	68	-	6,840
November	5,130	88	4,331	281	217	33	-	10,080
December	1,337	14	1,810	-	63	16	-	3,240
Total	34,666	2,567	22,876	356	1,647	463	65	62,640

Importance of Various Grades:-The relative importance of the different grades of eggs by months is shown in Table 9. For the year ending November 30, 1932, Nearby Hennerys accounted for 53.74 per cent of all eggs handled by the concern. The second most important grade in relation to total receipts was Pullets. Nearby Hennerys made up the largest percentage of total receipts in August with 69.21 per cent of the eggs for the month falling into this grade. The months of May, July, August, and September showed receipts of Nearby Hennerys of better than 60 per cent of all receipts for their respective months.

TABLE 9  
 PERCENTAGE VARIATIONS IN RECEIPTS OF EGGS BY GRADES  
 FROM BOSTON EGG DEALER'S CANDLING RECORDS  
 December 1, 1931 - November 30, 1932

Month	Percentage of total receipts							Total
	Nearby Hennerys	Fresh Westerns	Pullets	Peewees	Cracks	Waste	Candled	
January	35.08	.71	61.03	-	1.56	.62	1.00	100.00
February	51.48	6.47	38.69	-	2.83	.53	-	100.00
March	63.67	3.72	29.50	-	2.53	.58	-	100.00
April	50.47	1.02	45.45	-	2.63	.43	-	100.00
May	60.30	1.76	35.22	-	2.21	.51	-	100.00
June	59.54	10.12	25.42	-	3.67	1.25	-	100.00
July	61.11	6.87	29.22	-	2.47	.33	-	100.00
August	69.21	6.48	18.59	-	4.00	1.30	.42	100.00
September	63.82	12.06	17.71	1.22	3.69	1.50	-	100.00
October	48.16	1.51	47.10	-	2.24	.99	-	100.00
November	50.89	.87	42.97	2.79	2.15	.33	-	100.00
December	41.27	.43	55.87	-	1.94	.49	-	100.00
Average	53.74	4.10	38.12	.57	2.63	.74	.10	100.00

Seasonal Variation in Receipts:-Table 10 shows the seasonal changes within grades. Considering the variations in receipts throughout the year, the changes can be attributed to very natural causes. The early months of the year reflected demands for eggs for hatching purposes resulting in a drop in receipts. With full release of eggs from hatching purposes coming in May, the receipts increased from 7.47 per cent to 10.35 per cent. In June they immediately dropped again due to increased local demands. The tourist business within the State annually calls for increased food supplies, resulting in decreased movements of eggs to the city wholesale markets. This seasonal demand continued on through September until decreased tourist trade in October released these eggs for the city markets. The generally higher wholesale prices during October and November, together with reduced local demand within the State, brought increasing number of eggs to the Boston market.

Following variations in receipts of eggs under various grades, it is noticed that Nearby Hennery receipts were heaviest in November, the month of high prices on the Boston market. May receipts were also heavy with 11.27 per cent of total receipts of Nearby Hennerys arriving during this month. Receipts were low during the earlier months of the year due to hatching demands. Again during the summer months receipts dropped off at Boston and were diverted to the intra-state summer trade. Fresh Westerns showed a different aspect. The heaviest receipts of this grade came during the summer months. It is a tendency of Maine poultrymen to ship eggs, which they realize are inferior in quality and cannot be easily and favorably disposed of locally, to the Boston market where they are more readily sold. This procedure can in no way be censured as a poor marketing practice. The poultrymen have special markets locally that demand the highest quality eggs and as there is

no particularly advantageous local market for the poorer quality produce, the Boston market offers an outlet for these eggs. This is also true of Pullet eggs; whereas there is no great demand locally, it is only good management to dispose of these eggs at the most profitable market. The seasonal changes in receipts of Pullet eggs were the heaviest during October and November when the pullets were coming into full production. The receipts of Cracks have no great significance other than that they were heaviest at the time when pullets were beginning to lay. At this time when there are not enough Pullet eggs on individual farms to make up full case shipments, eggs of varying sizes are often packed together in cases.

TABLE 10

## SEASONAL VARIATIONS IN RECEIPTS OF EGGS BY GRADES

FROM BOSTON EGG DEALER'S CANDLING RECORDS

December 1, 1931 - November 30, 1932

Month	Nearby Hennerys	Fresh Westerns	Pullets	Peeweese	Cracks	Waste	Candled	Total
January	4.74	1.29	12.49	-	4.43	6.26	72.31	7.47
February	5.34	9.08	6.09	-	6.19	4.10	-	5.74
March	6.61	5.22	4.64	-	5.53	4.54	-	5.74
April	8.35	1.87	6.97	-	7.47	4.32	-	7.47
May	11.27	4.44	9.97	-	8.68	7.12	-	10.35
June	8.66	19.87	5.60	-	11.23	13.60	-	8.04
July	6.98	10.60	5.06	-	5.95	2.81	-	6.32
August	8.62	10.91	3.51	-	10.50	12.09	27.69	6.90
September	11.26	28.74	4.74	21.07	13.73	19.86	-	9.77
October	9.50	4.01	14.08	78.93	9.29	14.68	-	10.93
November	14.79	3.43	18.94	-	13.18	7.12	-	16.10
December	3.88	.54	7.91	-	3.82	3.50	-	5.17
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

## THE BOSTON WHOLESALE EGG MARKET

The Boston wholesale egg market centers around the Faneuil Hall Market District. In and around this historic old building are grouped wholesalers and commission merchants handling daily large quantities of produce for the people of Metropolitan Boston. Here, too, is located the Boston Fruit and Produce Exchange, an association to which the majority of dealers and brokers of the market belong. The majority of eggs arriving in Boston are handled by these dealers before they reach their ultimate destination, the consumer.

Accurate records of the origin points of all rail receipts of eggs at the Boston markets are kept by the Boston office of the Bureau of Agricultural Economics, United States Department of Agriculture. Thus, it is possible to find to what extent each state contributes to the Boston egg supply. In 1931, seven states - Iowa, Minnesota, Kansas, Illinois, Nebraska, Indiana, and Missouri - contributed 77 per cent of the total eggs received on the Boston market<sup>7</sup>. In this same year Maine poultrymen supplied fewer eggs to the Boston market than did the Pacific Coast poultrymen. In fact, the combined states of California, Washington, and Oregon shipped 66,168 cases to the Boston market as compared to 44,970 cases from Maine<sup>8</sup>. There are, however, rather heavy shipments by truck from Maine to the Boston market. These shipments have not been combined with the rail receipts.

<sup>7</sup>Bateman, Eleanor A. Receipts and Sources of Boston Food Supply, 1931. Massachusetts Department of Agriculture, pp. 12-13, April, 1932.

<sup>8</sup>Courtesy of the Boston Office of Bureau of Agricultural Economics, United States Department of Agriculture.

### Receipts of Eggs

A record of rail shipments of eggs has been kept by the Boston Fruit and Produce Exchange. While these data do not divide receipts into states of origin, they are reliable in so far as total daily rail receipts are concerned. The largest receipts for any one individual year in the ten-year period (1923-1932) under consideration were 1,964,088 cases in 1927; the smallest receipts were in 1932 with 1,444,776 cases. While statistics are at present unavailable as to the states of origin of the 1932 shipments, it is very likely that it will be found that the Pacific Coast states have dropped considerably in their shipments of eggs to Boston. Prices of eggs have declined, and rail rates have tended to remain high during the past year. Therefore, the Pacific Coast producers have found themselves in an extremely unfavorable situation insofar as Eastern markets are concerned.

It is interesting to note that in 1931, 34 states shipped eggs into Boston, and of this number 12 were west of the Mississippi River. Shipments from these 12 states probably declined considerably during 1932. The month of highest receipts (Table 11) was May with 266,535 cases of eggs. November with 66,385 cases was the lowest.



TABLE 11  
TOTAL EGG RECEIPTS - BOSTON MARKET<sup>9</sup>  
1923 - 1932  
(Number of Cases)

Month	1923	1924	1925	1926	1927	1928
January	93,625	86,345	60,952	106,932	119,604	96,089
February	108,963	95,962	121,606	118,382	150,686	145,306
March	233,541	183,650	218,949	187,292	239,876	224,625
April	279,358	275,256	298,875	207,997	303,081	210,426
May	390,005	365,054	271,922	262,073	270,495	255,154
June	228,607	215,857	205,633	253,606	241,365	203,173
July	138,343	161,368	170,450	156,271	155,992	160,844
August	127,832	120,657	124,214	134,733	128,257	113,258
September	96,972	91,689	101,827	113,709	110,848	96,710
October	108,994	90,050	113,991	91,491	92,142	98,173
November	72,986	67,917	58,322	78,026	68,011	75,778
December	65,188	65,982	63,237	94,584	83,731	76,776
Total	1,944,414	1,819,787	1,809,978	1,805,096	1,964,088	1,756,312

Table 11 (Concluded)

Month	1929	1930	1931	1932	Ten-year average
January	130,666	95,178	121,977	99,954	101,132
February	93,764	108,764	154,719	129,023	122,718
March	183,828	195,866	197,110	186,189	205,093
April	293,265	206,890	214,693	158,606	244,845
May	231,059	206,881	214,693	198,014	266,535
June	182,594	173,912	189,639	162,012	205,640
July	174,101	145,587	133,588	122,250	151,879
August	126,453	99,970	102,929	109,781	118,808
September	107,266	80,801	96,011	80,701	97,653
October	81,794	68,775	76,815	71,992	89,422
November	53,887	64,821	61,009	63,093	66,385
December	52,646	92,225	77,863	63,161	73,539
Total	1,711,323	1,539,670	1,641,046	1,444,776	1,743,649

<sup>9</sup>Courtesy of Boston Fruit and Produce Exchange.

The trend<sup>10</sup> in rail shipments of eggs to Boston has declined rapidly (Figure 5). This downward tendency of all receipts is not as abrupt as the graph would indicate since truck shipments of eggs are becoming more and more important, due to the fact that rail costs are so out of line with other costs of to-day. Either an increase of egg prices or a sharp decrease in rail rates would, in all probability, be reflected by an increase in Boston rail receipts of eggs.

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<sup>10</sup>Trend was worked by the method of least squares by substituting in the following formula for y the number of cases of eggs per year, for x the deviations from the middle year, and for MY the average number of cases per year. Yearly equation =  $\frac{\sum xY}{\sum x^2} + MY$ .

CASES  
000  
OMITTED

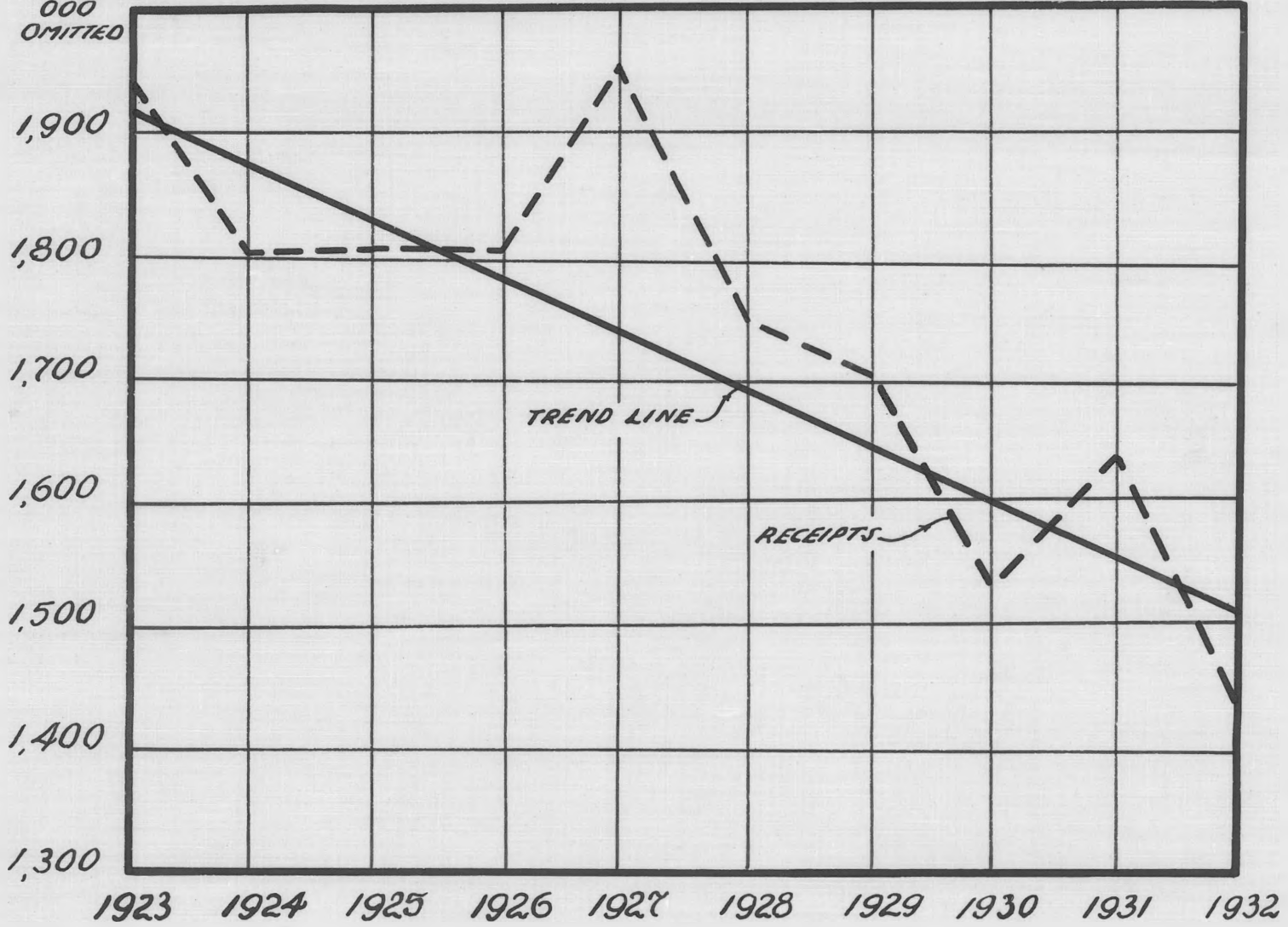


FIGURE 5  
RAIL RECEIPTS OF EGGS AT THE BOSTON MARKET  
1923 - 1932

### Boston Receipts of Eggs from New England

Data concerning receipts of eggs on the Boston market from each of the New England States were obtained from the Boston Office of the Bureau of Agricultural Economics, United States Department of Agriculture. The eggs received at Boston from these states are classified as native or Nearby Hennyery eggs and, as such, enter into direct competition with each other. While eggs from the west and mid-west enter into competition with the eggs from New England, the competition is indirect since the Boston trade pays preferential rates on native over western eggs. In Table 12 is presented the number of cases of eggs from each of the New England States from 1924-1931. During this period the highest receipts of eggs from New England were in 1925 with 172,180 cases. Maine eggs accounted for 57.27 per cent of the total receipts from New England during the eight years, 1923-1931. The 1931 receipts of eggs from New England were 74,210 cases less than receipts from this same source in 1924. Preliminary reports indicate that there will be a further reduction in receipts in 1932.

TABLE 12

RECEIPTS OF EGGS BY CASES AT BOSTON FROM THE NEW ENGLAND STATES<sup>11</sup>

BY YEARS 1924 - 1931

Year	Maine	New Hampshire	Vermont	Massa- chusetts	Rhode Island	Con- necticut	Total by years
1924	99,044	28,104	25,461	15,813	103	-	168,525
1925	99,789	31,981	27,489	12,235	451	235	172,180
1926	82,131	22,073	18,068	6,705	1,231	1,056	131,246
1927	75,906	24,726	16,637	16,107	2	684	134,062
1928	84,038	30,961	22,468	7,253	5	445	145,170
1929	69,986	23,939	17,190	6,082	414	45	117,656
1930	63,935	28,269	16,591	10,127	22	212	119,156
1931	44,970	24,005	15,337	9,204	128	671	94,315
Per cent of total	57.27	19.77	14.71	7.72	.22	.31	100.00

<sup>11</sup> Courtesy of Boston Office of Bureau of Agricultural Economics, United States Department of Agriculture.

The receipts of Maine eggs at Boston have declined precipitously as is evidenced by Figure 6. In fact, the general reduction in New England egg shipments was caused to a large extent by the rather rapid decline in receipts from Maine.



CASES  
000  
OMITTED

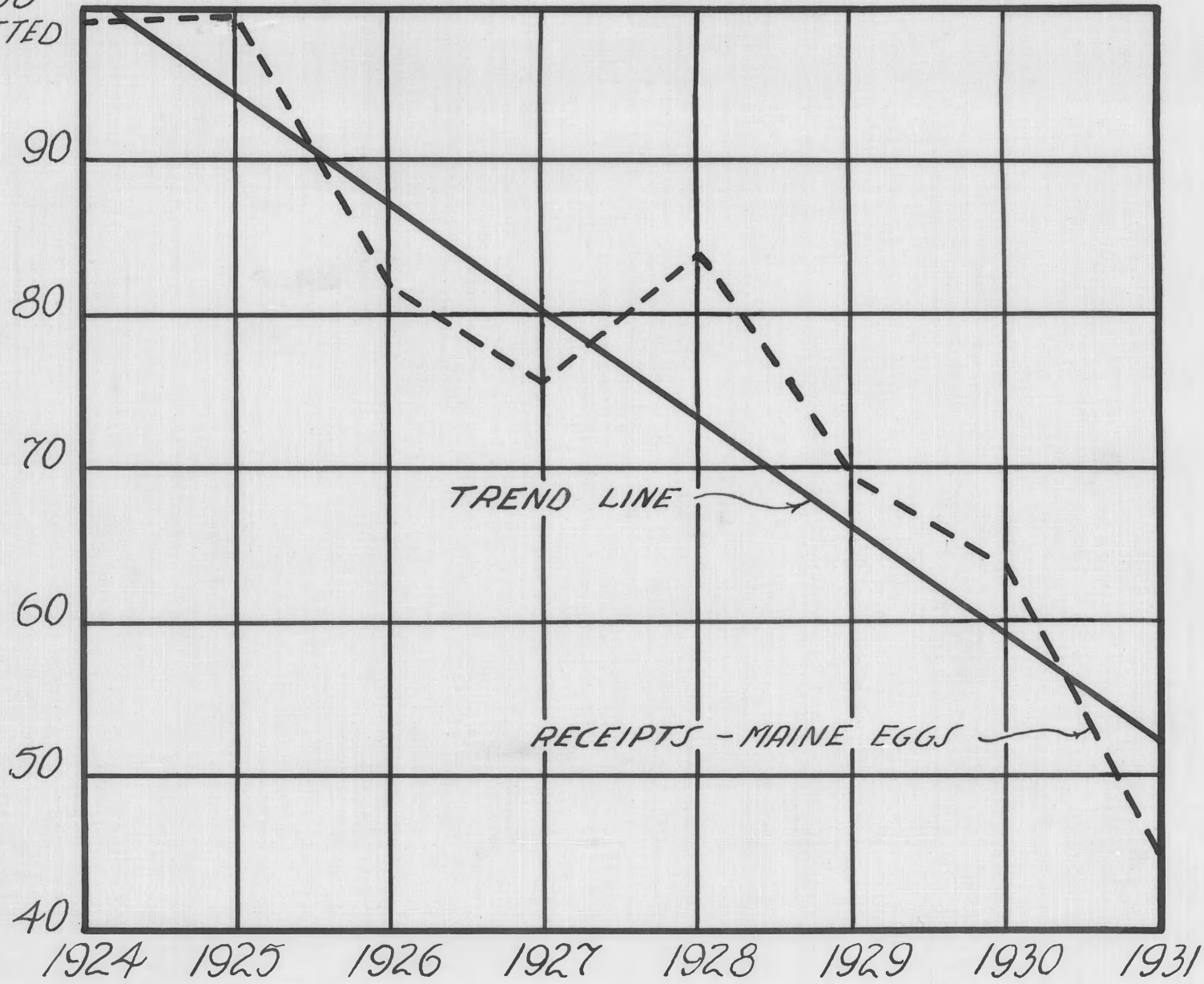


FIGURE 6  
RAIL RECEIPTS OF MAINE EGGS AT BOSTON  
1924 - 1931

Relative Importance of Receipts from Each of New England States - Boston Egg Market

Table 13 shows on a percentage basis the relative importance of each of the New England States as regards shipment of eggs to Boston. Maine shipments are on a distinctly downward trend in contrast to an upward trend in receipts from New Hampshire. With Vermont shipments remaining fairly constant over the eight-year period, Massachusetts not varying excessively, and Rhode Island and Connecticut of relatively small importance, it would seem that New Hampshire is assuming some of the Maine egg market in Boston.

TABLE 13

RECEIPTS OF EGGS AT THE BOSTON MARKET FROM EACH OF NEW ENGLAND STATES<sup>12</sup>

ON PERCENTAGE BASIS 1924 - 1931

Year	Total cases eggs from New England	Percentage						Total
		Maine	New Hampshire	Vermont	Massa- chusetts	Rhode Island	Con- necticut	
1924	168,525	58.77	16.68	15.11	9.38	.06	-	100.00
1925	172,180	57.96	18.57	15.97	7.10	.26	.14	100.00
1926	131,246	62.58	16.82	13.77	5.11	.92	.80	100.00
1927	134,062	56.62	18.44	12.41	12.02	-	.51	100.00
1928	145,170	57.89	21.33	15.48	4.99	-	.31	100.00
1929	117,656	59.48	20.35	14.61	5.17	.35	.04	100.00
1930	119,156	53.66	23.72	13.92	8.50	.02	.18	100.00
1931	94,315	47.68	25.45	16.26	9.76	.14	.71	100.00

<sup>12</sup>Courtesy of Boston Office of Bureau of Agricultural Economics, United States Department of Agriculture.

Seasonal Variation in the Receipts of Maine Eggs at Boston

The monthly rail receipts of Maine eggs at Boston, Massachusetts for the period 1924 to 1931 inclusive are shown in Table 14. The average yearly receipts over this eight-year period were 77,475 cases of eggs. The highest individual year was 1925 with receipts of 99,789 cases. Probably 1932 will show smaller receipts than 1931 as Boston egg prices have not been conducive to heavy shipments. While the volume of receipts are significant in so far as trends are concerned, the most important fact is the seasonal changes in the receipts of Maine eggs.

This decline in shipments of eggs from Maine is due, in part, to a decrease in the number of hens from 1,725,000 in 1924 to 1,390,000<sup>13</sup> in 1931. This is a reduction of 19 per cent in the number of hens in the State. However, with the reduction of farm flocks and the increase of commercial flocks, the reduction in number of hens is not reflected in a like reduction in the number of eggs marketed. During the past few years the summer influx of tourists has absorbed large amounts of the eggs that would have normally moved to Boston. Boston egg receivers have stated that, due to this seasonal intra-state demand, the supply of Maine eggs is not dependable throughout the year.

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<sup>13</sup>Landers, N. H. Trends of the Poultry Industry in Maine. Master's Thesis, University of Maine, 1933.

TABLE 14  
RAIL RECEIPTS OF MAINE EGGS BY CASES AT BOSTON<sup>14</sup>  
1924 - 1931

Month	1924	1925	1926	1927	1928	1929	1930	1931	Av. monthly receipts for 8-yr. period
January	9,816	8,593	8,831	7,420	10,293	8,714	8,518	6,045	8,529
February	9,012	8,193	7,382	6,723	8,195	7,408	5,873	3,657	7,055
March	10,958	10,467	8,819	9,569	10,675	8,457	7,866	5,496	9,038
April	13,088	13,627	9,086	9,645	10,240	9,197	8,234	5,342	9,808
May	13,964	13,061	10,334	9,049	10,870	8,715	6,169	5,044	9,651
June	9,767	12,047	9,448	8,147	8,809	6,201	5,633	3,328	7,923
July	8,879	8,845	6,354	5,476	5,435	4,007	3,649	2,589	5,654
August	5,805	6,135	5,088	3,975	3,655	3,327	2,350	1,555	3,986
September	5,529	5,146	4,947	3,677	3,627	2,460	3,075	2,044	3,813
October	3,712	4,220	3,870	3,270	2,906	2,278	3,383	3,010	3,331
November	2,474	2,664	2,803	2,784	3,327	3,187	3,193	2,271	2,838
December	6,040	6,791	5,169	6,171	6,006	6,035	5,992	4,589	5,849
Total	99,044	99,789	82,131	75,906	84,038	69,986	63,935	44,970	6,456

<sup>14</sup>Courtesy of Boston Office of Bureau of Agricultural Economics, United States Department of Agriculture.

Table 15 presents the seasonal variations in the receipts of Maine eggs during the eight-year period, 1924-1931. The month of heaviest receipts during this period was April with 12.66 per cent of the total receipts. May was next with 12.46 per cent. Receipts declined considerably in July and continued through November. Receipts of eggs increased in December and January, but declined in February due to demands for hatching purpose. November was the month of lowest receipts in 1924, 1925, 1926, and 1927; October in 1928 and 1929; and August in 1930 and 1931.

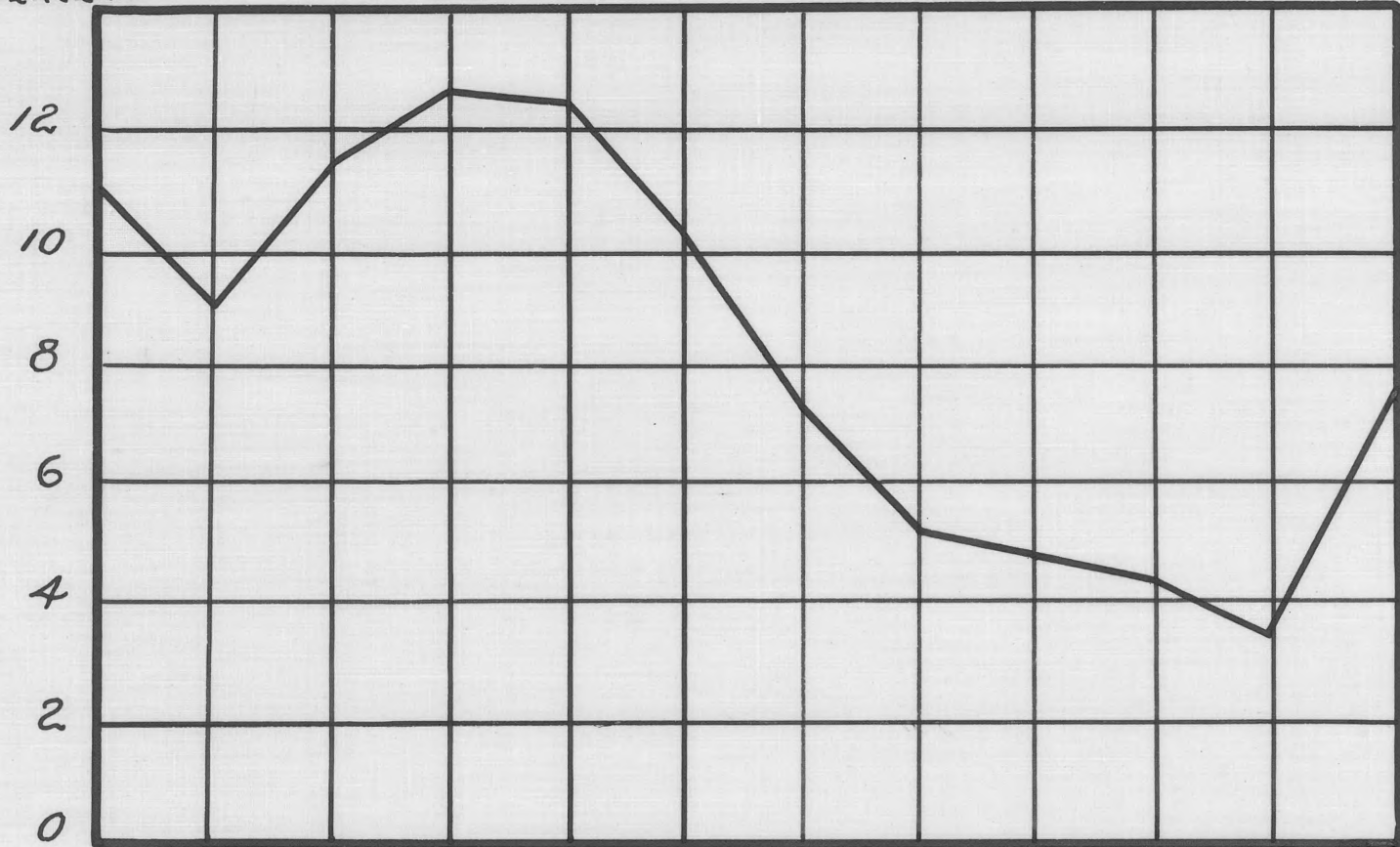
TABLE 15  
 SEASONAL VARIATIONS IN THE RECEIPTS OF MAINE EGGS  
 ON A PERCENTAGE BASIS  
 1924 - 1931

Month	1924	1925	1926	1927	1928	1929	1930	1931	Average 8-yr. period
January	9.91	8.61	10.75	9.78	12.25	12.45	13.32	13.45	11.01
February	9.10	8.21	8.99	8.86	9.75	10.58	9.19	8.13	9.11
March	11.07	10.49	10.74	12.61	12.70	12.08	12.30	12.22	11.66
April	13.21	13.66	11.06	12.70	12.18	13.16	12.88	11.88	12.66
May	14.10	13.09	12.59	11.92	12.93	12.46	9.65	11.22	12.46
June	9.86	12.07	11.50	10.73	10.48	8.86	8.81	7.40	10.23
July	8.96	8.86	7.74	7.21	6.47	5.73	5.71	5.76	7.30
August	5.86	6.15	6.20	5.24	4.35	4.75	3.68	3.46	5.14
September	5.58	5.16	6.02	4.84	4.32	3.51	4.81	4.54	4.92
October	3.75	4.23	4.71	4.31	3.46	3.25	5.29	6.69	4.30
November	2.50	2.67	3.41	3.67	3.96	4.55	4.99	5.05	3.66
December	6.10	6.80	6.29	8.13	7.15	8.62	9.37	10.20	7.55
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



November receipts gradually increased from 2.5 per cent of the total receipts in 1924 to 5.05 per cent of the total receipts in 1931 (Figure 7). More than twice as many eggs in relation to total receipts of the year arrived in November 1931, as compared to November 1924. It would seem that Maine poultrymen are realizing the value of so planning their hatch as to increase their production in November, the month of highest prices on the Boston market. August of 1930 and 1931, the month of lowest receipts, showed increasing local demand because of summer trade in Maine. Consecutive months of highest receipts were April, May, and June. These three months during the entire eight-year period averaged approximately one-third of the total yearly receipts. That is, one-fourth of the year showed one-third of the receipts.

PERCENT



JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

## FIGURE 7

SEASONAL VARIATION IN RECEIPTS OF MAINE EGGS AT BOSTON, MASSACHUSETTS

1923 - 1931

## EGG PRICES

### Source of Price Data

The Boston Fruit and Produce Exchange quotes daily prices on all grades of eggs received at Boston. These prices reflect the supply and demand conditions on the market. The dealers often set their own prices which are above the quoted prices in "short" seasons and below the quoted prices in "flush" seasons. It would be nearly an impossibility, however, to attempt to list the quotations of prices from individual dealers with their various complexities of grades and preferential price scales. The Boston trade, in the final analysis, uses the Exchange quotations as the criteria for their price quotations. These quotations will be used as a basis for the price discussions in this section. The detailed price quotations by grades are presented in Appendix A.

### Factors Determining Seasonal Changes in Boston Egg Prices

The price of any commodity is determined by the supply of that commodity in relation to the demand for it, together with the supply of and demand for gold when the country is on a gold standard. The Boston price of eggs is no exception to this general rule. On this market the annual rises and falls in the price of eggs are expected. There are certain definite high and low periods of price that, due to their regularity of occurrence, seem predetermined. The trade knows in which months prices are apt to rise and again when they are apt to fall. Supply is probably the more important factor influencing the regular seasonal changes in price. Undoubtedly, however, demand is important and enters strongly into the determination of price.

During the past few years such factors as the unsatisfactory monetary conditions, large number of unemployed, and reduced purchasing power of consumers have all had their influence on the demand for eggs. There are, also, some regular seasonal changes in demand for eggs in Boston as, for example, a rather large number of people take their annual vacation during the summer. This naturally causes a drop in the demand for eggs, but this decrease is perhaps offset by the increased use of eggs during warmer weather.

While the individual poultryman can do little, other than through advertising or handling operations, to increase the demand for his product, he can take advantage of the supply conditions of the Boston market. It is advisable for the producer to acquaint himself with the seasonal changes which usually occur and to take advantage of them if possible.

Boston dealers prefer a steady supply from shippers, and to encourage these shipments throughout the year they are willing to pay a premium on the receipts from producers that furnish a constant and somewhat dependable source of supply independent of season. The opposite is likewise true - irregular shippers are not favored as are regular shippers and frequently receive lower prices for eggs of like grade. Of course varying returns dependent on volume of gross shipments cannot be construed as an effect of quality on price. Undoubtedly, however, volume of receipts does have some effect on grading practices. Admittedly Boston dealers tend to grade eggs less strictly during periods when the supply is limited. The dealers seem to feel that during "short" seasons the trade will overlook deficiencies in grade that would not be passed by in "flush" seasons. Thus, it can be seen that source of supply and season of the year enter into Boston dealers' returns on Maine eggs, together with those factors of quality that unquestionably have their influence on price.

### Prices of Eggs by Grades

The average prices of the more important grades of eggs on the Boston market over a ten-year period, 1923-1932, are given in Table 16. From this table comparisons between the monthly prices of eggs of any individual grade can be readily made. Studying ten-year average prices of individual grades, the reasons for price fluctuations can be directly attributed to supply conditions of the market. For example, the higher prices for all grades of eggs were paid during the latter three months of the year when the supply of eggs was the smallest. With an increased stock of eggs coming on the market in the spring prices reacted and declined to their low point in April.

Nearby Hennerys, Brown, White, and Mixed Color Extras followed the same monthly changes with little variation. Eastern Extras brought the lowest price in April and the highest in November. Pullet eggs showed somewhat different seasonal price changes. Supply was not such an important factor in the grades that did not have heavy demand throughout the year. Undergrades, Dirties, Checks, and Trades showed relatively little seasonal variation in price. These lower grades must be disposed of and, as such, have only particular channels of trade through which they can move. With limited outlets, these grades are moved at prices that made very limited changes throughout the year.

Western Extras followed the changes in price of native eggs very closely, although native eggs showed distinct price advantages over Western eggs. Boston dealers seemed to feel that in actuality this price range is not as pronounced as quotations would seem to indicate, but rather that the two price ranges are gradually approaching each other. Consumers do not in-

dicare as much of a preference for native eggs as was formerly the custom.

TABLE 16  
 AVERAGE MONTHLY PRICES OF EGGS AT BOSTON BASED ON TEN-YEAR  
 PERIOD<sup>15</sup> 1923 - 1932

Cents per dozen													
Month	Nearby Henneries	Nearby Henneries	Nearby Henneries	Eastern Extras	Pullets <sup>16</sup>	Under- grades	Trades	Dirties	Checks	Western			
	Brown Extras	Color Extras	White Extras							Western Extras	Extra Firsts	Western Firsts	Western Seconds
January	45.94	45.04	43.99	43.46	22.50	29.77	26.66	28.99	26.26	43.88	41.38	38.42	36.06
February	40.54	39.72	38.38	37.10	20.27	30.12	-	27.05	25.70	36.14	34.73	33.27	31.54
March	32.68	31.80	30.39	29.74	18.64	26.14	23.24	24.44	23.19	28.81	27.88	26.51	25.45
April	31.15	30.09	28.70	28.98	17.10	26.28	23.45	22.99	22.48	28.54	26.81	25.50	24.54
May	32.80	31.95	29.76	29.42	17.63	25.28	23.39	23.32	22.63	28.73	26.86	25.79	24.60
June	35.05	33.95	31.65	30.67	19.78	25.30	23.41	23.05	22.62	30.14	26.82	25.32	24.22
July	39.25	40.85	37.82	34.96	23.56	26.48	23.63	22.93	22.03	31.28	27.86	26.01	24.62
August	48.09	46.64	44.07	42.73	24.28	28.82	24.62	23.51	21.92	34.29	30.85	28.10	26.07
September	53.20	52.09	48.01	44.50	26.62	31.24	26.18	24.94	22.78	39.61	35.20	31.80	28.88
October	59.86	56.10	56.13	50.20	25.92	33.67	27.85	26.57	24.52	46.08	40.48	35.78	30.98
November	66.49	65.31	63.23	58.53	31.50	36.14	30.37	29.26	27.55	55.56	50.22	44.63	35.99
December	54.55	53.50	51.62	50.92	29.48	34.01	28.40	29.38	26.86	50.18	47.35	43.56	36.08

<sup>15</sup>Courtesy of Boston Fruit and Produce Exchange.

<sup>16</sup>The monthly price of Pullet eggs is based on 1931 and 1932 prices as these two years were the only ones in which quotations were given for the entire year.



### Relation Between Receipts of Eggs and Boston Prices

The relation of Boston receipts of Maine eggs and Boston price of eggs shows very clearly the outstanding relations between the supply and price of eggs. Maine eggs, although making up only a very small part of total Boston egg supply, are, nevertheless, very important from the standpoint of native egg receipts. In Table 17 is presented the Seasonal Variation in Receipts of Maine Eggs at Boston (based on average annual receipts 1924-1931 inclusive) and the Boston price of Nearby Hennyery Brown Extras. Inasmuch as the price as given in this table is based on a ten-year period, any particular yearly variations are obscured.

TABLE 17

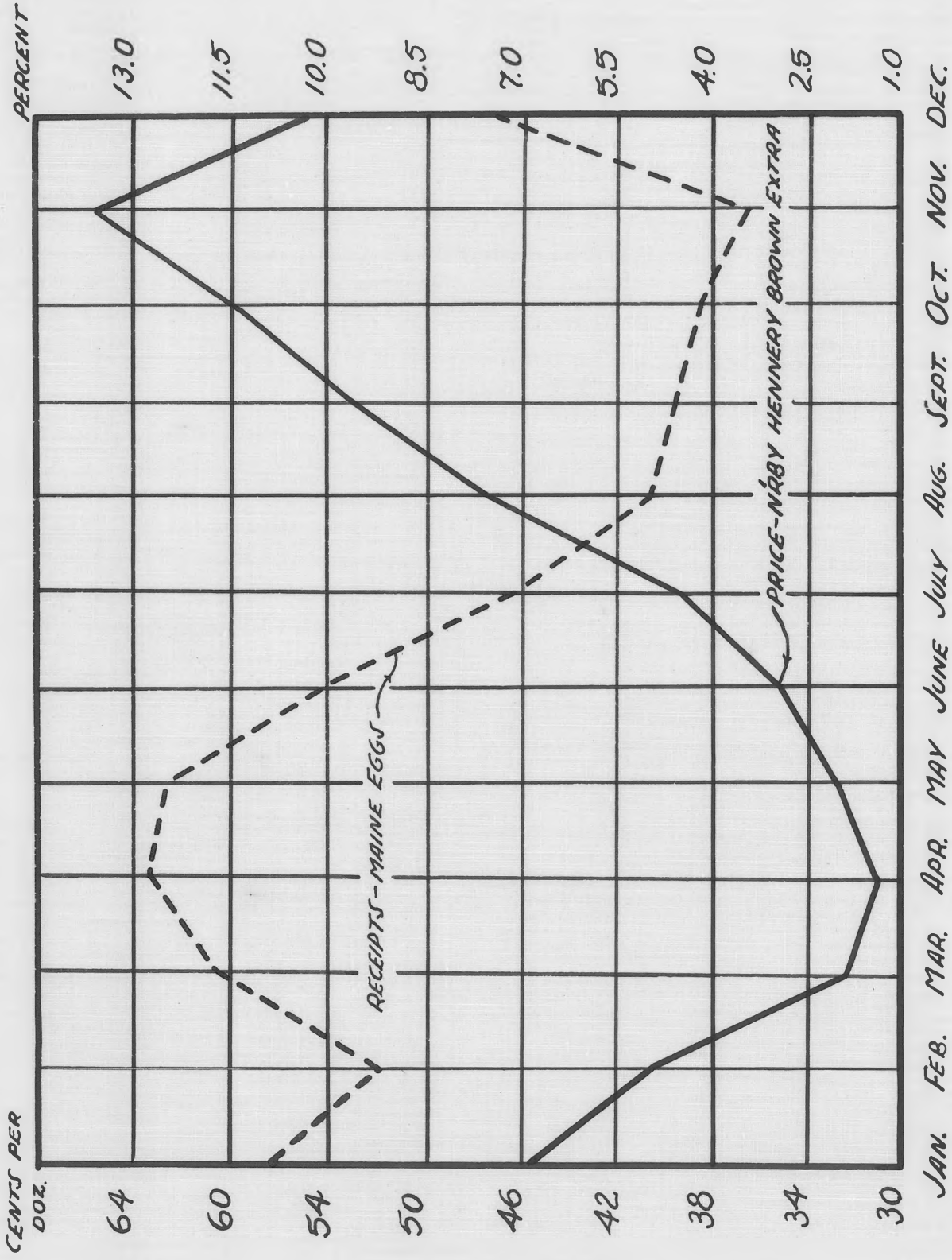
SEASONAL VARIATION IN RECEIPTS (AVERAGE MONTHLY RECEIPTS 1924 - 1931) OF MAINE EGGS AT BOSTON AND THE PRICE (AVERAGE MONTHLY PRICE 1923 - 1932) OF NEARBY HENNERY BROWN EXTRAS

Month	Seasonal variation <sup>17</sup> in receipts of Maine eggs at Boston	Prices of <sup>18</sup> Nearby Hennyery Brown Extras
January	11.01	45.94
February	9.11	40.54
March	11.66	32.68
April	12.66	31.15
May	12.46	32.80
June	10.23	35.05
July	7.30	39.25
August	5.14	48.09
September	4.92	53.20
October	4.30	59.86
November	3.66	66.49
December	7.55	54.55

<sup>17</sup>From receipt data of Bureau of Agricultural Economics, United States Department of Agriculture.

<sup>18</sup>Courtesy of Boston Fruit and Produce Exchange.

The bulk of Maine eggs, 47.01 per cent, arrive in Boston during the months of March, April, May, and June. During these four months the producer received the lowest prices of the year. Throughout the whole year, the receipts of Maine eggs are practically inversely proportional to the price of Nearby Hennery Brown Extras (Figure 8).



## FIGURE 8

RELATION BETWEEN SEASONAL VARIATIONS IN RAIL RECEIPTS OF MAINE EGGS AT  
BOSTON AND PRICE OF NEARBY HENNERY BROWNS

Various grades are the direct results of quality of eggs, and necessarily the volume of receipts of the various grades is dependent on the quality of the shipments. It is seen that the receipts of Firsts in relation to total receipts varied extensively during the year. Pullet eggs make up increasingly larger percentages of total receipts during the later months of the year than at any other time. Blood Spots, Brokens, and Cracks made up smaller percentages of total receipts during periods of high prices and larger percentages during periods of lower prices. It would seem that as receipts of Pullet eggs increase, the relative amounts of Blood Spots, Brokens, and Cracks decrease. This is undoubtedly a combination of circumstances, in that, with higher prices candling procedure may become slightly more lax, and at the same time the increasing percentages of Pullet eggs which in themselves are a lower grade of eggs were perhaps not graded as stringently as would be the higher grades of eggs.

In a consideration of the relation between receipts of various grades and price, the seasonal variation in receipts of Firsts and Pullets are compared with the average prices of Nearby Hennyery Mixed Color Extras and Pullet eggs in Table 18.

TABLE 18  
SEASONAL VARIATIONS IN RECEIPTS OF FIRSTS AND PULLETS AND BOSTON PRICES OF  
NEARBY HENNERY MIXED COLOR EXTRAS AND PULLET EGGS

Month	Receipts Firsts <sup>19</sup> Per cent	Price Nearby <sup>20</sup> Hennerly Mixed Color Extras 1923-1932 Cents per doz.	Receipts Pullet eggs <sup>19</sup> Per cent	Price <sup>20</sup> Pullet eggs 1931-1932 Cents per doz.
January	8.39	45.04	4.55	22.50
February	7.97	39.72	1.03	20.27
March	10.46	31.80	1.85	18.64
April	11.72	30.09	1.87	17.10
May	12.53	31.95	2.79	17.63
June	13.74	33.95	1.52	19.78
July	9.00	40.85	2.55	23.56
August	7.12	46.64	5.34	24.26
September	6.28	52.09	14.84	22.62
October	3.29	56.10	15.13	25.92
November	3.47	65.31	23.01	31.50
December	6.03	53.50	25.52	29.48

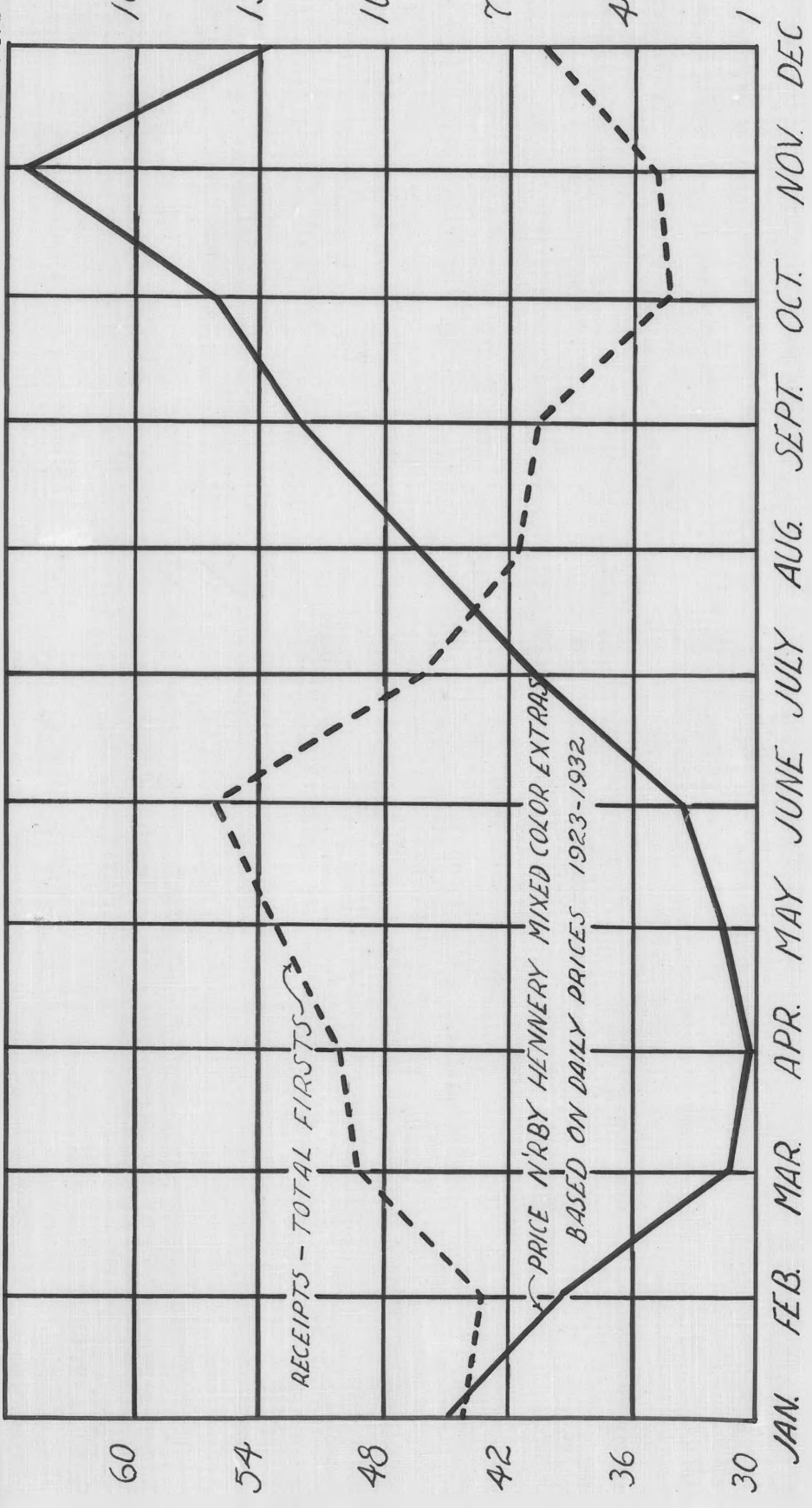
It can be seen from Table 18 and Figure 9 that the relation between the receipts of Firsts and the price of Nearby Hennerly Mixed Color Extras assumes practically the same relationship as does the price of Nearby Hennerly Brown Extras and total Maine eggs received. The period of high receipts of First eggs came during the spring and early summer months at the same time as the price of this grade of eggs was the lowest. The price of this grade started upward when the receipts of Firsts declined.

<sup>19</sup>Combined Candling records of Maine Poultry Producers' Association and Hancock County Cooperative Creamery.

<sup>20</sup>Courtesy of Boston Fruit and Produce Exchange.

CENTS PER DOZ

PERCENT



RECEIPTS - TOTAL FIRSTS

PRICE HENNESSY MIXED COLOR EXTRAS  
BASED ON DAILY PRICES 1923-1932.

JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

## FIGURE 9

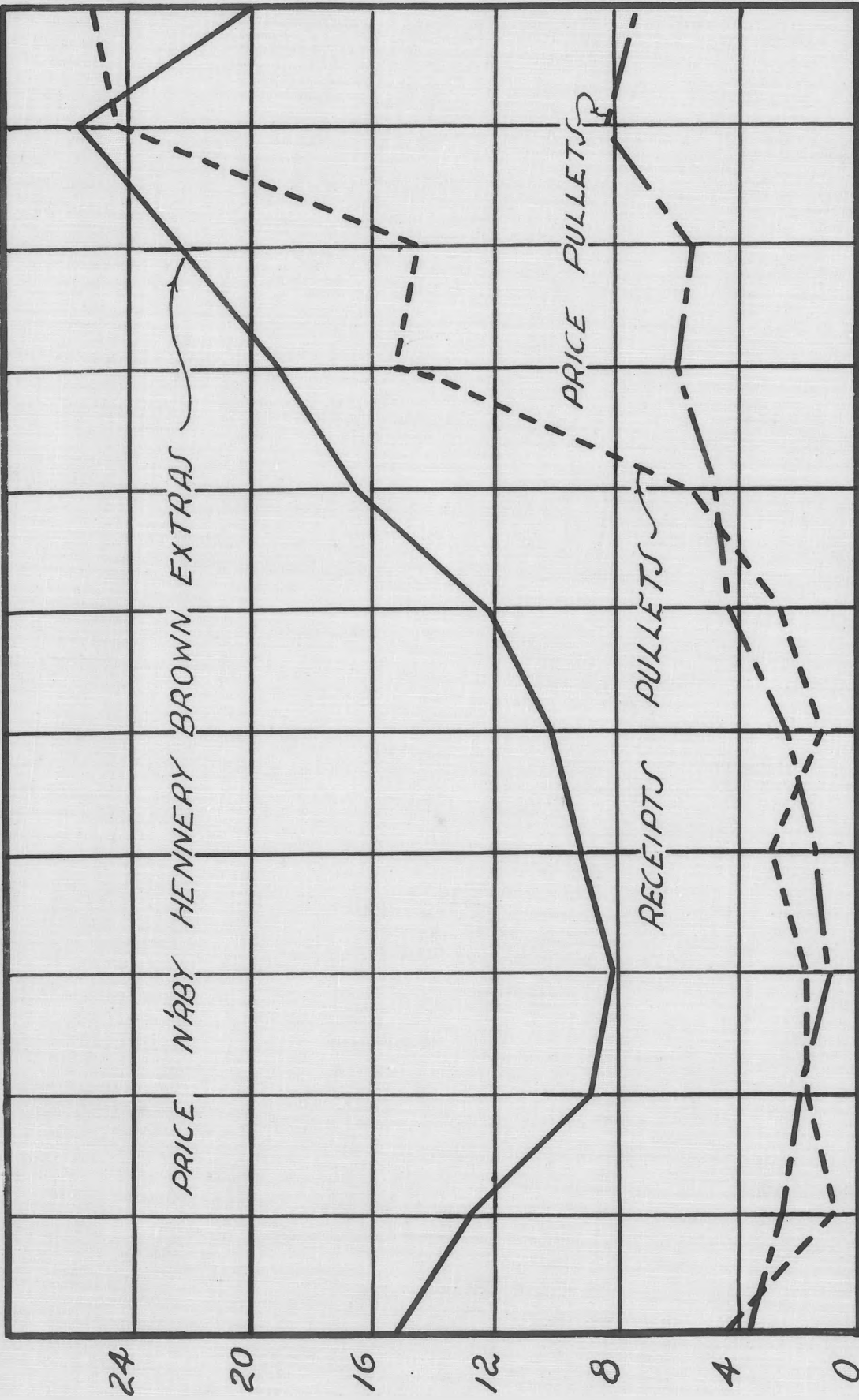
MONTHLY BOSTON PRICES OF NEARBY HENNERY MIXED COLOR EXTRAS AND SEASONAL  
VARIATION IN RECEIPTS OF FIRSTS



On the other hand, the receipts of Pullet eggs were at their highest when the price of the top-grades was also highest, and the receipts of firsts at their lowest. In Figure 10 are shown the prices of Nearby Hennyery Mixed Color Extras and Pullets, together with the receipts of Pullet eggs. The price of Pullet eggs followed the changes in the receipts of Pullet eggs very closely. This grade of eggs has a particular trade and this trade, knowing when the majority of Pullet eggs move to market, has seasonal outlets for them. The price swing of Pullet eggs as depicted in Figure 10 is based on two years only, 1931 and 1932. Prices of Pullet eggs were quoted monthly for each of these two years, but for the earlier years on which data are available quotations were not made throughout the entire year. It was felt that a more accurate picture of seasonal price changes would be shown by basing the average price on those years when quotations were made throughout the year.

PERCENT

CENTS PER DOZ.



PRICE NABY HENNERLY BROWN EXTRAS

RECEIPTS

PULLETS

PRICE PULLETS

24

20

16

12

8

4

0

63

55

47

39

31

23

15

JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

## FIGURE 10

RELATION BETWEEN PRICES OF PULLET EGGS - NEARBY HENNERY MIXED COLOR EXTRAS  
AND SEASONAL VARIATION IN RECEIPTS OF PULLET EGGS

## SUMMARY

Grading of Eggs

A majority of Maine poultrymen grade their eggs before shipment as to size, cleanliness, and age. Approximately 10 per cent of the poultrymen candle their eggs and from one-third to one-half grade their eggs according to shape and color.

The candling records of two intra-state organizations indicate that Firsts accounted for 51.81 per cent of the total receipts; Mediums, 34.76 per cent; Pullets, 5.79 per cent; Seconds, 3.96 per cent; Cracks, 2.01 per cent; Meat and Blood Spots, 1.31 per cent; and Brokens, .36 per cent. Approximately 38 per cent of Firsts were received in April, May, and June. Receipts of Pullet eggs were heaviest during September, October, November, and December; in these four months approximately four-fifths of all Pullet eggs were received. Mediums showed two periods of high receipts, one in December and the other in May and June. Approximately 45 per cent of all Seconds were received during April, May, and June. The lower grades of Meat and Blood Spots, Cracks, and Brokens showed seasonal variation in receipts that approximated very closely the seasonal variation in receipts of Firsts.

Receipts of eggs by grades by a Boston dealer indicated that Maine poultrymen use this market as an outlet for those grades of eggs having less satisfactory local markets. First grade eggs constituted 53.74 per cent and Pullet eggs 38.12 per cent of total receipts.

The Boston Market

The Boston rail receipts of eggs have declined steadily during the past ten years. The rail receipts in 1932, were 1,444,776 cases as compared to 1,944,414 cases ten years previously. Maine leads the other New England

States in shipments of native eggs onto the Boston market. In 1931, 47.68 per cent of all eggs from New England were from Maine. The rail receipts from Maine have declined, however, from 99,044 cases in 1924, to 44,970 cases in 1931. Approximately 47 per cent of all Maine eggs were received on the Boston market during the months of March, April, May, and June.

### Price

Prices of eggs on the Boston market showed regular seasonal changes with the higher prices paid during September, October, November, and December, and the lower prices paid during March, April, May, and June. Supply is, generally speaking, the outstanding factor influencing the price of eggs on the Boston market. Prices of all grades of eggs show regular seasonal changes dependent on the amounts of eggs on the Boston market. The lower grades show less violent seasonal changes in price. Preferential rates were paid for native eggs as compared to western eggs. This price advantage, as evidenced by quotations of Boston Fruit and Produce Exchange, has varied little during the past ten years (1923-1932).

Price of eggs on the Boston market was inversely proportional to receipts of first grade eggs. Receipts of Pullet eggs, increasing as receipts of Firsts decreased, were heaviest at a time when the price of first grade eggs was highest. Receipts of the lower grades of eggs were heaviest when the price of the first grades was lowest. Dealers on the Boston market tend to grade eggs more strictly during the "flush" season than during the "short" season. Premiums are paid to regular shippers.

It is advisable for poultrymen who plan to ship eggs to Boston to make contacts with reputable dealers; determine their grading policies, and their market preferences. It is believed that contacts of this sort will

amply repay the poultrymen in premium prices for their eggs for the time and trouble that such contacts would necessitate.

## APPENDIX A

MONTHLY PRICES OF EGGS ON THE BOSTON MARKET<sup>21</sup>

TABLE 1

## MONTHLY PRICES NEARBY HENNERY BROWN EXTRAS

Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	49.38	50.00	65.08	45.83	47.77	49.91	46.69	47.24	31.20	26.33	45.94
February	45.45	46.00	48.57	42.17	40.67	39.17	47.69	41.70	28.13	25.85	40.54
March	37.71	31.31	35.54	34.36	33.23	34.85	38.64	32.58	27.08	21.46	32.68
April	34.00	31.62	34.58	35.23	31.62	33.69	34.08	32.24	24.48	20.00	31.15
May	33.08	33.75	38.77	36.33	32.58	36.83	38.14	31.50	25.68	21.31	32.80
June	35.85	35.38	39.08	38.64	33.46	37.77	41.25	35.44	28.84	24.77	35.05
July	43.00	43.08	47.93	43.31	39.46	44.50	48.64	41.58	38.04	30.00	39.25
August	50.53	53.08	50.00	49.54	49.43	51.64	54.69	47.88	40.54	33.57	48.09
September	58.33	60.00	59.88	55.85	54.62	56.00	59.25	47.83	43.08	37.15	53.20
October	64.64	68.29	70.00	63.00	64.92	59.17	63.77	54.72	48.69	41.43	59.86
November	81.43	78.33	74.85	74.92	67.85	70.38	69.15	57.13	48.25	42.57	66.49
December	63.31	70.92	61.31	65.21	58.85	53.23	59.76	39.81	37.58	35.54	54.55
Average yearly price	49.73	50.15	52.13	48.70	46.20	47.26	50.15	42.47	35.13	30.00	

<sup>21</sup>Courtesy of Boston Fruit and Produce Exchange.

TABLE 2

## MONTHLY PRICES NEARBY HENNERLY MIXED COLOR EXTRAS

Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	47.81	49.04	64.19	44.83	47.31	49.45	45.73	46.52	30.20	25.33	45.04
February	43.95	44.88	47.82	41.17	40.25	38.83	46.92	40.70	27.13	25.54	39.72
March	36.25	29.92	35.10	33.43	33.00	34.54	37.64	31.58	26.04	20.46	31.80
April	32.81	30.08	33.88	34.23	30.77	32.65	33.08	31.24	23.20	19.00	30.09
May	32.08	32.08	37.85	35.33	31.58	35.75	39.79	30.50	24.20	20.31	31.95
June	34.00	33.81	38.27	37.64	33.30	36.77	40.25	34.12	27.60	23.77	33.95
July	40.38	41.12	47.11	41.46	38.92	43.50	47.79	40.35	36.73	31.17	40.85
August	48.03	48.23	49.00	49.15	48.57	50.64	53.69	46.54	38.04	34.46	46.64
September	55.33	58.27	58.84	55.77	53.62	55.00	58.17	46.71	43.08	36.15	52.09
October	62.11	35.96	69.00	63.00	63.92	58.17	61.92	53.72	52.75	40.42	56.10
November	79.46	76.83	72.85	74.85	66.85	69.38	68.15	56.00	46.92	41.79	65.31
December	61.85	69.62	59.92	64.50	57.85	52.31	58.62	38.50	36.50	35.08	53.50
Average yearly price	47.84	45.82	51.15	47.95	45.50	46.42	49.33	41.37	34.37	29.46	



TABLE 3  
MONTHLY PRICES NEARBY HENNERLY WHITE EXTRAS  
Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	47.23	48.15	62.96	43.17	45.19	47.32	45.38	45.92	29.36	25.25	43.99
February	42.45	43.00	46.64	39.25	38.38	37.33	45.92	40.56	26.13	24.15	38.38
March	34.86	28.42	33.92	31.50	29.85	32.85	36.71	30.46	25.04	20.31	30.39
April	30.58	28.19	32.42	32.73	28.85	31.08	31.92	30.24	22.04	19.00	28.70
May	29.19	29.25	35.65	33.67	29.00	33.83	35.14	29.06	22.84	19.92	29.76
June	30.15	31.12	36.19	34.93	29.46	34.69	38.77	32.28	25.64	23.23	31.65
July	36.50	37.46	44.25	38.38	35.31	40.17	46.64	39.00	34.88	25.62	37.82
August	44.50	51.58	46.00	46.77	45.43	47.93	52.69	43.92	33.94	27.96	44.07
September	51.33	44.95	56.25	52.85	50.92	52.54	57.42	42.46	36.96	34.38	48.01
October	58.43	62.18	66.00	59.00	61.92	56.58	61.92	52.08	43.81	39.42	56.13
November	70.11	73.21	69.85	71.85	64.62	68.54	73.46	55.22	43.75	41.71	63.23
December	58.96	67.46	58.04	62.29	55.54	51.08	55.38	36.65	36.00	34.85	51.62
Average yearly price	44.52	45.41	49.01	45.53	42.87	44.50	48.45	39.82	31.70	27.98	

TABLE 4  
MONTHLY PRICES EASTERN EXTRAS  
Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	46.38	47.63	63.27	42.79	45.26	48.64	44.46	45.60	28.08	22.54	43.46
February	42.18	42.73	46.61	37.46	35.88	36.83	45.17	39.83	22.93	21.42	37.10
March	34.89	28.19	33.48	32.14	29.02	32.62	36.57	29.65	23.99	16.88	29.74
April	32.13	28.00	32.77	33.08	30.15	31.88	31.88	30.24	23.32	16.35	28.98
May	31.42	29.77	35.92	34.44	27.66	33.83	34.18	27.52	21.50	17.95	29.42
June	31.58	32.04	37.12	34.91	27.54	35.00	36.88	28.32	23.68	19.63	30.67
July	34.81	34.42	41.18	35.15	32.00	40.17	42.86	35.56	30.98	22.42	34.96
August	40.07	40.62	41.50	38.54	44.36	46.79	49.69	39.98	59.00	26.79	42.73
September	45.17	48.54	49.41	45.08	48.77	50.54	53.42	39.92	34.04	30.08	44.50
October	51.07	58.00	56.77	51.31	55.23	52.83	57.12	44.16	40.92	34.58	50.20
November	72.71	65.92	65.38	63.31	61.46	64.23	62.54	49.39	41.58	38.75	58.53
December	56.46	70.04	58.04	58.89	55.08	49.77	57.38	35.15	33.96	34.42	50.92
Average yearly price	43.24	43.82	46.79	42.26	41.03	43.59	46.01	37.11	32.00	25.15	

TABLE 5  
MONTHLY PRICES PULLETS  
Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	52.00	-	51.35	35.92	39.38	41.40	39.35	41.27	24.66	20.33	38.41
February	-	-	43.36	32.21	32.54	34.12	42.19	36.20	21.35	19.19	32.64
March	-	-	31.00	26.54	26.50	30.00	38.29	26.19	22.00	15.27	26.97
April	-	-	-	28.85	-	-	-	26.50	20.02	14.17	22.38
May	-	-	-	29.50	-	-	-	-	19.88	15.38	21.59
June	-	-	-	-	-	-	-	-	22.06	17.50	19.78
July	-	-	-	-	-	-	-	27.63	27.67	19.46	24.92
August	-	-	-	-	-	-	-	29.00	27.77	20.79	25.85
September	-	-	38.12	38.00	33.00	36.50	37.46	24.74	24.81	20.42	31.63
October	-	-	42.50	40.15	40.50	38.25	41.12	31.52	26.42	25.42	35.74
November	-	-	47.92	51.42	47.73	47.23	45.62	37.61	30.71	32.29	42.57
December	-	46.43	41.77	47.29	44.27	42.62	46.85	26.58	28.08	30.88	39.42
Average yearly price	52.00	46.43	42.29	36.65	37.70	38.59	41.55	30.72	24.62	20.92	

TABLE 6  
MONTHLY PRICES UNDERGRADES  
Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	16.25	-	50.12	33.17	34.85	35.62	30.23	-	19.44	18.50	29.77
February	-	-	41.96	27.42	29.88	30.46	33.78	-	17.22	-	30.12
March	-	-	30.83	26.75	25.12	27.92	-	-	20.08	-	26.14
April	-	-	29.83	29.54	24.50	27.04	28.50	-	18.30	-	26.28
May	-	26.75	32.00	30.29	22.88	29.42	30.00	-	17.44	13.50	25.28
June	25.56	27.62	33.00	30.50	21.54	29.62	31.21	23.50	16.98	13.50	25.30
July	27.29	29.75	36.04	30.65	23.92	31.83	30.96	23.50	17.00	13.81	26.48
August	31.47	33.38	36.50	32.69	28.39	33.79	35.77	23.86	17.00	15.39	28.82
September	34.33	36.14	39.88	38.29	32.73	36.54	37.21	22.08	17.23	18.00	31.24
October	35.35	40.89	42.50	38.62	39.69	37.50	38.85	21.80	19.71	21.75	33.67
November	-	45.83	42.50	42.46	39.62	37.50	45.92	23.15	20.12	28.21	36.14
December	-	47.50	39.62	38.46	34.42	33.46	42.24	20.71	19.50	30.15	34.01
Average yearly price	28.38	35.98	37.90	33.24	29.80	32.56	34.97	22.66	18.34	14.40	

TABLE 7

## MONTHLY PRICES TRADES

Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	-	-	48.19	-	-	-	-	-	16.90	14.90	26.66
February	-	-	-	-	-	-	-	24.25	15.37	14.48	-
March	-	22.28	29.69	26.32	24.00	-	27.42	24.39	19.36	12.48	23.24
April	-	22.52	28.48	28.88	23.44	27.03	26.85	22.88	18.29	12.71	23.45
May	25.19	23.40	28.83	29.17	21.46	27.62	27.04	21.32	16.89	13.02	23.39
June	22.69	25.25	29.54	28.05	20.65	27.46	29.81	21.84	15.83	13.02	23.41
July	21.65	25.21	30.75	27.27	22.94	28.25	30.00	20.30	16.41	13.50	23.63
August	24.52	27.90	29.18	27.31	23.68	28.70	31.46	21.17	16.86	15.38	24.62
September	26.21	30.00	28.81	31.35	26.08	30.16	32.44	20.88	17.50	18.42	26.18
October	26.29	34.32	32.08	32.00	27.46	30.38	33.38	22.02	18.58	21.96	27.85
November	29.12	38.67	35.73	33.73	28.88	31.00	37.33	22.83	20.83	25.61	30.37
December	-	39.00	-	-	29.00	31.00	-	22.00	21.00	-	28.40
Average yearly price	25.10	28.86	32.13	29.34	24.76	29.07	30.64	22.17	17.82	15.96	

TABLE 8  
MONTHLY PRICES DIRTIES  
Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	28.73	27.31	45.81	31.29	33.50	34.00	29.50	-	16.37	14.40	28.99
February	30.04	30.92	38.88	26.25	27.08	30.44	32.78	25.08	15.21	13.81	27.05
March	29.21	22.60	28.71	25.79	23.35	27.44	29.69	26.12	19.41	12.10	24.44
April	25.44	22.04	28.25	28.81	23.44	26.48	26.48	18.77	17.57	12.58	22.99
May	24.52	22.77	29.02	28.92	21.08	27.27	28.59	21.67	16.74	12.62	23.32
June	22.08	24.67	29.42	28.04	20.50	27.35	29.35	21.08	15.48	12.56	23.05
July	21.08	24.75	30.29	26.77	22.02	28.00	30.07	18.52	14.69	13.15	22.93
August	23.07	26.92	29.08	26.85	23.07	27.93	29.44	18.77	15.55	14.41	23.51
September	24.33	29.11	28.86	30.00	25.04	29.23	30.58	19.15	15.90	17.25	24.94
October	25.04	32.65	29.58	30.54	26.04	29.21	32.88	20.46	18.04	21.25	26.57
November	27.93	36.50	34.00	33.46	28.42	29.84	35.17	21.33	20.63	25.36	29.26
December	27.46	37.65	35.50	35.14	29.00	30.00	-	20.50	19.75	-	29.38
Average yearly price	25.74	28.16	32.28	29.32	25.21	28.93	30.41	21.04	17.11	14.12	

TABLE 9  
MONTHLY PRICES CHECKS  
Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	-	-	39.38	29.04	31.12	29.23	-	-	15.37	13.50	26.26
February	-	-	35.68	25.33	26.42	28.42	39.22	24.04	13.53	13.00	25.70
March	-	-	27.85	25.11	22.94	26.92	28.95	23.96	18.34	11.44	23.19
April	-	-	27.90	28.12	22.96	26.21	25.67	19.72	17.20	12.06	22.48
May	-	22.27	28.35	28.02	20.71	26.98	28.30	21.25	16.10	11.71	22.63
June	-	24.46	29.01	27.41	19.54	26.62	28.77	20.85	15.01	11.88	22.62
July	-	24.40	29.04	26.15	21.42	27.04	28.32	17.38	12.53	11.96	22.03
August	22.25	25.77	28.12	25.23	22.14	25.54	27.50	16.71	13.69	12.25	21.92
September	-	26.14	27.77	27.23	22.73	26.32	27.94	16.73	14.44	15.69	22.78
October	-	29.54	28.50	27.77	23.69	27.08	30.38	18.14	16.23	19.38	24.52
November	-	39.17	31.62	30.46	24.31	28.00	33.39	19.50	19.27	22.21	27.55
December	-	34.04	32.46	31.54	24.00	28.00	-	19.50	18.50	-	26.86
Average yearly price	22.25	28.22	30.47	27.62	23.50	27.20	29.84	19.80	15.84	14.10	

TABLE 10  
MONTHLY PRICES WESTERN EXTRAS  
Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	50.50	47.63	63.27	42.79	45.23	49.45	43.96	45.55	27.86	22.58	43.88
February	-	42.81	46.38	36.42	35.88	35.17	45.88	39.48	22.63	20.58	36.14
March	29.33	28.00	33.60	31.96	29.06	30.10	36.64	29.04	23.72	16.65	28.81
April	32.13	27.81	32.77	32.60	27.96	32.12	31.83	29.43	22.08	16.67	28.54
May	31.35	29.50	35.77	33.69	27.19	30.50	34.07	26.00	21.30	17.90	28.73
June	38.08	31.69	36.92	34.43	26.00	33.15	33.35	27.32	21.74	18.69	30.14
July	33.88	33.13	40.00	33.50	28.19	33.62	36.32	28.06	25.25	20.88	31.28
August	36.63	38.08	39.77	36.42	32.13	36.39	39.48	32.79	26.17	25.07	34.29
September	43.04	46.32	48.28	44.50	41.19	41.50	43.42	31.92	28.08	27.85	39.61
October	49.39	54.61	56.77	51.31	50.88	44.42	48.65	36.58	34.81	33.42	46.08
November	68.18	63.00	65.38	59.23	59.15	56.73	59.77	46.72	38.42	39.00	55.56
December	56.31	64.50	58.04	58.89	53.35	49.00	57.74	35.02	33.88	35.04	50.18
Average yearly price	42.62	42.26	46.41	41.31	38.02	39.35	42.59	33.99	27.16	24.53	



TABLE 11  
MONTHLY PRICES WESTERN EXTRA FIRSTS  
Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	44.63	46.00	61.73	41.08	39.65	48.18	41.58	44.36	25.63	20.96	41.38
February	39.04	40.60	45.16	33.83	33.17	35.25	44.17	38.16	19.46	18.42	34.73
March	33.36	26.17	32.02	30.29	27.21	30.65	34.98	27.25	22.13	14.79	27.88
April	29.77	25.86	31.23	31.65	26.60	30.35	29.77	27.26	20.55	15.02	26.81
May	29.33	27.06	32.81	32.35	25.50	28.88	32.64	24.70	19.30	15.98	26.86
June	26.86	28.56	33.75	32.02	24.21	31.15	32.17	24.99	18.60	15.92	26.82
July	27.77	29.17	35.98	31.02	26.15	31.77	33.84	24.66	21.41	16.31	27.86
August	31.73	35.48	35.25	33.00	31.39	33.55	36.42	27.54	22.12	22.00	30.85
September	37.71	42.64	41.97	40.65	37.85	36.86	40.58	27.71	23.04	23.00	35.20
October	44.89	50.36	50.96	46.04	46.08	38.25	43.42	29.04	28.62	27.13	40.48
November	62.18	58.54	61.42	57.92	52.19	51.00	53.27	38.65	32.92	34.14	50.22
December	52.85	61.42	54.69	54.36	52.65	46.31	54.62	31.73	29.79	35.04	47.35
Average yearly price	38.34	39.32	43.08	38.68	35.22	36.85	39.79	30.50	23.63	21.60	

TABLE 12  
MONTHLY PRICES WESTERN FIRSTS  
Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	42.60	44.29	59.85	38.81	41.04	46.57	38.46	28.85	24.08	19.65	38.42
February	37.34	38.46	43.70	31.52	31.04	33.65	39.35	41.66	19.01	17.00	33.27
March	32.05	24.88	30.83	28.77	26.52	29.04	31.71	26.28	21.21	13.79	26.51
April	28.10	24.38	29.90	30.48	24.85	29.00	28.21	26.25	19.70	14.08	25.50
May	27.63	25.81	31.50	31.21	23.44	30.23	31.38	23.56	18.36	14.77	25.79
June	25.15	27.23	31.94	30.23	22.92	29.85	31.29	22.79	17.44	14.40	25.32
July	25.21	27.81	33.36	29.17	24.75	30.35	32.45	22.40	19.37	15.23	26.01
August	28.17	31.90	35.54	28.23	28.21	32.00	34.79	24.59	19.90	17.64	28.10
September	33.50	37.82	37.19	36.83	34.12	34.50	37.38	24.35	21.42	20.90	31.80
October	38.82	43.86	43.77	40.35	39.23	35.92	40.19	26.53	24.85	24.31	35.78
November	54.54	52.58	56.38	50.88	44.00	44.69	49.00	33.46	29.33	31.43	44.63
December	49.46	57.77	51.42	50.14	44.88	43.12	51.44	28.79	26.58	31.96	43.56
Average yearly price	35.21	36.40	40.45	35.55	32.08	34.91	37.14	27.46	21.77	19.60	

TABLE 13  
MONTHLY PRICES WESTERN SECONDS  
Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	40.46	37.35	57.15	35.92	38.33	42.15	32.04	37.89	20.75	18.58	36.06
February	35.80	36.54	42.41	29.77	29.67	32.42	40.56	35.97	16.21	16.08	31.54
March	30.89	23.77	29.85	27.66	22.71	28.13	32.97	25.38	20.23	12.88	25.45
April	26.77	23.38	29.19	29.67	23.75	27.67	27.50	25.37	18.74	13.40	24.54
May	26.19	24.62	30.56	30.17	21.48	28.85	30.09	22.61	17.46	13.96	24.60
June	23.71	26.06	30.56	28.88	21.75	28.56	30.29	22.35	16.55	13.52	24.22
July	23.46	26.60	31.82	27.96	23.63	29.19	31.09	20.51	17.77	14.19	24.62
August	25.75	29.79	31.04	28.79	24.21	30.75	33.08	22.34	18.45	16.46	26.07
September	29.54	33.23	32.78	34.25	29.65	32.36	32.62	24.95	19.77	19.62	28.88
October	31.54	37.68	34.88	35.88	32.27	32.88	37.04	23.97	21.12	22.52	30.98
November	39.11	42.83	46.77	40.00	34.23	35.69	43.38	24.80	24.25	28.82	35.99
December	34.19	48.31	43.85	42.71	34.54	35.62	45.17	21.94	23.79	30.69	36.08
Average yearly price	30.62	32.51	36.74	32.64	28.02	32.02	34.65	25.67	19.59	18.39	

TABLE 14  
MONTHLY PRICES STORAGE PACKED EXTRAS  
Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	-	-	-	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	-	23.57	-	23.57
April	-	-	-	-	-	-	33.00	-	22.43	-	27.72
May	-	-	-	-	-	-	34.23	-	21.69	-	27.96
June	-	-	-	-	-	-	34.50	-	-	-	34.50
July	-	-	-	-	-	-	-	-	-	-	-
August	-	-	-	-	-	-	-	-	-	-	-
September	-	-	-	-	-	-	-	-	-	-	-
October	-	-	-	-	-	-	-	-	-	-	-
November	-	-	-	-	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-	-	-	-	-
Average yearly price	-	-	-	-	-	-	33.91	-	22.56	-	

TABLE 15

## MONTHLY PRICES STORAGE PACKED EXTRA FIRSTS

Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	-	-	-	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-	-	-	-
March	28.38	25.12	33.42	31.95	17.05	30.81	-	-	22.59	-	27.05
April	31.21	33.58	32.31	30.25	27.69	31.71	30.77	-	21.35	-	29.86
May	30.19	29.60	33.59	33.54	26.75	32.96	33.27	-	20.15	-	30.01
June	-	29.35	34.25	33.30	25.46	32.03	33.50	-	-	-	31.32
July	-	-	-	-	-	-	-	-	-	-	-
August	-	-	-	-	-	-	-	-	-	-	-
September	-	-	-	-	-	-	-	-	-	-	-
October	-	-	-	-	-	-	-	-	-	-	-
November	-	-	-	-	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-	-	-	-	-
Average yearly price	29.93	29.41	33.39	32.26	24.24	31.88	32.51	-	21.36	-	

TABLE 16

## MONTHLY PRICES STORAGE PACKED FIRSTS

Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	-	-	-	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-	-	-	-
March	27.38	24.38	32.50	24.75	27.65	30.06	-	-	21.68	-	26.91
April	30.21	25.81	31.31	31.90	26.67	30.60	29.67	-	20.58	-	28.34
May	29.02	27.00	32.63	32.62	25.27	31.96	32.35	-	19.34	-	28.77
June	26.67	28.36	33.06	32.15	23.77	31.08	33.00	-	-	-	29.73
July	-	-	-	-	-	-	-	-	-	-	-
August	-	-	-	-	-	-	-	-	-	-	-
September	-	-	-	-	-	-	-	-	-	-	-
October	-	-	-	-	-	-	-	-	-	-	-
November	-	-	-	-	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-	-	-	-	-
Average yearly price	28.32	26.39	32.38	30.36	25.84	30.92	31.67	-	20.53	-	

TABLE 17

## MONTHLY PRICES STORAGE PACKED SECONDS

Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	-	-	-	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-	-	-	-
March	-	23.38	31.62	29.65	26.60	28.25	-	-	20.79	-	26.72
April	28.50	-	30.23	31.04	25.69	29.35	28.67	-	19.61	-	27.58
May	27.48	-	31.50	31.75	24.21	30.44	30.96	-	18.42	-	27.82
June	25.92	-	31.88	30.95	22.61	29.67	31.25	-	-	-	28.71
July	-	-	-	-	-	-	-	-	-	-	-
August	-	-	-	-	-	-	-	-	-	-	-
September	29.89	-	-	-	-	-	-	-	-	-	29.89
October	28.93	-	-	-	-	-	-	-	-	-	28.93
November	29.38	-	-	-	-	-	-	-	-	-	29.38
December	26.54	-	-	-	-	-	-	-	-	-	26.54
Average yearly price	28.09	23.38	31.31	30.85	24.78	29.43	30.29	-	19.61	-	

TABLE 18

## MONTHLY PRICES REFRIGERATOR EXTRAS

Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	-	-	-	-	-	-	-	42.00	-	-	42.00
February	-	-	-	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-	-	-	-	-
July	-	-	-	-	-	-	-	-	-	-	-
August	-	-	-	-	-	-	-	31.00	-	-	31.00
September	-	-	-	-	-	-	39.75	29.45	-	23.44	30.88
October	-	-	-	-	-	-	40.21	27.41	23.28	24.62	35.76
November	-	-	-	-	-	-	41.63	24.99	22.27	27.00	28.97
December	-	-	-	-	-	-	41.68	27.41	41.00	29.33	34.86
Average yearly price	-	-	-	-	-	-	40.82	30.38	28.85	26.10	



TABLE 19

## MONTHLY PRICES REFRIGERATOR EXTRA FIRSTS

Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	33.75	30.25	-	-	37.56	37.86	29.00	41.00	19.60	16.82	30.73
February	-	-	-	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-	-	-	-	-
July	-	32.42	-	-	-	-	-	-	-	-	32.42
August	-	33.92	-	-	32.50	-	-	28.50	-	-	31.64
September	35.11	35.34	37.12	38.06	33.35	35.50	38.53	27.50	-	22.44	33.66
October	33.28	38.18	36.52	38.33	34.50	34.58	39.21	25.50	23.94	23.63	32.77
November	33.50	40.44	37.56	37.44	35.12	33.31	40.48	23.86	21.25	26.00	32.90
December	30.27	41.08	36.98	39.66	34.58	34.32	40.47	20.97	18.85	28.38	32.56
Average yearly price	33.16	35.95	37.04	38.37	34.60	35.11	37.54	27.89	20.91	23.45	

TABLE 20

## MONTHLY PRICES REFRIGERATOR FIRSTS

Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	30.85	28.54	47.92	29.00	34.06	36.62	26.62	37.49	17.63	15.86	30.46
February	30.28	32.14	42.57	22.39	26.21	-	31.50	32.62	-	-	31.10
March	-	-	-	-	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-	-	-	-	-
July	-	30.54	-	-	-	-	-	-	-	-	30.54
August	-	31.96	-	-	29.50	-	-	26.50	-	-	29.32
September	32.72	33.89	35.12	36.04	30.62	33.50	36.78	25.56	20.84	20.94	30.60
October	31.29	37.16	34.79	36.50	32.23	33.04	37.88	23.62	-	22.48	28.90
November	31.70	39.40	36.02	35.60	32.81	32.12	39.19	22.34	20.25	25.07	31.45
December	28.46	39.81	35.23	37.55	32.46	30.77	38.93	18.75	17.90	27.46	30.73
Average yearly price	30.88	34.18	38.61	32.85	31.13	33.21	35.15	26.70	19.16	22.36	

TABLE 21  
MONTHLY PRICES REFRIGERATOR SECONDS  
Boston, Massachusetts

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	Average monthly price
January	28.50	26.12	56.98	26.46	31.85	34.29	24.22	35.50	15.74	12.43	29.21
February	27.89	30.09	40.93	20.22	23.57	-	28.92	30.27	-	-	28.84
March	-	-	-	-	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-	-	-	-	-
July	-	-	-	-	-	-	-	-	-	-	-
August	-	30.62	-	-	27.00	-	-	25.00	-	-	27.54
September	-	31.66	33.44	33.62	28.08	32.50	34.44	23.93	-	19.78	29.68
October	-	32.82	33.17	34.00	29.96	31.92	35.54	21.62	18.97	21.27	28.81
November	-	37.79	34.19	33.85	30.81	30.15	37.65	20.13	18.58	24.05	33.40
December	-	38.17	32.85	34.89	30.23	28.50	36.95	16.33	16.71	26.62	32.66
Average yearly price	28.20	32.47	38.59	30.51	28.79	31.47	32.95	24.68	17.50	20.83	

## APPENDIX B

## GRADE REQUIREMENTS OF THE MAINE POULTRY

PRODUCERS' ASSOCIATION<sup>22</sup>

"The eggs were graded according to the following standards:

"Firsts: The size and shape uniform; weighing not less than 24 ounces per dozen with a minimum of 22 ounces per dozen for individual eggs; the shell clean and sound; air cell 1/8 inch or less in depth, localized and regular; yolk dimly visible; white firm and clear; no visible development of germs and free from objectionable odor.

"Mediums: The size and shape uniform; weighing not less than 20 ounces per dozen with minimum of 20 ounces per dozen for individual eggs; the shell clean and sound; air cell 1/8 inch or less in depth, localized and regular; yolk dimly visible; white firm and clear; no visible development of germs and free from objectionable odor.

"Pullets: The size and shape uniform; weighing less than 20 ounces per dozen for individual eggs; the shell clean and sound; air cell 1/8 inch or less in depth, localized and regular; yolk dimly visible; white firm and clear; no visible development of germs and free from objectionable odor.

"Seconds: All eggs not cracked, broken, without blood spots and not falling in the first three grades".

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<sup>22</sup>Reed, D. W. Egg Receipts by Grades. Maine Poultry Producers' Association. Maine Extension Service Mimeographed Report page 1.