

A Business Study of the Ohio Poultry Producers' Cooperative Association

L. G. Foster



OHIO
AGRICULTURAL EXPERIMENT STATION
Wooster, Ohio

CONTENTS

Introduction	3
Incorporation and Organization	3
Marketing Agreement	5
Affiliation With Farm Bureau	6
Liquidated Damages	7
Assembling	7
Sales Policy	9
Egg Sales	9
Poultry Sales	18
Cost of Operation	18
Pooling and Prices Paid Farmers	28
Membership Problems	28
Quality Improvement	32
Financing	34
Influence of Association on Local Price of Eggs	35
Summary	38

This page intentionally blank.

A BUSINESS STUDY OF THE OHIO POULTRY PRODUCERS' COOPERATIVE ASSOCIATION

L. G. FOSTER*

INTRODUCTION

The desire of the board of directors to satisfy themselves that the Ohio Poultry Producers' Cooperative Association is being operated in an efficient way, and that the existence of the organization is necessary to the economical marketing of eggs and poultry from its territory resulted in a request for an analysis of its business. Records of the Association from the time of its organization were made available. The study covers the period from July 15, 1925 to June 30, 1927.

The analysis of the Association is the result of a careful and detailed study of all known records combined with interviews with employees, members of the Association, business men and bankers living in the territory, and farmers who were not members of the organization.

The information dealing with the market outlets for the various grades of eggs and poultry and the prices received from these markets should be of interest to the poultry producers of the State.

The study of this association suggests the necessity on the part of other cooperatives to keep ample records from which they may frequently analyze the progress of their business.

INCORPORATION AND ORGANIZATION

The Ohio Poultry Producers' Cooperative Association was incorporated as a non-stock, non-profit organization on January 29, 1924. It has many of the features that are incorporated in the centralized type of associations formed under the so-called standard marketing contract.

The original plan of those interested in the forming of the Association contemplated that the movement would become state-wide in its operation. The present unit of four counties was to be the nucleus of the state-wide movement. The expansion program

*The section of this bulletin dealing with the influence of the Association on local prices of eggs was previously written by J I Falconer, V R Wertz, and J F Kendrick
Assistance was rendered by H F Buchanan of the Division of Cooperative Marketing, U S Bureau of Agricultural Economics, in collecting the data on cost of operation and in reviewing other sections of the study

was never carried out. The Association established substations at 46 points of the district in order to facilitate frequent collection of poultry and eggs. The main plant is located at Wauseon.

The collection of eggs and poultry at the beginning was done by private truckers under a definite contract agreement. This system was later partly displaced by the purchase of trucks by the Association. To maintain a high quality in eggs frequent collections from substations were necessary. In the spring and summer months collections from substations were made three times a week; in the late fall and winter months, twice a week.

The type of agency that acts as the Association's representative varies in the different communities. Stores, gasoline stations, hardware stores, farmers' elevators, and private poultry- and egg-handling firms are the principal types of agencies now serving as local representatives of the Association. The problem arising out of the selection of these various agencies will be discussed later.

The board of directors consists of eleven members, holding office for one year. Nine of the directors are elected annually from the membership; two are elected by the nine directors from nominations made by the Agricultural Extension Department of the Ohio State University and the president of the Ohio Farm Bureau Federation. It is the intention that the two directors, nominated by the Extension Department and the Farm Bureau, shall represent "primarily the interests of the general public in the conduct of the Association."

The plan of selecting the board of directors is left flexible so that equal representation of all members may be secured.

At least three weeks preceding the annual meeting of the members of the Association the Board of Directors by a two-thirds vote shall establish the membership of each directoral district of the Association. Each of such districts shall have approximately equal representation on the board of directors on the basis of the amount of sale of poultry and eggs marketed by the Association thru the preceding month of the year.

At least two weeks prior to the annual district meeting of the Association at which the directors of the Association are to be nominated, the secretary shall cause an election to be held by the members of each of the county locals and at such election the members shall elect a chairman and other officers. The chairmen of the various county locals shall then elect a county chairman from among their number who shall act as advisory councilman for their county at the meeting of the district advisory council.

It shall be the duty of the members of the district council when instructed by the secretary of the Association to nominate two members from their respective districts whose names shall be placed on the ballot to be submitted to the members of the Association for election, one of which shall be elected as a director of the Association representing such district.

The directors of the Association meet monthly, and at the call of the president or a majority of the board of directors may have special meetings. At the inception of the Association a director received \$10 for each meeting. The board thru its own action changed this to \$5 per meeting.

AN ASSOCIATION MARKETING AGREEMENT

The Association started operation under the agency contract, with the Pool beginning July 16, 1925. Under the contract it acts as selling agent for the producer for a period of three years, and thereafter continuously unless cancelled by either party by written notice between the 15th and 30th of December, and is given complete discretion as to the methods employed in marketing, so long as it is "for the mutual advantage" of the parties to the contract.

The contract provides for the handling of poultry and eggs and allows complete discretion to the Association in the matter of grading, packing, and shipping; and the producer agrees to observe and abide by such rules and regulations as the Association may deem desirable and necessary in carrying out its marketing program.

The length of the pooling period is left in the hands of the Association for determination. The pools on eggs run from the first to the fifteenth and from the sixteenth to the end of each month, while the poultry pools vary from one to two weeks in length.

At the inception of the Association an attempt was made by those interested in the promotion of the organization, to allow producers certain privileges in the sale of their products. All poultry and eggs were contracted to be sold thru the Association except such poultry and eggs as the producer may use for home consumption and except such eggs as he may use or sell for hatching or breeding purposes. The apparent fairness of the exceptions made it easier to obtain the original signature of producers. The need for a contract at the beginning of an association covering such a large territory was generally conceded by producers.

The general idea behind the contract was one of compulsion with certain reasonable exceptions. It was similar in many respects to other "ironclad" agreements that were being signed by farmers in many sections of the United States. The results of two years of operation, with one attempt to enforce the contract which was upheld by the courts, has led to the belief by the directors and

many members that a contract, while of some value, is not the most important feature of the Association. The main value of the contract has been the psychological effect on the rank and file of the membership.

AFFILIATION WITH FARM BUREAU

The Ohio Farm Bureau Federation furnished the funds to cover the cost of organization and promotion of the Association. It furnished assistance thru the local county farm bureaus and the service department of the State Federation. Funds advanced were to be repaid by the Association. At the time of organization and incorporation definite relations were incorporated in the contract. The most important provision provides:

For the purpose of compensating the County, State, and American Farm Bureau Federations for field and other services to be rendered the Association and its members, a charge of one cent per dozen on all eggs and one-half cent per pound on all poultry handled and marketed by the Association for the members shall be made; provided, however, that where any member of this Association is a paid-up member of his County Farm Bureau such charge shall not be collected. In the event that any member of the Association who is also a member of his County Farm Bureau, shall fail, neglect, or refuse to pay such annual dues to his County Farm Bureau, then such charge shall be deducted by the Association from any sum or sums due the member from the sale of his products handled and marketed by the Association and the same shall be turned over to the Farm Bureau Federations for their services, as herein provided for.

Making the Poultry Association responsible for the collection of delinquent dues of the Farm Bureau has not worked satisfactorily to either party concerned. The one cent a dozen and one-half cent a pound collected by the Association from non-farm Bureau members has caused the Poultry Association some difficulty. It definitely limited to a considerable degree the securing of new members to the Poultry Association, who objected to some part of the Farm Bureau program. Many farmers believe the deduction an attempt to force them to join the Farm Bureau, for this would be cheaper than having the deductions made on their total yearly output. The predominant sentiment of members was favorable to the close-working relationship of the Poultry Association and the Farm Bureau but on an entirely different basis than now exists.

LIQUIDATED DAMAGES

The binding part of the contract is the liquidated damage provision which states that:

Inasmuch as the remedy at law would be inadequate; and inasmuch as it is now and ever will be impracticable and extremely difficult to determine the actual damage resulting to the Association should any producer fail to deliver all of the poultry and eggs which he is delegated to deliver by the terms of this agreement, the producer hereby agrees to pay to the Association for all poultry and eggs sold, consigned, held or marketed by or for him, other than in accordance with the terms of this agreement, the sum of five (5) cents per dozen on eggs and four (4) cents per pound on poultry averaged for all types and grades of eggs and poultry, as liquidated damages for the breach of this contract, which shall not be considered as a penalty, all parties agreeing that this agreement is one of a series dependent for its true value upon the adherence of each and all of the contracting parties to each and all of said agreements.

In addition to the liquidated damage provision the producer who broke his contract agreed:

To pay to the Association all reasonable and necessary costs incurred, including costs of court, costs of bonds and otherwise, and the expense of travel arising out of or caused by the litigation, and all such costs and expenses shall be included in the judgment and shall be entitled to the benefit of any lien securing any payment hereunder.

The effect of the "ironclad" agreement on deliveries will be discussed later.

ASSEMBLING

There were located in the Association territory 46 substations to which farmers delivered eggs and poultry (Fig. 1). The attempt to improve the quality of eggs made necessary frequent deliveries on the part of farmers and collection three times a week in summer and twice a week in winter by the Association. The Association at the outset hired trucks to make collections from the substation, but soon after starting operation they were replaced by the Association's own trucks and drivers.

Several factors made difficult the economical collection of eggs from the substation. The density of membership, the type of substation and the method of payment, the character of roads, and the seasonal variation in production were important factors. The

relation of density of membership (Fig. 1) to location of the substation is of utmost importance. The common method of paying the owner of the substation was on a salary basis, apparently without regard to the volume of eggs and poultry handled, and varied from \$5 to \$30 per month. A few stations were paid on volume which varied from $\frac{1}{4}$ to $\frac{1}{2}$ cent per dozen. The number of members delivering to any one substation varied from 2 to 116. A

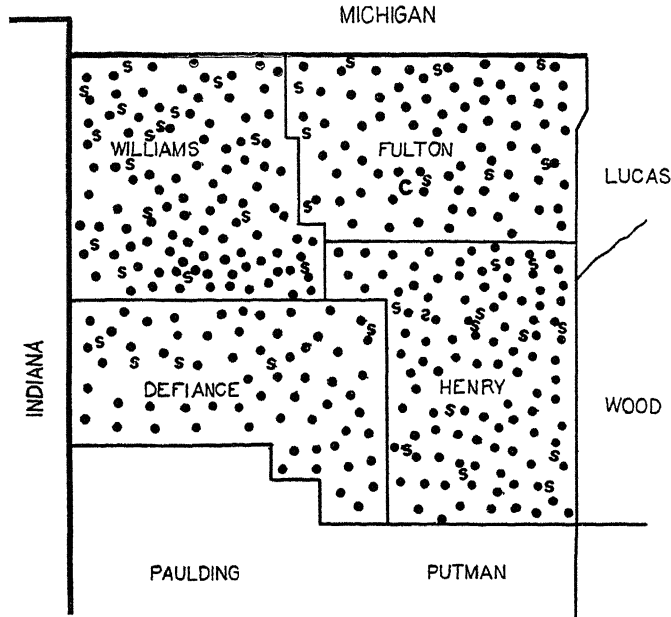


Fig. 1.—Location of central receiving plant (C) and substations (S). Each dot (.) represents five members

majority of the substations had under 40 members (Table 7). The monthly cost to the Association per member for the services of the substation varied from 24 to 48 cents, the highest cost being at stations under 20 members. In one section of the territory the condition of the roads made difficult the economical collection of eggs.

Seasonal variation in production, with substations paid on a straight monthly basis, made the cost of some substations so excessive, 6 cents per dozen, that the Association would have been better off with certain territory eliminated.

The need for adjustment of substations to membership or the revision of methods of payment was apparent.

TABLE 1.—Members Delivering to Receiving Stations and Average Prices Paid per Member per Month

Number of members	Number of stations	Average salary per month to station keeper, cents per member
Under 20	16	48
20-40.....	11	29
40-60.....	6	28
60-80.....	7	24
Over 80.....	6	26
Total.....	46	Average, 28

SALES POLICY

The location of the Association necessitated the development of a highly efficient selling organization. Truckers and hucksters from terminal markets and local representatives of city dealers bought poultry and eggs direct from farmers in most of the territory. Many of the larger poultrymen had previously sold eggs direct to commission merchants in eastern markets. This situation made it necessary to secure the highest type of salesmanship if the association was to meet competitive prices.

The selling of poultry has been handled by an employee of the Association, usually the General Manager or foreman of the poultry department. The success of the Association thus far has been largely due to the securing of a satisfactory sales representative for eggs. The market outlets for eggs which this sales representative had built up over a period of years was made available to the Association. The sales of eggs have been on a commission basis of $\frac{1}{2}$ cent per dozen for all eggs sold outside of greater New York and 1 cent per dozen in greater New York.

EGG SALES

The principal markets for the Hennerly-Brown grade were Boston, Detroit, New York, Newark, and Jersey City (Table 2). A few were sold in nearby and local markets. Boston has received 75 percent of all Hennerly Browns sold by the Association since its organization.

The principal markets for Hennerly Whites were New York, Detroit, Boston, Newark, and Jersey City, the New York market

receiving 36.5, Detroit 25.2, and Boston 17.1 percent. The principal markets for Standard Browns, which is the second grade in quality, were Detroit, which received 42.6 percent of total sales; Boston, 39.7 percent; and New York, with 12.8 percent. Local and miscellaneous markets received the rest. The principal markets for Standard Whites were Detroit, which received 57.8 percent of total sales; New York, 18.9 percent; Newark, 8.5 percent; and Pittsburgh, 6.7 percent. Miscellaneous and local markets received the rest.

TABLE 2.—Market Destination of the Various Grades of Eggs in Percent, July, 1925 to June, 1927

Market	Grade				
	Hennery Brown	Hennery White	Standard Brown	Standard White	Trades
Boston.....	75	17	40	.....	.....
Detroit.....	7	25	43	58	85
New York.....	7	36	13	19	3
Jersey City.....	5	7	1	8	.....
Newark.....	3	11	.....	3	.....
Worcester.....	3	.....	.....	.....	.....
Pittsburgh.....	.....	1	1	7	1
Brooklyn.....	.....	1	.....	.....	.....
Toledo.....	.....	.....	1	.....	6
Flint.....	.....	.....	.....	.....	3
Cleveland.....	.....	.....	.....	.....	1
Buffalo.....	.....	.....	.....	4	.....
Other markets.....	.....	2	1	1	1

Detroit received 85.2 percent of all trades sold by the Association; Toledo, 5.8 percent; New York, 2.9 percent, and Flint, Michigan, 2.8 percent. The weighted average net price received by the Association f. o. b. Wauseon by markets for the several grades is shown in Table 3.

A comparison of the percentages of the various grades sold on the different markets with the weighted average net price received demonstrates the wisdom of the selling policy of the Association.

Eastern markets received 92 percent of the Hennery Browns and 69 percent of the Hennery Whites, or a large proportion of the high quality eggs produced by the Association. Detroit was the only other market that would meet eastern prices for high quality eggs.

The price advantage of shipping to eastern markets was less apparent in low quality eggs. Of the 54 percent of the Standard Browns shipped to eastern markets, Boston received 39 percent. There were 31 percent of the Standard Whites and 4 percent of Trades going to eastern markets. On the whole, local markets

(Detroit, Toledo, Pittsburgh, Cleveland, and Flint, Michigan, and the sales to truckers and hucksters) paid the Association as much for standards and trades as would have been received from eastern markets. It was only during certain periods from January to October that it paid to ship standards and trades to eastern markets. Standard Browns were shipped to Boston to advantage from January to October.

From October to January, 1925 sales on the New York market brought the most satisfactory price for the Hennerly-White grade. During the same period in 1926 Boston paid a higher average net price to the Association for limited quantities of Hennerly Whites than could be secured on the New York market. From January to August, 1925, 1926, and 1927 the differences in returns received from Boston, New York, and Detroit were about equal (Table 3).

Boston and Worcester proved the most satisfactory market for Hennerly Browns. Other sales were made to New York, Detroit, and locally at various periods during the two years of operation. The difference in the net returns from Boston and Worcester varied but little during the entire period. Boston provided a consistent market for Hennerly Browns while Worcester and other markets were in and out. The seasonal advantage of marketing standards and trades showed Detroit and other nearby markets to be the best outlets for the period of the study.

There was considerable variation in spread between the prices received for Henneries, Standards, and trades during different seasons of the year (Fig 2). The widest spread was from August to December. Standards brought 17 cents a dozen more than Trades, and Henneries brought 15 cents more than Standards, or a difference of 32 cents between Trades and Henneries. From February to May the narrowest margin was found. Standards were sold for 4 cents a dozen more than Trades and Henneries for 2 cents more than Standards, or a difference of 6 cents per dozen between Trades and Henneries. The reason for this wide spread in price between the various grades was one of the causes of dissatisfaction, and was little understood by the membership.

A comparison of the weighted average price received from all markets for Hennerly Whites f. o. b. Wauseon with the weighted average price of Extra Firsts at New York by pools since organization demonstrates the efficiency in egg sales (Table 4).

TABLE 3.—Weighted Average Net Price Received by the Association for the Various Grades of Eggs by Pools f. o. b. Wauseon by Markets 1925-1927

	Pool No.	Hennery Browns					Hennery Whites					
		Boston	Worcester	New York	Detroit	Wauseon	Misc.	Boston	New York	Detroit	Wauseon	Misc.
1925												
July	1			36.0	42.4			40.0	42.5			
Aug.	2	47.5		39.7	41.5		42.5	42.5	43.4			42.5
	3	88.6		41.0			50.4	46.2				50.4
Sept.	4	54.2					40.0	53.0	51.0			
	5	64.8					40.0	55.2	52.0			
	6	67.3						66.5	68.6			
Oct.	7	70.0	73.5	85.8				68.0	68.3	52.0		
	8	75.0	75.5	80.0					72.4	80.0		
Nov.	9	74.7	75.5	77.0	75.5				71.1	44.5		
	10	59.0	68.6					69.3	56.5			
Dec.	11	49.0	49.5	47.1					78.5	46.5		57.0
1926												
Jan.	12	43.5	47.5	41.0				42.0	39.4	42.7		
	13	44.5	46.6					42.4	39.5	38.7		
Feb.	14	41.4	42.8					36.6	36.5	24.9		36.5
	15	35.0	41.5					33.1	35.5	35.7		
Mar.	16	33.0	35.7		29.8				32.8	32.2		
	17	33.0	34.7	47.1					33.5	32.7		33.5
	18	33.5	35.5		30.7				33.0	32.4		33.0
Apr.	19	35.1	35.5		33.5		34.0			33.2		33.5
	20	35.3	35.5			32.0	39.5	32.0				34.5
May	21	37.0	36.3									35.1
	22	53.8	38.8					35.5				35.2
June	23	37.5	39.5					34.5	31.4			34.5
	24	39.7	42.5				34.5	37.4				35.5
July	25	45.1	45.5					69.3	36.0	36.0		
	26	47.6	49.0					43.7				
	27	48.5	50.5					67.5	47.1			
Sept.	28	53.4	59.0					50.2	53.0			
	29	57.3	63.0					54.5	53.5			
Oct.	30	63.0	65.5					62.5	45.6	54.0		
	31	71.5	70.1					74.5	70.8		70.0	
Nov.	32	77.8	80.1					79.0	74.0			
	33	72.0	85.0			65.0	52.5	77.5	66.4			60.5
Dec.	34	64.1						62.2	59.0			
	35	55.8		56.0	50.7			56.1	53.0	50.4		
1927												
Jan.	36	47.5						46.2	44.0	43.4		
	37	42.5			42.7			42.5		42.3		
Feb.	38	42.0						38.8		33.5		
	39	33.5						30.1		30.6		
Mar.	40	31.2						30.1	29.0			
	41	30.6						30.1	29.0	30.3		
Apr.	42	29.6							30.5	28.8		32.5
	43	30.0			28.5				29.8	28.4		
May	44	29.5								28.3		28.7
	45	30.1					27.5			28.1		26.5
June	46	29.8								25.8		28.0
	47	31.2							29.4	26.5		

TABLE 3.—Weighted Average Net Price Received by the Association for the Various Grades of Eggs by Pools f. o. b. Wauseon by Markets 1925-1927—Continued

	Pool No.	Standard Browns					Standard Whites				
		Boston	New York	Detroit	Wauseon	Misc.	Boston	New York	Detroit	Wauseon	Misc.
1925											
July	1			36.2					38.5		
Aug.	2		37.0	36.3				38.0	37.4		40.0
	3		36.5	35.8				42.5	42.5		36.8
Sept.	4			37.2				39.0	40.9		
	5			45.8							
Oct.	6		52.5	45.8				35.0	42.0		
	7		52.0	49.0				35.0	54.0		
	8			50.2	43.7						
Nov.	9		49.6	60.4	56.0						
	10		39.6	63.3							62.5
Dec.	11		61.5	44.5				48.3	48.0		59.5
				43.5				37.8	44.6		49.5
1926											
Jan.	12			36.0					39.1		42.5
	13		42.0						38.3		38.5
Feb.	14		38.0	25.7					33.6		34.5
	15		31.3	33.8					33.6		
Mar.	16		29.8	31.8		24.5			29.8		24.5
	17		29.0	27.8		27.0		40.6			31.5
Apr.	18		31.5	28.3					29.8		31.5
	19		32.0	28.5		32.0			31.0		31.5
May	20		31.5						31.6		32.0
	21		32.8						31.3	30.0	32.0
June	22		32.4				31.5				32.6
	23		30.5	26.0				34.8	30.7		32.0
July	24		31.2								31.8
	25		31.2	26.8		31.5			32.5		32.5
Aug.	26		33.0						34.5		
	27		35.0						38.1		35.5
Sept.	28		40.8					44.7	43.0		41.5
	29		42.5	46.0	44.0	42.0			45.0		45.6
Oct.	30			48.4	49.5	49.0	47.7		60.0	40.5	50.7
	31					52.0	52.0		60.0	61.0	61.2
Nov.	32			59.0	54.8	54.3	55.0		57.0		60.0
	33		54.5	64.3		59.0	62.5		67.0	59.1	60.0
Dec.	34			55.0		71.6	56.0		56.0	55.5	52.7
	35			49.8		54.5	49.5		48.7	47.4	53.0
1927											
Jan.	36			43.0	41.9				43.0	42.4	44.5
	37		37.1		37.6				39.0	31.5	
Feb.	38			29.5	33.6				31.5	33.3	37.5
	39		26.6						28.0		
Mar.	40			24.5					27.4	26.6	
	41		25.2						27.0	27.3	
Apr.	42		25.0	25.0					27.0	26.8	
	43				25.8				27.0	26.6	
May	44				24.3					26.0	29.3
	45				22.3						25.5
June	46				21.2		24.5		24.5	30.5	25.5
	47				23.3				25.5	28.0	25.5

TABLE 3.—Weighted Average Net Price Received by the Association for the Various Grades of Eggs by Pools f. o. b. Wauseon by Markets 1925-1927—Continued

	Pool No.	Trade Browns			Trade Whites		
		Detroit	Wauseon	Misc.	Detroit	Wauseon	Misc.
1925							
July	1	46.4			32.1		
Aug.	2	31.8	26.0	27.3	41.0		28.5
	3	27.5		27.5	31.1		31.5
Sept.	4			27.5	30.5		
	5	32.0		30.4	33.0		33.5
Oct.	6	31.5	32.0	32.4	37.1		37.5
	7	33.5	32.0	32.8	40.8		
Nov.	8	38.5			43.5		
	9			43.5	47.1		
Dec.	10			42.1	46.5		
	11	32.8		36.7	37.4	35.0	
1926							
Jan.	12	32.7			32.3		
	13	30.8			30.8		
Feb.	14	25.7			27.4		
	15	24.0			24.0		
Mar.	16	23.7		24.5	23.7		24.5
	17	24.1		24.5	24.1		24.5
Apr.	18	25.8		32.5	26.4		26.0
	19	26.7		26.0	26.6		26.0
May	20	27.3		26.0	26.8		26.0
	21	27.7	26.0		28.6		
June	22	27.2	26.0	26.0	27.8		26.0
	23	38.0	26.0	26.0	28.8	26.0	26.0
July	24	26.3		26.0	26.3		26.0
	25	26.8		26.5	27.4	26.5	26.5
Aug.	26	27.3		26.5	28.6	26.5	26.5
	27	28.8		26.6	30.0	27.0	26.8
Sept.	28	31.5		27.8	33.3	31.0	29.0
	29	35.3		31.0	39.6		36.3
Oct.	30	37.1	42.0		42.1		38.5
	31	41.3	41.0	40.0	47.5		
Nov.	32	44.6	42.0	38.0	48.0		
	33	45.8		49.5	47.7		
Dec.	34	44.1		44.5	49.0		44.5
	35	42.8			42.5		41.5
1927							
Jan.	36	29.8			40.2		
	37	33.1			37.2		
Feb.	38	30.2			31.5		
	39	21.5			22.7		
Mar.	40	22.0			23.0		22.0
	41	22.6		22.0	23.6		22.1
Apr.	42	21.8			23.0		23.0
	43	21.8			23.1		
May	44	22.0			22.7		
	45	20.0			21.0		
June	46	18.3		19.2	18.7		
	47	22.1		20.1	21.3		20.75

TABLE 3.—Weighted Average Net Price Received by the Association for the Various Grades of Eggs by Pools f. o. b. Wauseon by Markets 1925-1927—Concluded

	Pool No.	Pullets					Checked					
		Boston	Worcester	New York	Detroit	Wauseon	Misc.	Boston	New York	Detroit	Wauseon	Misc.
1925												
July	1								26.7		25.8	
Aug.	2								26.5		18.3	
	3				24.5						25.5	26.0
Sept.	4				24.5				24.5		25.0	
	5			26.0	36.1		24.5	28.0		24.5	26.0	24.5
Oct.	6			30.0	36.3		36.3		28.0		26.9	30.4
	7	44.5		45.0	41.2	45.0	34.0				32.0	
Nov.	8		54.5		46.0	44.8	45.5				38.0	
	9	47.5	54.5		47.3	46.8	49.5				40.0	40.0
Dec.	10		50.5		46.3	47.8	50.0				39.3	40.0
	11			34.3	42.6	49.2	50.0				36.1	35.7
1926												
Jan.	12	41.5			36.1	35.0	37.5				31.1	46.0
	13				35.8	32.0	33.8				28.0	28.0
Feb.	14				31.1		30.3				25.5	26.0
	15				30.1				23.0	25.7	22.8	23.5
Mar.	16				28.6						24.3	22.3
	17				27.2		27.0		26.3	22.8	20.0	20.0
Apr.	18				27.6		26.8				20.0	22.0
	19				29.0					25.5	21.5	22.0
May	20							22.0			22.0	22.0
	21									26.0	22.0	22.0
June	22										38.0	
	23										38.0	
July	24									24.8	22.0	
	25									24.3	22.0	
Aug.	26									24.0	22.5	
	27									27.0	24.0	24.0
Sept.	28				24.8					26.0	24.0	24.0
	29				35.8					27.3	24.1	24.0
Oct.	30				32.8		39.5			27.7	26.8	27.5
	31				31.0						27.1	
Nov.	32	52.5		39.0	38.5		44.0				31.3	
	33	50.5		36.5	43.2		42.8				35.0	
Dec.	34	47.3			45.7		46.5		32.0			
	35				38.0							
1927												
Jan.	36				35.6		37.5			30.5	32.3	
	37									31.5		
Feb.	38									29.5	28.0	
	39									22.4		
Mar.	40							20.0		21.0		20.0
	41									22.0		
Apr.	42									21.6		14.0
	43							19.3		21.1		
May	44									19.8		
	45									18.2		
June	46									17.3		
	47									18.6		

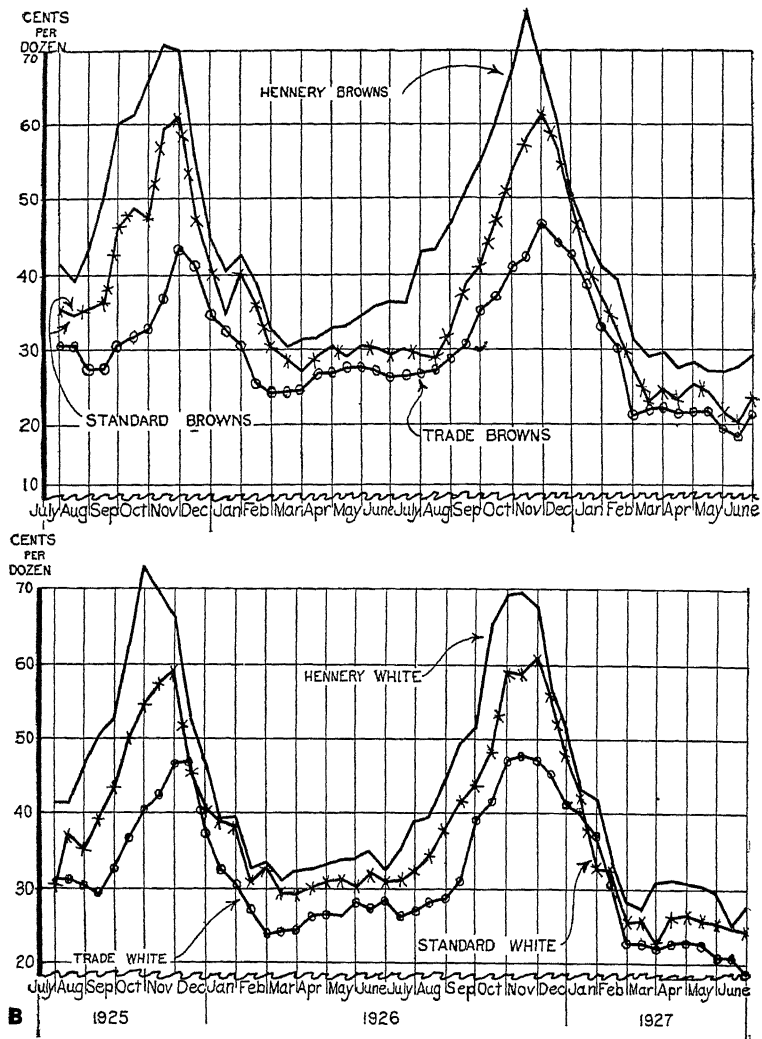


Fig. 2.—Weighted average price received for Hennerly Browns, Standard Browns, and Trade Browns (above) and of Hennerly Whites, Standard Whites, and Trade Whites (below) f. o. b. Wauseon from all markets by pools.

TABLE 4.—Comparison of the Weighted Average Price by Pools of Extra Firsts at N. Y. With the Weighted Price of Hennerly Whites on All Markets, f. o. b. Wauseon

Pool No.	Weighted av. price N. Y. Extra Firsts	Weighted av. pool price all markets Hennerly Whites f. o. b. Wauseon	Pool No.	Weighted av. price N. Y. Extra Firsts	Weighted av. pool price all markets Hennerly Whites f. o. b. Wauseon
1	36.8	41.7	26	33.2	39.7
2	36.1	41.7	27	33.7	44.5
3	34.8	46.3	28	40	49.5
4	36	50.5	29	42.1	51.7
5	44.6	53	30	43.8	65.3
6	46.8	62.5	31	47.5	69.5
7	47.8	72.6	32	51.3	69.6
8	58	69.7	33	60.9	67.0
9	64.5	66.4	34	55.8	57.2
10	55.7	52.8	35	50.8	51.2
11	46.4	46.7	36	45.7	43.3
12	40.5	39.3	37	41.8	42.0
13	41	39.5	38	36.7	33.8
14	35.9	33	39	28.5	28.4
15	31.9	33.8	40	26.9	27.6
16	29.4	31.2	41	27	29.1
17	30.4	32.2	42	26.1	29.3
18	31.1	32.4	43	26	28.8
19	31.4	33.4	44	25.7	28.3
20	31.8	34	45	24.6	27.7
21	32	34.1	46	23.4	25.1
22	31.9	35	47	24.7	27.8
23	31.4	32.3			
24	31	35.2			
25	31.1	39.1			

From June to December, 1925 and 1926 the spread between the local and New York price was greatest, while from December to June, 1926 and 1927 the prices were approximately the same (Fig. 3).

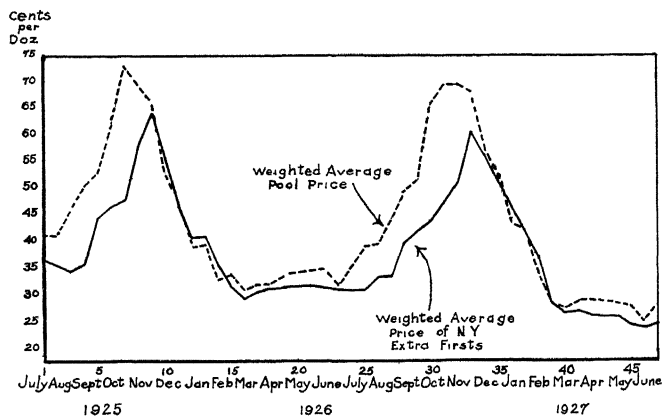


Fig. 3.—Weighted average price by pools of "Extra Firsts" at New York with the weighted average price of Hennerly Whites f. o. b. Wauseon on all markets

POULTRY SALES

Poultry was sold principally in less than carload lots in nearby and local markets. It was hauled by the Association's trucks to these markets or sold to truckers and hucksters who bought direct from the plant. New York got the carlot shipments, which did not exceed 23 percent of the total for any grade.

The markets for Light Hens were Detroit, which received 45 percent of the total; Cleveland, 23.4 percent; New York, 22.3 percent; Toledo, 5.3 percent; and other markets 4 percent. The markets for Heavy Hens were Detroit, 43.9; Cleveland, 20.9; New York, 17.4; Toledo, 13; and other markets, 4.8 (Table 5). The market for Heavy Broilers were Detroit, 43.1 percent; Cleveland, 24.6; Toledo, 14.3; New York, 11.7; and all other markets 6.3 percent. Light Broilers went to Detroit, 45.4 percent; Cleveland, 19.5; New York, 17; Toledo, 9.6; and other markets 8.5 percent (Table 5). The market destination of the several grades and the weighted average prices received from the various markets by pools are shown in Tables 5 and 6.

TABLE 5.—Market Destination of the Various Grades of Poultry and the Relative Amount of Sales to Each, in Percent, 1925-1927

Market	Grade						
	Light hens	Heavy hens	Light broilers	Heavy broilers	Light springs	Heavy springs	Miscellaneous
Detroit	45	44	45	43	15	4	44
Cleveland	23	21	20	25	41	54	26
New York	22	17	17	12	31	32	.....
Toledo	5	13	10	14	10	7	14
Tiffin .....	.....	.....	4	3	.....	.....	.....
Pittsburgh .....	.....	2	.....	.....	.....	2	10
Local	4	1	1	2	2	.....	4
Other	1	2	3	1	1	1	2

COST OF OPERATION

One of the most important aspects of any business is knowing its cost of operation. Without this information it is impossible to run any business organization intelligently.

To determine the unit cost of operating the Association's business it was necessary to have a record of the quantity of eggs and poultry handled. A statement of this kind prepared in comparative form will show the variation in cost at different seasons of the year or in different years with the varying volume of business.

TABLE 6.—Weighted Average Net Price Received by the Association for the Various Grades of Poultry by Pools f. o. b. Wauseon by Markets 1925-1927—Continued

Pool No.	Light broilers						Heavy broilers					
	Toledo	Cleveland	Detroit	New York	Pittsburg	Wauseon	Cash sales at plant	Toledo	Cleveland	Detroit	New York	Cash sales at plant
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14			45.0							55.0		
15			39.0					50.0		47.0		
16			40.0							49.0		
17			37.0				42.0			45.0		
18			41.4							47.8		
19	37.0	44.0	30.7					45.0	49.0	47.8		
20			28.0							43.0		
21			28.4		24.0	30.0				41.7		40.0
22		25.9	28.2	31.0		26.8				39.0	38.0	
23	28.0	29.8	25.0			26.6		38.0	39.8	37.8		
24	27.4		21.8			27.0	23.0	40.0		37.0		35.6
25		26.0	27.0	29.0	29.0	24.8	26.7			38.2		37.0
26	27.0	22.2	28.1	27.5		26.2	27.0		31.7	39.3		37.0
27	26.0		27.3			25.0	22.1	36.0		36.9		36.6
28			27.0	12.5	27.0	26.0	29.5			33.0	21.1	36.0
29			26.9			24.0	25.1			36.8		31.3
30			27.7			25.2	24.6	31.0		33.1		32.0
31		26.6	24.2			25.0		30.5		29.0		
32		26.8	27.1			25.0		30.0	32.0	31.4		
33		25.7	25.1			25.0		28.0		28.0		
34	21.0		21.0	21.0		24.2	24.0	25.0		28.0	28.0	28.0
35			18.0	23.2		17.8	17.4		23.1	25.0		
36			19.0	21.0		19.3	23.4			24.0	27.3	25.0
37			18.5			19.7	19.5	23.0		23.6	22.3	24.4
38			18.1			19.0	18.0	21.0	21.8	22.0		23.0
39			19.5			18.0			21.6	21.4		23.1
40	18.0	19.1				18.0			21.6	21.1		22.0
41		21.9	18.2				18.0	21.9	24.4	22.2		22.0
42		23.0	18.0						24.5	22.0		23.0
43			18.0		18.0		19.1			22.8		23.1
44			18.0				18.5			21.6		23.0
45			18.0						24.3	22.0		23.0
46			17.9				20.0		25.1	23.0		23.9
47		19.2	18.0				19.9		24.4	26.0		24.8
48			19.0				19.5			26.5		27.1
49										26.5		27.2
50		28.5										
51		31.4	28.5									
52		29.3	32.0									
53		25.0	31.3						30.0	35.6		
54			36.0				38.0					
55		37.1							45.0			
56										50.0		
57												
58		34.7	37.0						39.1	37.8		
59		33.5	38.0				36.0		36.8	40.0		
60			34.0				35.0		37.3			
61	32.0		27.8							35.0		
62	30.0	35.5	25.0					34.6		35.0		
63	25.1	27.8	25.0					32.7	38.7	33.2		31.0
64	21.8		21.1		19.0		22.8	30.8		30.7		34.9
65			20.1					30.0		30.9		
66	19.7	22.2	20.6					22.4	30.4	34.9		
67	19.9	22.5	20.3					28.8		29.6		

TABLE 6.—Weighted Average Net Price Received by the Association for the Various Grades of Poultry by Pools f. o. b. Wauseon by Markets 1925-1927—Continued

Pool No.	Heavy springs					Cockerels				
	Toledo	Cleveland	Detroit	New York	Cash sales at plant	Toledo	Cleveland	Detroit	New York	Cash sales at plant
1		25.0		19.5			12.9			
2		21.6		20.0			6.7			
3		19.8		20.8	25.5		13.8		17.0	13.0
4	18.1			17.8	24.0	14.0			15.0	
5	23.7	24.2			21.5	14.0	14.1			
6	25.0	24.4					14.9			14.0
7		26.7			28.6		15.3			12.8
8		31.1			32.0		17.4			17.0
9		26.7					32.4			
10							35.9			
11		31.0					34.0			
12	30.0									
13	25.0		25.6							
14								18.0		
15						20.0		18.0		
16								19.0		18.0
17						18.0		16.0		18.0
18						18.0		16.0		
19								18.6		
20								16.0		16.0
21						18.0		17.1		15.5
22								15.0		15.4
23						17.0		15.0		15.0
24						16.0		15.0		15.0
25								15.0		
26								15.5		15.0
27								17.0		15.5
28										15.0
29										15.0
30										15.2
31										
32								18.0		
33										
34										15.0
35										15.0
36										15.0
37								15.0		
38										15.0
39										15.0
40								14.3		
41								14.0		15.0
42								15.0		15.0
43								15.0		15.0
44										16.3
45										15.4
46										15.3
47										14.4
48										15.0
49										
50		26.5	26.0		26.3					14.8
51		26.6	26.0				22.0	30.0		
52	26.0	25.4	25.4		26.0			15.0		21.3
53		26.0	26.5					32.2		34.7
54			27.0		26.9					
55			27.0		26.6			33.0		
56			23.0		26.6			16.0		23.4
57			22.0					13.9		
58		24.9	30.0		25.5			22.0		
59		21.9	22.8					23.2		15.3
60							19.5	17.2		21.3
61								14.3		
62								16.0		
63								13.1		
64						14.3		16.2		15.7
65						13.7		13.5		14.4
66						13.0		12.7		
67						13.5		13.1		

Where possible unit cost may be compared with those of similar associations rendering the same service to determine relative efficiency. When this is not possible, unit cost may be compared by months and by years for the association.

The records* of the Association submitted were not in condition to make it advisable to attempt a detailed cost analysis study. The records furnished over certain periods only approximated the true condition, but they are indicative of the situation so far as unit costs of operation were concerned.

Poultry and eggs were the principal commodities handled and serve as the basis in determining the unit cost of handling. Feed was such a small part of the total business that it has been ignored in determining the total number of units.

It is assumed that it cost as much to handle a dozen eggs as it did to handle a pound of poultry. That this assumption is approximately correct will be shown later when the influence on cost per unit of handling a large volume of poultry is compared with that of a large volume of eggs.

No segregation of expenses was made by the Association between poultry and eggs. Considerable difficulty was encountered in the study in allocating costs. Where possible direct charges were made to eggs and to poultry and overhead and other costs were distributed on the basis of a pound of poultry to a dozen eggs.

Administrative costs.—Administrative costs consist of salaries, travel and director's expense, depreciation, publicity and field service, office supplies, interest, and miscellaneous items. The monthly unit cost for administration varied from 0.8 cent to 3 cents. (Figure 4.) Administrative costs were 24.7 percent of the total cost for the year 1926.

Salaries, which were approximately constant thruout the entire period, composed 49.6 percent of administrative costs and 12.2 percent of the total cost for 1926 (Table 7). The monthly unit cost for salaries varied from 0.36 cent to 1.02 cents. The highest cost per unit was for December, January, and February 1926 and 1927, during which months the combined volume of poultry and eggs was below 100,000 units.

The period of lowest cost per unit was during May, June, and July of 1926 and 1927 when the total combined volume of poultry and eggs was above 175,000 units.

*The figures in studying costs were compiled from the monthly statements furnished by the head book-keeper of the Association.

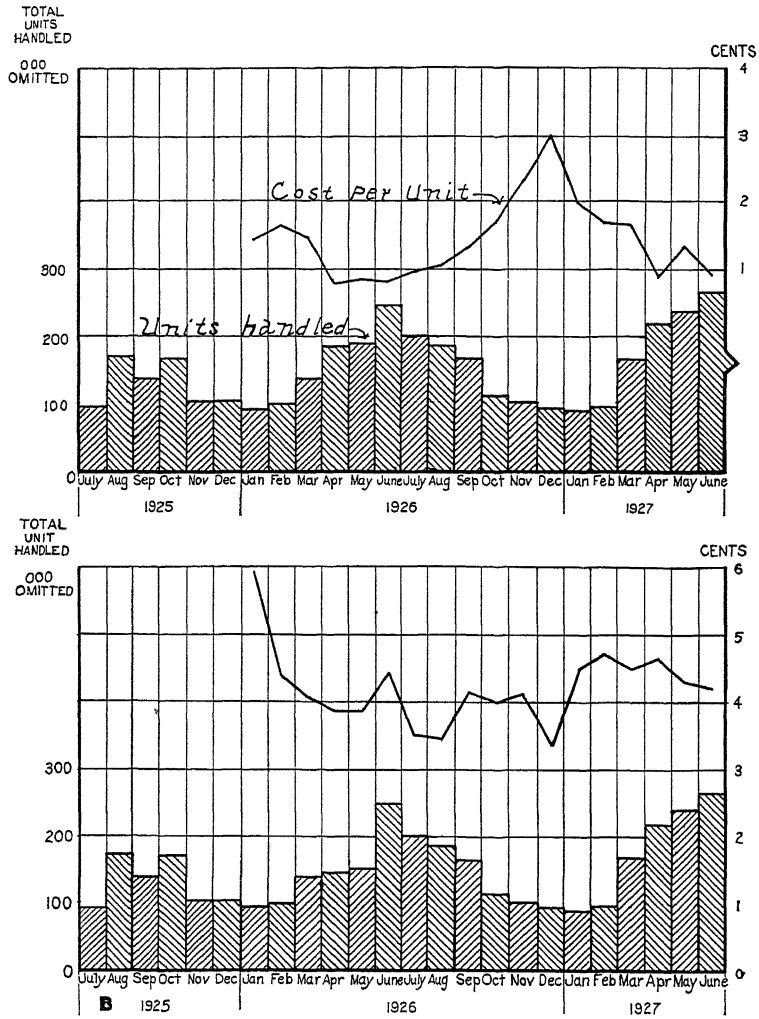


Fig. 4.—Total units handled, expressed in thousands by bars, and cost per unit for administration expense, expressed in cents by line (above), unit cost of warehouse and accounting, expressed in cents by line (below).

Travel and directors' expense.—This includes all travel expense, directors' expense and the expense of the manager's car. The monthly unit cost for these items varied from 0.11 to 0.39 cent and represents 9.8 percent of administrative costs and 2.4 percent of the total cost of operation. Travel and directors' expense showed little variation in cost per unit thruout the year.

TABLE 7.—Percentage Distribution of Items of Expense,
January 1 to December 31, 1926

Item	Administrative expense		
	<i>Dol.</i>	<i>Pct.</i>	<i>Pct. of total</i>
Salaries.....	11,398.04	49.6	12.2
Travel and directors' expense	2,263.09	9.8	2.4
Office supplies.....	1,359.48	5.9	1.6
Interest.....	972.56	4.2	1.0
Publicity and field service.....	1,549.32	6.7	1.7
Depreciation	973.38	4.2	1.0
Miscellaneous.....	4,469.63	19.6	4.8
Total administrative expenses.....	22,985.50	100	24.7
Item	Warehouse and assembling costs		
	<i>Dol.</i>	<i>Pct.</i>	<i>Pct. of total</i>
Warehouse labor	23,263.65	33.1	25.0
Expense of auto truck	12,702.26	18.1	13.6
Packing supplies.....	23,079.44	32.9	24.8
Station rent	6,181.76	8.8	6.6
Feed.....	2,605.93	3.7	2.8
Depreciation.....	928.83	1.3	1.0
Miscellaneous.....	1,466.66	2.1	1.5
Total expenses warehouse and assembly.....	70,214.03	100	75.3
Total expenses	93,199.53		100

Office supplies and printing.—This includes all printing, stationery, and miscellaneous supplies used in the office, and represents 5 percent of the administrative costs and 1.6 percent of the total cost of operation. No regular monthly charges were made for these items.

Interest and depreciation.—These were the smallest items under administrative costs. Interest charges were figured monthly, and depreciation was charged off periodically thruout the period. Interest charges per unit varied from 0.02 to 0.7 cent, except in December 1926 when it amounted to 0.24 cent. This increase apparently was due to the adjustment made between the monthly statements and the annual audit. Interest represented 4.2 percent of administrative expense and 1 percent of total cost of operation. Depreciation represented 4.2 percent of administrative costs and 1 percent of total cost of operation. No regular monthly charge was made for depreciation.

Publicity and field service.—Publicity and field service included printed materials and meetings, and other activities concerned with the problem of getting information about the Association to the members. The monthly unit cost varied from no expenditures in some months to 0.64 cent in other months and represented 6.7 percent of administrative expense and 1.7 percent of total cost of operation.

Miscellaneous expense.—Taxes, communication, rent, light, fuel, legal and auditing, and other minor items make up the miscellaneous expense. The monthly unit cost varied from 0.07 to 0.42 cent. Unlike the other administrative costs, the highest unit cost came in May 1926 when the largest number of units was handled. This was due to the charging off of all amortization expense to the month of May. Miscellaneous expense represented 19.7 percent of administrative costs and 4.8 percent of total cost of operation.

Assembling and warehouse costs.—Assembling and warehousing are combined because of the difficulty of properly allocating the cost to the separate functions. Under this heading costs of collection, grading and warehousing, and the loading of the car are included. This expense represents 75.3 percent of the total cost of operation. The monthly unit cost of operation varied from 3.2 to 5.96 cents. (Figure 4).

Labor includes all salaries paid for assembling and warehousing, and represents 33.1 percent of the assembling and warehouse costs and 25 percent of the total costs of operation. The monthly unit cost varied from 0.99 cent to 1.86 cents. The low unit cost was during June, July, and August 1926 and March, May, and June 1927. (Figure 5). The increase in the total number of units was accompanied by a decrease in the unit cost for assembling and warehousing, except in the month of

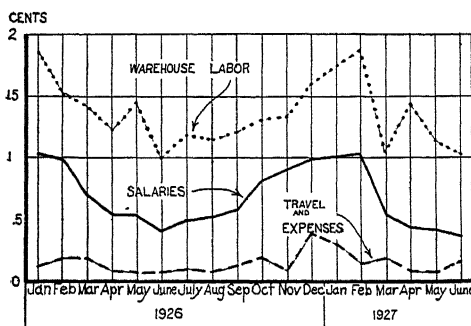


Fig. 5.—Variations in cost per unit of warehouse labor, salaries, and expense of travel and director's expense

March 1926 and April 1927. It was apparent that warehouse labor was increased at a greater rate than volume during April 1926.

Packing supplies.—Packing supplies was an important item of expense and represented 32.9 percent of the assembling and

warehouse costs and 24.8 percent of the total cost of operation. The monthly unit cost varied from 0.5 cent to 3.2 cents per dozen.

Station rent.—Station rent represented the amount paid to the substation keeper. The average monthly amount paid each was almost uniform thruout the period which caused a variation in monthly cost of operation varying from 0.11 to 0.59 cent per unit. Station rent represented 8.8 percent of the assembling and warehouse costs and 6.6 percent of the total cost of operation.

Auto truck expense.—Expense of trucks represented the expenditures for trucks owned by the Association and hired trucking. The monthly cost of operation varied from 0.47 cent to 1.29 cents per unit and composed 17.5 percent of the assembling and warehouse costs and 13.3 percent of the total cost of operation.

Depreciation.—Depreciation on auto trucks and plant equipment represented 1.3 percent of the assembling and warehouse costs and 1 percent of total cost of operation. No regular monthly charges were made for depreciation.

Feed.—Feed expense represents the cost of feeding poultry from the time it was received by the Association until sold. The monthly cost for feed varied from 0.07 cent to 1.35 cents a pound. Feed was 3.7 percent of the assembling and warehouse costs and 2.8 percent of total cost of operation.

Miscellaneous expense.—Miscellaneous expense includes light, fuel, and numerous small items of cost not otherwise classified. It represented 2.1 percent of the warehouse and assembling cost and 1.6 percent of total cost of operation.

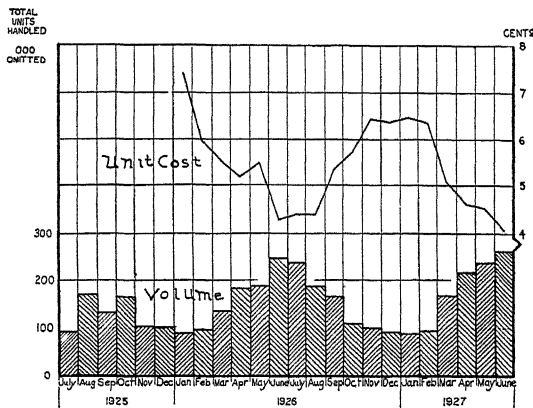


Fig. 6.—Total unit cost of operation expressed in cents by line and total units handled expressed in thousands by bars

Total costs.—The discussion thus far has been focused on the importance and relation of administrative cost to assembling and warehousing costs. The study of this relationship showed the seasonal variability of costs and necessity for proper adjustment to the total number of units handled. (Figure 6).

Table 7 shows the total costs of operation for the year 1926. Salaries and wages amounted to 37.2 percent of all costs. Packing supplies for eggs were 24.0 percent of the total expense, auto trucks 13.6 percent. Station rent was 6.6 percent, feed, 2.8, and all other expense minor amounts 15.8 percent.

POOLING AND PRICES PAID FARMERS

The cost per unit of handling eggs was 5.48 cents and poultry 4.35 cents. Whether a large porportion of the total units handled was poultry or eggs seemed to have little effect on the total cost per unit (Figs. 5 and 6). Prices received by the Association for poultry and eggs as compared to the prices paid members showed the necessity of a more equitable basis of arriving at the percent of the total cost to be distributed to poultry and to eggs.

It is quite apparent that the producers of high quality eggs had suffered from the policy then being pursued in making distribution of the receipts from eggs. While all producers had eggs in every grade, the variation in percentage in each grade was pronounced.

Conditions might warrant the setting aside of funds during certain seasons when the differential between the competitive and the Association price would permit, to be distributed later, on a graded basis. But there was little justification for continuing a policy that penalizes the producer of high quality eggs.

The variation in margin taken on the different grades of poultry showed a lack of uniformity. When the margin on eggs is compared to the margin on poultry it is quite apparent that eggs were charged more than their pro-rata share of the total expense.

The apparent necessity of meeting competitive conditions often led to the adoption of policies which, when followed, defeated the purpose of cooperative endeavor. The adoption of the policy of determining prices to be paid farmers before the sale price was known led to overpayment for poultry and eggs at certain seasons of the year. In some instances the pool price was determined before a single sale had been made.

MEMBERSHIP PROBLEMS

DELIVERIES

One of the purposes of the contract should be to give the management a definite idea of the quantity of eggs and poultry that the Association should expect to receive. The volume expected was based on the assumption that all those signing contracts would

deliver all eggs to the Association. Permits were issued to 350 members in 1927 allowing them to sell eggs for hatching purposes. The volume of eggs so disposed of by these members represented but a small part of the total non-deliveries of eggs. On the basis of total contracts signed the number of members delivering varied from 87 percent in the second pool to 35 percent in the 35th pool. Seasonal variation in production was the principal cause of the fluctuation in receipts rather than an attempt on the part of the membership to discard their Association. That some farmers failed to live up to their contract is evident when taking into consideration the deliveries of members during the peak of production when on the average for the two years of operation only 60 to 70 percent of the contract signers at four representative stations were making deliveries.

TABLE 8.—Members Delivering to All or a Part of the Pools at Four Representative Stations

Pools	Members delivering at station					Percent
	A	B	C	D	Total	
<i>No.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>	
47.....	2	10	1	4	17	.....
40-46.....	9	36	0	3	48	.....
33-39.....	8	10	0	3	21	.....
26-32.....	11	10	4	2	27	.....
19-25.....	14	7	0	1	22	.....
12-18.....	10	14	0	4	28	.....
1-11.....	13	25	4	9	51	.....
0.....	2	9	3	0	14	.....
Total.....	69	121	12	26	228	.....

Data from these four representative stations, one of which is located in each county, show that 14 out of 228 members who signed contracts made no deliveries to the Association (Table 8). In all 51 members delivered to not more than 11 pools and for the most part their deliveries were confined to the first pools of the organization, while 17 members delivered to all pools since the Association started and 47 delivered to 40 or more pools. Hatchery permits were received by 40 members in the four stations. This influenced the number delivering from February to July. It is quite apparent that a majority of those delivering to 25 pools or fewer had about abandoned the idea of staying with the Association.

The low point of production of eggs was in October, November, December. It was during this period that deliveries of eggs to the Association were lowest, which makes it appear that some

members had abandoned the Association. The production of eggs on many farms at this season was only sufficient to meet the requirement of home consumption.

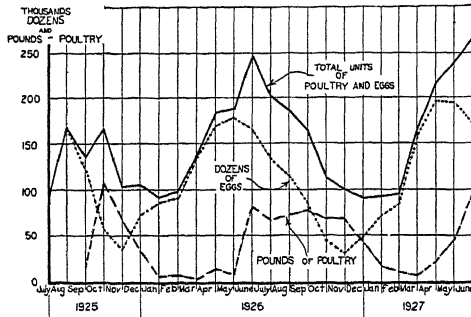


Fig. 7.—Monthly variation in the total number of units of poultry and eggs handled by the Association

Several causes exist for non-delivery to the Association by members. The farmer who made poultry more than a side line and who had developed quality egg production and made direct market contacts during the season of high prices, in some cases became dissatisfied, because there was an apparent loss to him at certain seasons by shipping thru the organization.

In some instances this was the case, as will be discussed later. Most direct shippers when considering their entire year's sales of all eggs marketed were as well off in the Association as they would have been had they shipped direct during certain seasons of the year and sold locally for the balance of the year.

There were several types of local competition that caused non-delivery. The most important being the huckster and trucker from Detroit, Toledo, and Cleveland, or a local representative of the huckster or trucker from these terminal markets. Competition in the territory covered by them (Fig. 9) came thru price inducement and service rendered. Prices in some instances were close to the price the Association was able to pay. Eggs were usually purchased on a flat basis and paid for at the time of sale. In addition to price, the farmer sold his eggs at home without the expense of delivery to the local receiving station. The personal contact of the huckster or trucker led to confidence in his dealings.

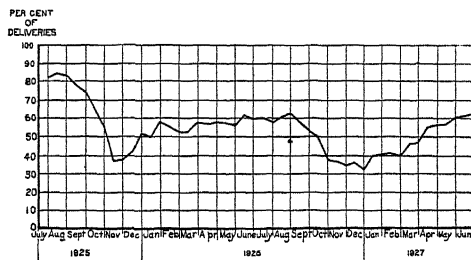


Fig. 8.—Percent of members delivering from four stations

A further cause of non-delivery was the attitude of the substation operator who came in personal contact with the members two or three times a week. While it was not possible to visit all substations, at many of those visited, the local representative was opposed to the idea of the Association and took special pains to arouse the suspicion of the membership concerning its operation. In some sections members broke their contracts because others had broken theirs and "they were unwilling to bear the burden of maintaining the organization."

Perhaps the most important cause of non-delivery was a lack of information on the part of the membership as to what the Association was trying to accomplish and the difficulties it had to overcome. Wherever an enlightened membership was found the problem of non-delivery was of minor importance.

Farmers who had only a few hens, which produced but a small surplus to market during any season, felt that the added burden of frequent collection of eggs and more frequent delivery to the local receiving station was hardly compensated for in the additional price they received.

In some localities competition from independent buyers and the local grocer caused some breaking of contracts.

An indifference on the part of the Association management as to the vital importance of knowing the reason for non-delivery by its membership was apparent. It is as important to solve the problem of having an informed membership as it is to have efficiency in cost of operation. To know what type of member has been a constant backer of the Association is of vital importance. To change the attitude of the membership as to the responsibility for the proper functioning of the Association is of greatest importance.

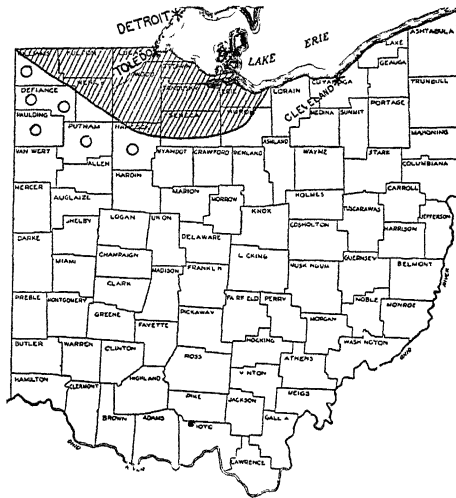


Fig. 9.—Shaded area represents territory in which trucker and huckster make farm to farm pickup. Circles indicate local representatives of the trucker and huckster.

QUALITY IMPROVEMENT

The common system of selling eggs to the local grocer and the private operator could be severely criticized for its failure to control the quality of eggs sent to market. Many of the present old line operators freely admitted that if better eggs are to reach the consumer's table, the change must be brought about thru cooperative endeavor. Methods of handling eggs have been on the case-count basis without regard to their interior contents. Isolated operators have made attempts to buy on a quality basis but the practice was discontinued when business began to drop off. A constructive quality program can only be brought about when the individual farmer appreciates the advantages accruing from such a program and is willing to do his part.

Farmers cannot be expected to go to additional expense necessary to bring about improvement in quality unless there is some financial advantage.

One of the main purposes of the organization at its inception was to improve the quality of eggs in the territory.

The results of the quality program did not affect all sizes of flocks similarly. For the purpose of comparison, farmers were divided into classes in accordance with the number of dozens of eggs delivered to the Association during June 1926. A comparison of the percentage of Henneries of the entire Association to the percentage of Henneries in the various classes of producers is shown in Table 9. The eggs from producers who delivered fewer than 30 dozen eggs per pool on the average, were below the average quality of the entire Association in the percentage of Henneries produced.

Eggs from producers delivering from three to five cases per pool were above the average of the Association in quality during most of the first year of operation but during the last year they were below. This situation was especially pronounced in the group delivering from 4 to 5 cases per pool. The group of farmers producing more than 5 cases per pool on the average were above the entire Association in the percentage of Henneries produced. It was mainly during the months when pullet eggs were being produced that the larger producers fell below the average of the entire Association and then only for short periods. Members delivering less than one case per pool in June 1926 had 75 hens or under; those delivering from one to two cases had from 75 to 149 hens; two to three cases, from 150 to 224; three to four cases, 225 to 299; four to five cases, 300 to 374; and those who delivered more

TABLE 9.—Various Grades of Eggs Delivered by Farmers in Three-Month Periods by Groups According to Volume of Deliveries
 Grades are Abbreviated as Follows: H—Henneries, S—Standards, T—Trades, C—Checks, and R—Rejects

Periods (beginning July 15, 1925)	Entire Association					0-30 dozen					30-60 dozen					60-90 dozen					90-120 dozen					120-150 dozen					150 dozen and over				
	H	S	T	C	R	H	S	T	C	R	H	S	T	C	R	H	S	T	C	R	H	S	T	C	R	H	S	T	C	R	H	S	T	C	R
	July, Aug, Sept.	37½	53	8	1	½	42	51	5½	1	½	44	47½	7	1	½	37	53	8½	1	½	41	51½	6	1	½	40	52	6½	1	½	40	50	8	1	1
Oct., Nov., Dec	43	31	25	½	½	44	30	24	1	1	50	31	17	1	1	45	31	22	1	1	37	33	29	½	½	42	29	27	1	1	40	30	28	1	1
Jan., Feb., Mar	62	23	14	¼	¾	55	26	18	½	½	65	20	14	½	½	66	22	11	½	½	62	24	12	1	1	70	18	11	½	½	64	22	12	1	1
Apr., May, June	54	32	13	¼	¾	46	40	13	½	½	55	33	11	½	½	53	34	12	½	½	56	32	10	1	1	58	28	13	½	½	63	26	9	1	1
July, Aug., Sept	41	45	12	1½	¼	39	47	12	1½	¼	39½	46	13	1	½	41	47	10	1	1	39	48	11	1	1	50	36	12	1½	½	51	38	9	1	1
Oct., Nov., Dec	41	29	28	1½	¾	42	33	23	1¼	¾	37	28	33	1	1	43	28	27	1	1	35	33	30	1	1	29	27	42	1½	½	35	31	31	2	1
Jan., Feb., Mar.	57	26	15	1½	½	50	29	19	1½	½	65	20	13	1	1	62	23	13	1	1	48	33	16	2	1	45	30	22	2	1	58	28	12	1	1
Apr., May, June	57	29	11	1¾	¼	55	31	12	1½	¼	58	30	9	2	1	57	30	10	2	1	56	30	11	2	1	51	30	16	2½	½	61	25	12	1	1

than than five cases had more than 375 hens. In comparing the trend of quality production, it is important to know what percentage the various grades are of the total. The percentages of Henneries, Standards, and Trades for the entire Association and for the various sized producers are shown in Table 9.

The producers who had flocks varying from 75 to 225 hens and more than 375 hens had been most successful in maintaining a relatively high percentage of the Hennery grade and a low percentage of Trades.

FINANCING

The Association started without funds on July 15, 1925 and on July 1, 1927 had a net worth of \$34,829.58.

The broad powers granted in the marketing agreement, in the articles of incorporation, and in the by-laws made possible the securing of sufficient funds to carry on the activities of the Association after sales started.

The principal sources of capital were: (1) Loans from the Ohio Farm Bureau Federation; (2) membership fees; (3) right to borrow on all assets of the Association by action of the Board of Directors; (4) notes from the producers; and (5) setting up reserves from the sale of poultry and eggs.

An original loan was secured from the Ohio Farm Bureau Federation. This was used principally in financing the organization thruout the period of promotion. This sum was to be paid in full thru a regular deduction from sales.

The Articles of Incorporation provided:

This association shall not have capital stock, but shall admit its members into the association upon the payment of an entrance fee of \$3.00 and on other uniform conditions. - - -

The By-laws stated that—

The Association shall have the power by affirmative vote of at least three-fourth of the directors to borrow money for any corporate purpose, on open account or upon any assets of the Association or on any property of members in its possession or upon any accounts thereof in such amounts and upon such terms and conditions as the board of directors may determine.

To borrow money without limitation as to amount of corporate indebtedness or liability except in the case of association organized with capital stock - - - .

- - - at the time of becoming a member of this Association and signing the standard marketing agreement herein provided for, each member shall make, execute, and deliver to the Association a note payable upon demand to the order of the Association for an amount to be determined upon the basis of the number of hens owned or controlled by him, at the rate of 20 cents per hen, said note to be returned to the maker thereof as soon as sufficient funds have been established - - - .

- - - to establish reserves and to invest the funds thereof in bonds or in such other property as may be provided in the by-laws.

The demand notes of 20 cents per hen given to the Association by the member when he signed his contract were returned during the later part of 1927. Organization expenses of \$7,449.90 was to be written off in the early years of operation. Of this expense about two-thirds had been charged off by the end of 1927 and the rate of charge off was expected to wipe out the balance by the middle of 1929, after which this charge against each pool will disappear. For the reserve set up, see No. 5, "Source of Capital". Each producer receives a certificate of indebtedness covering the amount of the deduction made from his returns. The plan called for the redemption of these certificates by the association at some unnamed later date. At the time of this report, the Board had noted the redemption of the first certificates known as Series A, which has since been done.

INFLUENCE OF ASSOCIATION ON LOCAL PRICE OF EGGS

The feeling had been expressed by some that the price of eggs at the farm had not been increased materially since the organization of the Association. This question could not be answered without a considerable accumulation and analysis of data. At the request of the management a study was conducted by the Rural Economics Department of Ohio State University to determine whether or not there has been any change in the farm price of eggs in the territory due to cooperative selling from the organization of the Association in July 1925 to December 1926.*

Methods used.—It was not enough to compare prices of members with non-members in the territory since the organization was started, for the price paid by local dealers may have risen because of the existence of the Association. Nor was it sufficient to compare prices in the Association area with New York prices alone, previous to and since July 1925, lest some factor other than the

*The study of the influence of the Association on the local prices of eggs in the Association territory was conducted by J I Falconer, V R Wertz, and G F Kendrick.

Association may have brot about a change in either the local or New York price. The method used was quite similar to the "control plot method" used at most of our agricultural experiment stations to determine the influence of some factor, say fertilizer, on the growth of plants. The problem was to determine whether or not a cooperative marketing agency had increased the farm price of eggs in a given territory. An outside or "control" local egg price was selected with which to compare the egg price within the Association territory since July 1925. The "control" egg price selected was that in Union, Champaign, and Logan Counties. The problem simplified, then, was to determine whether or not the farm price of eggs had increased more rapidly in the cooperative territory than in the outside or "control" area since the organization of the Association.

Source of price information.—Local egg prices were secured from farmers directly thru the aid of county agricultural agents and the Poultry Husbandry Department of the University, which made available its poultry flock demonstration records in both the Association area and in Union, Champaign, and Logan Counties. In addition several poultry and egg buyers furnished prices paid farmers for eggs. A weighted price was secured by dividing the farmer's total egg income for each month by the total number of dozens of eggs sold during the month.*

Egg prices were collected from more than 40 different farmers and from local egg buyers in the four counties in the Association territory and about 30 similar sources in Union, Champaign, and Logan Counties.

Price of eggs in the cooperative, and non-cooperative territories.—To determine whether or not the farm price of eggs had been increased because of the cooperative association it was decided, as stated above, to compare local prices inside the cooperative territory with local prices outside the territory before and after the existence of the cooperative association, noting to what extent, if any, the inside price had exceeded the outside price since July, 1925.

Table 10 shows that both the local monthly average prices inside and outside of the Association territory increased; but that while the outside price increased 2.3 cents the inside price increased 3.1 cents, or the Association territory showed a gain of 0.8 cent over the price outside this territory. Granting that conditions

*Only the records of farmers selling locally were used.

were the same in both territories except for the cooperative shipping association in the four northwestern counties, this gain of 0.8 cent can be attributed to the influence of the Association.

TABLE 10.—The Difference Between the Average Price (in cents per dozen) of Eggs Inside and Outside the Cooperative Area Before and After July, 1925

	Average price, cents per dozen		Gain, cents per dozen	
	January 1921 to June 1925	July 1925 to Dec. 1926	July 1925 to Dec. 1926 over previous period	Inside over outside prices
Inside area	31.95	35.06	3.11	.82
Outside area. ...	32.07	34.36	2.29	.....

A method of checking the foregoing figures was to determine whether or not the local price of eggs had approached the New York price more in the cooperative territory since July 1925 than had the local price in Union, Champaign, and Logan Counties. As summarized in Table 11, the monthly average difference between the New York price and the local price of eggs in the territory was 4.8 cents from January 1921 to June 1925, inclusive. From July 1925 to December 1926 this monthly average difference had decreased to 2.8 cents, that is the margin between the price of eggs in the cooperative territory and the New York price had decreased by 2 cents. In the same length of time the margin between the price of eggs in the outside territory decreased from 4.7 cents to 3.5 cents, or 1.2 cents. This gives a net gain in the cooperative territory of 0.8 cent.

TABLE 11.—Average Monthly Deviations of Egg Prices* Inside and Outside the Cooperative Area From New York Prices Before and After July, 1925

	Average number of cents below the N. Y. price		Gain of later over previous period	Gain of inside over outside price
	January 1921 to June 1925	July 1925 to Dec. 1926		
Inside area	4.829	2.824	2.005	0.82
Outside area	4.707	3.528	1.179	.....

*Fresh gathered firsts.

We may conclude, therefore, upon the basis of the foregoing assumptions and facts, that the monthly average local price of eggs in the cooperative territory was approximately 0.8 cent higher than it would have been had there been no cooperative selling agency in this territory.

SUMMARY

1. The main value of the contract has been its psychological effect on the rank and file of the membership. It gave stability to the organization during its formative period.

2. The tying up of a general farm organization with the Poultry Association was unsatisfactory to both organizations.

3. Density of membership is of greatest importance in locating substations if an economical unit is to be secured.

4. Eastern markets paid a premium for highest quality eggs, and received 92 percent of the Henny Browns and 69 percent of the Henny Whites sold by the Association from the date of organization to June 30, 1927.

5. Local and nearby markets on the average netted the Association as much as eastern markets on the lower quality eggs.

6. Local and nearby markets received the bulk of the poultry sold. New York City received not over 23 percent of any one grade of poultry sold by the Association.

7. The records of the Association submitted would not permit a detailed cost analysis study and for certain periods only approximated the true situation of the Association.

8. The cost per unit of hauling eggs (on the basis of the figures submitted) was 5.48 cents per dozen and 4.35 cents per pound of poultry. Whether a large proportion of the total units handled was poultry or eggs seemed to have little effect on the total cost per unit of hauling.

9. The apparent necessity of meeting competitive prices often led to the adoption of practices which, when followed defeated the purpose of cooperative endeavor.

10. The development of a comprehensive educational program would seem to be the surest means of having more of the members deliver to the Association.

11. The common system of selling eggs to the local grocer and the private operator could be severely criticized for its failure to control the quality of eggs.

12. The results of the quality program did not affect all size of flocks similarly.

13. The Association started without funds on July 15, 1925 and on July 1, 1927 had a net worth of \$34,829.53.

14. The Association has had the effect of raising the price of all eggs produced in the territory.